There's no place like home: University campus-student interaction to promote sense of belonging among first year international students

by

Sarah Gregory Rakestraw

A thesis submitted to the Graduate Faculty of

Auburn University

in partial fulfillment of the

requirements for the Degree of

Master of Science.

Auburn, Alabama

May 4, 2024

Keywords: international student, social engagement, social connection, belonging, place attachment, campus design, university facilities, interior design

Approved by

Professor Taneshia West-Albert, Chair, Assistant Professor, Consumer and Design Sciences
Dr. Anna Ruth Gatlin, PhD., Assistant Professor, Consumer and Design Science
Lindsay Tan, MFA., Professor, Consumer and Design Science

Abstract

Acclimating to a new environment can take a mental and emotional toll on anybody; compounding that change in an environment with a cultural change can intensify the toll. This study explores the initial perceptions and experiences of international students during their first semester on an American college campus. Specifically, this study explores the importance of spaces designed for social engagement and the impact of the design of those spaces on international students' transition to the college campus. The purpose of this study is to gain understanding of firsthand experiences within these spaces on a Southeastern college campus, with regards to social connectedness, sense of community, and place attachment. Increasing the knowledge of how the design of campus influences these culturally diverse students can lead to more inclusive and well-planned design for all students. Findings from this research support thoughtful and purposeful design practices to facilitate quality connection and engagement among students on college campus. Understanding of the ways in which a space communicates with an occupant to inform perceptions of belonging and inclusion can lead to high quality experiences, and increased place attachment.

Acknowledgments

Firstly, huge appreciation to the students who participated in the preparation for and action of this study. Thank you for allowing me the opportunity to learn from you, and the opportunity to gain some understanding and perspective of your life here. You opened up to a total stranger, allowed her to glimpse into your personal experience of learning campus, and took time to communicate that experience fully. You have made a difference on this campus for the incoming students of all demographics, but specifically the international students.

Secondly, thank you to my committee: You all stuck with me through years (emphasis on the plurality) of your professional lives to complete this work and put up with all my changes and pivots. You allowed me the space to explore, but also kept me on track. Thank you for your time, energy, and all the mental space this project asked from you, while balancing all your real INDS stuff. Our college stives to promote excellence in quality of life, and you all exemplify that mission through your commitment to your students and dedication to research in our field, and making sure that research has a place at the table. Your encouragement, support, and friendship carried me through all the ups and downs of this project.

Finally, to my family: thank you for continuing to push me to pursue more from life. Specifically, to my mom, for being a strong example of a woman who continues educational pursuits at any stage of life and providing an example for me to follow. Also, for being willing to proofread this too many times. And especially, to my husband, for picking up my slack over the last four years, dealing with the "at home" version of my stress, and never wavering with your support. You stuck with me through all the late nights working at the dining room table, and all the evenings and weekends taken with classes and workshops. You never questioned this pursuit and supported me always, thank you.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

AU Auburn University

AUFM Auburn University Facilities Management

ISO International Student Organization

MSC Melton Student Center

CHAPTER I:

INTRODUCTION

Dorothy, in *The Wizard of Oz,* lamented repeatedly, "there's no place like home" (LeRoy & Fleming, 1939). However, feeling a sense of belonging in one's environment is not always as simple as clicking heels together. As many first-year college students experience, finding a sense of belonging in the new environment of campus can sometimes be a challenging transition. Finding this belonging has shown to be especially challenging for international students, as home is sometimes thousands of miles away in different countries. (Glass et al., 2015).

According to the *Open Doors Report on International Educational Exchange* (2023), the total number of international students enrolled in United States colleges in the 2021-2022 academic year was 948,519, a number which rose in the 2021 school year from previous years' decline. The number of international students in American college campuses experienced sharp declines from 2017-2021, however a 3.8% increase in enrollment occurred in 2021 (Bustamante, 2020; *Open Doors Report*, 2023). Between 2015 and 2017, enrollment of international students decreased by almost 7 percent (Dennis, 2020), even with a slight rebound in enrollment, only 4.7 percent of higher education students were international students in the 2021-2022 academic year (*Open Doors Report*, 2023). In the 2022-2023 academic year, international students composed 5.6% of the total student population in America, with just over 1 million enrolled (*Open Doors Report,* 2023).

INTERNATIONAL STUDENT TRENDS

In 2022/23, the total number of international students at U.S. colleges and universities increased by 12% to 1,057,188 students.

	Total int'l students	% change	
2018/19	1,095,299	0.05	International students accounted for 5.6% of the total U.S. higher education population of 18,961,280 students.*
2019/20	1,075,496	-1.8	
2020/21	914,095	-15.0	
2021/22	948,519	3.8	
2022/23	**1,057,188**	**11.5**	

Figure 1: International Student Trends (Open Doors Report, 2023)

The 2019-2021 decline in international student enrollment in recent years could be a result of political climate in the native country or the U.S., a result of economic uncertainties, or a combination of reasons (Dennis, 2020). Also, the sharp decline in the 2020-2021 academic year could be a result of restricted travel due to ongoing regulations caused by the COVID-19 pandemic. Another possible explanation is the competitiveness of universities around the globe, pulling students in different directions. Additionally, the increased growth of online learning, distance learning, and reduction of course work availability may reduce the requirement for students to move to a physical campus (Dennis, 2020). International students come to a new country not only to learn and expand their knowledge, but to also gain experiences in a new culture and grow in their personal strength, confidence, and resiliency. Newly enrolled

international students increased by 80% over the previous year during the 2021-2022 academic year, totaling 261,961 newly enrolled students into American universities (*Open Doors Report, 2023*).

NEW INTERNATIONAL STUDENT ENROLLMENT

	New int'l students	% change
2018/19	269,383	-0.9
2019/20	267,712	-0.6
2020/21	145,528	-45.6
2021/22	261,961	80.0
2022/23	**298,523**	**14.0**

Figure 2: New International Student Enrollment (Opens Doors Report, 2023)

They arrive in the U.S. curious and ready to experience a new culture (Karkous & Jusseaume, 2020). However, struggles with homesickness, loneliness, and feelings of isolation may hinder a smooth transition to the U.S. campus (Cheng, 2004; Fatemi et al., 2017), and perceived barriers to American society may also hinder their connectedness once on campus (Kakour & Jusseaume 2020). Campus-built environments may play a key component in influencing these feelings and reducing some of the struggles faced by incoming students. The built environment also acts as a recruitment point or selling point for students to select one university over another or choose in-person college experience rather than distance learning courses (Dennis, 2020).

The variety of spaces available for use by the student influences the social interaction and the psychological lives of the students and reflects the student's behavioral and personality preferences (Harrington, 2014; Fatemi et al., 2017). University campus designers have an opportunity and responsibility to create a sense and feeling of belonging which may allow

international students to utilize the spaces available on campus to grow social connectivity and increase or create a sense and feeling of belonging on campus. Spaces around campus are planned for a variety of services, from dining and lounge, promoting social interaction among students, to group and private study, promoting academic success (Alkandari & AlShallal, 2008). Previous work has undeniably confirmed a connection between the built environment and its occupants' wellbeing (Altomonte, Allen, Bluyssen, Brager, Heschong, Loder, Schiavon, Veitch, Wang, & Wargocki, 2020). The planning of these spaces must be intentional and purposeful to best benefit the overall wellbeing of students. This intentional and purpose driven planning may induce student academic success and personal success (Barrett, 2014).

Problem Statement

Due to declining international enrollment and competitiveness to recruit students to campus, the built environment on university campus could be considered a promotional tool for the university. Barrett (2014) found that 66% of prospective students felt the campus built environment and aesthetic was a key factor in their college selection. Understanding the importance of the campus buildings on student life can ensure the campus is creating the most encouraging environment for student growth and development. How a campus maintains, plans, and utilizes its physical space for the betterment of the student population, wellbeing, academic, and social success, has been the topic of many previous studies (Banning et al., 2010; Barrett, 2014; Broussard, 2009; Cheng, 2004; Chow & Healey, 2008; Harrington, 2014). As previous literature has shown, attachment with the community surrounding an individual directly relates to positive feelings of wellbeing (Theodori, 2001; Altomonte et al., 2020). To explore this relation on a more micro level of community belonging and connection, this study looks to the college campus. This study builds upon existing literature and focuses specifically on the

experiences of international students during their first semester on campus, to understand how the designed interiors of the campus buildings might play a role in their perceptions of belonging within the campus student population.

Purpose Statement and Objectives

Study of the physical space has been described as one of the "least understood and most neglected" factors in discussing student experience and success (Strange & Banning, 2001). This research aims to explore the role of interiors of campus buildings at Auburn University as it influences social interactions, sense of community, and place attachment for international students. Experiences considered include feelings of welcome on campus, places associated with being a part of the campus community, and the students' initial impressions of such upon arrival to campus. The study helps to understand if a relationship exists between the built environment on college campuses and the transition of international students to campus life through the following objectives:

Objective 1: (a) To explore how AU campus facilities promote or hinder social interaction for international students and (b) to explore why/how international students think campus places promote or hinder social interaction.

Objective 2: (a) To explore how AU campus facilities promote or hinder a sense of belonging for international students and (b) to explore why/how international students think campus places promote or hinder their sense of community.

Objective 3: (a) To explore how AU campus facilities promote or hinder place attachment to campus for international students and (b) to explore why/how international students think campus places promote or hinder place attachment to campus.

Objective 4: To explore a potential association between places ranking high in both sense of community and place attachment to the University, among international students.

Through coordinated efforts with the Office of International Programs and various international groups on campus, the study will provide students with an opportunity for open discussions of their experiences. Collecting data from international students allows their voice to be heard, thus providing opportunities for improvements to the university campus experience for students and diminish the feelings of loneliness and isolation felt by many international students. As Cheng (2004) found, the most detrimental influence on the sense of community within the college student population is a result of loneliness and isolation experienced. Gopalan and Brandy (2019) stated the student sense of belonging directly influenced success, engagement, and overall wellbeing during college years. This link between academically successful collegiate years and belonging to the campus community is also related to increased levels of retention, motivation and overall enjoyment of the college experience (Pedler, Willis, & Nieuwoudt, 2022). Places must be intentionally designed and planned to promote inclusivity (Barrett, 2014), as the places and environments can have a significant factor in the psychological experience of the user (Fatemi et al., 2017). Understanding the students' perspective can provide great insight to how to better design and plan for the best experience possible for the student (Johnson et al., 2007).

Assumptions

Within the university setting of a college campus, many considerations are given to how different users and stakeholders utilize, experience, and engage with and within the campus buildings. Some of these user groups may be divided by their role within the university like faculty/staff/student groups, gender role identification, as in male/female/nonbinary, or (of

concern with this research) the domestic/international student population. Different groups perceive and experience spaces differently based on their cultural background, demographic experiences, or internal analysis of the space.

Through the framework of place attachment concepts and theoretical grounding in transaction theory, the following assumptions are made regarding the research presented. First, is it assumed the campus design of buildings and spaces has a role in the behavior of the student population utilizing those spaces. This assumption is guided by the transactional theory, which infers that environmental settings have a role in communicating purpose and usefulness of the space with the person occupying the space. It rationalizes that the design, furnishings, and objects within the space, along with the overall atmosphere created leads occupants to respond in specific ways.

Second, it is assumed the behavior exhibited by students, while in campus buildings, leads to interaction with their peers, and the formation of bonds with other students. Building upon theoretical support through transaction theory, individuals will look for guidance from others as to expected behaviors while in a particular space. Just as the space itself leads the occupant to utilize it in specific ways, newcomers to the space will often look for guidance from other occupants as well.

Based on these theoretical assumptions, this research explores those interactions between environment and student to learn more about the specific interactions taking place among first year international students on Auburn University' campus. The target student population of interest for the research will include first year undergraduate and first year graduate level students, to also explore if the different student academic levels utilize campus differently. This research seeks to increase knowledge that may be applied not only to broader campus planning

and design scopes, but also to help increase connection within social spaces and engagement with others to increase place attachment towards campus.

Significance

This study presents an opportunity to improve the experience for incoming international students at large, and provide detailed insight to university campus facility planners, architects, and interior designers who design campus spaces. A university campus is ever changing, and through design changes can promote improvement of the overall space, experience, and memories built in this environment. Previous literature has directed many impactful changes to student experience, however by focusing on a select group of students, the findings could facilitate more effective recruitment of international students through better understanding of their needs and expectations for the campus life experience. Given the decrease in international student enrollment in recent years, and the likelihood of continued decline due to economic and pandemic uncertainties (Bustamante, 2020; Dennis, 2020), this study aims to critique the existing university environment and provide insight on how to help the university fully exploit its assets in the recruitment of future international students.

This study will serve to illustrate the need for intentional design and planning, as it benefits student use of the facilities (Barrett, 2014). Facility planning processes can involve many different stakeholders in the project overall, and students may provide a new perspective on use of a space. The student population ought to be included among those stakeholders, for some project planning and programming efforts. Spaces must be designed for specific purposes and design must be carefully planned to make the best use of the space, as well as avoid any inadvertent unwelcoming or uninviting cues. This study will help to inform design practitioners by providing insight on the experience of international students in existing spaces. Study of the

physical space has been described as one of the "least understood and most neglected" factors in discussing student experience and success (Strange & Banning, 2001). However physical space has been noted as a factor of great importance to the student community and the sense of connectedness (Banning et al., 2010). In looking at how space impacts the overall health and wellbeing of the occupants, this study aims to support students' academic, emotional, and mental success through the influence of built environment (McLane & Kozinets, 2019; International Well Building Institute, 2019).

Definition of Terms

Campus environment: the buildings, interior student social spaces and common spaces and academic spaces, landscape and green space, and acreage owned and operated by the University (Barrett, 2014; Strange & Banning, 2001). *Also: Facilities; Built Environment*

International students: students from countries other than the United States, who have not previously experienced living away from their native countries. This definition includes both undergraduate and graduate level students.

Sense of belonging: psychological feelings of association with a larger group or community, attributed to a sense of alignment with that community (Hagerty, 1999). Perceptions of fit within the larger grouping of the community surrounding a person.

Sense of community: a social psychology concept that focuses on the fit or alignment of a person with their social environment (Hagerty, 1999). "Communities" are composed of individuals with a shared purpose and sense of inclusion (Harrington, 2014). Belonging to the community can also be considered as an internal perception held by the individual as acclimation into the whole of a group.

Second home: a place that provides feelings of comfort and acclimation for extended periods of time, away from one's primary home (Fatemi et al., 2017).

Social interaction: an exchange between two or more individuals. In the context of this study, social interaction will comprise exchanges for enjoyment and recreation, rather than purposeful exchanges for completion of group tasks or assignments.

Social spaces: spaces, specifically within a college campus environment, primarily used for social interaction and engagement, rather than academic or learning purposes.

Third Space: a place where one goes to connect with others, outside of home or work (Oldenburg, 1982). A place where one finds retreat, community, and feels comfortable (Banning, et. al., 2010; Oldenburg, 1982).

Place attachment: the emotional bond between person and place, influenced by personal experiences and feelings based on the individual place (Inalhan & Finch, 2004; Spooner, 2019; Terrazas-Carrillo et al., 2014). Place attachment is evidenced by the sentimental feelings of the space, expressed by the occupant.

CHAPTER II:

REVIEW OF LITERATURE

Exploring the relationships between a built environment and the occupant or user's emotional response to the space, specifically within the context of international students on a college campus, allows better understanding of the role of physical space in a person's life. Better understanding of how a first year international student relates to the campus environment may lead to better understanding of their connectedness to others and connectedness to campus itself. Review of existing literature will provide a foundation for exploring 1. international students' campus experience, and 2. college student relationship to campus. Better understanding

of the relationships between the first year international student's experience and their perceptions of the campus environment may open the door for better campus design and inclusivity for students of all types to engage equally socially, and connect with others and with their campus, as they pursue their academic and personal goals during their collegiate years.

Reviewing existing literature supports the need for additional studies and research to explore the transaction between person and place, in various contexts, to gain a better understanding of the psychological role of space on the occupant. Through the support of theoretical concepts, existing literature, and grounded in transaction theory, this study aims to take a new perspective on existing information relating to international students' perceptions of the American college campus. Also, this study allows insight into the targeted student population to explore how they wish to use the space, and what they might like to see incorporated in future design. While this may vary depending upon academic class level, as graduate students may express different needs compared to undergraduate level, the insights gained will lead to more desirable spaces for all. Specifically, this study explores the relationship relates to social connection, feelings of belonging, and place attachment towards campus environments.

Research Literature Review

Campus' Built Environment Impact

Impact on Initial Recruitment

A first impression can never be undone. For many students the first impression of campus may come from a campus tour; for others, the first impression might originate from online imagery. Regardless, the campus environment and buildings play a key role in reinforcing the campus' brand through that initial impression. Built spaces and objects reflect the principles of the organization (Bernheimer, 2017). Be it stately buildings, modern architecture, vast green

spaces, or urban buildings, the architecture of campus forms initial perceptions about the mission and of the campus (Ramasubramanian et al. 2002). Students report the types of online visuals showing campus buildings and landscape are included among their college selection criteria (Ramasubramanian et al., 2002). Ramasubramanian et al. (2002) states that traditional architectural imagery are associated with academic prestige among graduating high school students looking at college websites.

Many prospective students consider the campus visit "sealing the deal", in that the visit allows the potential student to see what a day on campus might look and feel like, thus influencing their decision to attend (Secore, 2018 pg. 151). Secore (2018) notes that for California State University Northridge students, 80 percent of prospective students confirmed that the campus visit contributed to their desire to attend. Students participating in the campus tour are experiencing their first connection with the campus'-built environment as possible participants in its ecology. The first impression begins the moment a prospective student arrives on campus, with accurate wayfinding and maps, and clearly posted location indicators around campus. It continues to the first experience in interior spaces, such as a waiting room before the tour, an office setting, or even the lobby of the building. (Secore, 2018). The initial impressions made by the campus visit, or campus imagery used online in ads and virtual visits, can be the deciding factor for enrollment for many students (Barrett, 2014). This first visit shows what it is really like to be a part of the student community on campus and has a great effect on the decision to attend the selected school (Secore, 2018).

Impact on Student Success Once on Campus

The impact of the built environment on student populations has been a concern of previous studies. Spooner (2019) proposed that when a student is less attached to an institution,

the student is less likely to excel academically. The study also states that a student's place attachment toward their chosen university is a cyclical process, with ebbs and flows throughout each year of enrollment (Spooner, 2019). Generally, academic spaces have been studied more intently with regards to the effect on student success: libraries, study halls, and academic classrooms (Price et al., 2003). However, with learning pedagogy shifting to more informal spaces, like student unions, group study spaces, and lounges, design for these spaces should be planned carefully to benefit students' overall wellness.

Student overall success occurs not only as academic success however, but also as mental, emotional, and maturity development and success throughout these years. College years are a transformative period for most students, with both academic processes and social activities acting as important milestones for the individual (Harrington, 2017). As students grow and mature during collegiate years, they also develop their own sense of identity. Research has been shown to support identity development is influenced by physical locations and surroundings (Bernheimer, 2017). According to Broussard (2009), university life has a unique and disproportionate influence on the self-development process, thus increasing the requirement for a bond between university and student to be cultivated and nourished.

Impact on the College Experience

The impression a built environment has on individual users of a space has been documented by researchers (Barrett, 2014; Kaiser 1975). Of note, Kaiser (1975) indicates three types of interaction between campus and student, in what he called an "ecosystem", explaining that all spaces have an impact on the users within the space and that the space can encourage or discourage growth. Kaiser (1975) identifies three student experiences within the ecosystem: compensating, facilitating, or potentiating. The environmental impact of a space can provide

opportunity or reinforce certain student experiences (Kaiser, 1975, as cited in Barrett, 2014).

This ecosystem is applied towards the transactional relationship between campus and student in

Barrett's 2014 studies. This study illustrates transactional theory applied to how the student and

physical environment interact daily (Barrett, 2014). Better understanding of this specific

interaction may lead to increased insight into how the design of the campus spaces affect daily

activity and opportunities while on campus.

The built environment should engage the student and suggest different experiences for

the student (McLane & Kozinets, 2019). Not all experiences are active and require participation,

some are passive and observational experiences; however, both experiences influence college

students, and their cognitive mapping of the college experience (Chow & Healey, 2008; McLane

& Kozinets, 2019). Campus buildings are not only used as academic spaces, they are also social

spaces, restorative spaces, and third spaces (Banning et al., 2010). As such, buildings should

support various types of experiences. These spaces are shown to not only be desirable for the

students aesthetically and functionally, but also necessary for the students' success academically,

emotionally, and mentally (McLane & Kozinets, 2019). The concept of identified spaces for

defined functions or activities leads into research concerning the concept of third space

(Oldenburg & Brissett, 1982).

Third Space

The concept of "third space" has been applied to many disparate types of places, from

respite from work or other duties to places of retreat or relaxation. In 1982, Oldenburg and

Brissett introduced the concept as a place of connectedness with others. Home is considered the

first space, work is the second, and the third space is the place individuals choose to go to be

with their community (Barrett, 2014). The third space is a place that encourages diversity and

response to design elements such as color and perspective (Oldenburg & Brissett, 1982). It is a space where the individual feels they have some control over their response to the surroundings (Oldenburg & Brissett, 1982).

Related to Campus Experience

One study on residence, showed that residence hall environments have significant impact on social and academic connectedness for students occupying the halls, and the physical configuration of the halls was a factor in students' feelings of belonging to the greater community on campus (Barrett, 2014). Students indicated a higher sense of community with their peers were more likely to complete their academic degrees, supporting the needs for Third Spaces in and around campus facilities (Barrett, 2014). The connection between third space and sense of community, socialization, and interaction among student peers, in a nonacademic centric space, leads to the necessity of these types of spaces within the campus perimeters.

