The Impact of Spatial Design on Perceptions of Visibility:

A Case Study of a Neoliberal Library

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Introduction

In 2008, the University of Chicago began the construction of the Joe and Rika Mansueto Library, commonly referred to as Mansueto Library. One of the biggest reasons to construct this library was to store the growing book collection at the University of Chicago (Moser, 2019). After three years of construction and design processing, Mansueto Library debuted as a study space and library collection storage space attached to the main campus library, The Joseph Regenstein Library. Due to its unique design and utility, Mansueto Library has become a site of attraction for touring students, visitors, and global leaders.

Mansueto Library currently serves a student population of about 10,000 people, with additional community members, faculty, and staff comprising another 1,000 individuals. The library has a storage space sixty feet below the surface, and can store up to 3.5 million volumes. As seen on the right through this picture, Mansueto Library has a dome-like design made from Germany-imported glass panels and steel beams extending across the entire surface area (Moser, 2019), giving it a unique look that draws global attention. With the Regenstein Library being the most centralized study space on campus, the design prospects of Mansueto were developed with greater student accessibility as a priority, but not the highest priority of the design process. The original intent for designing Mansueto Library was to create a storage space for the growing book collection at the University of Chicago. Even though the original architect of Mansueto Library, Helmet Jahn, stated that “The best buildings are always the ones which derive their aesthetic, their appearance, from what
they house” (1:20-1:30), the manifestation of this vision has shifted perceptions of the space related to productivity, visibility, and performativity. While library designs have historically focused on book storage, the designs of various parts of the Regenstein Library, specifically Mansueto Library, the Common Space, and Ex Libris Cafe, have created opportunities for gendered and racialized use patterns.

The three mentioned study spaces present a compelling case to understand how modern library designs create inclusive and exclusive spaces for students to learn. Specifically for libraries, many students use these learning spaces to expand knowledge, to learn, and to grow. Libraries are essential for academic life at universities for a variety of reasons, making them critical points of development for many students. But without proper engagement with the greater community, libraries cannot afford all students equitable opportunities to learn.

In this thesis, I explore and analyze both the design and use of library spaces in the Regenstein Library and deeper implications for the students occupying the space. According to the observational data I compiled for two consecutive weeks, three times a day, from Monday to Thursday, white women occupy Mansueto Library most. I find it critical to further examine why Mansueto Library attracts this social group more than any other on campus. This paper explores how the design and socialization of Mansueto Library, in comparison to other study spaces, dictates the inclusivity and exclusivity of the space for the student population at the University of Chicago. The compiled research addresses the possible gender performativity that coexists in this modern learning space, and its overt impact on who inhabits the space. Lastly, this paper seeks to address the greater concerns for library designs that cater to students from historically marginalized populations.
Unlike other libraries on campus, Mansueto Library is the study space on campus with the highest access to natural light and least rectangular figure. The interior is composed of 4 long tables with 16 chairs on each side, and 15 square tables that can accommodate up to 4 people each, with an open floor plan similar to the Common Space and Ex Libris Cafe. Mansueto Library, since its opening, has remained a quiet study space for all University of Chicago affiliates to access. In spaces like Mansueto Library, the regulation of noise by staff deters some students from engaging and studying in the space. Thus, it is critical to rethink the population that Mansueto Library is catered to in both a sociocultural and educational way, in relation to spaces that allow noise.

Over the last twenty years, libraries have become places for socializing, studying, and learning experiences in a multitude of ways. With the continued advancement of technology through the internet in the 1990s, many libraries have attempted to create intersectional spaces of engagement for students, faculty, and staff. As the digital age continuously imposes significant challenges on libraries to remain useful and impactful for students, many universities have attempted to innovate and redesign spaces to better serve its population (Freeman, 2005). This speaks to the greater paradigm shift around defining a library outside of its conventional usage as a book depository, and reframing the space as a “learning commons” (Freeman, 2005). Despite the present design and use adaptations being pioneered by libraries on university campuses, it is crucial to continuously examine the needs and desires of the population that utilizes the space most, and allow for more equitable developments to occur on a greater scale. In many cases, the effects of spatial design in libraries has continuously excluded those who do not identify as able-bodied, straight, white men.
This paper seeks to address the social and design elements of Mansueto Library, and to a greater extent the Regenstein Library, that impact its inclusivity and exclusivity for students from marginalized backgrounds at the University of Chicago. Historical architectural designs have systematically disadvantaged marginalized communities from taking advantage of libraries and its plethora of resources, directly and indirectly (Brook et al., 2015). These different design elements question whether library spaces on university campuses, particularly at predominantly white institutions (PWIs), are intended to serve the entire student population that attends the university (Brook et al., 2015). As stated by Freeda Brook et al.:

“Through what Henri Lefebvre (1991) calls the representation or conceptualization of its space, an institution of higher education attempts to impress the viewer with a sense of its access to, and creation of, power and powerful individuals. Because of the systems of oppression that still play a major role in American life, that power is invariably connected to a normative (male, able-bodied, up- wardly mobile) Whiteness” (Brook, et al., 256, 2015).

Through Brook’s analysis, students of color are disproportionately impacted by the representations of a space created by a PWI. Students of color, and those who do not fit within the binary lens of Whiteness perpetuated through design elements of space, are not fully considered in the development process. Hence, library design must be critically examined for its intent and impact on student populations that are becoming increasingly diversified. Not only will library design lead to greater understanding of bias that exists within the built environment, but also provide a framework for dismantling such bias.

This study seeks to understand the design impacts created from the construction of Mansueto Library through engagement with the student population on an observational, mapping, and direct interview engagement. In this paper, I found that Mansueto Library has a stronger proportion of women who study there, while the Common Space has a stronger
proportion of men who study there. Interestingly, Ex Libris Cafe has a gender-neutral demographic makeup. After carefully reviewing the data provided by the interviewees who study in these spaces, I found that the restrictions in Mansueto Library create a platform of visibility for students to navigate. This visibility of Mansueto Library provides particular women in the student population spatial platforms of power to identify with underlying ideas of productivity. My study adds to the overall literature related to library design impacts on student populations, as well as forms of social and design inequities that have been perpetuated over time through ontological applications of history. Further, my study adds to the growing knowledge around urban design in general, surfacing points of contention that need to be addressed in design layouts and implementations. Specifically, my research speaks to the disparities that exist with the usage of open floor plan study spaces within libraries at universities and colleges. My research seeks to fill a gap on a relatively modern library design, and how this design impacts the behaviors of the student population at the University of Chicago in ways related to visibility and identity agency. Despite its well-known design, Mansueto Library has enabled a certain social hierarchy that tends to render visible certain portions of the student populations, and systematically make others invisible.