Third spaces are much more socially driven environments where individuals may choose to go, rather than obligated to go (Harrington, 2014). Harrington (2014), notes that when asked about third place, many students respond by listing off campus sites: coffee houses, restaurants, and recreational facilities; rather than spaces on campus. However, on campus locations, such as a student union are also considered a third space (Harrington,2014; Barrett, 2014).Oldenburg and Brissett (1982) claim the need for the third place was caused (in part) by the decline in community experience in peoples' lives as they consisted of only work and home. This balance of work and home being primary locations for people's lives was referred to as the "Two-Shop Model", shop one being the home, and shop two being the workplace (Oldenburg & Brissett, 1982, pg 267).

Considering the need for connectedness among students and the social interactions promoted by third spaces, it would benefit the campus to include these types of spaces, and varied types of spaces, in the design and planning of facilities. Gaining a better understanding of how the campus acts as a third space for students can better guide the design decisions and planning for future campus uses.

International Students

Social Interaction

Academic campuses are not only places for learning, but also places to make memories through generations of ritual (Broussard, 2009). Previous works have linked positive feelings of belonging with social connectedness and noted that engaging with the campus community helps increase student motivation for success (Pedler et. al., 2021). A specific space becomes a place of attachment based on activities that have occurred within the setting, and the memories made (Inalhan & Finch, 2004). Memories create a shared experience among participants, which can lead to greater sense of community, and attachment to place. Developing attachment not only fosters the sense of community, but also helps integrate groups within a larger cohort (Inalhan & Finch, 2004). As students gain an increased understanding of American culture and behaviors, they experience fewer stressors in the acculturation process (Fritz, Chin, & DeMarinis, 2008). Understanding expected behaviors and engaging with others while in the space, can lead to increased positive interaction and help grow social connectedness towards others. This connection helps foster the sense of community an international student might experience while on campus (Inalhan & Finch, 2004). International students may face a difficult time adjusting to the cultural norms and behaviors related to social interactions, as they may differ from their own

norms (Penner et. al., 2021). The shock of a very different culture can be a barrier to higher

satisfaction with social connectedness (Penner et. al., 2021).

A newly enrolled international student, coming to a United States campus for the first

time, may rely on cues from previously matriculated or higher classmen students, both domestic

and other international students, to understand how other students engage with one another to

learn expected behavior within the space. This concept of observation and learning behavior

expectations connects to the later expansion of behavior-setting theory, where Wicker (1987)

deemed behavior settings as social constructs. Among these engagement cues, the newcomer can

learn how to use the space as well as what activities (behaviors) are directly influenced by the

environment and design choices of the space. For example: chairs and tables set in groups may

encourage the students to actively engage with one another, however if a student using the space

is sitting alone, or displaying quiet activity, a newcomer is more likely to follow suit. Barker, as

cited in Bernheimer (2017), found that behavior, while in a specific setting, was "scripted by the

setting" (p.146). Translated, the environment surrounding a person: the furnishings, aesthetic,

and other occupants' actions, will correlate with the individual's behaviors while in the

environment. The person entering the space will look to others, and to the space itself, for cues as

to how to engage while in the space.

As previously stated, international students do not always feel at home in their new collegiate

environment (Fatemi et al. 2017). Creating attachment to a place and building memories that

create a connection may prove more difficult. Many international students might describe their

season of study as feeling like a "tourist on a long trip" (Glass et al., 2015, pg 1077). Fritz, et al.

(2008) reported great hardships in making social connections, specifically among Asian students,

while European students felt more homesickness. It should not only be the responsibility of the

student to seek connections, but also the responsibility of the university and administrators to facilitate activities and plan spaces to facilitate connections (Harrington, 2014; Barrett, 2014; Banning et al., 2010). Using a student's own definition of positive interaction may help understanding of the connections to the place and others within the space, positive descriptions are linked to higher feelings of acceptance (Penner, De Moissac, Rocque, Giasson, Prada, Brochu, 2021). Additionally, international students should be active participants in the planning and design of the spaces that are intended for their use (Barrett, 2014). Recognizing international students' challenges with forming connections poses the first study objective:

Research Objective 1: (a) To explore how AU campus facilities promote or hinder social interaction for international students and (b) to explore why/how international students think campus places promote or hinder social interaction.

The space itself can also communicate and lead to the expected behavior to take place within the setting. The design setting can lead to psychological response to the space, which can either positively or negatively influence the student's overall experience (Bendiner-Viani, 2012). Places designed for inclusive social interactions may help the newcomer feel more welcome and more available psychologically to interacting within the space, thus growing their connection both to the space and with others (Bendiner-Viani, 2012). This concept of engagement and relationship with the built environment is further supported through the research of Kaiser (1975) and the proposal of the campus ecosystem. This research directly explored the relationship between the campus building and environment (setting) and the influence they had on the college students' experience (behavior) (Kaiser, 1975).

As stated previously, responsibility falls not only to the student, but also on university administration and resources to promote a welcoming experience leading to a greater sense of

belonging to the university community at large (Harrington, 2014; Barrett, 2014; Banning et al.,

2010). The university's physical space of campus buildings and land should not be overlooked as

an integral component of achieving a welcoming environment for international students.

Sense of Belonging

In 2023, 1,057,188 international students were enrolled in American universities across

the nation, representing 5.6% of the student population (*Open Doors Report,*2021). Moving from

one place to another, specifically onto a college or university campus can be a challenge for any

student: and possibly more so for first year international students. According to Fatemi, et al

(2017), not only do students face challenges of finding housing and adjusting to a new

environment, but students may also face many psychological, emotional, and social difficulties.

Contributing to those difficulties, international students also experience a loss of support,

experienced at higher levels compared to domestic students, who may have family and friends

relatively nearby (Fatemi et al., 2017). Also perceived barrier or separations between the

international student and their American counterparts may contribute to feelings of isolation

(Karkour & Jusseaume, 2020). Dost and Mazzoli Smith (2023) defined collegiate sense of

belonging as "feeling like part of a particular community…without having to conform to a

particular set of norms" (2). With the population increase of diversely ethnic students, a

university's culture of diversity and inclusivity should also increase as well (Johnson et al.,

2007). Haggerty (1999) described a sense of community or sense of belonging as the fit or

alignment of an individual with the environment; creating an increased community of diversity

can assist with creating the alignment for international students, thus increasing a sense of

community on campus among the international student population. Identifying with a group and

feeling as though they belong within a community on campus is one way students seek to

minimize feelings of isolation (Dost & Mazzoli Smith, 2023). Finding these groups can be a challenge for international students, as cultural and ethnic differences may leave them feeling more isolated compared to domestic students (Penner et. al., 2021; Dost & Mazzoli Smith, 2023). Moving into this new environment is a chance to grow self-resilience, however moving away from cultural norms and traditions can be very frustrating and challenging for the student (Glass et al., 2015).

A factor reported in many studies as beneficial to the inclusion of international students is a multicultural center on campus (Clauson & McKnight, 2018; Serrano, 2020; Harrington, 2017; Alkandari & Alkandari, 2008; Johnson et al., 2007; Fatemi et al., 2017). Students report an increased sense of belonging on campus when they have higher levels of participation in campus activities (Cheng, 2004; Barrett, 2014). Such participation requires not only student affairs administrators to design programs for the inclusion of international culture (Cheng, 2004), but also facilities managers to design spaces to best promote varied cultures, rituals, ceremonies, and activities (Alkandari & Alkandari, 2008; Johnson et al., 2007). Providing spaces to learn about others' cultures leads to a more supportive climate on campus for diverse student populations (Johnson et al., 2007). The internal perspective of the individual may also contribute to the effect of the physical space on the individuals' actions (Popov & Chompalov, 2012). International students transitioning to a United States college campus oftentimes feel stressed during the transition (Karkour & Jusseaume, 2020; Fatemi et al., 2017). This internal state may also play a role in how the international student receives the cues for engagement.

Creating welcoming and inclusive spaces on campus can help grow the sense of community experienced among international students and show support towards those students. The creation of these spaces must be intentional in planning and design (Barrett, 2014). In

reflecting on previous research, Bernheimer (2017) stated community and well-being of the community, both as individuals and as a whole, is facilitated through the environment (p.224). Nassir, in Harrington (2017), studied a group of Muslim female students and found an increased sense of belonging when the university accommodated dietary needs, had a well-informed staff, and provided special places for prayer (Harrington, 2017). Enhancing the experience for international students requires the university to take a deliberate approach (Glass et al., 2015). A higher focus on spaces to promote campus participation can lead to not only a more supportive and inclusive climate, but also reduce the feelings of loneliness and increase the sense of community (Barrett, 2014). In research by furniture manufacturer, Kimball International, design is shown to be an important aspect in well-being and belonging (Kimball International, 2024). Creating places where students feel they belong can increase their perception of feeling valued and welcomed by the University (Kimball International, 2024).

Studying sense of community and sense of belonging within the new culture of the university ecology, the second study objective is:

Research Objective 2: (a) To explore how AU campus facilities promote or hinder a sense of community for international students and (b) to explore why/how international students think campus places promote or hinder their sense of community?

Place Attachment

Transition to college is a major life change for most students, many of whom experience homesickness and loneliness (Cheng, 2004; Fatemi et al., 2017). For some students, this move is the first move away from the familiarity, comfort, and perceived safety of home (Chow & Healy,

2008). As memories and experiences build and multiply, place attachment, or the identification felt in conjunction with a specific place develops (Spooner, 2019; Terrazas-Carrillo et al., 2014). However, negative feelings of detachment from home, culture, and familiarity can sometimes make it harder for an international student to form attachments to their new environment (Terrazas-Carrillo et al., 2014). While studies have shown that retention of cultural practices and heritage may help international students retain a sense of identity within their culture, spaces must be accommodating to allow for this original connection (Johnson et al., 2007; Terrazas-Carrillo et al, 2014). Fatemi et al. (2017) notes that international students seldom feel as though the university campus is their second home, and students in this group demonstrate weak place attachment.

Attachment to one's place develops through meaningful experiences within one's environment; it is through this interaction that places begin to hold meaning (Fatemi et al, 2017). Positive associations of attachment to a place or community (expanded, or campus), has been indicative of higher levels of individual well-being (Theodori, 2001). Well designed and intentional spaces can help promote interactions among peers, social engagement, and time to just be oneself, all of which facilitate increasing attachment to the space (Harrington, 2017; Strange & Banning, 2001; Barrett, 2014; Terrazas-Carrillo et al., 2014). In a study based on a Person, Process, Place framework which interconnected the three components to place attachment, college students experienced the greatest increase in place attachment between freshman and sophomore years (Spooner, 2019).

From this literature connecting physical environments to place attachment, the third objective of this study becomes:

Research Objective 3: (a) To explore how AU campus facilities promote or hinder place attachment to campus for international students and (b) to explore why/how international students think campus places promote or hinder place attachment to campus.

The college transitional period can be a challenging time for many students and can be made harder for international students as they struggle to acclimate to their new host country. Although moving away from home can grow self-identity and resilience (Chow & Healey, 2008), moving away can also be very challenging. Forming attachments to places and spaces can help alleviate some of those negative feelings, and help the student begin to feel more comfortable in their new environment (Chow & Healey, 2008).

The proposed relationship suggested in RO4 will be assessed based on findings in RO 2 and 3 to find a possible connection between the sense of community and the place attachment felt for the space. A potential relationship connection will be assessed through the narrative and open-ended responses, and the coding guide results. If no connection is apparent, the RO4 will be rejected.

Theoretical Grounding

The phenomenon of place attachment is the emotional bond between an individual person and a specific place, leading to community and social connectedness to others, and provides a framework for this study (Inalhan & Finch, 2004; Terrazas-Carrillo et al., 2014). Studied across many social science fields, including interior design, place attachment explores how people engage with and within designed spaces (Petermans & Pohlmeyer, 2014). Attachment to place infers a relationship between the place or setting and the occupant within the space, it grows through a series of transactions and interactions between occupant and place (Fatemi et al, 2017). Through the theoretical grounding of transactional theory (Rosenblatt, 1969), the interpretation

of meaning created between the individual and their space is explored. Similarly, to written or spoken verbiage, buildings and the built environment contain speech patterns, which communicate various things to the occupants (Bernheimer, 2017). Special consideration may be given to specific groups of people within the larger community of users of a design, setting a smaller set of stakeholders and users who may benefit from extra attention by the designer for space use, and thus creation of a greater design overall. Through exploration of these smaller subsets of the community of users, the overall design goals may be more effectively met, and the design serves a greater good for the community as a whole. Understanding the communication between the built environment and the individual occupying space can change the culture and behavior surrounding the space (Bernheimer, 2017).

Within the university setting of a college campus, many considerations are given to how different users and stakeholders utilize, experience, and engage with and within the campus buildings. Some of these user groups may be divided by role within the university like faculty/staff/student groups, gender role identification, as in male/female/nonbinary, or (of concern with this research) the domestic/international student population. Different groups perceive and experience spaces differently based on their cultural background, demographic experiences, or internal analysis of the space. As a basic psychological need for humans, feelings of belonging within a location or within a society is central to the hierarchy of needs pyramid, and a positive sense of belonging is essential to human wellbeing (Baumeister & Leary, 1995; Dost & Mazzoli Smith, 2023). Based on the specific experience within the space or setting, the response toward the space by the individual will create bonds with the environment. How an individual utilizes and experiences the spaces on campus may lead to increased feelings of belonging on the campus and within the campus community, which may increase the

individual's attachment towards the campus. Well-designed spaces may invoke feelings of wellbeing, as well as, increase the feelings of comfort and tolerance for slightly uncomfortable experiences, such as being new to the setting (Altomonte et. al., 2020). Feeling like one belongs and is comfortable in a setting can also support increased place attachment through symbolic cultural meaning (Scannell & Gifford, 2016). Increased understanding of the theoretical backbone supporting these varied experiences can help gain knowledge of best practices in design for campus spaces. As Konigk (2015) explored the concept that spaces contribute to the creation of individual identity within a space. As this identity within a place grows, attachment and meaning associated with the place itself increases.

Transactional Theory

A literary based theory, transaction theory was originated in 1969 by Rosenblatt, who proposed that reading a text elicited an emotional response by the reader, causing the reader to experience the text personally (Rosenblatt, 1969). Rosenblatt (1969) began to suggest this connection between text and emotions as an aesthetic connection. Expanding on this theoretical model, Lazarus and Folkman (1987) suggested a transaction between an individual's response and the environment itself. Much in a similar way as reading a text, occupants of a space read the room or environment. The connection between how an individual "reads" or comprehends their environment and their emotional or behavioral reaction supports this current research. Much in the same way as Rosenblatt (1969) suggested, if a reader experiences a specific text in a specific way, occupants of a space also experience the environment in a specific way.

Transactional theory not only considers how an individual gains meaning through interaction with space, and also through interaction with others in space (Bridge, 2013). As social beings, humans seek to create transactions with others. On a college campus, the

interaction between students, while on campus, can lead to feelings of community among students. The transaction between humans and between humans and non-humans (ie: the environment) is a continual process and ever changing (Bridge, 2013). The communicated nonverbal discussion between the space created and the humans occupying the space is not a static occurrence, but changes over time and experience (Bridge, 2013). Also, the design of the space can communicate comfort and sustain the needs of the occupant psychologically (Altomonte et. al., 2020).

Banning et al. (2010) explores this transactional relationship between location and student groups, reiterating the need for positive transaction between location and individual to create strong connections not only with the environment but with other individuals in the environment. The student-to-student transaction allows for strengthened bonds of comradery and social connection, which also may contribute to the feelings of belonging and attachment to and within the place. Creating spaces to communicate frequent positive emotional and psychological responses, directly connects the effect of interior space to an individual's fulfillment of the need to belong. To build upon this connection, the meaning created through those interactions and transactions grows the sentimentality of attachment to the location or place. As students interact with their campus, the more positive transactions between campus and student, the greater the emotional and psychological connection to the campus.

If the design of the space is too restrictive, the student may feel uncomfortable interacting with others, leading to limited engagement and possibly feelings of isolation while in the setting. However, if the space is chaotic or disorganized visually, the student may feel overwhelmed (especially if they come from a more reserved culture), leading to feelings of disconnection while in the space. Every design element of the overall design plays a role in the individual's

response to the space, including the response to build connection within the space (Coburn et al., 2020; Konigk, 2015). The social interactions while in the setting, the behavior suggested by the design of the setting, can directly impact the level of social interaction, which may contribute to the student's sense of belonging within the student body community, and increase the chances of increased place attachment to the campus. As their place becomes more meaningful to the individual through transactions between the individual and the space, the more comfortable the individual is with the space, the more they will be connected to using the space (Bridge, 2013; Ganoe, 1999).

Behavior Setting Theory

This previous research is particularly of interest with regards to first year international student populations, as not only is the higher education experience new to them but they also find themselves in an entirely new culture, with norms to which they are expected to adjust to fit within, to a certain degree (Glass, et al., 2015). The international student comes to a new location, a new setting, with possibly limited or no social support and looking for ways to connect with others upon arrival. Looking at the spaces around campus, the students may infer qualities from the design of the space, such as excitement or nervousness (Bridge, 2013). The design of the spaces (the settings) can encourage or hinder those behaviors and emotions, to help build connections to others and to the campus. Behavior-setting theoretical concepts can be inferred either as possibilities or probabilities of specific action occurring within space (Kaiser, 1975). The desired action result of the space should be considered when designing the space. With support from this theoretical perspective, the setting becomes a communication tool among the occupants, with cues on how to act, behave, and engage while in space.

Exploration of the behavior and level of engagement of occupants within a space, leans on the behavior setting theory, which helps explore the relationship between an individual and their environment in any given setting (Barker, 1968). As behavior settings are primarily examined and explored through the scope of the social context, behavior-setting theory directly ties into the concepts of place attachment, sense of community, and how individuals chose to engage socially within the spaces (Popov & Chompalov, 2012). Barker noted that the setting can influence the occupant's behavior even more than the personality (Bernheimer, 2017. p 158).

Considering the communication inherently experienced between a user or occupant and the space they occupy, the design of the space itself can become a mechanism for the communication or transaction to occur (Bridge, 2013). The transactional perspective allows for a theoretical grounding for the exploration of the transaction between the campus and the new international student, to better grasp the nonverbal communication being experienced. Learning more about the communication between a space and it's occupant, and how the space encourages or discourages usage is a key component in understanding the emotions a newcomer may feel in that space. Additionally, increased understanding of how the space itself helps to motivate specific activities or types of engagement among occupants in a key component in this study.

CHAPTER III:

METHODOLOGY

Exploring student emotional response to various types of physical space, or built spaces, has been explored through many previous studies (Harrington, 2017; Strange & Banning, 2001; Barrett, 2014; Terrazas-Carrillo et al., 2014). However, the study of physical space has been one of the "least understood and most neglected" factors in discussing student experience and success (Strange & Banning, 2001). Through this exploration, researchers have connected the influence of

the built environment on human health and wellness, including emotional and mental health. This current research expands that body of work, utilizing surveyed responses by the target participant group. The research will take place at Auburn University (AU), a public state funded university, located in Auburn, Alabama. Contextual background information is included here to provide a basic foundational knowledge of the University's location and culture.

Location

Auburn University Campus

Auburn University (AU) is a land grant public institution which administers undergraduate, graduate, and postdoctoral degrees and certificates. The University was established in 1856 as a public land grant institution (Auburn University [AU], 2024).

Based on information obtained from the AU Office of International Programs (2023), the institution enrolled 26,874 undergraduate students per year and 6,141 graduate and professional students in 2023 Fall enrollment. In 2023, the university enrolled 1,796 international students, 570 undergraduate and 1,226 graduate level (AU Office of Institutional Research, 2023). This demographic comprised 5.4% of the overall student population in 2021 (AU Office of Institutional Research, 2023).

Figure 3: Enrollment by Race/Ethnicity and Gender (AU Institutional Research, 2023)

This represents a slight decline in international student enrollment from the previous 2022 academic year, with the overall number from 2022 representing 1,953 total international students (AU Office of Institutional Research, 2023). In the Fall 2020 term the first year international students' population dropped to 204, and then rose slightly in the Falls 2021 and 2022 terms of 312 and 340 (respectively) (AU Office of Institutional Research, 2023). During the phase of research, fall of 2023, a total of 345 international students began their academic tenure on AU's main campus (AU Office of Institutional Research, 2023). According to the Auburn University Office of Institutional Research, sharp decline in enrollment of first year international students occurred in the Fall terms 2020 compared to previous years, this decline may be due, at least in part, to international travel restrictions related to COVID 19 (AU Office of Institutional Research, 2023). Graduate level international students represent a higher percentage of enrollment totals with 1,142, 1,151, and 1,203 enrolled in 2020, 2021, and 2022 respectively (AU Office of Institutional Research, 2023). At the time of research, a total of 1,226

international graduate students are enrolled (AU Office of Institutional Research, 2023). As graduate level enrollment of international students represents a higher percentage of the student body population compared to undergraduate level enrollment among international students, graduate students will also be invited to participate in this study.

Auburn University obtained Carnegie R1 classification in 2018 (Auburn University, 2021). Carnegie R1 status is a classification of higher learning and research, as assessed by the Carnegie Classification of Higher Institution Learning (n.d). Carnegie R1 is the top tier of research assigned to a doctoral university and indicates the most significant amount of funded research and amount of research being promoted by the university (Carnegie Classification of Institutions of Higher Learning, n.d). At the time of this study, 131 institutions had obtained Carnegie R1 status under this classification system (Carnegie Classification of Institutions of Higher Learning, n.d). Carnegie R1 classification helps to increase a university's recruitment and competitiveness, particularly among doctoral and graduate degree seekers (Carnegie Classification of Institutions of Higher Learning, n.d). The higher research standing and a dedicated focus on research increases the potential for global recruitment and increased interest of international students to possibly enroll at Auburn University. Understanding those student's perception of campus may also assist in competitive global recruitment of top international students.

Campus Facilities

Auburn University's Facilities Management (AUFM) Office currently manages and operates more than 420 buildings on main campus, and the campus' outdoor spaces and green landscape, over 1,800 continual acres on main campus (Auburn University Facts and Figures, 2024). The office's Planning, Design, and Construction Department employs architects,

31

engineers, interior designers, landscape architects, and project planners and managers (Auburn University Facilities Management, 2021). Similar to many other universities of comparable size, the planning and construction of new buildings is conceptualized by on-campus design managers with involvement from the end user and client department (e.g., Dean or faculty). Successful campus design depends on participation from all stakeholders, including students and staff (Kaiser, 1975). This approach supports open communications with the goal of serving the academic community's needs, while maintaining the character and image of the campus' overall aesthetic. The environment and built setting effects a user's well-being –physically, mentally, and emotionally (International Well Building Institute, 2019). In a competitive academic setting, these assets can also influence the initial recruitment of the student, and their success once on campus.

The campus Facilities Management department is responsible for the design development, implementation, and maintenance of campus spaces throughout the University. Meaning, if an interior space (social or academic) needs renovation, AUFM completes or coordinates the project to do so. Knowledge gained from this research aims to offer better insight to the international student's perspective of campus interior spaces and provide additional valuable stakeholder response for more inclusively designed spaces.

Research Methods

Design

The research study consisted of surveyed responses, interviews, and observation. Survey responses were collected during the first fall semester of a student's time on campus. The target population for this study was first year international students at AU within any class level, and

the sample population was a random sampling of that group, aligning the target population and the sample. Survey responses were collected early in the semester; with two sets of interviews conducted during the early and late weeks of the semester. Interviewees were contacted for a follow up at the end of the semester, to allow for any change in experiences to be noted. This comparison allowed a student to reflect between the initial campus experience and the experience after some additional time to acclimate to the campus environment. The longitudinal method allows comparison of the first and second semesters to account for any change due to acclimation to the new environment. Petermans and Nuyts (2016) stated that the initial experience of being in a new space may boost feelings of happiness, but as the occupant becomes adjusted to the space, the happiness may wane. A first impression may not be undone, but the impression may change over time. This study aimed to explore that change over the course of the first semester on campus.

During the early fall semester, new-to-campus international students were invited to respond to survey fliers posted around campus, and social media announcements. The respondents were asked to identify gender, nationality, and area of study. All included in the survey were incoming first-year international students; this was confirmed, through self-reported responses, prior to proceeding with the survey. An option to disclose their contact information and participate in a follow up interview was available at the end of the survey. This allowed for further discussion of the student's specific experiences and offer a qualitative response through narrative inquiry. Also, researcher observation of the activity within the spaces was conducted early in the semester (September), as well as at the very end of the semester (December) to compare how the larger student population is utilizing the spaces.

The data points procured through the survey were correlated with observation hours and semi structured interview sets. This triangulation of three data sets added validity and credibility to the study. The observation showed how the larger student community utilizes these spaces, and the interview sessions allowed for additional salient data to be communicated.

Data Collection

With support from the Office of International Programs, this study utilized a sample of international students enrolling in their first semester of studies at the university. The sampling method allowed for the sampling frame to align with the target population, as the target was international students at AU, and the sampling frame was pulled from first year international students at AU. The study included first year (at Auburn University) undergraduate and graduate international students, following them from the very beginning of the first fall semester and the very end of the same fall semester. The student demographic information, obtained by a brief questionnaire, within the survey, was assessed to identify the informants by their gender, age, and nationality. Auburn University Institutional Review Board approval was secured prior to the initial email and prior to any data collection or student contact.

Solicitation

Solicitation for participation was be distributed by flyers and recruitment letters, posted to the social media accounts of the international clubs, Office of International Programs, and Auburn Abroad programs, as well as physical fliers around campus. The Office of International Programs requested that students are not contacted through direct email solicitation, however student organizations social media outlets may be utilized. The flier (see Appendix A) for participation was posted to raise interest to all incoming international students near the beginning of the fall semester, in August.

Target Participants

Only individuals identified as international students, aged 18 years and older, who are enrolled for the first time at AU were included in the complete survey procedure. A gatekeeper question was used as a screening mechanism.

1. Are you a first-year international student at Auburn University?

A "no" response will automatically terminate the survey.

The international student was then allowed to proceed in responding to the full questionnaire (see Appendix B). They may close out of the survey anytime.

The survey was linked in online social media, supported through international student clubs, and posted fliers with QR code posted physically in student spaces around campus, this allowed multiple opportunities for the student to see the solicitation flier and choose to part. Also, an anonymous link was provided as a web address for the survey.

The online survey did not require any personal information from the students choosing to participate. No name, nor contact information was requested within the survey itself, only qualifying questions regarding first year status as an international student was requested, however if a student elected to participate further, they elected to provide their contact information. This information was only be available to the researcher, through the Qualtrics app, to schedule the interviews.

Interview sessions followed the survey, with the goal of only 3-5 interviewees. This allowed for more elaboration and storytelling from the student's perspective and allowed the student to add their own reality to the data set. This became important information as it provided additional context and examples of the actual lived experience otherwise not capturable through

online survey collection. Interview questions included elaboration on the sites from the survey and allowed for the student to tell more of their experience at that location (see Appendix B).

Instrumentation

Observation

During the early part of the semester, the researcher observed activities and usage of the spaces in questions related to this study. Observation protocol (Appendix D) was approved by the IRB. Observation hours included field notes of the types of activities, groupings, and interactions occurring within each space. The researcher remained a complete witness to the occupants and only observed general aspects of how the space was being used to confirm social activity and interactions are occurring. Field notes from the observation sessions included sketches of the layout, descriptions of activities and groupings of students within the spaces, and impressions of the overall space usage. This served as a point to validate the chosen locations for the study, as student-centered social spaces.

Through observation hours (one hour per location per session), the researcher took note of the type of students using the space but did not know if they are international or domestic students. This provided a baseline for how the general student community interacts with the setting. This also allowed the researcher to see firsthand how the furniture, layouts, and items within the space are potentially being moved or manipulated for use by the students.

Participation questionnaire

The questionnaire (see Appendix B) has been developed to allow the international students the option to be included in the sample frame for the survey. The first screen of the questionnaire contained simple demographic questions, as well as validation questions to confirm the participant meets the criteria for the study. Due to the nature of an online survey, wet

36

signatures for the consent were not required, and this exemption was approved through the IRB (Appendix E). The gatekeeper question (previously stated) served as entrance into the survey, allowing only "yes" responses to proceed to the full survey. The questions in the survey focused on student centered social spaces across campus, including dining spaces. The survey was be completed using the Qualtrics app, allowing no identifiers to be necessary nor recorded from the participant. A QR code directed the participant from social media postings and fliers to the app for the survey, and an anonymous "aub.ie" link will be provided as well.

The survey included open ended and scale rating sets of questions (see Appendix B), as well as images of spaces around campus will questions pertaining to that specific image. The questions allowed focused responses about the main buildings on campus which were designed for social interaction. The survey did not consider spaces assigned as academic spaces. The survey included images of interior spaces and questions pertaining to those specific spaces will be asked for their perception of the current interior design of the social areas. The photographs showed only the space itself and omitted or excluded images of people in the photos. The participants were asked to describe their experiences in these identified spaces on campus, as they relate to variables of social connection, sense of community, and place attachment; as well as rank their emotional and psychological response toward the spaces. Students were also asked to define the two of the main variables, social connection and belonging, in their own words. The survey then asked the students to consider what the design of the space they deem to be beneficial or hindering in each of these variables specifically. Finally, the participants were asked to provide feedback to discuss what they would change about the spaces to better promote the three variables. Four photographs were included in the online survey, and available for

viewing while the participants complete the assessment. The overall survey took no more than 15-20 minutes in total.

The spaces included were major public, common spaces (the Melton Student Center common space, Foy Hall common space) and major public dining halls (Village Dining and Central Dining Hall). These spaces were chosen as they are designed specifically for social interaction and inclusion for all students across campus. A total of four interior photos were to be shown of the spaces for consideration. Photos of each space have been taken with care to ensure no humans are present in the photos, only the furniture and space itself will be included in the images. The images were presented in color format, ahead of the questions pertaining to that specific image.

The images presented in the survey were reviewed by professional University interior designers at peer institutions. These designers confirmed these spaces represent "social spaces" on a university campus. Through a professional organization, The Association of University Interior Designers, the images were presented in a survey format allowing members to agree, disagree, or remain neutral when asked if the image represents a typical social area on a college campus. Nine interior designers, from differing institutions, confirmed all spaces resemble a typical area designed for social interactions on a college campus. None dissented the proposed images fit the space function. Two of the nine stated dining spaces "might be" included in the "social spaces" description. This confirmation adds validity to the instrumentation used within the survey.
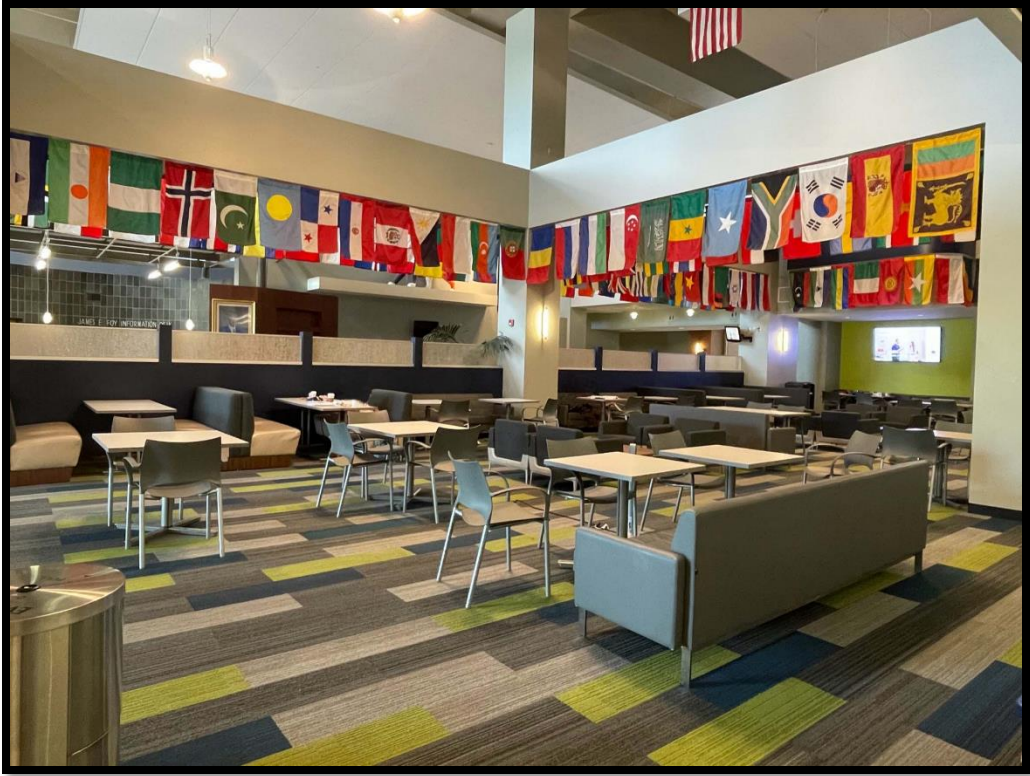
Figure 4: Melton Student Center

Figure 5: Foy Hall

Figure 6: Central "The Edge" Dining Hall

Figure 7: Village Dining Hall

The goal of the survey was to increase the depth of knowledge and understanding of concerns presented by international students, as they specifically relate to their social interaction, sense of community, and place attachment felt toward AU campus buildings. Additionally, this survey aimed to find common themes of experience within these spaces.

Participant Interview

Further qualitative data was then collected through interview activities after the survey collection. The participants had an option to self-select to provide contact information to the

researcher at the end of the survey and engage in an interview to narrate their personal experiences related to belonging on campus. The interviews occurred on campus, in a setting convenient to the participant, and recorded for transcription. This narrative information provided further insight and details of the lived experiences of these students and allowed for more salient information to be shared in their own words. Allowing space for students to tell their story, and for the researcher to glimpse into their lived experience, helped validate the survey findings and also added additional context to the data. The interview sessions took no more than one hour per interviewee per session.

The interviews were semi structured, allowing for some flexibility depending on the responses from the participant, and the direction they wish to carry the conversation. Transcripts from the interviews were available for the participants to review and confirm, and direct quotes used in the results and discussion of the research objectives. The same students contacted for the first set of interviews were contacted for the second, follow up, set to allow for longitudinal comparison of experiences. The participants chose to have their name and identity concealed through the use of a pseudonym of their choosing, or omissions of their name, to protect their identity and privacy. Their enrollment class or department was reported accurately for context, the preference for identifying was the student's decision, and the researcher followed their preference direction.

Data analysis

Observation data

The information collected during the hours of observation was used to confirm and validate the space usage. This provided an overview of how the settings are being utilized by students during typical days on campus.

Participation questionnaire data

      The demographic responses were analyzed and assessed using descriptive statistics for a full report of those interested in participating. The demographic responses provided an overview of the responses and allowed the researcher to group the self-identified gender response as well as the number of nationalities represented.

      Statistical analysis was run on the closed responses from the questionnaire, including the frequency of response. Open ended question responses were analyzed using thematic narrative analysis to identify themes and trends. This type of analysis allows for the better understanding and comprehension of individuals viewpoint and experiences based in qualitative data collection. Utilizing this tool allowed greater understanding of how the student's experiences have shaped their perspective.

      Also, a scale rating based on the response to the photograph of the space and was be assessed for frequency of answer among the informants. The scale was used to rate the statements to assess how the informants feel about each space listed and the social spaces within the campus environment. The frequencies of the responses provided more insight to basic statements about each location.

      Every precaution was taken to ensure privacy of the informants during the data analysis, with no personal identifying information available to the researcher, unless the participant self-elects to participate further.

Participant Interview data

      Responses from the interview sessions were transcribed and reviewed for accuracy. These responses were used to validate and correlate the survey data and to help triangulate the results. The interview responses were used in the document as quotations to add context and

additional salient information to the statistical responses. This also allowed the participants more space to elaborate on their feelings about the spaces and being a new member of the campus community, and to be heard in their own words. The names of the interviewees were changed or omitted completely to protect their privacy in the document; however, their nationality was accurately reported.

These narratives and revelations of individual experiences and perceptions of campus allowed insight into the daily life of the students. Through their own words and storytelling, the interviews provided a glimpse into some of the unique impressions each student holds of campus and their position as part of the overall student population. Allowing the space for these students to freely discuss their positive and negative experiences on campus added context and brought forth compelling examples of successes and failures in design implementation around campus.

CHAPTER IV:

PRESENTATION OF RESEARCH

Through various methodologies for data completion, and triangulation of methods for validation, this research has produced the following data. The participants in this study were self-identified first-year (to Auburn University) international students of any class level. To protect the identity of the student's participant, no evidence was requested other than a simple 'yes or no' response to validate this information. A total of 33 individuals completed the Qualtrics survey, with 5 of those choosing to continue to participate in interview sessions. The respondents represented approximately 10% of the new to Auburn International student population.

Sampling of Participants Of the respondents to the survey 48.48% identified as female, and 51.52% identified as male students. Participants ranged in age from 18 years old to the eldest

participant being 53 years of age. The participants also varied in their nationality. The following

countries are represented in the results:

Middle East	Nigeria
Honduras	Ghana
Colombia	Guatemala
Bangladesh	Saudi Arabia
China	Chile
Brazil	Sir Lanka
Spain	Denmark
India	South Africa

Academic Representation The participants also represented a variety of academic study

departments. Agriculture and COSAM represented the majority of respondents, with 21.21%

each. Other fields of high representation include Engineering (15.15%), Business (12.12%), and

Human Sciences/Humanities (12.12%). The remaining departments included Liberal Arts

(9.09%), Architectural/Building Sciences (3.03%) and "other" listed at 6.06%, which included

Hospitality Management as a write in response.

Campus Factors Most of the respondents do not live on campus (78.79%) with only 21.21%

living in campus housing. Most reported their time spent on campus as "sometimes" 37.50% and

29.17% reporting they rarely spend free time on campus. Half of the participants believe campus

offers spaces to socialize with others (50.5%), with 41.67% being more unsure, responding

"maybe". 8.33% responded that campus does not offer places for socialization.

When responding to "Where do you prefer to hang out with your friends on campus?" many wrote in responses including the Student Center, library, cafes or restaurants, and green spaces outside. Additionally, the vast majority of respondents did feel as though Auburn University's campus was an important place in their lives (78.26%), with 17.39 % stating they are unsure, and 4.35% replying that it is not an important place. Finally, most respondents reported only feeling as if they belonged on campus "sometimes", 39.13%, and reporting "often" was 34.78%. Unfortunately, 8.7% of the respondents did not feel like they belonged on campus, reporting seldom or rarely.

<div align="center">

Space Analysis by Location

</div>

In the following portions of the Qualtrics survey, participants were asked to respond to an image showing a location on campus designed for socialization and interaction. These spaces were intentionally chosen to not represent academic or living spaces. The images were confirmed by a panel of nine university interior designers from across the country as spaces appearing to be designed for social activity and following similar design to their campuses for social spaces.

When responding to the images, the participants responded to four actions: spent time with friends, spent time alone, eaten a meal, attended a function. They also responded to three feelings: felt welcomed, felt unwelcome, and felt accepted.

Melton Student Center (MSC)

In response to the MSC, 47.62 % stated the MSC allows them to be social and engage with others, and another 47.62% responded with the median response of "maybe". 4.76% stated the space did not allow them to be social. 33.33% of the respondents chose to spend free time on campus in the MSC, 14.29% chose not to spend their free time here. Additionally, 45% stated they do feel like they are making positive memories of their time at Auburn University while in

the MSC, 45% felt they might be making positive memories, and 10% did not feel as though they were making positive memories in this location.

When responding to various activities while in the space, the participants responded in the following manner:

Table 1.1

Melton Student Center Activities Occurrence

Activities	Definitely Not	Probably Not	Might or Might Not	Probably Yes	Definitely Yes
Spent with Friends	19.05%	9.52%	28.57%	23.81%	19.05%
Spent time Alone	19.05%	19.05%	19.05%	19.05%	23.81%
Eaten a Meal	28.57%	23.81%	4.76%	23.81%	19.05%
Attended a Function or Event	4.76%	9.52%	14.29%	14.29%	57.17%

Table 1.1 indicates many survey respondents visited the MSC to attend functions. This data corresponds with the interview research data suggesting students tend to visit this location for a specific purpose, or specific activity. Many respondents also indicate they have not eaten a meal in the MSC, although four dining venues exist within the building. Additionally, the research supports that international students do spend time here with friends, but definitely spend time here alone.

Table 1.2

Melton Student Center Feelings Occurrence

Feeling	Definitely Not	Probably Not	Might or Might Not	Probably Yes	Definitely Yes
Felt welcomed	0.00%	9.52%	19.05%	28.57%	42.86%
Felt unwelcomed	61.90%	0.00%	14.29%	19.05%	4.76%
Felt accepted	0.00%	4.76%	9.52%	38.10%	47.62%

Table 1.2 reports respondents feedback about emotions they experience while in the MSC. However, interestingly the respondents were not as firm in their response of feeling welcome (divided between "probably yes" and "definitely yes") compared to feeling unwelcome, which received a stronger response of "definitely not". According to the findings, the MSC does encourage feelings of welcoming and belonging while in the space. The respondents also indicate they felt accepted while in this space, with none responding they definitely did not feel accepted while in the space.

Of those interviewed, 4 out of 5 stated the MSC was not a place they chose to spend a lot of free time, and added they only tended to go there for a function or specific purpose. The need for purposeful places came up repeatedly during the interview process. Participants mentioned going to MSC for ISO meetings or to the newly designed e-sports room, but they would not prefer to spend time there outside of those events. An undergraduate student stated they would often use headphones in the MSC, a way to symbolize they were not interested in interacting with others in this location. A PhD level student stated they only used the MSC as a "pass through" space, and it feels like another version of a library, when it's intended to be more of a third space.

One student did have many positive thoughts related to the MSC. They saw this as a place that was vibrant, intentionally designed for the younger students (this student was a PhD candidate.) They equated the MSC space to an airport, where there are plenty of places to go and find seating options, places to eat, and activities. The PhD student also stated this as a location to blend all the various generations of students together on campus, from Gen Z to older students, stating everyone could "blend in".

Throughout the semester, minor changes related to the furniture placement were made by the staff of the MSC. One student commented on this in the late semester follow up interview, seeing it as an encouraging change. They felt a reorientation of the furniture placement allowed them to share space with others while maintaining their own personal space. This included changes to have sofas facing one another, which during observations, it was noted students tended to sit caddy cornered, but still within the same grouping as strangers.

Foy Hall

In response to the Foy Hall, 42.11 % stated the space allows them to be social and engage with others, and another 42.11% responded with the median response of "maybe". 15.79% stated the space did not allow them to be social. The majority of respondents chose not to spend free time at Foy Hall, 52.63%. However, 44.44% did believe they were making positive memories of Auburn University when they did spend time here, and 50% responded "maybe" to positive memories, with 5.56% responding no.

When responding to various activities while in the space, the participants responded in the following manner:

Table 2.1

Foy Hall Activities Occurrence

Activities	Definitely Not	Probably Not	Might or Might Not	Probably Yes	Definitely Yes
Spent with Friends	21.05%	21.05%	26.32%	21.05%	10.53%
Spent time Alone	15.79%	26.32%	21.05%	15.79%	21.05%
Eaten a Meal	42.11%	10.53%	15.79%	15.79%	15.79%
Attended a Function or Event	0.00%	5.26%	21.05%	26.32%	47.37%

Table 2.1 suggests many respondents visit Foy Hall for specific events or functions. The

Office of International Students is located in Foy Hall, which may influence this finding, as

many international students come to this location to work with their international advisors. This

location also seems to be a place where international students spend time, both alone and with

friends, however the responding students were fairly evenly varied between yes and no

responses. There are only two dining venues now in Foy Hall, many respondents have not eaten

a meal at either of those venues.

Responding to the feelings of belonging while in Foy Hall, participants responded:

Table 2.2

Foy Hall Feelings Occurrence

Feeling	Definitely Not	Probably Not	Might or Might Not	Probably Yes	Definitely Yes
Felt welcomed	0.00%	0.00%	21.05%	36.84%	42.11%
Felt unwelcomed	57.89%	26.32%	15.79%	0.00%	0.00%
Felt accepted	0.00%	0.00%	10.53%	31.58%	57.89%

Most respondents felt welcome and accepted within Foy Hall. This may, again, be

contributed to the Office of International Programs. Many of the students interviewed suggested

this is one the first places they visit on campus and are often met with helpful people at this

location.