Analyzing the inherent design exclusivity promoted through historical and social stratifications of libraries will impact the discussion on how to best navigate intersectional spatial design processes. Urban planners, designers, stakeholders, politicians, business people, and community members need to think critically about the negative impacts created from maintaining spatial designs that do not cater to individuals from all backgrounds. Rethinking such a framework can serve to address inequities that persist on an intersectional level if applied
with the appropriate goals and adaptation practices through an evolving timescale. However, as evidenced by several case studies, implementation depends critically on larger governing structures for validation and requires participation from multiple stakeholders, particularly students, to be impactful in meaningful ways.

Literature Review

The changing role of the library has become a topic of concern throughout the 21st century. Scott Bennett, a prominent Yale University Librarian Emeritus, established foundational data around library usage and its shifting importance. Bennett coined the terms “information commons”, the most implemented library design strategy in the 1990s, and “learning commons”, which he described as the key factor missing in these implemented library designs. Bennett explains “learning commons” as:

It would bring people together not around informally shared interests, as happens in traditional common rooms, but around shared learning tasks, sometimes formalized in class assignments. The core activity of a learning commons would not be the manipulation and mastery of information, as in an information commons, but the collaborative learning by which students turn information into knowledge and sometimes into wisdom. A learning commons would be built around the social dimensions of learning and knowledge and would be managed by students themselves for learning purposes that vary greatly and change frequently. (Bennett, 43, 2003)

In essence, Bennett emphasizes the agency that students could have through a “learning commons” library design framework. His main argument suggests that libraries did not consider the learning styles of the students, but rather the utility of the space for high-priority tasks, such as archival book collections and storage (Bennett, 2003). Bennett draws attention to the evident misconceptions of library space usage within a college and/or university context. Bennett’s work emphasizes the inequities in student populations that continue to be exacerbated by higher education institutions through design of learning spaces not necessarily designed for students.
Thus, library designers must critically reevaluate the utility of a library space and how it further impacts the student population.

Prior to Bennett’s foundational data around library designs in the 1990s, Ray Oldenburg, an established urban sociologist, coined the term “the third place” within the built urban environment throughout his book *The Great Good Place*. According to Oldenburg, “The third place is a generic designation for a great variety of public places that host the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work” (Oldenburg, 1989), and continued to explain that the first place is home and the second place is the work setting. Along with this, Oldenburg claimed that the third place existed outside the first and second place, which has continuously become intersectional through remote work opportunities (Oldenburg, 1989). The categorization of a third place includes: it exists on neutral ground, it is a leveler, conversation is the dominant activity, it is accessible and accommodating, it contains “the regulars”, it has a low profile, it has a playful mood, and it is “a home away from home” (Oldenburg, 1989). Since the development of the term “third place”, many ethnographers, sociologists, architects, and urban planners have built on the theoretical underpinnings of this concept to classify spaces throughout the built environment. Some scholars have argued for this idea of third space within the context of libraries, and suggest that a library constitutes a second and third place (Oldenburg, 1989).

According to other prominent studies on library design, the renovations of the 1990s exemplify the creativity of institutions to accommodate the student population’s needs and desires for studying and learning. Demas and Schurer, two prominent scholars on this topic, emphasized the importance of historical ontology of a space for its occupants. Additionally, they
stated that the ethos of a learning space greatly impacts the overall success and retention of the student population it serves (Demas et al., 2002). Understanding the history of a space and place is critical for ensuring a successful implementation of a project that maintains ties to the original learning space for people to use. This is critical to consider when examining the historical placement of Mansueto Library on the University of Chicago campus, while being attached to the most used academic library on campus, The Joseph Regenstein Library. Demas and Schurer understand that successful learning spaces must intersect the historical context with the present renovations of a learning space in prevalent ways that manifest effectively for the student population.

In recent years, scholars have started to examine the intersectional usage of space as it relates to accessibility, race, gender, and socioeconomic status. Further, the physical design of space impacts the ability for students to learn and engage with learning commons. Albert Mehabarain and Shirley Diamond indicated that furniture arrangements greatly impacted the interactions between undergraduate students in a library. With certain arrangements, students did not engage with each other at all, showing that furniture, interior design, and spatial layout affects the interactions in a space (Diamond et al., 1971). And despite the goal for many institutions to have more collaborative study spaces, different studies have started to defend the creation of more quiet study spaces in order to cater to the study habits of all people (Massis, 2012). In these impactful ways, the interior design of learning spaces shapes the development of social patterns of interactions.

Other studies have looked into the lighting that promotes the greatest levels of productivity and learning within different educational spaces (Barrett et al., 2015). According to
Peter Barrett, natural light has a substantial impact on the performance levels of students. However, there is a particular balance with natural light, as too much creates a glare that impedes academic performance (Barrett et al., 2015). Further, Oliver Keis mentioned the preference for college students to have blue-enriched lighting to impact academic performance (Keis, 2015). As evidenced by the literature around library design, planners and architects are starting to prioritize the learning styles of students more and more, shifting the fundamental values of libraries.

But despite these more inclusive designs, many spaces systematically promote inequitable spaces for learning due to historical normalization of students who identify as able-bodied, straight, white men. Brook et al. uses critical race theory to understand how the reproduction of normative whiteness disadvantages groups who do not identify with such constructs, in particular students of color (Brook et al., 2015). Brook et al. states that art pieces, interior design, the set-up of the space, and noise levels allowed in space can greatly skew the demographics of the population that utilize the space. Varied social and spatial design elements may exhibit the grandeur of the space, but does not necessarily create an inclusive space for different groups of people to engage. As such discourse on the best design mechanisms continues to evolve, it is critical to examine more present versions of library designs that enable or disable certain identities.

In addition to perpetuated neutralizations of whiteness in social and spatial designs of study spaces, there is a greater idea of visibility that has been explored over the last five years. In a few cases, open floor plans have enabled sexist environments for women in the workplace. In one particular case, a law office converted its private cubicle spaces to an open floor plan to encourage greater amounts of collaboration amongst colleagues (Hirst, 2018). Even though this
floor plan did create greater forms of collaboration, a vast amount of women indicated their discomfort with the design. Many stated that the visibility under the “male gaze” was dictating work habits, dress codes, and movement in spaces (Hirst, 2018). This study emphasizes the greater need for discussion of visibility and its theoretical application in open floor plans.