Of the participants interviewed, two specifically preferred Foy Hall as a place to sit and

spend time outside of classes. As Foy Hall is home to the International Students Office, this

location is one of the first places many international students visit on campus. Foy Hall is where

they go if they need help with documentation, or getting classes sorted. One MS level student

discussed the furniture layout of Foy as somewhere they could spend time, but still be around

others. The student specifically commented on being within a comfortable distance to the help desk, utilizing their services if needed, but still having enough distance to sit alone. They found the seating layout to be ample and have enough variety to choose how to use the space, alone or in a small group. This student also shared they found Foy Hall "relaxing" compared to the MSC, where bold colors and music play constantly.

Another PhD student also shared a similar response to Foy Hall as a "place to gather" with a good ambience to the design. The ability to move furniture around to accommodate groups or singles was important, and the space to spread out without feeling like they were congested led to this student choosing to spend time in Foy Hall.

The Edge Dining Hall

The Central "Edge" dining hall is new to campus and sits very central to most of the general academic buildings. The building is newly constructed and opened in 2021 academic year.

In response to the Edge Dining Hall, 35.29 % stated the space allows them to be social and engage with others, and the majority 64.71% responded with the median response of "maybe". Many of the respondents chose not to spend free time at the Edge Dining Hall, 35.29%, or only maybe chose to spend time there, 47.06%. Only 17.65% chose to spend free time at the Edge. Response to memory making at the Edge represented 56.25% responding "maybe". 37.50% said yes, they felt positive memories were being made at this location, and 6.25% did not.

When responding to various activities while in the space, the participants responded in the following manner:

Table 3.1

Central "Edge" Dining Activities Occurrence

Activities	Definitely Not	Probably Not	Might or Might Not	Probably Yes	Definitely Yes
Spent with Friends	41.18%	0.00%	29.41%	5.88%	23.53%
Spent time Alone	35.29%	11.76%	23.53%	17.65%	11.76%
Eaten a Meal	41.18%	5.88%	11.76%	17.65%	23.53%
Attended a Function or Event	29.41%	17.65%	29.41%	11.76%	11.76%

While the Edge Dining Hall is specifically designed as a destination for dining purposes, only a relatively small percentage of responding international student have eaten a meal here. Many indicated they have not spent time with friends in this location, suggesting they have not visited the location at all. Through exploration of this in the interviews, two of the interviewees elaborated on this data by sharing difficulties in knowing what was on the menu, not enjoying the style of tables, and trouble finding places to sit with friends.

Responding to the feelings of belonging while in the Edge Dining Hall, participants responded:

Table 3.2

Central "Edge" Dining Feelings Occurrence

Feeling	Definitely Not	Probably Not	Might or Might Not	Probably Yes	Definitely Yes
Felt welcomed	11.76%	11.76%	17.65%	11.76%	47.06%
Felt unwelcomed	52.94%	23.53%	11.76%	11.76%	0.00%
Felt accepted	5.88%	5.88%	29.41%	23.53%	35.29%

Although many respondents indicated they had not visited the Edge Dining Hall to enjoy a meal, most do find this location to be welcoming and accepting.

The dining hall experiences were some of the most drastically different between undergraduate and graduate level interviewees. The undergraduates spent more time in the dining hall, due to the required meal plans, compared to the graduate or PhD level students.

One student, an undergraduate, spent time in the Edge and commented it was a "cool design" and somewhere they would usually go with a friend, but that the tables made it difficult to eat with someone. This student stated they would sit side by side at the bar table, which was not conducive for conversation. They shared it was difficult to accommodate larger groups in this space due to the furniture arrangements. They did frequent this dining hall alone though. The students who did visit this dining location had similar impressions of the design of the space, it looked nice but was not the most comfortable for groups to go together. When visiting the Edge as a solo diner, the student shared they prefer to sit on the second level (when available) to see out over the space.

The Village Dining Hall

This dining hall sits adjacent to a larger community of residence halls, and slightly more off center of campus. This hall was recently renovated in 2019.

In response to the Village Dining Hall, 40.00 % stated the space allows them to be social and engage with others, and 46.67% responded with the median response of "maybe". Additionally, 13.33% of respondents stated the Village Dining Hall did not allow them the opportunity to be social. Many of the respondents chose not to or only to spend free time at the Village Dining Hall, 46.67% each, only 6.67% chose to spend free time at the Village. Response to memory making at the Village represented 57.14% responding "maybe". 14.29% said yes, they felt positive memories were being made at this location, and 28.57% did not.

When responding to various activities while in the space, the participants responded in the following manner:

Table 4.1

Village Dining Activities Occurrence

Activities	Definitely Not	Probably Not	Might or Might Not	Probably Yes	Definitely Yes
Spent with Friends	46.67%	13.33%	33.33%	0.00%	6.67%
Spent time Alone	46.67%	6.67%	26.67%	13.33%	6.67%
Eaten a Meal	40.00%	20.00%	20.00%	0.00%	20.00%
Attended a Function or Event	40.00%	20.00%	26.67%	6.67%	6.67%

Similarly to the data reports from the Edge Dining Hall, most of the respondents indicated they had not visited Village Dining Hall to eat a meal. Again, this location is specifically designed as a dining concept, with a main access point of entry and "all you care to eat" options. Also, most respondents indicated they did not chose to spend time with friends nor alone at Village Dining.

Similar to the Edge dining hall, the graduate level students indicated they did not spend time in the Village dining hall, however the undergraduate level students spent time there. One undergraduate from Korea stated this was their preferred dining hall to spend time due to its location near their program classroom building. Some in the interview sessions did share a preference for the Village Dining Hall compared to the Edge Dining Hall due to it's location, and the types of tables and seating offered for smaller groups of people.

Responding to the feelings of belonging while in the Village Dining Hall, participants responded:

Table 4.2

Village Dining Feelings Occurrence

Feeling	Definitely Not	Probably Not	Might or Might Not	Probably Yes	Definitely Yes
Felt welcomed	6.67%	6.67%	40.00%	0.00%	46.67%
Felt unwelcomed	64.29%	0.00%	28.57%	0.00%	7.14%
Felt accepted	6.67%	13.33%	33.33%	0.00%	46.67%

Once again, similarly to the other dining hall included in the survey, most student express feelings of being welcomed and accepted within the Village Dining space.

One student stated they like this dining option as it was "a little quieter, and less chaotic" compared to the Edge, but shared that it felt a bit older. The student shared their preference of the Village TigerZone's table size and placement for groups or shared meals.

Observation Report

To better experience the types of interactions and activities taking place at these locations, one hour of observation was spent at each location during a typical semester day. During these times, it was observed that a mix of individuals and groups were visiting each location, with a greater population of students using the MSC compared to Foy Hall. The Edge and Village Dining Halls were equally as busy during the observation days, which included the lunch hour for two days. During the observation, the MSC was hosting an event in the second floor lobby, the common seating space for social activity. This congested the remaining furniture to one half of the space and added to the number of people in that location during the time. This resulted in people searching for seats and sitting on the floor. There were few people, mostly sitting alone or talking quietly together. Along the third floor balcony, the MSC has flags hanging from various international counties, these are openly visible to the seating areas on the

second floor as they hang overhead. Foy Hall was quieter during observation, compared to the MSC.

In these two spaces, the seating groups consist mostly of soft seating, lounge seating, and occasional (low top) tables. Below is a floor plan of each furniture arrangement. These types of seating configurations typically include heavier pieces of furniture that may be difficult to move freely. Each space does also include some tables and chair options as well.

Figure 8 shows the layout of furniture, at the time of this research, along the first floor of the Melton Student Center. This space has a glass curtain wall along the south wall, overlooking at patio with exterior seating. Adjacent to this seating location is the Game Room and a newly renovated Starbucks Coffee. Along the glass wall are high top round tables, with two stool per table. Opposite the glass wall are two long community style tables with chairs. These are typical seated height at 29", and the chairs are easily moved about the space as needed to support various sized groups. Bookending the two large tables are soft seating configurations of sofas with a coffee table. Additionally, there is a soft upholstered bench along the entrance wall to the game room. The flooring in this space is a wood look luxury vinyl tile, which meets carpet tile at the entrance of the game room.

On the second level of the Melton Student Center (Figure 9 floorplan) many options for various seating choices are placed throughout a central atrium space. These include sofas with coffee tables, tables with chairs, and some booth seating with tables. Some of the softa (with the curved backs) have a higher back to offer some additional privacy. The carpet in this location is a mix of blue, grey, and green carpet tiles. Overhead hang flags over various countries represented by the student population.
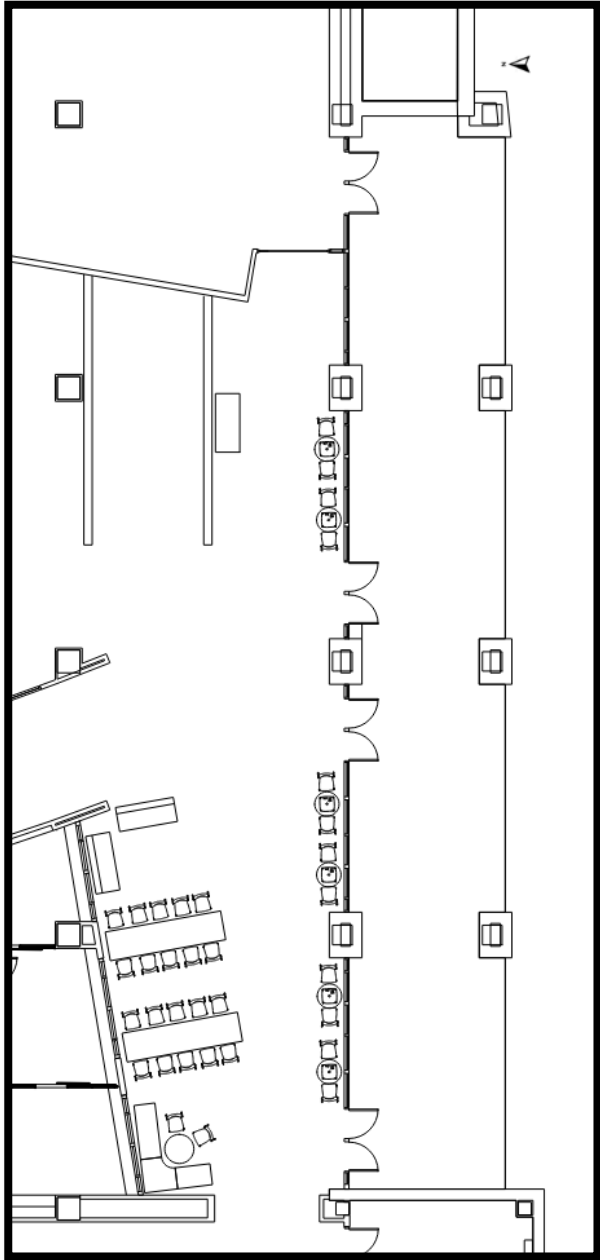
Figure 8:*Melton Student Center First Floor Furniture Plan*
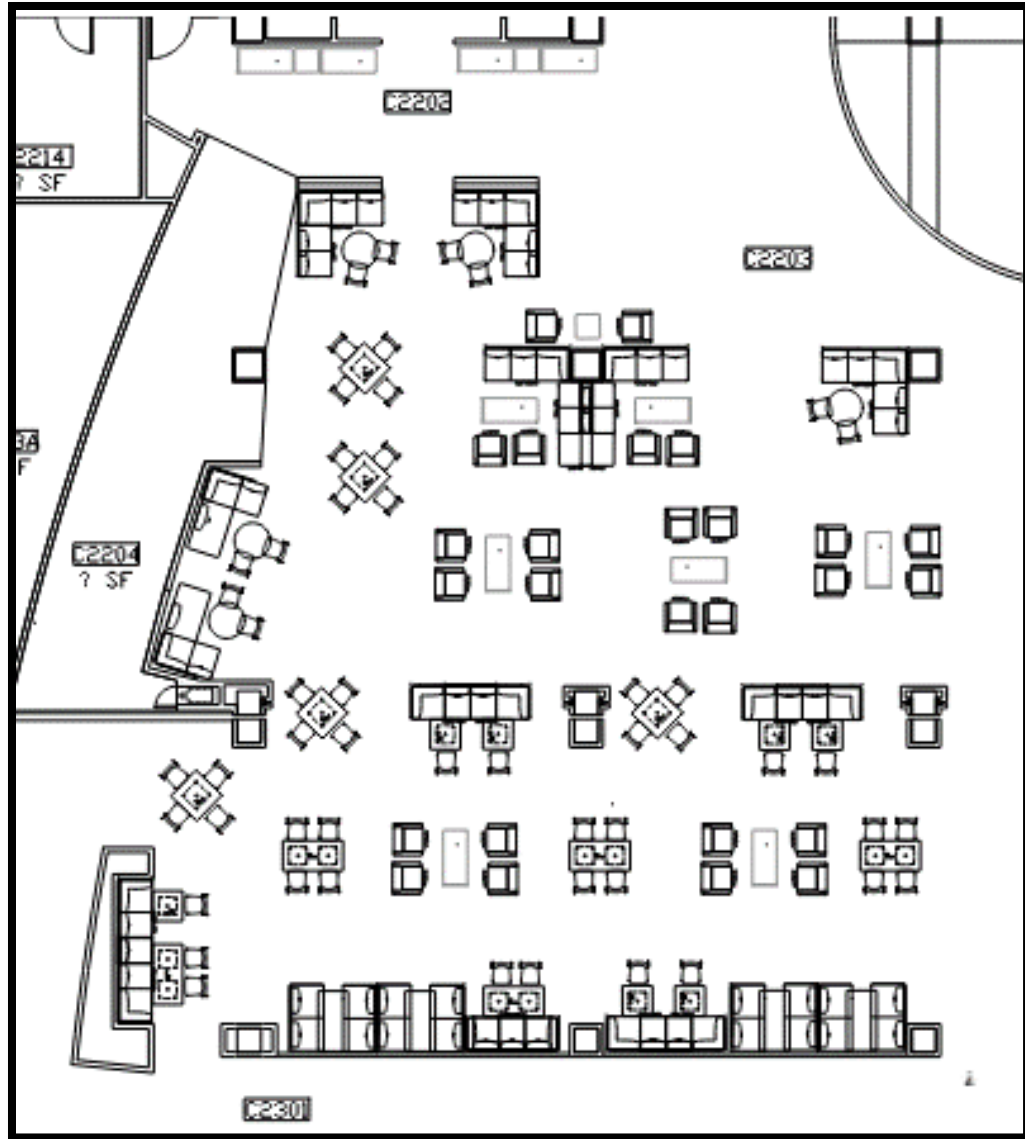
Figure 9: Melton Student Center Second Floor Furniture Plan
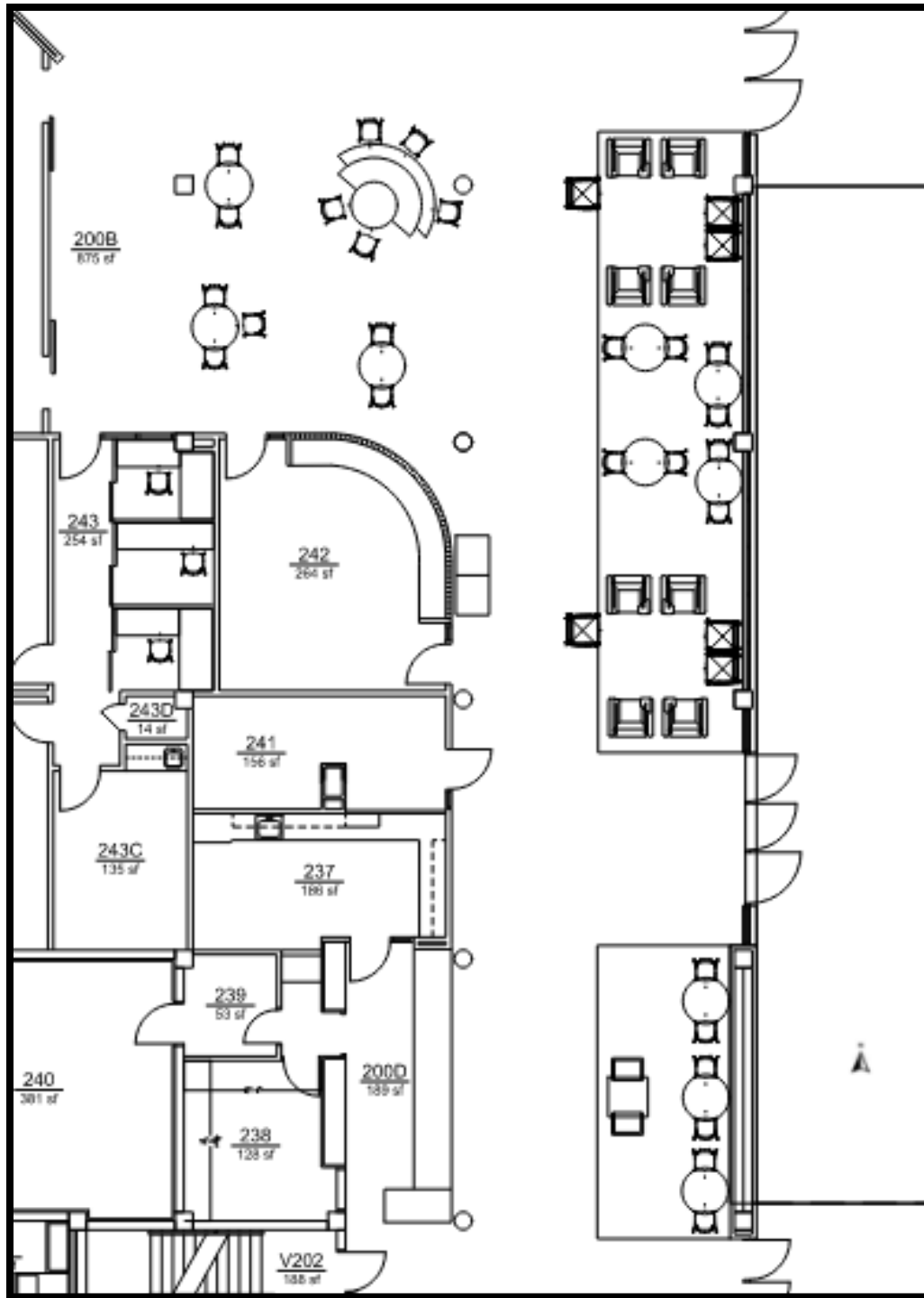
Figure 10: Foy Hall Main Floor Furniture Plan

Figure 10 is a floor plan of the current furniture layout in Foy Hall. On the west side of

this floorplan are the offices for the Office of International Programs. This building is a bit older

compared to the Melton Student Center, with lower ceiling heights, and exposed brick walls. Along the east side of the floorplan are windows looking out onto a lawn space. The seating in this location includes individual soft upholstered chairs with tablet arms for a notebook or laptop. Additionally, round tables with chairs are positioned just outside of the OIP offices for advising sessions or informal meetings. The flooring in this location is a combination of carpet tiles in blue and grey hues, and brick tiles.

The dining venues, shown in Figures 11 and 12, each have tables and chairs, and some soft booth or banquette style seating. The Edge Dining (Figure 11) offers a range of types of seating including high top seating, community tables, and low four top tables. There are also single and double sized banquette seating groups. The south wall is glass, overlooking greenspace and the MSC. The north wall is also glass and overlooks a new academic building. Above this floor, a second floor surround the perimeter offering tables and individual seating along the railing. The dining options are located throughout the space, offering a variety of food choices.

At Village Dining, shown in Figure 12, long community tables have been pushed together in more of a cafeteria style. They are flanked by low four top tables and large circular booth seating groups. This location includes two independent food options, and then a larger "all you care to eat" option behind a price wall. The food service is centrally located along the east side of the building, with seating along the west side of the building. Additionally, small sofas with individual lounge chairs are tucked into the window bays along the west of the building. This location also offers a room reservable for private groups.
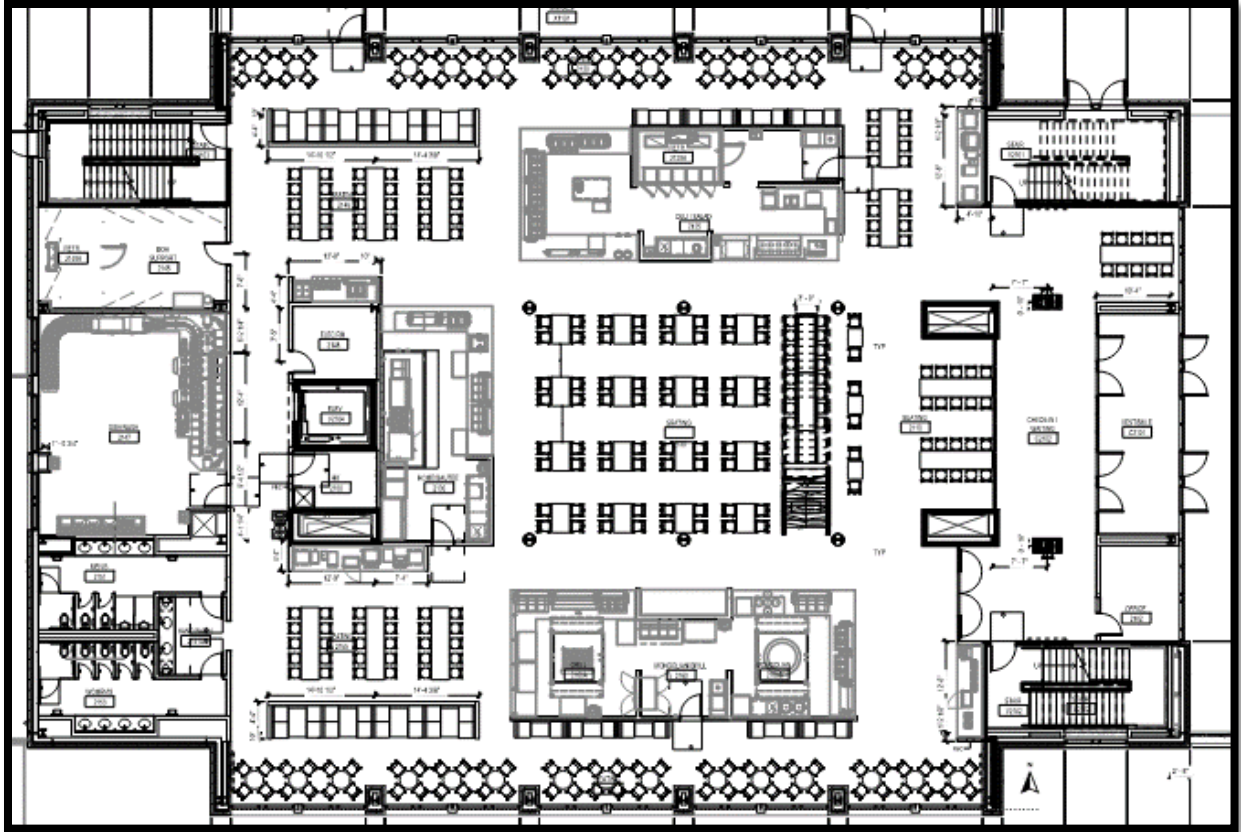
Figure 11: Central Dining Hall "The Edge" Furniture Plan
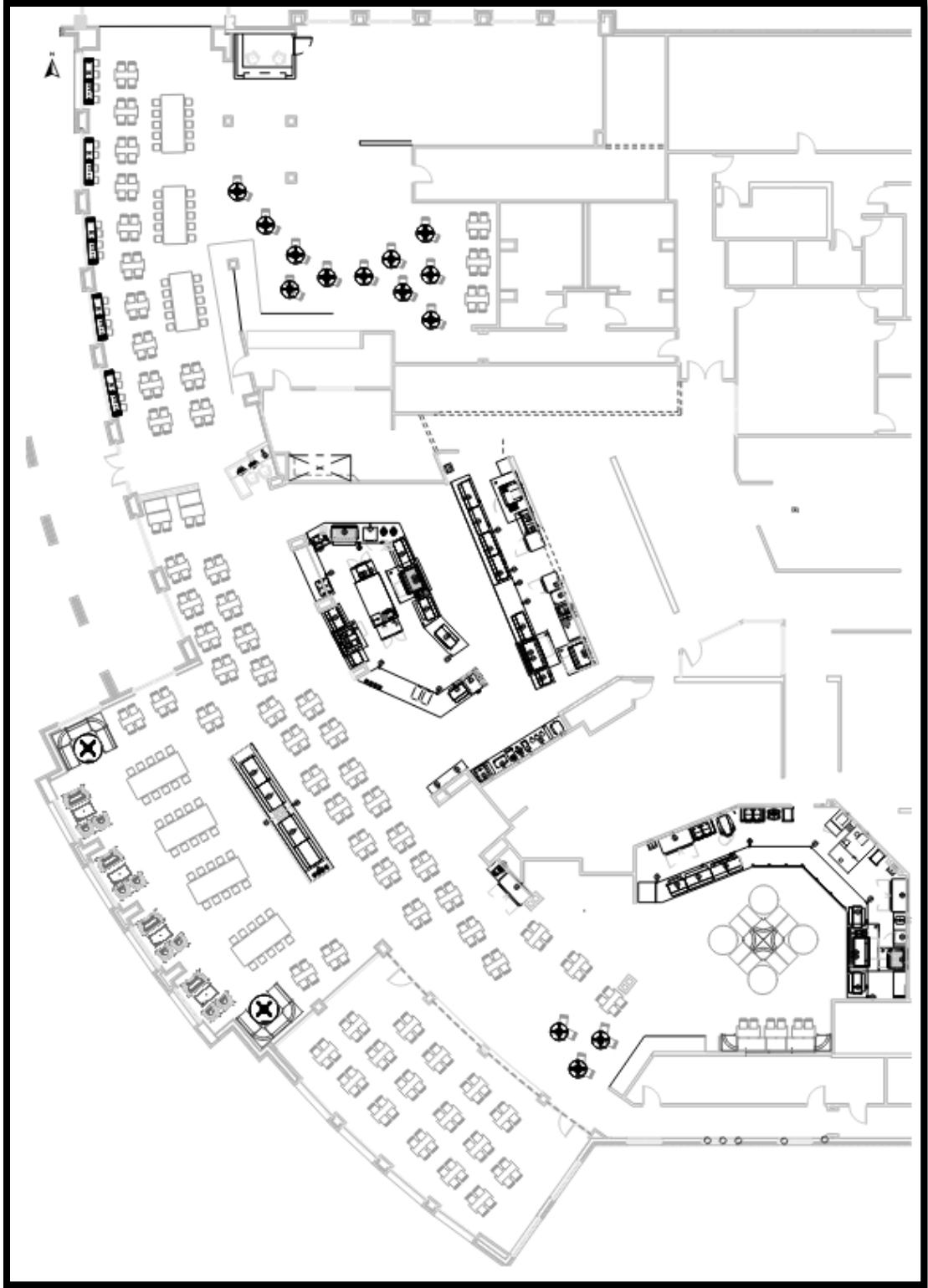
Figure 12: Village Dining Furniture Plan

Noise levels in three of the spaces: MSC, the Edge Dining, and Village Dining are moderate to loud, Foy Hall was a bit quieter. MSC, the Edge Dining, and Village Dining all have ambient pop music playing over the sound systems. The noise helps to mask personal conversations held in the space and allow users to talk freely. Foy Hall, with a quieter overall ambiance and seems more accommodating to individual time and thought.

Colors are present throughout all the spaces. The MSC is the boldest with vibrant lime green, navy blues, and tones of gray. The flooring is a mix of all the colors, and the walls are also bold colors. The upholstery on the furniture combines colors and includes much of the lime green and navy. Village Dining is the second most vibrant with large panels of colored glass separating a private reservable group dining space. The upholstery on the booth seating has jewel tones woven into a neural background, and the flooring is a mix of light and dark hexagons. The Edge Dining also has color, combining orange with neutrals. Booth upholstery includes a burnt orange color, and some lounge seating includes shades of teal. The overall aesthetic of this space is more neutral with splashes of color in specific locations. Finally, Foy Hall is again the most subdued. This space mostly includes gray and navy tones, with bold wall graphics highlighting wayfinding features. The interviewees all held preference aesthetically for more modern designed spaces and mature design elements such as color. Many spoke to the bold colors of the MSC as an overwhelming factor in space, but some also felt a "heaviness" to the darker colors in Foy Hall.

Interview Data

International students coming to an American campus have a unique experience, specific to coming to a new culture and entering a new phase of development during the college years. As indicated through the previous literature, this transition can lead to many challenges and

emotions related to belonging and feeling like they are truly connected to campus. Through one-on-one interviews, students were able to tell some of their personal stories reflecting on their transition to campus. Within the survey, open ended questions allowed for students to define the variables of social connection and belonging for themselves. These definitions were applied in the coding framework guiding the interview analysis. In total five individuals agreed to an in-person interview, and four of the five completed a follow up interview later in the semester, during the last month of classes. These took place in various locations around Auburn University's main campus, at the participants' convenience during the day. Locations included: RBD Library study rooms, the graduate business building, and Rane Culinary Center. One individual preferred to meet outside in a courtyard space near a residence hall. The meetings lasted between 20-45 minutes, and interviews were recorded and then transcribed. The transcriptions were sent to the interviewees for review and confirmation of accuracy per their memory of the conversation.

The five individuals ranged in student status from undergraduate to PhD candidates. Two were PhD level, one was a Masters' student, and two were undergraduates. This diversity provides an assortment of personal experience and allows for varied context of experience by the different student levels. An undergraduate student potentially experiences very different day to day activities compared to a PhD student. This was evident through the interview responses, as the undergraduate students related visiting different locations around campus compared to the upper-level graduate students. Also, the student engagement experiences differed as well, with the undergraduate and Masters' level students attending more organization sponsored events for students, compared to the PhD students, who rarely attended events, or felt like they were not invited to attend the events. Many of the "welcome to campus" events hosted by the University

during the first part of the fall semester are primarily geared towards the undergraduate population, leaving graduate students to find their own social circle.

Through the interview process, participants were able to tell stories of how they have experienced life on campus since arriving and tell what they might find beneficial for future design and planning to help them feel more engaged on campus. All five participants agreed the vibe or aesthetic of the space influenced their decision to spend time at that location. One interviewee commented, "If I find that [the design] looks really nice I would probably go there a lot."

International students coming to an American campus have a unique experience, specific to coming to a new culture and entering a new phase of development during the college years. As indicated through the previous literature, this transition can lead to many challenges and emotions related to belonging and feeling like they are truly connected to campus. Through one on one interviews, students were able to tell some of their personal stories reflecting on their transition to campus. Within the survey, open ended questions allowed for students to define the variables of social connection and belonging for themselves. These definitions were applied in the thematic framework reviewing interview data.

When asked to define "social connection" in their own words, students responded with ways in which they interact with others, get to know other people, and engaging with groups to meet new people. Social connection is a way of making friends and having fun talking with them, on a more intimate level rather than a disengaged passing salutation. One student defined this as "get[ting] to know people from different cultures" and another as "a meaningful relationship in which both parties mutually will [better] one another and engage in its pursuits". Understanding how international students viewed the concept of social connection leads to a

better understanding of how they prefer to engage within spaces to facilitate those connections. Additional definitions included: joining in events, working towards the same goal, and developing meaningful relationships. Relating this understanding to the campus spaces in question, half of the students responding felt campus offered places to connect with others. However, students also acknowledge that while places can be socially engaging, they should also offer places to have a private moment, and there are few places to "sit and chill". One student specifically stated "more personal sites" as a need in the planning of the MSC spaces. Additionally, during an interview, one undergraduate participant stated they became nervous when going into the social spaces on campus as a new student, typically choosing to use headphones or play on their laptop or phone "even if there was nothing pressing on there", rather than interacting with others.

The survey also requested participants to offer their own definition of "belonging". Again, this allows a framework for future themes within the interview analysis. Some of the students' definitions included emotional verbiage like "genuine", "feeling loved" and the safety to express themselves. One answer specifically stands out, the word "family". The University community often touts itself as a "family" as a way of identifying the closeness of the group of Auburn supporters. This word was implemented into the interviews when appropriate to discuss the feelings of belonging to the larger community setting. Students also expressed the need to feel included and like they have a place throughout the open-ended definition responses. Some identified the need of a place being meaningful and comfortable, which leads also into place attachment.

CHAPTER V

DISCUSSION

As the literature supports, the physical built environment elicits emotional and mental responses of occupants within the space. Using three means of research protocol, this research learned more about the unique experiences first year international students hold when coming to campus for their first semester, and what emotions the campus spaces are drawing forth. Through this research, niche demographic's experiences were brought to light to share participants specific experiences and their stories.

Examination of the survey results and learning of specific instances of experience in these spaces by international students leads to better understanding of the campus spaces in relation to the research objectives posed previously. Some participants also shared how other students and university faculty/staff have played a role in acquainting them to campus. These interactions helped build a sense of community and belonging for the new student in many instances and provided a social structure in which the students were encouraged to explore campus. The concept of other individuals also playing a role in one's own perceptions of belonging and inclusion was also evident in the survey responses, thus supporting the need for social support structures to be in place throughout the transition to campus life.

Research Objective 1: (a) To explore how AU campus facilities promote or hinder social interaction for international students and (b) to explore why/how international students think campus places promote or hinder social interaction.

Students have a choice in how and where they prefer to go on campus to meet friends, engage with a group organization, and spend their free time. While many of the participants in

this study reported only sometimes spending time with friends in the four spaces explored, the interview process provided additional insights as to their experiences within the locations.

Throughout the interview discussions, four specific places were discussed: Foy Student Union, the Melton Student Center, Central Edge Dining Hall, and the TigerZone Village Dining Hall. These four places are designed for social uses, however the students' experiences were varied.

Through the qualitative interviews and pairing interview data with the data from the survey results, it seems to support the concept that the design of a location is important to building social connections in that location. The social spaces on campus, while intentionally designed to support engagement and activity within the space, seem to be missing some intention and purpose to the place. While a campus does need spaces to wait between classes, according to the survey and observations results, having more purpose based design elements, such as group spaces or activity based spaces could encourage students of all class standings to engage with others while in them.

One PhD student, who has attended multiple other schools around the world took note of the lack of gathering spaces for students. This student shared an experience of a school in Barcelona where, after classes, everyone from the building could congregate together in a common area before dispersing. The student shared that they felt as though there was no places to do that on Auburn's campus, and felt it distracts from the overall experience for students. This student also shared, during the late semester interview, that they noticed groups of students sitting on the floors of academic buildings between classes, with no other places to gather. This lack suggests a need to incorporate gathering places throughout campus to promote a sense of social connection among all students, but especially international students.

As dining is often a social activity in the U.S, the ability to move comfortably throughout the spaces and have the flexibility to reconfigure the spaces to accommodate groups of all sizes is important for social connectedness. While it seems the main two dining venues on campus are designed intentionally with specific aesthetics in mind, they have missed the mark on flexibility in favor of quantity of seats. Additionally, as the graduate level students explained, the dining halls are behind a price wall, limiting access to see the environment before choosing to enter.

Based on these survey results and observation results, it could be inferred that there is a lack of spaces throughout campus for students to casually interact with one another. While many buildings do offer some common space in atriums or lobby areas, these type places are not consistent throughout the whole of campus, and this could be a hindrance to student's social interaction levels.

Research Objective 2: (a) To explore how AU campus facilities promote or hinder a sense of community for international students and (b) to explore why/how international students think campus places promote or hinder their sense of community.

The University offers many welcoming programs and events are offered by the University and various student organizations, specifically during the "First 56" days of the fall semester. These are intended for students to have the opportunity to engage with other students, and form connections with others in their same cohort. While undergraduate students were more likely to attend these initial events, and then chose to attend subsequent events, graduate and doctoral students were not. One interviewee, a PhD student, stated they did not feel they were supposed to be at the welcoming events, but did not have other opportunities to attend anything similar as an upper-level student. This participant has found a smaller community within the Biggio Center, a location on campus specifically for professional collaboration, which many

69

Graduate Teaching Assistants utilize. This student felt more comfortable in the Biggio location as there were other graduate and PhD level students there, and the space felt more professional compared to the spaces typically used by undergraduates.

Many of the students interviewed are participants in the International Student Organization and various specific associations related to their nationality. These clubs often use the MSC as it offers many meeting rooms for various groups through the reservation process. During the course of the interviews this was brought up several times and is considered a way for many international students to find their community at Auburn. These rooms are flexible and may include tables and chairs or just chairs depending on the needs of the groups.

One student, a MS student, shared that they use the spaces on campus, specifically at the MSC, as a meeting place for other international students they met through ISO. This space requires no reservation, and their group likes to meet there for a match.

Participants also spoke of feelings related to exclusion through the campus design. This was specifically a comment in reference to the dining halls, as one PhD candidate stated "It feels private. It feels like it doesn't belong to the students. It feels like something very exclusive" when discussing access to a dining hall on campus. These type perceptions suggest to newcomers they need some sort of permission or access to be granted to use the space, and they do not have it. Understanding how the space itself is communicating this to newcomers is an example of transaction of dialogue between the space and the occupant. Additionally, a PhD student reflected on a struggle to understand how to utilize spaces on campus:

> "Maybe they just don't teach you how to use the spaces that are available…I don't know what you can do here and what you can't do. I don't know what society accepts".

The student was unsure how to appropriately use the spaces, underscoring the behavior setting theory is at play here, and the spaces are not accurately communicating their intended use (transactional theory) to the student.

Research Objective 3: (a) To explore how AU campus facilities promote or hinder place attachment to campus for international students and (b) to explore why/how international students think campus places promote or hinder place attachment to campus.

Throughout the interview process, students repeatedly stated they felt connected to campus, and part of the community of students at Auburn University. However, a lack of interest separating the buildings from one another, and confusion of wayfinding with the spaces led to frustrations caused by the facilities themselves.

Of those interviewed, one student recalled a negative experience held in the MSC and relates that to their feelings about campus spaces themselves and belonging within the spaces. They stated they chose not to go to this place because of one bad experience. Others reflected upon the perceived barriers to entry in the functionality of the spaces around campus, like the price wall at the dining halls and the reservations system at the library as negative experiences. Hearing how these perceived barriers have impacted their satisfaction with using the spaces around campus underscores the connection to transaction theory. The interviewees commented on the "maze" of buildings on campus, and the confusion they experienced in those places. These negative experiences impact how the students may or may not choose to revisit a place on campus, especially if the negative experience occurs early in their time on campus.

Many of the students felt a strong connection to the campus related to their field of study or reasonings for selecting Auburn University in general. However, distinction between

buildings on campus, and clearer wayfinding could increase the feeling of knowing campus and truly feeling a sense of connection to the campus environment.

Research Objective 4: To explore a potential association between places ranking high in sense of community and place attachment to the University, among international students.

When asked this question specifically, during the interview process, this often caused students to pause and consider their response.

One student, a MS level student from Nigeria, put it simply "the place makes the people". This student has found ways to become involved through various groups and community programs and has built a community for themself over the course of the semester. Understanding how the "place makes the people", the student elaborated that if the facility is not there, then the attachments would not exist and that is why the campus places are so important. They allow a space for connection and belonging and help facilitate the community within it.

Many of those interviewed commented that the natural settings of Auburn's campus are what is more important to their experience rather than the buildings themselves. Specifically, the graduate level students enjoyed the green of the early semester on campus, and wished there were more places outdoors to spend time with others. The connection with the nature of Auburn confirmed the decision of two PhD level students in their choice to attend AU. However, students felt the campus lacked adequate outdoor space for gathering and lingering.

Additionally, among those interviewed, their major programs building (HHH, RCSC, or Lowder Hall) held more significance to them as they built meaning around those places compared to the social places.

One PhD level student from Africa stated they feel like they are home here. The design of campus along with the natural elements of the outdoor green spaces and the friendliness of the

community have combined to enhance their experience as a student. This student is a more mature student with a family and is using the campus spaces with their children as well, as the places "speak to everyone". This thought supports the theoretical relevance of transaction theory, as the space communicates with the occupants and creates a dialogue to welcoming people to the place.

The Path Forward

Interview participants also gave their thoughts as to how the campus design could potentially improve to help create a more welcoming, inclusive, and inviting environment for them as international students arriving for the first time. A resounding response included wayfinding and adding interest to the buildings to distinguish one from another more clearly. Reducing confusion should be a goal for future designs on campus. Among the interviewees, many spoke of needing to ask for help when trying to navigate buildings on campus. Many also contributed to that confusion, to the lack of distinction between the interior spaces. "When I walk(ed) here, it's like, everything just looks the same. Its fine that its old…there's nothing new here." was the impression of one PhD student. Some noted the consistency of the furniture items in many public spaces as the "same table and chairs" just placed differently. Another student, an undergraduate, spoke of using the same entrance to buildings to set a starting point for themself as they navigate to their destination. Additionally, some of the interviewees had a hard time recalling the names of the buildings when discussing them specifically. They did not know the MSC from Mell Classroom building or did not distinguish it apart from the library. Creating distinction and individuality among the buildings and design of spaces on campus are one way to differentiate one place from another.

Adding intentional functions or activities to places would be another possible way to create distinction and destination. Other suggestions included purposeful destinations to create a reason to visit places, rather than just another spot to sit. Part of this might relate to campus initiatives and planned events, but also to the function of the spaces to include impromptu activities such as the chess game. An undergraduate in business compared campus to other places, like visiting a beach town, with many options of activities to participate in. This student stated Auburn lacks those options, other than going off campus to a bar or party, and that's hard for people who prefer not to participate in those activities. Engagement feels very restricted, according to this student, for those who prefer to not participate in those off campus activities.

The aesthetics of the spaces on campus was also a way in which the international students would like to see changes made. In the MSC, bold colored flooring and accent walls flood the building with pops of vibrant lime green; however multiple interviewees mentioned this was off putting to them. They preferred more muted colors, still having some interest, one student mentioned specifically the design of some of the more recently constructed buildings: HHH and RCSC, as inspiration for the style of interior they prefer. One PhD student in Hospitality stated there was a clear divide between spaces intended for the younger students compared to those for the more mature students. The student discussed the colors and vibe of the MSC as attractive to the newer young students whereas the RCSC building, with a more subdued aesthetic, would be more invigorating for the more mature student. A common theme in the comments included the need for peaceful places in public spaces. The interviewees enjoyed seeing other people in the spaces, but also needed the option to have some privacy to build more personal connections with others, but still in the common places on campus.

Natural elements and availability of being in nature was another common topic among the interviewees. One upper-level student commented on a lack of natural elements in the interior design around campus. They suggested seeing more greenery inside the buildings, and natural elements that spoke to a more sustainable construction. A PhD candidate from Chile shared a comparison between other countries' university campuses and Auburn's campus, with feelings that Auburn lacked the opportunity to be in nature and experience nature with others. They shared experiences from previous collegiate locations, which fostered places outdoors for students to gather and spend time, and the structure of the building to empty into courtyards for casual encounters. This student felt the lack of variety of places to sit outdoors and options for active transportation storage, such as covered bike and scooter racks, at the buildings was a detriment to their overall experience. They hoped to see people "sitting in the grass" and enjoying the daylight, however they felt maybe that was a cultural discrepancy between their homeland and Auburn. This student said they did not want to be doing something different from others and garner attention in that way. "Especially if you are coming from somewhere else, you don't want to do something like everybody will start looking at me. Am I doing something wrong?" was the student's reflection on a mental conflict about where to sit.