Andrea Brighenti explains that “The field of visibility is relational, strategic, and processual or better, “evental”; it is relational because it determines relationships between seeing and being seen, or more generally, noticing and being noticed” (Brighenti, 2010), removing a binary lens for analysis and application of visibility. Further, Brighenti discusses the effects of visibility within a social setting. He states that “The effects of visibility swing between an empowering pole (visibility as recognition) and a disempowering pole (visibility as control)” (Brighenti, 2010), indicating that visibility is a relationship of control and recognition. Such theoretical underpinnings are crucial to engage with throughout the course of this paper. The idea of visibility holds strong prominence in open floor plans, like that in Mansueto Library, the Common Space, and Ex Libris Cafe. According to work by Andrea Brighenti, visibility within social settings creates a threshold of acceptance within a space. As stated in his argument for visibility as an area of study within sociology:

“Thresholds of visibility come into play here: there is a minimum and a maximum of what we may call ‘fair visibility’ – regardless of the fairness criteria we want to adopt. Below the lower threshold, you are socially excluded...On the other hand, as you push yourself – or are pushed – over the upper threshold of fair visibility, you enter a zone of supra-visibility, or super-visibility, where everything you do becomes gigantic to the point that it paralyses you. It is a condition of paradoxical double bind that forbids you to do what you are simultaneously required to do by the whole ensemble of social constraints.”

From this understanding of visibility, there exists a minimum and maximum amount of control and recognition within a setting, disproportionately affecting certain groups who are thus,
socially excluded. Visibility acts in collaboration with other attributes of a space, as it is not a
dichotomous condition of setting. Brighenti further suggests that “Visibility is politically
mediated” (2010), providing a scale of control and recognition within a space that creates
opportunities for visibility to contextually manifest through various behaviors, perceptions, and
expectations. As will be discussed later in this paper, visibility is a primary point of introspection
for Mansueto Library, as the open floor plan creates opportunities for some students to create a
platform of performance and accountability.

Objective

The objectives of this study is to understand why students choose to study at Mansueto
Library, in comparison to other spaces in the Regenstein Library, and how such decisions are
impacted by the social and spatial design of the space. The mapping of seat occupancy based on
gender will further answer this question because this will accredit the bias and exclusivity or
inclusivity within the different study spaces. Further, this will help to surface tensions that exist
between applying certain social and interior library designs that are meant to adhere to the study
tendencies of the student population. It is necessary to understand the differing design elements
of inclusivity or exclusivity to further examine why these spaces cater to more privileged
demographics of the student population.

Methods

I conducted this study in the Joe and Rika Mansueto Library, which is located on the
University of Chicago campus. Mansueto Library is a greater extension of The Joseph
Regenstein Library. This site is the designated case because of its central location on campus and
its high volumes of student engagement as a study space. Further, the modern design of this
study space, as it was constructed from 2008-2011, creates a contrast of examination to further explore through its connection to a more traditional library design within the Regenstein Library. To enter Mansueto Library, an individual must first go through the Regenstein Library entrance, walk down a long corridor, and then enter the Mansueto Library.

As sites of comparison, the main Common Space, on the first floor of the Regenstein Library, and the Ex Libris Café will be evaluated for their effective usage by university students. The Common Space is a collaborative study space, with computer access, printer access, a reference desk, a TechBar, and no regulation of noise levels or activity. The Common Space consists of elongated wooden tables, small stone tables, 3-cushion couches, cushioned chairs, stools, 1-cushion couches, and 3-person benches. The Common Space is the connecting space to the Ex Libris Café entrance, Mansueto Library, and the main entrance to the Regenstein Library.

The Ex Libris Café is located to the right of the Common Space, and is also a collaborative study space, with a cafe, vending machines, and no regulation of noise levels or activity. Ex Libris Café has round tables, elongated tables, 3-cushion couches, barstool chairs, and metal-crafted chairs. Out of these three spaces, Ex Libris Café is the smallest study space. The Common Space and Ex Libris Café are study spaces open 24/7, while Mansueto Library closes at 11:45pm everyday, apart from Friday and Saturday. The cafe in Ex Libris Café closes at 12:00am everyday, apart from Friday and Saturday. Due to a variety of factors, we can draw a comparative analysis of different design elements that contribute to the inclusivity or exclusivity students experience in these spaces.

The University of Chicago has an undergraduate student population of approximately 6,500 (College Factual, 2019). For the undergraduate population, 51.5% of students identify as
male, 48.5% identify as female. For racial demographics, 42.0% identify as White, 18.4% identify as Asian, 12.5% identify as Hispanic/Latino, and 5.3% identify as Black or African American (College Factual, 2019). This study compares the learning experiences that students have in these different spaces to further analyze how inclusive or exclusive the spaces are in relation to each other. This crucial information is collected through qualitative methods to ensure that our study is informed to create a better analysis of the data. In order to understand how library designs exclude or include certain demographics of the student population, we must understand the rationale that students have for utilizing these spaces.

**Data for Mansueto Library**

This research seeks to understand the library design elements that lead more inclusive or exclusive studying spaces for marginalized students. To understand how design elements are applied at Mansueto Library, the Common Space, and Ex Libris Cafe, interviews were conducted with students who studied regularly at the Mansueto Library, as well as field observations of who utilizes these spaces.

**Library User Interviews**

20 interviews were conducted inside the Regenstein Library for approximately 20-30 minutes. The interviews were of the undergraduate students who studied in Mansueto Library, were 18 years-old or above, and had the ability to conduct the interview in English. Mansueto Library students were chosen because this study aims to understand why the gender disparities exist within Mansueto Library as a study space. Students older than 18 were chosen because there were less barriers with obtaining consent to interview them than minors. The interviews were only conducted in English, so only students who had the ability to provide answers in
English were permitted to participate. The interviews answered questions around why students chose to study in these spaces and how frequently they studied in these spaces compared to the other spaces. A list of the questions asked during the interview is provided in Table 1. Interviews were conducted on a one-to-one basis in the Regenstein Library with permission from the interviewee. The interviewees verbally consented to being interviewed prior to the interview, after reading through an interview consent form. The form is attached in the Appendix of this paper. The interviewees were all asked the same questions in the same order, unless the answer was given through a previous question. The questions are asked in this order to maintain consistency with answers and remove potential deviation in answer due to question arrangement. These interviews were recorded on paper, and immediately afterward were typed and added to the University of Chicago Box. The paper records of the responses were shredded and disposed of immediately after they were typed up and added to the University of Chicago Box. The questions identify the reasoning that students have for utilizing Mansueto Library as a study space over another. These interviews inform our study on the differences between student preferences for a study space and how that impacts the inclusivity or exclusivity of these learning spaces for a variety of people.

Recruitment for Interviews

Recruitment efforts for this study varied throughout the duration of the study. During the first few weeks of January, students leaving Mansueto Library were directly approached and asked if they would be willing to participate in a 20-30 minute interview related to their choice to study in Mansueto Library. This was intended to ensure that the students approached were studying within Mansueto Library. However, many students were in a hurry for other obligations
like classes, events, etc., so they declined the invitation. After unsuccessful attempts to directly recruit individuals for the interview, the recruitment efforts were transitioned to a more connections-based format. People were asked to inquire about others who studied in Mansueto Library. After being put into contact with these individuals, an interview was arranged via Facebook Messenger or text message.

Table 1: Questions For Library Users in Mansueto Library

<table>
<thead>
<tr>
<th>Interview Questions For Library Users In Mansueto Library</th>
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<tbody>
<tr>
<td>1. What is your Year in College?</td>
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<tr>
<td>2. What is your Major in College? Please select all that apply.</td>
</tr>
<tr>
<td>3. What is your Gender?</td>
</tr>
<tr>
<td>4. What is your Race/Ethnicity? Please select all that apply.</td>
</tr>
<tr>
<td>5. How often do you come to (Mansueto Library, the Common Space, or Ex Libris Cafe)?</td>
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<tr>
<td>6. How long do you stay on average at (Mansueto Library, the Common Space, or Ex Libris Cafe)?</td>
</tr>
<tr>
<td>7. At what time of day do you most frequently work in (Mansueto Library, the Common Space, or Ex Libris Cafe)?</td>
</tr>
<tr>
<td>8. Why did you choose to study at Mansueto Library?</td>
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<tr>
<td>9. Why do you come to the Joseph Regenstein Library?</td>
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<tr>
<td>10. What do you physically want in a study space/workspace?</td>
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<td>11. What could be improved in this study space?</td>
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<tr>
<td>12. Have you found these spaces to fill these needs somewhere on campus? If so, where?</td>
</tr>
<tr>
<td>13. Where do you enjoy working inside Mansueto Library?</td>
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<tr>
<td>14. How would you describe the behavioral differences in each of the spaces?</td>
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<tr>
<td>15. Why do you choose to work in Mansueto over the 4th/5th Floor in the Reg?</td>
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<tr>
<td>16. What adjectives would you use to describe the physical design Mansueto Library?</td>
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<tr>
<td>17. How would you use Mansueto in general?</td>
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<tr>
<td>18. How do you feel when you work in this space?</td>
</tr>
<tr>
<td>19. What type of person do you think studies at Mansueto Library?</td>
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<tr>
<td>a. Follow-Up: Would you describe yourself as this type of person?</td>
</tr>
<tr>
<td>20. Do you think some people feel less accepted in Mansueto Library as a study space than other spaces on the first floor?</td>
</tr>
<tr>
<td>a. Follow-Up: Why do you think that is?</td>
</tr>
<tr>
<td>21. Do you think Mansueto Library attracts a particular group of people?</td>
</tr>
<tr>
<td>a. Y: Who?</td>
</tr>
<tr>
<td>b. N: Why do you think that is?</td>
</tr>
<tr>
<td>22. According to observational data collected at (Mansueto Library, the Common Space, or Ex Libris Cafe), there are greater amounts of (students of color, male, female, etc.) in this space. Were you previously aware of this?</td>
</tr>
<tr>
<td>a. (Y/N) Could you provide your opinion on why you think that is the case?</td>
</tr>
<tr>
<td>b. (Y/N) Were you surprised by this information? Why?</td>
</tr>
<tr>
<td>c. (Y/N)</td>
</tr>
<tr>
<td>i. (Y) Why do you think you noticed this pattern?</td>
</tr>
<tr>
<td>ii. (Y) How has this recognition shaped your decision to study in this space?</td>
</tr>
<tr>
<td>iii. (N) Why do you think you have not noticed this pattern?</td>
</tr>
<tr>
<td>iv. (N) How will this new information shape your decision to study in this space?</td>
</tr>
</tbody>
</table>
Demographics of the Library Users In Mansueto Library

The characteristics of the study population of the library users at Mansueto Library are displayed below in Table 2. This study consisted of more interviewees who identified as women than men or gender-nonconforming. Further, a strong portion of interviewees were in their third-year or fourth-year in the College. Additionally, a strong portion of the interviewees, 65%, for this study identified as White/Caucasian. The majors for the interviewees varied, with the strongest portion being STEM majors. It is important to note that there were three individuals who are double-majors within the College, so these were counted separately to create a total of 23. The demographics of the interviewees were documented to speak to underlying themes of inclusivity and exclusivity based on identity, while also dismantling different theories related to why certain portions of the student population choose to study in Mansueto Library consistently.
Table 2: Demographics of Library Users in Mansueto Library

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Interviewees</td>
<td>5</td>
</tr>
<tr>
<td>Female Interviewees</td>
<td>15</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
</tr>
<tr>
<td>1st Year</td>
<td>0</td>
</tr>
<tr>
<td>2nd Year</td>
<td>1</td>
</tr>
<tr>
<td>3rd Year</td>
<td>7</td>
</tr>
<tr>
<td>4th Year</td>
<td>12</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>13</td>
</tr>
<tr>
<td>Asian</td>
<td>3</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>1</td>
</tr>
<tr>
<td>Mixed</td>
<td>1</td>
</tr>
<tr>
<td>Major</td>
<td></td>
</tr>
<tr>
<td>STEM</td>
<td>9</td>
</tr>
<tr>
<td>Humanities</td>
<td>6</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Arts</td>
<td>2</td>
</tr>
</tbody>
</table>