A final theme from the interviews for the path forward included intentional inclusion of other cultures and elements from other nationalities. In the MSC flags from various countries hang overhead in the common space on the second floor. This element prompted multiple interviewees to question why they are there. One found it almost insulting, like the University was "trying too hard" to include something from their country. An undergraduate from Korea questioned why they were even there and commented about the attempt to include some artifact as a failure to truly understand the various cultures. However it should be thoughtfully selected,

75

the student from Korea also stated the mannequins in traditional dress in the Foy Hall lobby seemed out of place, and like they did not belong there. This student shared the attempts to include cultural items like these felt like a halfhearted effort and was meaningless. Another PhD student suggested more thoughtful placement of artwork or examples of cultural leaders in public spaces. They said this type of intentional placement of identity markers would prompt stories about their homeland to share with others. This type of inclusion should be placed throughout the campus, rather than at the international office, be it artwork or graphical elements, they would like to see it more naturally integrated into the design of campus.

CHAPTER VI

CONCLUSION

Desiring to gain a better understanding of minority demographics experience on an American college campus initiated this study. With insights gained through anonymous survey data and in person interviews with students from different countries and in varying paths of study, this research shed light on the firsthand experience of international students new to campus at Auburn University. The research was centered in transactional theory and the constructs of belonging, engagement, and place attachment. In identifying specific locations on campus, designed for student socialization, data was collected to explore feelings of welcoming, acceptance, and belonging international students experienced while in the space.

Grounded in transactional theory, this research investigated the ways in which a space or location "speaks" to an occupant. Through literature review, and archival academic study data, the need for designers to understand how a space communicates to the occupants was evident. Concepts such as "third space" introduced a way in which design can lead to feelings of momentary pause and separation from strenuous tasks. Incorporating previously published data

and literature showed much attention to design as it related to academic, or residential experience on collegiate campuses, but little to social engagement. Belonging is high on Maslow's hierarchy of needs and is important to mental and emotional wellbeing. Understanding how environmental design and built environment contributes to that wellbeing is highly important when considering minority groups of people, especially those who are also new to the location, as with first year international students. This study reflected the first-year international students' experiences during the fall semester of 2023.

Research was garnered in three different formats for triangulation and validation of this data. Students were invited to participate in an anonymous online survey responding to four locations on campus, which were designed intentionally as social areas of campus. They included the Melton Student Center, Foy Union, and two campus dining venues: The Edge and The Village. Images of these spaces were presented to a group of university interior designers, who confirmed the images represented social spaces on a typical college campus. These images were presented in the online survey, and participants identified the types of activities they attended in these locations and feelings they held about these places. Respondents identified their desire to participate further in the research by choosing to engage in one-on-one interviews. These interviews occurred twice during the semester, once early in the semester and again at the end of the semester. This allowed the student to report any changes in perception of campus spaces which may have occurred over the course of their first semester. These interviews allowed the participant to recount firsthand experiences on campus and discuss openly about the places identified. Thirdly, observational data was collected in each location to confirm how students were using the spaces, furniture, and identify any preferences in activity while in the space.

This study took two years to reach completion, as the first year the survey was published technical issues arose and the research was halted. This allowed the researcher to edit wordings of questions, and clarify items listed in the survey, as some respondents made notes indicating lack of understanding. The final survey questions and wording was reviewed by an international graduate student in the College of Human Sciences, and efforts were made to ensure the directions, questions, and response options were clearly understandable. Additionally, it was stated to the researcher that written formats would be appreciated by the international population, as speaking was not always clear. Every effort was made during the interviews to clarify, repeat, and confirm what was being asked or stated in response. Just as the design of the spaces was intentional, the instrumentation needed to be intentionally designed as well.

The survey gathered responses from 33 individuals, approximately 10% of the new to Auburn international student population. Of those, 5 students agreed to participate in interviews. The completion rate of the survey was 52%, the length of the survey might be one reason for this.

Hearing from students during the interview process and listening to their accounts of their experiences on campus led to many suggestions for campus improvements. Included in those suggestions are distinction between buildings, better and clearer wayfinding, and incorporation of natural elements throughout campus spaces. As most interviewees discussed, they had difficulty in navigating the campus buildings, and felt many buildings lacked a purpose for visiting them. Additionally, students would like to spend more time in the outdoor environment of campus but felt the need for more designed spaces to gather outdoors, with varied options for seating and relaxing.

Limitations

Through the initial run of the survey, and the input from the peer student reviewer, the language barrier between researcher and participant was a limitation in this research. Valiant efforts were made to reword survey questions, increasing clarity, and reformatting the survey for better flow based on the initial run comments and the peer evaluation. During the interviews, clarity of questions and response was a barrier as well, with both being repeated, worded differently, or explained in detail for better understanding.

Another limitation in this research was the duration of the study. Only exploring one semester cohort of new international students limited the available participants and shortened the duration for longitudinal data to be gathered.

Additionally, a lack of generalizability is a third limitation within this research. As this research is specific to a university's campus, its buildings, and its students, this research may not be applied to the international student population in general. However, this is still important as it contributes to literature related to social spaces on collegiate campuses, and the need to design spaces to foster belonging, engagement, and place attachment for new to campus individuals. The format of this study could be replicated at other campuses, using their interior spaces for campus specific results. While many studies have been conducted to attend to student's perceptions of academic or residential life on campus, there has been little research into the social spaces on campus and the response those spaces illicit from new students. Although this study may not be generalizable to the greater population of college students, it does add to existing research into the lives and experiences of college students and explores a lesser discussed dynamic of the transition to college life.

Future Research

As the world becomes more mobile, with people moving the new places, countries, and locations, understanding of how design choices are interpreted by occupants is becoming increasingly important. Not only does this study present a format for conducting research on a college campus, but this could be applied to corporations, cities, or other places to gain understanding of how people visiting those places feel while in space. This can lead to greater knowledge for designers and the design community to better contribute to the wellbeing of occupants in many various settings.

Additionally, more research is needed into people of various demographics and minority demographics to ensure they are appropriately represented in design. Taking the time to explore how individuals within minority groups experience a space can only led to more inclusive design for everyone.

Final Thoughts

Adjusting to a new environment could have a significant impact on one's mental and emotional well-being, especially when coupled with cultural changes. This study delved into the initial impressions and experiences of international students during their first semester at an American university. Specifically, it investigated the significance of social engagement spaces and how their design influenced the transition of international students to campus life. The aim was to gain insight into the experiences within these spaces, focusing on social connectedness, community, and attachment to place. By understanding how campus design impacts culturally diverse student groups, the study aimed to encourage more inclusive and well-planned environments for all students. The findings underscored the importance of thoughtful design practices which promote meaningful connections and engagement among students. Recognizing

how spaces communicate with occupants to foster a sense of belonging and inclusion could enhance overall experiences and foster stronger place attachments.

There may be "no place like home" but places can still communicate warmth, welcoming, acceptance, and have a positive impression on their occupants, which makes all places important.

References

Alkandari, N., & AlShallal, K. (2008). The dynamics of social relationships in student
communities. *College Student Journal*, *42*(2), 582.

Auburn University (2024). www.auburn.edu

Auburn University Facilities Management (2024). www.auburn.edu/administration/facilities

Auburn University Facts and Figures (2023).
http://www.auburn.edu/main/welcome/factsandfigures.php

Auburn University Office of Institutional Research (2023) www.auburn.edu/administration/ir

Altomonte, S., Allen, J., Bluyssen, P. M., Brager, G., Heschong, L., Loder, A., Schiavon, S.,

Veitch,J.A., Wang, L., & Wargocki, P. (2020) Ten questions concerning well-being in the built
environment. *Building and Environment 180.* 1-13
https://doi.org/10.1016/j.buildenv.2020.106949

Banning, J. H., Clemons, S., McKelfresh, D., & Gibbs, R. W. (2010). Special places for students:
Third place and restorative place. *College Student Journal, 44*(4), 906-912.

Barker, R. (1968). *Ecological psychology: Concepts and methods for studying the environment
of human behavior*. Stanford, CA: Stanford University Press.

Barrett, L. A. (2014). *The college union and a sense of community for student in public higher
education: is there a relationship?* (Paper 176) [Education Doctoral, St. John Fisher
College]. Fisher Digital Publications.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal
attachments as a fundamental human motivation. *Psychological Bulletin, 117(*3). 497-
529. https://doi.org/10.1037/0033-2909.117.3.497

Bendiner -Viani, G. (2012). The big world in the small: layered dynamics of meaning-making in

the everyday. *Environment and Planning: Society and Space, 31 708-726.*

Bernheimer, L. (2017) *The Shaping of Us: How everyday spaces structure our lives, behavior, and well-being.* Hachette, UK.

Bridge, G. (2013). A transactional perspective on space. *International Planning Studies*, *18*(3-4), 304-320.

Broussard, E. (2009). The power of place on campus. *The Chronicle of Higher Education, 34.*

Bustamante, J. (2020). International Student Enrollment Statistics. www.educationdata.org

Cheng, D. X. (2004). Students' sense of campus community: What it means, and what to do about it. *NASPA Journal, 41*(2), 216-234. https://doi.org/10.2202/1949-6605.1331

Chow, K., & Healey. M. (2008). Place attachment and place identity: First-year undergraduates making the transition from home to university. *Journal of Environmental Psychology, 28*. 362-372.

Clauson, C. & McKnight, J. (2018) Welcome to campus: Planning for diversity, inclusion, and equality. *Planning for Higher Education Journal, 47*(1). 39-48.

Coburn, A., Vartanian, O., Kenett, Y. N., Nadal, M., Hartung, F., Hayn-Leichsenring, G., Navarrete,G., Gonzalez-Mora, J.L., & Charrerjee, A. (2020) Psychological and neural responses to architectural interiors. *Cortex, 126.* 217-241. http://doi.org/10.1016/j.cortex.2020.01.009

Dennis, M. J. (2020). COVID-19 will accelerate the decline of the international student enrollment. *Recruiting and Retaining Adult Learners, 22*(12). 1, 6-7. https://doi.org/10.1002/nsr Wiley Periodicals, LLC.

Dost, G. & Mazzoli Smith, L. (2023) Understanding higher educations students' sense of

belonging: a qualitative meta-ethnographic analysis. *Journal of Further and Higher Education.* 1-28.https://doi.org/10.1080/0309877X.2023.2191176

Evans, G. W.(2003). The built environment and mental health. *Journal of Urban Health: Bulletin of the New York Academy of Medicine, 80*(4). 536-555.

Fatemi, E., Raschid, M. Y. M., Maulan, S., & Kalantari, F. (2017). Does university place attachment matter among transnational students? *5th International Congress on Civil Engineering, Architecture, and Urban Development.*

Fritz, M. V., Chin, D., & DeMarinis, V. (2008). Stressors, anxiety, acculturation, and adjustments among international and North American students. *International Journal of Intercultural Relations, 32.* 244-259.

Ganoe, C. J. (1999). Design as a narrative: A theory of inhabiting interior space. *Journal of Interior Design, 22(*5). 1-15.

Glass, C. R, Wongtrirat, R., & Buus, S. (2015). *International student engagement: Strategies for creating inclusive, connected, and purposeful campus environments.* Stylus Publishing.

Gopalan, M., & Brady, S.T. (2019) College students' sense of belonging: a national perspective. *Educational Researcher, 49*(2). 134-137. http://doi.org/10.3102/001318X19897622

Hagerty, B. M. (1999). The effects of sense of belonging, social support, conflict, and loneliness on depression. *Nursing Research, 48*(4), 215-219.

Hagerty, B. M., & Patusky, K. (1995). Developing a measure of sense of belonging. *Nursing Research, 44*(1), 9-13.

Harrington, K. D. (2014). *Community on campus: The role of physical space.* [Unpublished doctoral dissertation]. Georgia State University.

Inalhan, G., & Finch, E. (2004). Place attachment and sense of belonging. *Facilities, 22*(5/6),

p. 120-128. https://doi.org/10.1108/02632770410540333

International Well Building Institute (2019). *WELL Building Standards v 2.*

Institution of International Education (2023). *Open Doors Report on International Educational Exchange.* Retrieved from https://www.opendoorsdata.org.

Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-Kenyon, H.T. & Longerbeam, S. D. (2007). Examining sense of belonging among first-year undergraduates from different racial/ethnic groups. *Journal of College Student Development, 48*(5), 525-542. https://doi.org/10.1356/csd.2007.0054

Kaiser, L. R. (1975) Designing campus environments. *NASPA Journal, 13*(1). 33-38.

Karkour, I. & Jusseaume, S. (2020) International Students on U.S. College Campuses: building Up or Tearing Down Cultural Walls?. *Journal of Comparative & International Higher Education, 12 (Fall),* 124-151. https://doi.org/10.32674/jcihe.v12iFall.1683

Kimball International. (2024) Creating Places to Belong in Education. https://www.kimballinternational.com/creating-places-to-belong-in-education

Konigk, R. (2015). An interpretation of the role of meaning in interior design. *Image & Text, 26.* 48-65.

LeRoy, M. (Producer), & Fleming, V. (Director). (1939). *The Wizard of Oz* [Motion Picture].Metro Goldwyn Mayer.

McLane, Y., & Kozinets, N. (2019). Spatiality, experiences, and the formation of place attachment at campus student life centers. *College Student Journal, 53*(1). 78-98.

Oldenburg, R., & Brissett, D. (1982). The third place. *Qualitative Sociology.* Human Sciences Press. 265-284.

Pedler, M.L., Willis, R., & Nieuwoudt, J.E. (2021) A sense of belonging at university: student

retention, motivation, and enjoyment. *Journal of Further and Higher Education, 46*(3). 397-408. https://doi.org/10.1080/0309877X.2021.1955844© 2021 UCU

Penner, K., De Moissac, D., Rocque, R., Giasson, F., Prada, K., & Brochu, P. (2021) Sense of belonging and social climate in an official language minority post-secondary setting. *Canadian Journal of Higher Education, 51*(3). 28-39 https://doi.org/10.47678/cjhe.v51i4.189087

Petermans, A. & Pohlmeyer, A. E. (2014). Design for subjective well-being in interior architecture.   *Proceedings of the 6th Annual Architectural Research Symposium in Finland 2014: Designing and Planning of the Built Environment for Human Well-Being.*

Petermans, A. and Nuyts, E. (2016) Happiness in place and space: Exploring the contribution of architecture and interior architecture to happiness. *Celebration & Contemplation, 10th International Conference on Design & Emotion.* 114-122.

Popov, L. & Chompalov, I. (2012). Crossing over: The interdisciplinary meaning of behavior setting theory [Special Issue]. *International Journal of Humanities and Social Sciences, 2*(19).18-27.

Price, I., Matzdorf, F., Smith, L., & Agahi, H. (2003). The impact of facilities on student choice of university. *Facilities, 21*(10). 212-222. https://doi.org/10.1108/02632770310493580

Ramasubramanian, S., Gyure, J. F., Mursi, N. M. (2002) Impact of internet images: Impression-formation effects of university web site images. *Journal of Marketing for Higher Education, 12*(2). https://doi.org/10.1300/J050v12n02_04

Rosenblatt, L. M. (1969). Towards a transactional theory of reading. *Journal of Reading Behavior*, *1*(1),31-49.

Scannell, L. & Gifford, R. (2016). Place attachment enhances psychological need satisfaction.
Environment and Behavior, 49(4). 359-389. https://doi.org/10.1177/0013916516637648

Secore, S. (2018) The significance of campus visitations to college choice and strategic
enrollment management. *Strategic Enrollment Management Quarterly, 5*(4). 150-158
doi: 10.1001/sem3

Serrano, U. (2020). 'Finding home': campus racial microclimates and academic homeplaces at
Hispanic-serving institution. *Race Ethnicity and Education.*
https://doi.org/10.1080/13613324.2020.1718086

Strange, C. & Banning, J. H. (2001) *Education by Design: Creating Campus Learning
Environments that Work.* Jossey-Bass, Inc.

Spooner, D. (2019). Place attachment on university campuses. At what point do undergraduates
connect to their academic institutions? *Planning for Higher Education Journal, 47*(2)

The Carnegie Classification of Institutions of Higher Education (n.d).
www.carnegieclassifications.iu.edu

Theodori, G. L. (2001) Examining the Effects of Community Satisfaction and Attachment on
Individual Well-being. *Rural Sociology, 66*(4). 618-828.

Terrazas-Carrillo, E. C., Hong, J. Y, & Pace, T. M. (2014). Adjusting to new places:
International student adjustment and place attachment. *Journal of College Student
Development, 55*(7), 693-706. https://doi.org/10.1353/csd.2014.007

Wicker, A. (1987). Behavior settings reconsidered: Temporal stages, resources, internal
dynamics, context. In D. Stocols & I. Altman (Eds.), *Handbook of environmental
psychology, Vol.2,* (pp.613-653).New York: Wiley.

Appendix A

Recruitment Documents

Welcome to Campus, First-year International Students!

We want to know what you think so far,
Join a Research Study to discuss your experiences!

If you are 18 years or older, and a first year international student on our campus, please join in this study to discuss your experiences on campus.

The purpose of this study is to understand more about your experiences using the campus buildings to make friends, and hang out socially.

Use the QR code below to access the Qualtrics Survey!
~Survey available August 17-31 2023~

The Auburn University Institutional Review Board has approved this Document for use from 07/26/2023 to _____ Protocol # 21-384 EX 2109

Any questions, please contact Sarah Rakestraw SRakestraw@auburn.edu for more information

Consumer and Design Sciences

INFORMATION LETTER for a Research Study entitled *"There's no place like home: University campus- student interaction among international students"*

Dear International Student,

You are invited to participate in a research study to provide feedback on your collegiate experience thus far. This study is being conducted by Sarah Rakestraw, graduate student in the Auburn University Department of Consumer Affairs, under the direction of Taneshia West-Albert, Assistant Professor in the Auburn University Department of Consumer Affairs. You were selected as a possible participant due to your status as a first-year student identified as an International Student and are over 18 years of age.

What will be involved if you participate? If you decide to participate in this research study, you will be asked to complete the Qualitrics questionnaire, found in the link below. If you choose, you may elect to be considered for further interview. **There are no foreseeable risks** associated with your participation in this study greater than those encountered in daily activities.

If you change your mind about participating, you may exit the demographic survey at any time and withdraw from the study. **Your participation is completely voluntary, and your decision to participate in the questionnaire will in no way jeopardize your relations with Auburn University, the Department of Consumer and Design Sciences, or any other Auburn University entity.**

Any data obtained in connection with this study will remain anonymous. We will protect your privacy and the data you provide by not collecting names, email addresses, and other sensitive information that could identify you as a participant, unless you elect to proceed into interviews and provide your email contact. If so, the AU ID email will be kept under password protection. Information collected will be used to fulfill an educational requirement, possibly published in a professional journal, and presented as a completion of a master study thesis.

If you have questions about the study, please feel free to contact Sarah Rakestraw by phone at 334.320.9334, or by email at SRakestraw@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research of the Institutional Review Board by phone at 334.844.5966 or by email at hsubject@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDED IF YOU WANT TO PARTICIPANT IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO.

Please keep this letter for your records.

Sarah Rakestraw
_____   _____
Investigator's signature date   Co-investigator's signature date

_____
Investigator's print name Co-Investigator's print name

Auburn University, College of Human Sciences
308 Spidle Hall, Auburn, AL 36849-5601 | Telephone: 334-844-4051
humsci.auburn.edu

> The Auburn University Institutional
> Review Board has approved this
> Document for use from
> __07/26/2023__ to__ --------------- __
> Protocol # ___21-384 EX 2109___

Auburn University, College of Human Sciences
308 Spidle Hall, Auburn, AL 36849-5601 | Telephone: 334-844-4051
humsci.auburn.edu

89

INFORMED CONSENT
for a Research Study entitled
"There's no place like home: University campus-student interaction to promote sense of belonging among international students"

You are invited to participate in a research study to discuss and share your experience as a first year international student on Auburn University's campus, specifically how the campus spaces have impacted your time on campus thus far. The study is being conducted by Sarah Rakestraw, CADS Masters' graduate student, under the direction of Taneshia West-Albert, Assistant Professor the Auburn University Department of Consumer and Design Sciences. You were selected as a possible participant because you are a first year international student on campus, and are age 19 or older.

What will be involved if you participate? If you decide to participate in this research study, you will be asked to participate in two interviews, one in early fall and one in late fall. Your total time commitment will be approximately 1 hour each time.

Are there any risks or discomforts? The risks associated with participating in this study are minimal, but could include loss of confidentiality. To minimize these risks, we will ask not use any identifiers when sharing the interview responses, and will keep interviews under password protection, in a box file.

Are there any benefits to yourself or others? If you participate in this study, you can expect to see potential changes in the way the campus spaces are designed and planned. We/I cannot promise you that you will receive any or all of the benefits described.

Are there any costs? If you decide to participate, there are no costs. Auburn University has not provided for any payment if you are harmed as a result of participating in this study.

If you change your mind about participating, you can withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable.   Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Consumer and Design Sciences.

Participant's initials _____

The Auburn University Institutional Review Board has approved this Document for use from
07/26/2023 to ---------------
Protocol # 21-384 EX 2109

Your privacy will be protected. Any information obtained in connection with this study will remain anonymous. Information obtained through your participation may be used to tell first hand narratives of experiences, and inform campus designers of your perception of campus spaces. This will be use to fulfill a masters' level thesis document. All data shall remain anonymous, and will not identify you personally in any way.

If you have questions about this study, *please ask them now or* contact Sarah Rakestraw at SRakestraw@auburn.edu or Taneshia West- Albert at TSW0037@auburn.edu . A copy of this document will be given to you to keep.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR SIGNATURE INDICATES YOUR WILLINGNESS TO PARTICIPATE.

Sarah Rakestraw

_____   _____
Participant's signature   Date   Investigator obtaining consent   Date

Sarah Rakestraw

_____   _____
Printed Name   Printed Name

_____
Co-Investigator   Date

_____
Printed Name

<table>
<tr><td>The Auburn University Institutional
Review Board has approved this
Document for use from
___07/26/2023___ to___ -------------- ___
Protocol # ___ 21-384 EX 2109 ___</td></tr>
</table>

Version Date (date document created): 14 August 2023

Appendix B

Survey Questionnaire

Default Question Block

Please answer the following questions about you as an indiviual:

Are you a first year international student at Auburn University?