Seat Occupancy Metrics

Further, to understand how many people were coming in and out of each space, I documented the student seat occupancy in Mansueto Library, the Common Space, and Ex Libris Cafe. These recordings were done in the morning hours between 9:30am-10:30am, afternoon hours between 2:30pm-3:30pm, and evening hours between 9:30pm-10:30pm, for a total of 2 weeks. These time blocks were chosen because the morning and evening hours correspond with the opening and closing of these spaces, and are spaced out appropriately from the afternoon time block chosen. Thus, the typical time a student occupies a space is accounted for by choosing three times in the day to record seat occupancy. The seat occupancy levels were only recorded for two weeks because the pattern was detected in the first week, and confirmed during the
second week. The recordings were made during the 7th and 8th week of the 2019 Fall Quarter because this timeframe is an average workload schedule. At the beginning of the Fall Quarter, there is relatively little work, weeks 3-6 are usually midterms, and weeks 9-11 are finals, skewing the amount of work complete in a library setting. Recordings were made for Monday to Thursday, excluding Friday and the weekend because many students choose not to complete homework on Friday afternoon and evening. Further, the weekend hours skew the amount of students in the entire Regenstein Library during the time blocks of seat occupancy recordings. Thus, Friday and the weekend would provide inaccurate data about the amount of students studying in these spaces at designated times of the day. To be sure that this was the case, I conducted seat recordings for Friday of Week 1 and the Sunday of Week 2, and saw that the numbers for these days were greatly skewed and would not add to the overall study.

To document seat occupancy, maps of each space were drawn by hand according to table design, chair set-up, and spatial organization. Digital layouts of each space were not printed and used because these designs did not show the seating and table arrangements in real life. A labeled example of each site map is shown below in Figures 1-3. At every site, seat occupancy was marked based on gender, then added to compile the demographics of these spaces. In situations where chairs were moved, extra boxes representing seats were drawn and marked in the appropriate region of the library. Seat occupancy was marked to understand how many people were studying and interacting in these spaces. Gender occupancy was marked to further determine how big the gender disparity was in these different spaces at different parts of the day. Gender occupancy was the chosen demographic to document because the racial disparities are embedded within institutional barriers, and other socioeconomic factors cannot be determined
based on outward perceptions. The numbers were recorded on these maps, and were later put into an Excel spreadsheet to show the correlation of gender in each study space. This data can be found in Table 3. This data provides actual numbers of the people who occupied these study spaces at various parts of the day. This data is necessary to collect to compare with the other sites to see how engaged students are with each site, and how the demographics of each site are greater or lower. To further understand the different library design employed, seat occupancy quantification is a necessary dataset. Through this comparative data, our study can further analyze why study spaces are more inclusive or exclusive than others.

Figure 1: Map of Mansueto Library
Figure 2: Map of the Common Space

Figure 3: Map of Ex Libris Cafe
**Observational Data**

Observational data was collected in each of the spaces through documented notes. These notes were pertaining to behavioral differences in each space, noise variations, and the mobility within each of the spaces. These notes were taken at varying parts of the day for one-hour increments in Mansueto Library, the Common Space, and Ex Libris Cafe. The notes were compiled and analyzed for the various aspects mentioned above. These notes were taken without making students aware in order to ensure that behaviors were not performative. Additionally, the observations were made in one-hour increments to account for class schedules that may lead to population fluctuations. This observational data will further aid the analysis of why students choose to study in certain spaces over others. It may also allow this study to draw on ideas of visibility and performance within certain study spaces in comparison to other spaces that may have greater restrictions on students.

**Limitations and Approval**

The limitations of this study are correlated to the limitations of time to conduct research. The seat occupancy counting for each study space may not reflect the overall patterns throughout the year that exist due to seasonal changes. The data recordings were documented during Fall Quarter 2019, while interviews were conducted during Winter Quarter of 2020. Additionally, the seat occupancy recordings were only done for two weeks, not throughout the entire quarter or school year. Further, the various study sites are restricted to the Regenstein Library first floor spaces, limiting the scope of exclusivity and inclusivity to these study spaces on campus. Additionally, the sample pool for interviews in the study spaces does not represent the entire student population at the University of Chicago in a substantial way, which could potentially
skew the data collected. The gender data collected on seat occupancy was based on socialized perceptions of gender that I used, creating bias in the normalized perceptions of data that are used to understand spatial inclusivity and exclusivity. A majority of the student population at this university identifies as White. Thus, the racial diversity within each study space cannot be an overarching piece of data to analyze, because more systematic forms of racism are impacting the demographics of the entire student population. This creates bias in the measurements for understanding why students choose to use a particular study space over another study space in relation to racialization of spaces. Additionally, there were substantially more interviews conducted with women than men. This shifts the potential diversity of responses that could have been analyzed in this study. However, it is appropriate for the context of this study because the spaces are gendered to a certain degree.

The research for this study was approved by the Institutional Review Board (IRB) for analysis through a thesis paper written under the supervision of Principal Investigator Charles Broughton. Damien Bright acted as a B.A. Thesis Preceptor for this paper as well to oversee the proper research applications were replicated in the field.

**Results**

**Reasons to Study at Mansueto Library**

According to 18 of the 20 interviewees, the aesthetic of Mansueto Library is a common reason people choose to study in this space over other sites. Of the 18 who mentioned aesthetics as part of a main reason to study in Mansueto Library, 15 attributed this aesthetic to the natural lighting in the space, 7 attributed it to how spacious it is, and 3 attributed it to the glass. Chart 1 outlines these different reasons and their distribution across interviewee answers. The second
most common reason interviewees chose to study in Mansueto Library was due to the “pressure to focus”. 11 of the 20 interviewees attributed their decision to study in Mansueto Library to the pressure to focus. The third most common reason for studying in Mansueto Library was the quietness of the space. 10 of the 20 interviewees expressed their preference for Mansueto Library as a study space due to it being quiet. Other reasons interviewees chose to study and Mansueto Library were friends, accessibility to caffeine, and proximity to central parts of campus. Chart 2 outlines the different reasons that library users explained in their answers.