○ No
○ Yes

What gender do you identify with?

○ Female
○ Male
○ Non-binary
○ Transgender
○ Prefer to not respond

How old are you in years?

[   ]

What is your home country?

[   ]

Click to write the question text

○ Liberal Arts

○ COSAM

○ Nursing/Medical/Pharmacy

○ Engineering

○ Human Sciences/Humanities

○ Business

○ Agriculture

○ Architectural/Building Sciences

○ Other, please specify [   ]

Do you live on campus?

○ No

○ Yes

Please answer the following questions about your experience on campus so far:

Please select all that apply. Since arriving on campus have you:

☐ Made new friends

☐ Felt like you belong here

☐ Thought about going home

☐ Attended social gatherings on campus

☐ None of the above

How often do you spend free time on campus?

○ Daily

○ Sometimes

○ Seldom

○ Rarely

○ Never

Do you think campus offers places for you to socialize with others?

93

○ No
○ Maybe
○ Yes

Where do you prefer to hang out with your friends on campus?

[   ]

What is the meaning of "social connection" to you?

[   ]

Do you feel like the Auburn University campus is an important place in your life?

○ No
○ Maybe
○ Yes

How do you, personally, define "Belonging"?

[   ]

How often do you feel like you belong on the Auburn Campus?

○ Often
○ Sometimes
○ Occasionally
○ Seldom
○ Rarely
○ Never

In the next section you will see an image, and response items. There are four images total. Please rank the experiences you have had in the locations shown, and respond to the questions. Your opinion is valued!

Student Center

While in the Student Center have you:

	Definitely Not	Probably not	Might or might not	Probably yes	Definitely yes
Spent time with friends	O	O	O	O	O
Spent time alone	O	O	O	O	O
Eaten a meal	O	O	O	O	O
Attended a function or event	O	O	O	O	O
Felt welcomed	O	O	O	O	O
Felt unwelcomed	O	O	O	O	O
Felt accepted	O	O	O	O	O

Does the Student Center allow you to be social?

○ Yes

○ Maybe

○ No

What would you change about the look of the Student Center to help you be more social while in this space?

[   ]

Is the Student Center a place you choose to spend free time on campus?

○ No

○ Maybe

○ Yes

Do you feel like you are making positive memories of your time at Auburn while in the Student Center?

○ No

○ Maybe

○ Yes

Foy Hall

While in the Foy Hall have you:

	Definitely Not	Probably not	Might or might not	Probably yes	Definitely yes
Spent time with friends	O	O	O	O	O
Spent time alone	O	O	O	O	O
Eaten a meal	O	O	O	O	O
Attended a function or event	O	O	O	O	O
Felt welcomed	O	O	O	O	O
Felt unwelcomed	O	O	O	O	O
Felt accepted	O	O	O	O	O

Does Foy Hall allow you to be social?

O Yes
O Maybe

○ No

What would you change about the look of the Foy Hall to help you be more social while in this space?

[   ]

Is Foy Hall a place you choose to spend free time on campus?

○ No
○ Maybe
○ Yes

Do you feel like you are making positive memories of your time at Auburn while in Foy Hall?

○ No
○ Maybe
○ Yes

The Edge Dining Hall

While in the Edge Dining Hall have you:

	Definitely Not	Probably not	Might or might not	Probably yes	Definitely yes
Spent time with friends	O	O	O	O	O
Spent time alone	O	O	O	O	O
Eaten a meal	O	O	O	O	O
Attended a function or event	O	O	O	O	O
Felt welcomed	O	O	O	O	O
Felt unwelcomed	O	O	O	O	O
Felt accepted	O	O	O	O	O

Does the Edge allow you to be social?

O Yes
O Maybe

○ No

What would you change about the look of the Edge to help you be more social while in this space?

[   ]

Is the Edge a place you choose to spend free time on campus?

○ No
○ Maybe
○ Yes

Do you feel like you are making positive memories of your time at Auburn while in the Edge?

○ No
○ Maybe
○ Yes

Village Dining Hall

While in the Village Dining Hall have you:

	Definitely Not	Probably not	Might or might not	Probably yes	Definitely yes
Spent time with friends	O	O	O	O	O
Spent time alone	O	O	O	O	O
Eaten a meal	O	O	O	O	O
Attended a function or event	O	O	O	O	O
Felt welcomed	O	O	O	O	O
Felt unwelcomed	O	O	O	O	O
Felt accepted	O	O	O	O	O

Does the Village Dining Hall allow you to be social?

O Yes

O Maybe

O No

What would you change about the look of the Village Dining Hall to help you be more social while in this space?

[   ]

Is the Edge a place you choose to spend free time on campus?

O No

O Maybe

O Yes

Do you feel like you are making positive memories at Auburn while in the Village Dining Hall?

O No

O Maybe

O Yes

Would you be interested in participating in an interview related to this study?

○ No, I do not wish to participate further

○ Yes, please contact me via my Auburn email. Please input your email address.

Thank you for taking the time to complete this survey! Your input is valued and respected as a member of the campus community.

<center>**Appendix C**</center>

<center>**Interview Protocol**</center>

<center>
Consumer and Design Sciences
</center>

Semi Structured Interview Protocol

Interviewer:
Interviewee:
Date and Time:
Location:
Duration:

General Experience:
Tell me about your experience so far being on campus.
What types of interactions have you had with other students?
How would you describe the friendliness of Auburn students?
Have you made many social connections or friendships yet?
Tell me where you like to spend your time.
Do you leave campus during class breaks, or stay on campus during class breaks?
      Where do you like to go?

Specific Buildings Experiences:
Have you spent much time in the Melton Student Center outside of class?
If so: What do you do while you are there?
    What are your feelings about the vibe of the MCS space?
        Furniture? Colors? Noise?
    Does that impact how much time you spend there?
Have you spent much time in the Foy building outside of class?
If so: What do you do while you are there?
    What are your feelings about the vibe of the MCS space?
        Furniture? Colors? Noise?
    Does that impact how much time you spend there?

Specific Dining Venue Experience:
Have you had a meal at the Village Dining Hall?
If so: Were you with friends or alone?
    Tell me about that experience.
     Furniture? Colors? Noise?
    Do you think the Village is a comfortable space to have a meal?
Have you had a meal at the Central Dining Hall?
If so: Were you with friends or alone?
    Tell me about that experience.
    Furniture? Colors? Noise?

Do you think the Village is a comfortable space to have a meal?

Space Discussions:
Do you think the look and feel (vibe) of a space influences your decision to spend time in it?
Are there other spaces on campus you enjoy hanging out?
What about those spaces do you prefer?
Are those spaces or places special to you and your friends?
Do you think the layout of furniture or colors of the space influence your decision to spend time in that space?

General closing:
If you could tell the campus interior designers anything to do to better the campus spaces for social times, what would you tell them?

Semi Structured Interview Protocol: Round Two

Interviewer:
Interviewee:
Date and Time:
Location:
Duration:

Recap of previous interview:
Last time we met, we discussed your experiences on campus since arriving. Let's review your comments.

Specific Buildings Experiences:
Since we last met, have you had the opportunity to visit the four spaces we discussed previously:

       Melton Student Center
       Foy Hall
       Central Dining Hall
       Village Dining Hall

Have your new experiences led to additional thoughts about these places?
Do you choose to spend more or less time here now compared to previously?
How have these spaces facilitated interactions with others?

Space Discussions:
Have you found new places around campus that you prefer to spend free time?
What about those spaces do you prefer?
How does the look and feel of those places lead you to choose to spend time there?
Are these places important to you as a student at Auburn?

Belonging:
Has your sense of belonging on campus changed over the past semester?
How do you think the places you have visited influenced your level of belonging?

Closing Comments:
We discussed last time about any changes you would like to see implemented for spaces on campus to be better designed to support you and your social engagement while on campus. Is there anything new you would like to add for the future planning and interior design of campus?

Appendix D

Observation Protocol

Consumer and Design Sciences

Observation Protocol

Observer:
Date and Time:
Location:
Duration:
Self Reflectivity of occurrence:
Observation of space usage:
      Groupings of people
      Noise level
      Activities occurring
      Interactions occuring

Appendix E

IRB Approval

AUBURN UNIVERSITY HUMAN RESEARCH PROTECTION PROGRAM (HRPP)

REQUEST for MODIFICATION

For Information or help completing this form, contact: **The Office of Research Compliance (ORC)**
Phone: **334-844-5966**   E-Mail: **IRBAdmin@auburn.edu**

- Federal regulations require IRB approval before implementing proposed changes.
- Change means any change, in content or form, to the protocol, consent form, or any supportive materials (such as the investigator's Brochure, questionnaires, surveys, advertisements, etc.). See Item 4 for more examples.

1. Today's Date	10/30/2023

2. Principal Investigator (PI) Name: Click or tap here to enter text.

PI's Title:	Sarah Rakestraw	Faculty PI (if PI is a student):	Taneshia West Albert
Department:	CADS	Department:	CADS
Phone:	334.320.9334	Phone:	334.844.4012
AU-E-Mail:	Gregosa@auburn.edu	AU E-Mail:	Tsw0037@auburn.edu
Contact person who should receive copies of IRB correspondence (Optional):	Click or tap here to enter text.	Department Head Name:	Dr. Young A Lee
Phone:	Click or tap here to enter text.	Phone:	334.844.6458
AU E-Mail:	Click or tap here to enter text.	AU E-Mail:	Yalee@auburn.edu

3. AU IRB Protocol Identification

3.a. Protocol Number: 21-384 Ex 2019

3.b. Protocol Title: There's no place like home: University campus-student interaction to promote sense of belonging among international students

3. c. Current Status of Protocol – For active studies, check ONE box at left; provide numbers and dates where applicable

	Study has not yet begun; no data has been entered or collected	
☒	In progress If YES, number of data/participants entered: 33 survey, 5 interview	**Current Approval Dates** From: 7/26/2023
☐	Is this modification request being made in conjunction with/as a result of protocol renewal? ☐ YES ☐ NO	
☐	Adverse events since last review If YES, describe: Click or tap here to enter text.	**To:** Click or tap to enter a date.
☐	Data analysis only	
☐	Funding Agency and Grant Number: Click or tap here to enter text.	**AU Funding Information:** Click or tap here to enter text.
☐	List any other institutions and/ or AU approved studies associated with this project: Click or tap here to enter text.	

The Auburn University Institutional
Review Board has approved this
Document for use from
__11/07/2023__ to ____-----------
Protocol # ___21-384 EX 2109____

Page 1

4. Types of Change
Mark all that apply, and describe the changes in item 5

☐	**Change in Key Personnel** List the name(s) of personnel being added to or removed from the study and attach a copy of the CITI documentation for personnel being added to the study.
☐	**Additional Sites or Change in Sites, including AU classrooms, etc.** Attach permission forms for new sites.
☐	**Change in methods for data storage/ protection or location of data/ consent documents**
☐	**Change in project purpose or project questions**
☐	**Change in population or recruitment** Attach new or revised recruitment materials as needed; both highlighted version & clean copy for IRB approval stamp
☒	**Change in study procedure(s)** Attach new or revised consent documents as needed; both highlighted revised copy & clean copy for IRB approval stamp
☒	**Change in data collection instruments/forms (surveys, data collection forms)** Attach new forms as needed; both highlighted version & clean copy for IRB approval stamp
☐	**Other** (BUAs, DUAs, etc.) Indicate the type of change in the space below, and provide details in the Item 5.c. or 5.d. as applicable. Include a copy of all affected documents, with revisions highlighted as applicable. Click or tap here to enter text.

5. Description and Rationale
5.a. For each item marked in Question #4 describe the requested change(s) to your research protocol, and the rationale for each.
Changes to include: omission of second round of survey data collection, replace with second round of interviews with the participants from the first interview sessions. This is due to a lack of response related to the survey, and the additional context provided by the interviews. The follow up interview would allow for expansion of that information for additional qualitative data. Additionally, it is requested to conduct the second semi structured interview either in person OR via Zoom (participants choice for flexibility). A new list of second round interview questions is attached for revie, these elaborate upon the data previously provided by the participants and allows for updated additional information of their experiences since the first interview.
5.b. Briefly list (numbered or bulleted) **the activities that have occurred up to this point, particularly those that involved participants.**
Survey one was executed: 33 participants, from those 5 chose to engage in an interview. Interviews occurred per the previous IRB approval. Interviews have been transcribed and reviewed by participants for accuracy.
5.c. Does the requested change affect participants, such as procedures, risks, costs, benefits, etc.
Additional risks include those associated with the interview process, nothing more than originally agreed to by the participants.
5.d. Attach a copy of all "IRB stamped" documents currently used. (Information letters, consent forms, flyers, etc.)
Please see attached documentation
5.e. List all revised documents and attach two copies of the revised documents – one copy which highlights the revisions and one clean copy of the revised documents for the IRB approval stamp.

Please see attached documentation

6. Signatures

Principal Investigator: *Sarah Rakestraw*

Faculty Advisor PI, if applicable: _____

Version Date: **10/30/2023**

AUBURN UNIVERSITY HUMAN RESEARCH PROTECTION PROGRAM (HRPP)

REQUEST for MODIFICATION

For Information or help completing this form, contact: **The Office of Research Compliance (ORC)**
Phone: **334-844-5966**   E-Mail: IRBAdmin@auburn.edu

- Federal regulations require IRB approval before implementing proposed changes.
- Change means any change, in content or form, to the protocol, consent form, or any supportive materials (such as the investigator's Brochure, questionnaires, surveys, advertisements, etc.). See Item 4 for more examples.

1. Today's Date	08.14.2023

2. Principal Investigator (PI) Name: Click or tap here to enter text.			
PI's Title:	Sarah Rakestraw	**Faculty PI (if PI is a student):**	Taneshia West Albert
Department:	College of Human Sciences CADS	**Department:**	College of Human Sciences CADS
Phone:	334.320.9334	**Phone:**	334 844 4012
AU-E-Mail:	Gregosa@auburn.edu	**AU E-Mail:**	tsw0037 auburn.edu
Contact person who should receive copies of IRB correspondence (Optional):	Click or tap here to enter text.	**Department Head Name:**	Dr. Young-A Lee
Phone:	Click or tap here to enter text.	**Phone:**	334.844.6458
AU E-Mail:	Click or tap here to enter text.	**AU E-Mail:**	Yalee@auburn.edu

3. AU IRB Protocol Identification	
3.a. Protocol Number: 21-384 EX 2109	
3.b. Protocol Title: There's no place like home: University campus-student interaction to promote sense of belonging among international student	
3. c. Current Status of Protocol – For active studies, check ONE box at left; provide numbers and dates where applicable	
☒ Study has not yet begun; no data has been entered or collected	
☐ **In progress** If YES, number of data/participants entered: Click or tap here to enter text. ☐ **Is this modification request being made in conjunction with/as a result of protocol renewal?** ☐ YES ☐ NO ☐ **Adverse events since last review** If YES, describe: Click or tap here to enter text. ☐ **Data analysis only**	**Current Approval Dates** **From:** Click or tap to enter a date. **To:** Click or tap to enter a date.
☐ **Funding Agency and Grant Number:** Click or tap here to enter text.	**AU Funding Information:** Click or tap here to enter text.
☐ **List any other institutions and/ or AU approved studies associated with this project:** Click or tap here to enter text.	

The Auburn University Institutional Review Board has approved this Document for use from
07/26/2023 to --------------
Protocol # 21-384 EX 2109

Page 1

111

4. Types of Change
Mark all that apply, and describe the changes in item 5

☐ **Change in Key Personnel**
Attach CITI forms to add new personnel.

☐ **Additional Sites or Change in Sites, including AU classrooms, etc.**
Attach permission forms for new sites.

☒ **Change in methods for data storage/ protection or location of data/ consent documents**

☐ **Change in project purpose or project questions**

☒ **Change in population or recruitment**
Attach new or revised recruitment materials as needed; both highlighted version & clean copy for IRB approval stamp

☒ **Change in study procedure(s)**
Attach new or revised consent documents as needed; both highlighted revised copy & clean copy for IRB approval stamp

☒ **Change in data collection instruments/forms (surveys, data collection forms)**
Attach new forms as needed; both highlighted version & clean copy for IRB approval stamp

☐ **Other**
(BUAs, DUAs, etc.) Indicate the type of change in the space below and provide details in the Item 5.c. or 5.d. as applicable. Include a copy of all affected documents, with revisions highlighted as applicable.
Click or tap here to enter text.

5. Description and Rationale

5.a. For each item marked in Question #4 describe the requested change(s) to your research protocol, and the rationale for each.

The recruitment material (flier) and survey questions have both been revised and reworked for more clarity. New methods for data collection have also been included for additional triangulation of data, to include observation and option for interviews. These additional methods allow for participants to ensure communication and responses are thoroughly heard for more personal narrative to be used to communicate their experiences. Adding this additional data collection methods will increase the validity of the study, and result in more storytelling and ethnographical evidence to support survey results and data.

5.b. Briefly list (numbered or bulleted) the activities that have occurred up to this point, particularly those that involved participants.

Previously approved 2022 survey was omitted. Revised survey is planned to become available in the Fall of 2023.

5.c. Does the requested change affect participants, such as procedures, risks, costs, benefits, etc.

Yes- potential for interviews results in decreased confidentiality in procedure. However, the additional risks also bring about potential for more understanding and communication of experience as it relates to the student's experiences on campus, hopefully resulting in better designed environments for this population of students in public areas of campus. The student has the choice to participate further than the anonymous survey however, and the choice is theirs to make with no negative consequences or retaliation regardless of their decision.

5.d. Attach a copy of all "IRB stamped" documents currently used. (Information letters, consent forms, flyers, etc.)

Attached

5.e. Attach a copy of all revised documents (high-lighted revised version and clean revised version for the IRB approval stamp).

Attached

6. Signatures
Principal Investigator: *Sarah Rakestraw*
Faculty Advisor PI, if applicable:

Version Date: Click or tap to enter a date.

1

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS

PROTOCOL REVIEW FORM
FULL BOARD or EXPEDITED REVIEW

For assistance, contact: **The Office of Research Compliance (ORC)**
Phone: **334-844-5966**   E-Mail: IRBAdmin@auburn.edu   Web Address: http://www.auburn.edu/research/vpr/ohs
Submit completed form and supporting materials as one PDF through the IRB Submission Page
Handwritten forms are not accepted. Where links are found hold down the control button (Ctrl) then click the link.

1. Proposed Start Date of Study:8/17/2023   Today's Date: **August 14 2023**
   Submission Status (Check One): ☐ New   ☒ Revisions (to address IRB Review Comments)
   Proposed Review Category (Check One): ☐ Full Board (greater than minimal risk)   ☒ Expedited
   If Expedited, Indicate Category(ies) ((Link to Expedited Category Review Sheet) 6
       And category 7 – data will be collected to observe and understand perception, collected data will include

   recordings and will be under password protection. Research does not exceed minimal risk with no negative

   consequences for participating or not participating.
2. Project Title: There's no place like home: University campus-student interaction to promote sense of belonging
among international students

3. Principal Investigator (PI): Sarah Rakestraw   Degree(s): MS Consumer and Design Sciences
   Rank/Title: Graduate Student   Department/School: Consumer and Design Sciences
   Role/responsibilities in this project: Collect and analyze data, create data protocol, communicate findings in thesis
document
   Preferred Phone Number: 334.320.9334   AU Email: gregosa@auburn.edu

   Faculty Advisor Principal Investigator (if applicable): **Taneshia West Albert**
   Rank/Title: Assistant Professor   Department/School: Consumer and Design Sciences
   Role/responsibilities in this project: **Oversee graduate student work, help direct graduate student throughout thesis
project.**
   Preferred Phone Number: **334.844.4012**   AU Email: tsw0037@auburn.edu

   Department Head: **Dr. Young-A Lee**   Department/School: Consumer and Design Sciences
   Preferred Phone Number: **334.844.6458**   AU Email: yalee@auburn.edu
   Role/responsibilities in this project: Approve research

4. Funding Support: ☒ N/A   ☐ Internal   External Agency: Click or tap here to enter text.   Pending ☐   Received ☐
   For federal funding, list funding agency and grant number (if available): Click or tap here to enter text.

5. a) List any contractors, sub-contractors, and other entities associated with this project: N/A

   b) List any other AU IRB approved protocols associated with this study and describe the association: 21-384 EX 2109
original IRB submission

   c) List any other institutions associated with this study and submit a copy of their IRB approval(s): N/A

Protocol Packet Checklist
Check all applicable boxes. A completed checklist is required.
☒ **Protocol Review Form** (All required signatures included and all sections completed) (Examples of appended documents are found on the website: https://cws.auburn.edu/OVPR/pm/compliance/irb/sampledocs)
☒ **CITI Training Certificates** for key personnel
☒ **Consent Form or Information Letter** and any releases (audio, video or photo) that participants will review and/or sign

☒ **Appendix A** "Reference List"

☒ **Appendix B** if e-mails, flyers, advertisements, social media posts, generalized announcements or scripts, etc., will be used to recruit participants.

☒ **Appendix C** if data collection sheets, surveys, tests, other recording instruments, interview scripts, etc. will be used for data collection. Attach documents in the order they are listed in item 13c. **Continued on Page 2**

☒ **Appendix D** if they study will use a debriefing form or will include emergency plans/ procedures and medical referral lists. (A referral list may be attached to the consent document.)

☒ **Appendix E** if research is being conducted at sites other than Auburn University or in cooperation with other entities. A **permission letter** from the site/ program director must be included indicating their cooperation or involvement in the project. NOTE: If the proposed research is a multi-site project, involving investigators or participants at other academic institutions, hospitals or private research organizations, a letter of **IRB approval** from each entity is required prior to initiating the project.

☒ **Appendix F** Written evidence of approval by the host country, local IRB or institutions if research is conducted outside the United States

6. General Research Project Characteristics

6A. Research Methodology

Check all descriptions that best apply to the research methodology.

Data Source(s): ☒ New Data ☐ Existing Data	Will recorded data directly or indirectly identify participants? ☒ Yes ☐ No

Data collection will involve the use of:

☐ Educational Tests (cognitive diagnostic, aptitude, etc.)	☒ Internet / Electronic
☒ Interview	☒ Audio
☒ Observation	☒ Video
☐ Locations or Tracking Measures	☒ Photos
☐ Physical / Physiological Measures or Specimens	☐ Digital Images
☒ Surveys / Questionnaires	☐ Private records or files
☐ Other: Click or tap here to enter text.	

6B. Participant Information	6C. Risks to Participants
Check all descriptors that apply to the TARGET population. (link to definition of target population) ☒ Males ☒ Females ☒ AU students **Vulnerable Populations** ☐ Pregnant Women/Fetuses ☐ Prisoners ☐ Institutionalized ☐ Children and / or Adolescents (under age 18 in AL; if minor participants must be present during all research procedures that include the minors) **Persons with:** ☐ Economic Disadvantages ☐ Physical Disabilities ☐ Educational Disadvantages ☐ Intellectual Disabilities Will participants be compensated? ☐ Yes ☒ No	Identify all risks participants might encounter in this research. ☒ Breach of Confidentiality* ☐ Coercion ☐ Deception ☐ Physical ☐ Psychological ☒ Social ☐ None ☐ Other (COVID-19, other medical): Click or tap here to enter text. *Note that if the investigator is using or accessing confidential or identifiable data, reach of confidentiality is always a risk.

6D. Corresponding Approval/ Oversight

- Does the study include participant exposure to radiation? ☐ Yes   ☒ No
  If yes indicate: ☐ DEXA   ☐ PQCT   ☐ Other

- Is IBC Approval required for this study?
  ☐ Yes   ☒ No

  If yes, BUA # Click or tap here to enter text.   Expiration Date Click or tap to enter a date.

- Is IACUC Approval required for this study?
  ☐ Yes   ☒ No

  If yes, PRN # Click or tap here to enter text.   Expiration Date   Click or tap to enter a date.

- Does this study involve the Auburn University MRI Center?
  ☐ Yes   ☒ No

  Which MRI(s) will be used for this project? (Check all that apply)
  ☐ 3T   ☐ 7T

  Does any portion of this project require review by the MRI Safety Advisory Council?
  ☐ Yes   ☒ No

  Signature of one MRI Center Representative:_____
  Required for all projects involving the AU MRI Center
  Appropriate MRI Center Representatives:
       Dr. Thomas S. Denney, Director AU MRI Center
       Dr. Ron Beyers, MR Safety Officer

7. Project Assurances

7A. Principal Investigator's Assurances

1. I certify that all information provided in this application is complete and correct.
2. I understand that, as Principal Investigator, I have ultimate responsibility for the conduct of this study, the ethical performance this project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the Auburn University IRB.
3. I certify that all individuals involved with the conduct of this project are qualified to carry out their specified roles and responsibilities and are in compliance with Auburn University policies regarding the collection and analysis of the research data.
4. I agree to comply with all Auburn policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects, including, but not limited to the following:
   a. Conducting the project by qualified personnel according to the approved protocol
   b. Implementing no changes in the approved protocol or consent form without prior approval from the Office of Research Compliance
   c. Obtaining the legally effective informed consent from each participant or their legally responsible representative prior to their participation in this project using only the currently approved, stamped consent form
   d. Promptly reporting significant adverse events and / or effects to the Office of Research Compliance in writing within 5 working days of the occurrence.
5. If I will be unavailable to direct this research personally, I will arrange for a co-investigator to assume direct responsibility in my absence. This person has not been named as co-investigator in this application, or I will advise ORC, by letter, in advance of such arrangements.
6. I agree to conduct this study only during the period approved by the Auburn University IRB.
7. I will prepare and submit a renewal request and supply all supporting documents to the Office of Research Compliance before the approval period has expired if it is necessary to continue the research project beyond the time period approved by the Auburn University IRB.
8. I will prepare and submit a final report upon completion of this research project.

My signature indicates I have read, understand and agree to conduct this research project in accordance with the assurances listed above.

Sarah Rakestraw	_Sarah Rakestraw_	14 August 2023
Principal Investigator Name	Principal Investigator Signature	Date

7B. Faculty Advisor / Sponsor's Assurances

1. I have read the protocol submitted for this project for content, clarity, and methodology.
2. By my signature as faculty advisor / sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human subjects and has sufficient training and experience to conduct this particular study in accord with the approved protocol.
3. I agree to meet with the investigator on a regular basis to monitor study progress. Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them.

4. I assure that the investigator will promptly report significant incidents and / or adverse events and / or effects to the ORC in writing within 5 working days of the occurrence.

5. If I will be unavailable, I will arrange for an alternate faculty sponsor to assume responsibility during my absence, and I will advise the ORC by letter of such arrangements. If the investigator is unable to fulfill requirements for submission of renewals, modifications or the final report, I will assume that responsibility.

Taneshia West Albert		08.14.2023
Faculty Advisor / Sponsor Name	**Faculty Advisor Signature**	**Date**

7C. Department Head's Assurance

By my signature as department head, I certify that I will cooperate with the administration in the application and enforcement of all Auburn University policies and procedures, as well as all applicable federal, state, and local laws regarding the protection and ethical treatment of human participants by researchers in my department

Dr. Young-A Lee		08/14/2023
Department Head Name	**Department Head Signature**	**Date**

8. Project Overview:

8A. A summary of relevant research findings leading to this research proposal:
(Cite source; include a "Reference List" as Appendix A.)
Please reference Appendix A for a full list of references associated with this document and study.

8B. A brief summary/abstract of the study methodology, including design, population, and variables of interest.
(350 word maximum, in language understandable to someone who is not familiar with your area of study. Note this summary/abstract can be used to prepare the concise summary in the consent document.):

The proposed study will be an on-line survey among first year international students to explore experiences and perceptions of AU built campus environment, specifically interior spaces for student social usage. The project is exploratory in purpose, seeking to gain a better understanding of how an international student receives campus and suggest some possible deeper understanding of how buildings and spaces could be better designed for their use. A questionnaire will use Qualtrics app format, and participation will be solicited through AU social clubs geared towards international students, Office of International Program, and Auburn Abroad social medias, as well as physical fliers in strategic locations around campus. Social media platforms may include, but are not limited to: Facebook, Instagram, TikTok, Snapchat, and Linked In. Additionally, the participants may elect to continue to an in person interview, however this is not mandatory and is their choice. The targeted population for this study includes first year international students, enrolled on AU's campus for the first time. Participants will be at or above 18 years of age at the time of the survey. The research will focus on the variables of social connection, sense of community, and place attachment to the campus, and the changes experienced in these variables over the span of the first year of being on campus, as the survey will be solicited and open once in the fall and once in spring semesters. No personal identifiers nor personal information will be obtained through the survey. Data shall be protected through the Qualtrics app, secured as stated here: https://www.qualtrics.com/security-statement/. Raw data shall be stored within a university owned laptop computer, under password protection.

9. Purpose

9A. State the purpose of the study and all research questions or aims. (Include a sentence that begins, "The purpose of this study is…")

The purpose of this study is to explore the first year experience of international students on AU's campus, and explore how the buildings promote or hinder social interactions, sense of belonging, and place attachment to the campus. This study not only allows for furthering knowledge from a specific population of on-campus students, but also allows increased knowledge in how the spaces may be designed more inclusively in the

future. This also will consider the change in perception that may take place over the full first year, with survey being offered in the fall and then again in the spring. This will allow for longitudinal data comparison between first and second semesters to see if the perception of campus changes over the first year.

9B. Describe how results of this study will be used? (e.g., presentation? publication? thesis? dissertation?)

    The results will be used for the purpose of a Master's Thesis document, in a protected form, without any identifiers. Results may be used for professional publications as well as potential journal articles. The data may also be utilized for professional conference presentation and other juried professional research venues. The survey data will be used in raw form, results will be shared as aggregates, withholding and keeping secure any self-reporting information or individual identifiers provided in the process of this study. Interview data will be shared in formats to not identify the participant individually, but will share student level (grad/undergrad) and home country (China, India...). No names or gender shall be used to identify the participant.

10. Key Personnel. Describe responsibilities as specifically as possible. Include information on research training or certifications related to this project. **To determine key personnel see decision tree at https://cws.auburn.edu/OVPR/pm/compliance/irb/training. Submit a copy of CITI training documentation for all key personnel.** (For additional personnel, add lines as needed).

To determine Auburn University HIPAA – covered entities click link to HIPAA Policy.

If any key personnel have a formal association with institutions/entities involved in the study (for example is an employee or supervisor at the site research will occur), describe that affiliation. For all non-AU affiliated key personnel, submit a copy of their IRB approval.

Principal Investigator: Sarah Rakestraw   **Rank/Title:** Graduate Student
Email Address: gregosa@auburn.edu   **Degree(s):** MS CADS
Dept / Affiliation: Consumer and Design Sciences   **HIPAA Covered Entity?** Yes ☐ No ☒
Roles / Responsibilities: Click or tap here to enter text.
- AU affiliated? ☒ Yes ☐ No   If no, name of home institution: Click or tap here to enter text.
- Plan for IRB approval for non-AU affiliated personnel? **No**
- Do you have any known competing financial interests, personal relationships, or other interests that could have influence or appear to have influence on the work conducted in this project?   ☐ Yes   ☒ No
- If yes, briefly describe the potential or real conflict of interest: Click or tap here to enter text.
- Completed required CITI training? ☒ Yes   ☐ No If NO, complete the appropriate CITI basic course and update the revised Exempt Application form.
- If YES, choose course(s) the researcher has completed: Human Sciences Basic Course   7/19/2025
                                     Refresher Course   Expiration Date

Individual: Taneshia West Albert   **Rank/Title:** Assistant Professor
Email Address: tsw0037@auburn.edu   **Degree(s):** Click or tap here to enter text.
Dept. / Affiliation: Consumer and Design Sciences   **HIPAA Covered Entity?** Yes ☐ No ☐
Roles / Responsibilities: Oversee and guide graduate student through thesis process
- AU affiliated? ☒ Yes ☐ No   If no, name of home institution: Click or tap here to enter text.
- Plan for IRB approval for non-AU affiliated personnel? **No**
- Do you have any known competing financial interests, personal relationships, or other interests that could have influence or appear to have influence on the work conducted in this project?   ☐ Yes   ☒ No
- If yes, briefly describe the potential or real conflict of interest: Click or tap here to enter text.
- Completed required CITI training? ☒ Yes   ☐ No If NO, complete the appropriate CITI basic course and update the revised Exempt Application form.

- If YES, choose course(s) the researcher has completed: Human Sciences Basic Course   9/14/2025
                                                    Choose a course   Expiration Date

Roles / Responsibilities: Click or tap here to enter text.

11. Location of research.

11A. List all locations where data collection will occur. If applicable, attach permission letters as Appendix E. (School systems,
organizations, businesses, buildings and room numbers, servers for web surveys, etc.) **Be as specific as possible.** (See sample letters at https://cws.auburn.edu/OVPR/pm/compliance/irb/sampledocs)
Observation will occur at on Auburn University main campus only, Melton Student Center, Foy Hall, Village Dining Hall, and the Edge Dining Hall. Survey is through Qualtrics and may occur at any point when the student chooses. Interviews will occur at the preferred location for participants, if they have no preference a semi private location on campus will be selected for their convenience.

11B. Will study data be stored within a HIPAA covered facility? Yes ☐ No ☒
If yes, which facility(ies) (To determine AU HIPPA covered entities, go to VII of the HIPPA Hybrid Entity Policy):
Click or tap here to enter text.

12. Participants (If minor participants, at least 2 adults must be present during all research procedures that include the minors.)

12A. Describe the targeted/ intended participant population for the study. Include the anticipated number of participants and inclusion and exclusion criteria and the procedures to ensure more than 1 adult is present during all research procedures which include the minor.

☐ **Check here if existing data will be used and describe the population from whom data was collected including the number of data files.**

☐ **Check here if permission to access existing data is required and submit a copy of the agreement to access.**

The population for this study includes first year international students, new to Auburn University's campus. This will include both undergraduate and graduate level students, but they must be new to campus.

12B. Describe, step-by-step in lay language all procedures to recruit participants. Include in **Appendix B** a copy of all e-mails, flyers, advertisements, recruiting scripts, invitations, etc., that will be used to invite people to participate. (See sample documents at https://cws.auburn.edu/OVPR/pm/compliance/irb/sampledocs)

Flyers will be placed throughout campus buildings, in public spaces and restrooms, and will include a QR code for access. They will also be distributed during the first Friday social for International Students, which takes place in the meeting rooms at the Melton Student Center. Additionally, specific international clubs will be asked to share the flyer among their members to encourage participation.

12C. Minimum number of participants required to validate the study?   50

Number of participants expected to enroll?   50

Provide the rationale for the number of participants. This is based on the historical average number of first year international students over the past three years. Typically, this number is very low, as a result more qualitative methods are being pursued for study.

Is there a limit to the number of participants that will be included in the study?

☒ **No**   ☐ **Yes, the number is** Data collection will not be limited, and will include any participant who meets the minimum requirements as a first year Auburn student. Interview protocol will be capped at a max of 5 participants, if that number choose to participate.

12D. **Describe the process to compensate, amount and method of compensation and/or incentives for participants.** **AU Procurement and Business Services (PBS) policies**
(benefits to participants are NOT compensation)

If participants will **not** be compensated, check here: ☒
Indicate the amount of compensation per procedure and in total: Click or tap here to enter text.
Indicate the type of compensation: ☐ Monetary   ☐ Incentives
        ☐ Raffle or Drawing incentive (Include the chances of winning.)
        ☐ Extra Credit (State the value)
        ☐ Other

Describe how compensation will be distributed (USPS, email, etc.): Click or tap here to enter text.

13. Project Design & Methods

13A. Describe, step-by-step, all procedures and methods that will be used to consent participants. If a waiver is being requested, indicate the waiver, and describe how the study meets the criteria for the waiver. If minors will be enrolled describe the process to obtain parental/ legally authorized guardian permission.

    ☒ **Waiver of Consent (including using existing data)**

    ☒ **Waiver of Documentation of Consent (use of Information Letter)**

    ☐ **Waiver of Parental Permission (for college students 18 years or younger)**

Waiver is only requested for the online survey and observation portion of the data collection. Observation will be conducted as non-participant observation, with no contact being made from the researcher to the occupants in the space during observation. Full consent documents are included for the in person interview, including audio and video consents.

13B. In lay language, understandable by someone not familiar with the area of study, describe the complete research design and methods that will be used to address the purpose. Include a clear description of who, when, where and how data will be collected. Include specific information about participants' time and effort.

This research study proposes the use of researcher observation, to see how four spaces around campus are being utilized and occupied by people. This will lay a foundation of general usage to compare the reporting from the survey against. Secondly, a Qualtric survey will be utilized to allow participants to access an online survey, at their leisure, to respond to images of spaces around campus intended for social use. The purpose of this is to explore if the aesthetic of the space, including the furniture layout, noise level, and colors used, create a welcoming environment for them. Additionally, interview process is available for those participants who wish to engage, to allow them to speak directly with the researcher about their experiences while in these spaces around campus. The overall goal is to explore if and how the physical spaces of campus influence the interactions and social participation of new international students. Further, does the level of social engagement while in these spaces play a role in their meaning making and attachment to campus as a whole. The survey should take no more than 15-20 minutes of time, and the interviews are planned to only take one hour.

13C. List all data collection instruments used in this project, in the order they appear in Appendix C.
(e.g., surveys and questionnaires in the format that will be presented to participants, educational tests, data collection sheets, interview questions, audio/video taping methods etc.)

Observation protocol, Qualtrics survey, interview protocol

13D. Data analysis: Describe how data will be analyzed. If a data collection form (DCF) will be used, submit a copy of the DCF.

Data will be analyzed from Qualtrics app for general descriptive statistics to report participant sample, and responses to questions will be analyzed to find median and average responses to the images presented. Observation field notes and data will be used to describe the general ambiance of the spaces during the data collection time (as listed in the survey flyer). It will be used to describe the setting. Interview data will be utilized as narratives from the participants, with direct quotations used to convey meaningful responses to the protocol.

13E. List any drugs, medications, supplements, or imaging agents that participants will ingest/ receive during participation in the study or indicate not applicable (N/A).

N/A

14. Risks & Discomforts: List and describe all the risks participants may encounter in this research including risks from item 6d of this form, in this research. If deception will be part of the study, provide the rationale for the deception, describe the debriefing process, and attach a copy of the debriefing form that will be used as Appendix D. (Examples of possible risks are in section #6C)

Interviews results in decreased confidentiality in procedure. However, the additional risks also bring about potential for more understanding and communication of experience as it relates to the student's experiences on campus, hopefully resulting in better designed environments for this population of students in public areas of campus. The student has the choice to participate further than the anonymous survey however, and the choice is theirs to make with no negative consequences or retaliation regardless of their decision. No repercussions for choosing to participate or not participate exist as risks associated with this project.

15. Precautions / Minimization of Risks

15A. Identify and describe all precautions that will be taken to eliminate or reduce risks listed in items 6.c. and 14. If participants can be classified as a "vulnerable" population, describe additional safeguards that will be used to assure the ethical treatment of vulnerable individuals. If applicable, **submit a copy of any emergency plans/procedures and medical referral lists in Appendix D.** (Sample documents can be found online at https://cws.auburn.edu/OVPR/pm/compliance/irb/sampledocs precautions)

Software safeguards through the Qualtrics app will be utilized for the survey. The data collected through interview process shall be kept by the researcher only under password protection. No personal identifiers (name, AU ID) shall be used to represent the participant.

15B. If the internet, mobile apps, or other electronic means will be used to collect data, describe confidentiality and/or security precautions that will be used to protect (or not collect) identifiable data? Include protections used during collection of data, transfer of data, and storage of data. If participant data may be obtained and/or stored by apps during the study, describe.

15C. Does this research include purchase(s) that involve technology hardware, software or online services?

☒ YES   ☐ NO

If YES:

    A. Provide the name of the product   Qualtrics
        and the manufacturer of the product   Click or tap here to enter text.
    B. Briefly describe use of the product in the proposed human subject's research.
        This is a survey site which is used by Auburn University.

    C. To ensure compliance with AU's Electronic and Information Technology Accessibility Policy, contact AU IT Vendor Vetting team at vetting@auburn.edu to learn the vendor registration process (prior to completing the purchase).
    D. Include a copy of the documentation of the approval from AU Vetting with the revised submission.

15D. Additional Safeguards

Will DEXA, pQCT, or other devices which emit radiation be used? ☐ Yes   ☒ No
If yes, the IRB will notify the Auburn Department of Risk Management and Safety, who will contact the Alabama Department of Public Health (ADPH) and secure approval. Research which includes device(s) which emit radiation may NOT be initiated NOR will IRB stamped consent documents be issued until the IRB is notified of ADPH approval.

Will a Certificate of Confidentiality (CoC) issued by NIH be obtained ☐ Yes ☒ No If yes, include CoC language in consent documents and include the documentation of CoC approval. Research which includes a CoC may not be initiated NOR will IRB stamped consent documents be issued until the IRB is notified of CoC approval. **AU Required CoC Language**

Is the study a clinical trial? ☐ Yes   ☒ No
If yes, provide the National Clinical Trial (NCT) # Click or tap here to enter text. and include required clinical trial information in all consent documents. **AU Clinical Trial Information**

16. Benefits

16A. List all realistic direct benefits participants can expect by participating in this study. (Compensation is not a benefit) If participants will not directly benefit check here. ☐

    The researcher in this instance is a AU Interior Designer, working on campus projects. This study and the data communicated has the potential to improve campus design and ensure the built environment is welcoming and inviting to as many students as possible.

16B. List realistic benefits for the general population that may be generated from this study.

    Campus environments designed to meet their needs.

17. Protection of Data

17A. Data are collected:

    ☒ Anonymously with no direct or indirect coding, link, or awareness by key personnel of who participated
        in the study (skip to item E)

    ☒ Confidentially, but without a link to participant's data to any identifying information (collected as "confidential" but recorded and analyzed "anonymous") (Skip to item E).

⊠ **Confidentially with collection and protection of linkages to identifiable information.**

17B. If data are collected with identifiers and coded or as coded or linked to identifying information, describe the identifiers and how identifiers are linked to participants' data.

Raw data for interview process will hide identifiers under password protection, and no personal identifications will be used in the transcription or document representation of their responses.

17C. Provide the rationale for need to code participants' data or link the data with identifying information.

To prevent the perception of added risks, privacy is of utmost importance for the participants. In order to encourage participants full and open participation and response, it will be communicated that they will not be identifiable in the report or final document. The concern for social or perceived repercussions will be a driving factor for omitting identifiable information.

17D. Describe how and where identifying data and/or code lists will be stored. (Building, room number, AU BOX?) **Describe how the location where data is stored will be secured. For electronic data, describe security measures. If applicable, describe where IRB-approved and participant signed consent documents will be kept on campus for 3 years after the study ends.**

This will be stored in a secure Auburn Box account folder. The file will be password protected for access.

17E. Describe how and where data will be stored (e.g., hard copy, audio/ visual files, electronic data, etc.), and how the location where data is stored is separated from identifying data and will be secured. For electronic data, describe security. Note use of a flash drive or portable hard drive is not appropriate if identifiable data will be stored; rather, identifying participant data must be stored on secured servers.

This will be stored in a secure Auburn Box account folder. The file will be password protected for access.

17F. List the names of all who will have access to participants' data? (If a student PI, the faculty advisor must have full access and be able to produce study data in the case of a federal or institutional audit.)

Sarah Rakestraw, Taneshia West Albert

17G. When is the latest date that identifying information or links will be retained and how will that information or links be destroyed? (Check here if only anonymous data will be retained ☐)

Data will be retained through May 2024- anticipated graduation date for the PI, allowing for edits/revisions to the thesis as needed. Once completed and approved by the committee, the file will be destroyed to prevent any potential breech.

Version Date: Click or tap to enter a date.