**Chart 1: Aesthetic Reasons to Study in Mansueto Library**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetic Total</td>
<td>18</td>
</tr>
<tr>
<td>Lighting</td>
<td>15</td>
</tr>
<tr>
<td>Space</td>
<td>7</td>
</tr>
<tr>
<td>Glass</td>
<td>3</td>
</tr>
</tbody>
</table>
Comparison Spaces to Mansueto Library

According to 17 of the 20 interviewees, Mansueto Library offered a more social setting than other study spaces on campus. Many interviewees spoke of social isolation when working in different study spaces due to the design of these alternative spaces. Common words used to describe other spaces in comparison to Mansueto Library were “depressing”, “isolated”, “lonely”, and “claustrophobic”. Chart 3 displays all the words used to describe these spaces by interviewees. 9 of the 20 interviewees mentioned that the cubicle spaces and other parts of the upper floors of the Regenstein Library were “claustrophobic” in comparison to Mansueto Library. 5 of the 20 interviewees stated that other study spaces in the Regenstein Library were “isolating”, and 9 of the 20 used the words “lonely” or “depressing” to define how this isolation impacts their studying.
Visibility and Accountability in Mansueto Library

According to 9 out of the 20 interviewees, the design of different parts of the Regenstein Library enabled social isolation and removed accountability to complete work or study in those spaces. Interviewees mentioned that the lack of visibility amongst other peers dismantled the system of accountability, which has strong prominence in Mansueto Library. As mentioned earlier, 55% of interviewees claimed that another main reason they chose to study in Mansueto Library was due to the “pressure to focus”. Thus, removing the visibility in Mansueto, according to interviewees, developed more opportunities for distractions. A few interviewees attributed this lack of accountability to the “freedom” that exists in the bookstacks or in cubicles. Further, some students hinted at the idea that the social engagement in Mansueto Library was sometimes a deterrent for completing work there.
Acceptance, Judgement, and Restriction in Mansueto Library

According to 7 of the 20 interviewees, Mansueto Library is not an accepting study space for all students at the University of Chicago. Most of these interviewees attributed the lack of acceptance to the amount of noise an individual makes in Mansueto Library. For many interviewees, sneezing, coughing, and dropping a pencil were prime examples of noises that created a lack of acceptance in Mansueto Library. Another 13 of the 20 interviewees stated that people in Mansueto Library are “judgemental”. Again, many of these interviewees attributed judgement to noise levels and the productivity of their work. 8 of the 20 interviewees stated that Mansueto Library is a “restrictive” space. Many interviewees attributed this restriction to the rules in Mansueto that forbid eating, talking, and making loud noises. Additionally, some interviewees mentioned that there was a restriction of space and movement within Mansueto...
Library, even though this was not enforced by any rules or regulations of the space. One person mentioned that the restrictiveness removed opportunities for group study in Mansueto Library. Chart 5 shows the comparative number of people that defined Mansueto Library as “judgemental”, “restrictive”, or “not accepting”.

Chart 5: Acceptance, Judgement, and Restriction in Mansueto Library

Sensitivity to Noise in Mansueto Library

According to 11 of the 20 interviewees, the white noise in Mansueto Library encourages them to concentrate better. 2 of the 20 interviewees stated that the white noise was distracting or irritating. Several interviewees commented that certain sounds attract the attention of large numbers of students studying. Many stated that coughing, sneezing, loud typing, whispering to friends, dropping a pen, and tapping are all sounds that distract people studying in the space. Chart 6 outlines the noises that students find distracting in Mansueto Library.
Student Policing in Mansueto Library

According to 9 of the 20 interviewees, library staff or other students have asked them to be quiet. According to 5 of the 20 interviewees, they have personally approached other people in Mansueto Library and asked these students to be quiet for varying reasons. One indicated that they have told someone to stop typing so loudly in Mansueto Library, while another spoke to a peer about whispering to their friends.
According to 18 of the 20 interviewees, there is a strong preference for a certain seat in Mansueto Library. Out of these 18, 8 specified a specific seat within Mansueto Library to sit at and, if not available, adamantly watch for that seat to open. The other 10 specify a specific region of Mansueto Library that they prefer to sit in every time they go to study in that space. Many interviewees mentioned that the distractions of people walking in and out, temperature levels near the windows, noise levels, anti-social behavior, and access to the exits dictate their seating preferences.

Seat Occupancy Metric Quantifications

The amount of student occupancy in the Common Space, Ex Libris Cafe, and Mansueto Library was quantified over the course of 2 weeks during the 2019 Fall Quarter. Table 3 and Table 4 show the numbers of students in each space over the course of this timeframe, along with
the approximate percentage distributions. According to the data, Mansueto Library was occupied by women for 8 out of the 12 recordings during Week 1, and 9 out of 12 recordings during Week 2. Within these measurements, there were 4 recordings within Week 1 that showed a gender disparity of 10 or more people, and there were 3 recordings that showed a gender disparity between 1-10 people. During Week 2, there were 5 recordings that showed a gender disparity of 10 or more people, and 4 recordings that showed a gender disparity between 1-10 people. The Common Space was occupied most by men for 8 out of the 12 recordings during Week 1, and 7 out of 12 recordings during Week 2. Within these measurements, there were 4 recordings within Week 1 that showed a gender disparity of 10 or more people, and there were 4 recordings that showed a gender disparity between 1-10 people. During Week 2, there were 4 recordings that showed a gender disparity of 10 or more people, and 3 recordings that showed a gender disparity between 1-10 people.

Ex Libris Cafe was shown to be gender neutral for the majority of the two weeks when recordings were made of the space. Monday had the highest number of student occupancy out of every other day of the week recorded. Afternoons between 2:30pm-3:30pm had the highest number of students in the Regenstein Library compared to other times of the week. After documenting the weather conditions for every day that seat occupations were recorded, there was no indication that certain forms of weather increased or decreased the number of students working in the Regenstein Library. There was a strong correlation between a high polarity of Mansueto Library and the Common Space gender distributions during the same time of the day. There was no strong correlation between the gender distributions impacting Mansueto Library for the entire day, according to the data collected. However, there was a strong correlation
between the gender distributions impacting the Common Space for the entire day, according to the data. In the morning, the Common Space had the highest seat occupancy out of all the spaces recorded, but this is expected because of the seating options within the various spaces. Based on these results, one can see how the different sites cater to different demographics of the student population. This data shows that both men and women use all the study spaces, but a clear gender disparity exists due to limitations on social interactions in Mansueto Library and the Common Space.

Table 3: Seat Occupancy for Week 1

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>9:30/10:00 AM</th>
<th>3:00 PM</th>
<th>10:00 PM</th>
<th>Daily Total</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Total</td>
<td>Female</td>
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<td>WEEK 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Monday: 11/11/2019</td>
<td>Mansueto</td>
<td>26</td>
<td>12</td>
<td>38</td>
<td>29</td>
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<tr>
<td></td>
<td>Ex Libris</td>
<td>12</td>
<td>10</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Common Space</td>
<td>17</td>
<td>24</td>
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<td>41</td>
</tr>
<tr>
<td></td>
<td>Daily Total</td>
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<td>92</td>
<td>92</td>
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<tr>
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<td>11</td>
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<td>25</td>
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<td></td>
<td>Ex Libris</td>
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<td>13</td>
<td>28</td>
<td>28</td>
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<tr>
<td></td>
<td>Common Space</td>
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<td>22</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Daily Total</td>
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<td>46</td>
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<tr>
<td>Wednesday 11/13/2019</td>
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<td>Ex Libris</td>
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<td>12</td>
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<tr>
<td></td>
<td>Common Space</td>
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<tr>
<td></td>
<td>Daily Total</td>
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<tr>
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<td>Mansueto</td>
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<td>Ex Libris</td>
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<td>5</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Daily Total</td>
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<td>34</td>
<td>67</td>
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Table 4: Seat Occupancy for Week 2

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<thead>
<tr>
<th>WEEK 2</th>
<th>Mansueto</th>
<th>Male</th>
<th>Female</th>
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<th>Male</th>
<th>Female</th>
<th>Ex Libris</th>
<th>Male</th>
<th>Female</th>
<th>Common Space</th>
<th>Male</th>
<th>Female</th>
<th>Common Space</th>
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<td>224</td>
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</tr>
<tr>
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<td>94</td>
<td>29</td>
<td>34</td>
<td>63</td>
<td>196</td>
<td></td>
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</tr>
<tr>
<td>Wednesday 11/20/2019</td>
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<td>24</td>
<td>55</td>
<td>51</td>
<td>58</td>
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<td>63</td>
<td>105</td>
<td>269</td>
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<td></td>
<td></td>
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<tr>
<td>Thursday 11/21/2019</td>
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<td>40</td>
<td>31</td>
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<td>68</td>
<td>24</td>
<td>19</td>
<td>43</td>
<td>151</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Space</td>
<td>32</td>
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<td>74</td>
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<td></td>
<td></td>
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<tr>
<td>Daily Total</td>
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<td>119</td>
<td>217</td>
<td>594</td>
<td></td>
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</tr>
</tbody>
</table>

Observational Data in Mansueto Library vs Common Space

According to observational data, people exhibit more intentional and restrictive behaviors in Mansueto Library compared to the Common Space. People in Mansueto Library limited their movements for activities pertaining to drinking water, taking off and putting on jackets, and stretching in their seats. For drinking water, many people drank facing forward, as if they secluded themselves within the parameters of their workspace. People were very intentional about opening their drinking apparatus, drinking their water, and then closing their drinking apparatus to put away. Unlike Mansueto Library, people in the Common Space were not as intentional about drinking water. In the Common Space, people took longer to drink their water, set down the top of their drinking apparatus, looked around while drinking their water, and then closed their drinking apparatus, but did not put it away.

For settling into a space, people in Mansueto Library took less than time to take off their jacket, scarf, and take out their laptop. Additionally, people in Mansueto Library were more systematic about where to place their clothing, their laptop, and any additional materials they
were using to study. Unlike individuals in Mansueto Library, people in the Common Space took longer to remove layers of clothing, take out their laptop, and sit down to do work. In one instance, a young man stood at a chair for fifteen seconds looking around the Common Space, then proceeded to throw his hat on the floor and then his backpack. After, he sat in the chair and then started to remove his jacket. Then, he picked up his hat and his backpack to grab his laptop to do work. Within this instance, this young man was not being intentional about his movements in the Common Space, taking substantially longer to start working in this space.

These limitations in mobility speak to greater themes of restriction within Mansueto Library in comparison to the Common Space. A few interviewees mentioned their consciousness of their body movements in Mansueto Library:

“It's restrictive of how you move and how you act in there. I am definitely aware of how much space I take up and my presence because people perk up at the sight of the noise.”

Another student indicated similar feelings about movement in Mansueto Library:

“Space is very defined in Mansueto; it is not the same on the first floor or Ex...where my body is and where other people’s bodies are is more undefined in these spaces.”

When interviewees were asked about the behavioral and social differences between Mansueto Library, Ex Libris Cafe, and the Common Space, many indicated the social interactions were primary differences. 12 of the 20 interviewees indicated that the Common Space was a “social space” or a space for “socializing”. 11 of the 20 interviewees indicated that the Common Space was full of people “talking”, which they aligned with ideas of productivity. Less prominent responses were that the Common Space was “distracting”, “loud”, and a place for “hanging out with friends”. In comparison, many people described Mansueto Library as “quiet”, “studious”, and “productive”. Through these adjectives, many interviewees implied that
people in the Common Space were not completing work in a productive way, compared to those who studied at Mansueto Library. An interviewee indicated the primary reason that they believed the Common Space was not a productive space was because of the talking allowed in the space:

"I would say quiet is really important. This is where I differentiate the A level from the first floor. It [A Level] is a serious study space. They're writing on the white boards. On the first floor you see people eating, and they're dressed to socialize."

From several interviewees’ responses, the amount of noise students make is correlated to ideas of productivity within a space, along with eating and socializing. Interestingly, many interviewees did not even mention Ex Libris in the comparison of spaces, but when this space was mentioned, it was deemed a resting point or neutral space. In these instances, certain social behaviors are not correlated to the idea of productivity, according to those who study in Mansueto Library. Eating, socializing, and hanging out with friends are all actions that take place within a study space that do not have noise restrictions. It seems that interviewees relate these forms of social interaction to a lack of productivity, and remove themselves from these spaces or use these spaces to “take breaks”. This idea of productivity within Mansueto Library will be further explored in the Discussion of this paper.

**Discussion**

Different study spaces adhere to different regulations and rules to maintain the aesthetic of a space. An abundance of literature has created the framework for developing study space designs located on college campuses to reproduce and use on multiple scales. However, the study spaces within the Joseph Regenstein Library, Mansueto Library, the Common Space, and Ex Libris Cafe, all have varying factors that directly affect the demographics of the student population who utilizes these spaces. Understanding how spatial and social designs in a study
space present inclusive or exclusive frameworks of learning greatly inhibit universities and colleges from catering to the needs of the student population. Current library design frameworks have started to manifest throughout the United States at various PWIs, but cannot be justified through its correlation to the student population usage. Thus, the library designs created within the various study spaces at the University of Chicago are meant to benefit the ideal student that has been historically crafted through systematic oppressive systems.

Moreover, the library design elements being applied to university and college campuses across the United States cannot fully cater to the diverse study needs of all the students enrolled. As Brook et al. mentioned in their paper, Whiteness is perpetrated through the architectural designs that have historically excluded particular groups of the student population (Brook, 2015). Other prominent scholars on the subject of library design, such as Scott Bennett, highlight the necessity for engaging with students to understand on a more fundamental level their study needs and desires within a study space on campus. This questions the validity of library designs that do not have a more intersectional approach and application, with regards to impact on things like mental health, learning curve, productivity, and well-being.

Aesthetic

According to 18 out of the 20 interviewees, the aesthetic of Mansueto Library was one of the primary reasons that students preferred to study there over another space on campus. Of the 18 who mentioned aesthetics as part of a main reason to study in Mansueto Library, 15 attributed this aesthetic to the natural lighting in the space, 7 attributed it to how spacious it is, and 3 attributed it to the glass. When asked to compare their reasoning for choosing to study in Mansueto over other study spaces, many started to describe the aesthetic of other parts of the
Regenstein Library, such as the cubicles and upper floor bookstacks. Many stated that these spaces were “claustrophobic”, “depressing”, or “isolating” compared to Mansueto Library. These descriptors contribute to the idea that Mansueto Library oppositely represents these words. Mansueto was seen as a spacious, encouraging, and communal study space. In fact, a few interviewees explicitly used these words to describe Mansueto Library. Knowing that Mansueto Library has prevalent gender disparities, understanding interviewees perceptions of the physical aesthetic is critical to examine, as it may lend insight into how the gender disparities prevail.

As mentioned throughout the Literature Review, many open floor plans have created sexist work environments, despite increased levels of collaboration. Mansueto Library has an open layout, but this layout has neither discouraged women from utilizing the space, nor encouraged collaboration because it is a quiet study space. The silence is part of the aesthetic in Mansueto Library, but not the physical aesthetic. Rather, the silence is part of the social aesthetic of Mansueto Library, along with the rules related to no eating in this space. These two social aesthetics maintain a quiet, clean study space for students to use. The combination of the social and physical aesthetic of Mansueto Library produces certain behaviors, expectations, and perceptions of this study space. Some interviewees mentioned that these regulations create expectations for everyone in Mansueto Library. One interviewee mentioned such expectations:

“There is an expectation that it is quiet. And the purpose of that space feels silent, like the purpose feels quiet. But when you go to the first floor [Common Space] you expect noise, chaos, loud people. There are quiet signs posted all over Mansueto. It's like you’re violating some law and it feels wrong.”

The silence in Mansueto Library creates a different purpose for the space, changing the expectations of those who work in the space or engage with the space. The silence creates a
certain framework of behaviors and perceptions in the space that many interviewees discussed.

One mentioned how the silence frames Mansueto Library as a “public good”:

> You should not be able to hear people more than 3 people away. You’re ruining a public good...If you are in Mansueto you want it to be silent. Everyone is in Mansueto because they want to have a silent workspace. So if you’re ruining a silent workspace, you are infringing on all of our happiness and all of our productivity.

This speaks to how students perceive the space and create expectations for others who use the space. From the perspective of this interviewee, Mansueto Library is a “public good” that all students can utilize, but only in certain ways. There are regulations on how this “public good” should and can be used by students because of the enforced silence. The aesthetic plays a critical role in asserting ideas of behaviors, expectations, and perceptions of Mansueto Library that will be further discussed through ideas of accountability and productivity, along with visibility and performance.

**Productivity and Accountability**

As mentioned earlier, silence is part of the social aesthetic in Mansueto Library. This silence allows certain behaviors around productivity, as well as perceptions of accountability to manifest as primary reasons students choose to study in Mansueto Library. In fact, 11 of the 20 interviewees mentioned that “Pressure to Focus” was a reason to study in Mansueto Library. One interviewee explained how accountability contributed to their productivity:

> I also like a lot of pressure when I study. So I like there are people who can see what I am doing, so that I need to focus and there are other people holding me accountable.

One interviewee mentioned that they actively sought this pressure:

> I like studying in public spaces so that I see other people work and it helps me focus. It’s nice to look up and see other heads down focused and reading. I guess a little pressure to
work but knowing that and actively seeking that positive pressure. When I see other people working I feel motivated to keep working.

This interviewee specified that seeing other people working helps them to focus on the work they were completing in Mansueto Library. Their perceptions of the work other students were doing influenced his work habits in the study space. Without the open layout in Mansueto Library, he would not have the opportunity to see other students with their heads down doing work. Thus, the silence and open layout attribute to and further highlight the levels of productivity within Mansueto Library. Additionally, he found this atmosphere encouraging for him to complete his work. Being able to see other people work encouraged him to continue working, again highlighting how the layout in Mansueto Library influences perceptions, behaviors, and expectations in the space.

Another interviewee mentioned how certain behaviors are not accepted in Mansueto Library:

I feel pressured to do my work, whereas on any other floor I don’t feel like there is a pressure to do work. I feel like if I’m online shopping in Mansueto that’s kind of frowned upon in a weird way. So I feel like I have to do my work.

The correlation to “online shopping” and unacceptable behaviors strongly aligns with these ideas around being productive in Mansueto Library. Completing classwork and studying were deemed acceptable forms of productivity in Mansueto Library. If the activities were not related to schoolwork, then many interviewees explicitly stated that the work was not productive work. Interestingly, this points to certain expectations from students completing work in Mansueto Library. Students are expected to complete “acceptable” forms of work in this study space, and other perceived activities were not deemed acceptable. However, without explicit visibility in
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Mansueto Library, many students would not feel accountable for their actions. One student stated that the concealment of a cubicle did not provide the accountability she sought:

I’m tempted to go on my Hulu and watch tv sometimes. If I am in a cubicle, there is complete freedom to do that and no one can really see my computer. But if I am watching Hulu in Mansueto then it’s like, “Why am I in Mansueto?”

Interestingly, this interviewee stated that she had “freedom” to engage in leisure activities inside a cubicle, but that behavior was illogical within Mansueto Library. There is no accountability inside a cubicle because people cannot see her laptop. Thus, her behaviors are shaped by the conditions of her environment and who can hold her accountable within that setting. Again, Mansueto Library produces the conditions for students to be productive and held accountable by the physical and social aesthetics of the space.

Visibility and Performativity

Something important to note is that 3 of the 5 men who completed interviews said that part of the culture of studying at Mansueto Library was the performative component. These interviewees insisted that people who study in Mansueto Library want to be seen by others. One particular interviewee stated:

“If you’re working on the first floor or in Mansueto or even in Ex, you want people to see you. It’s a way of performing UChicago-ness.”

His perspective highlights an idea of performance within Mansueto Library. Many of the women I interviewed indicated their strong interest to study at Mansueto Library because it does not allow for socialized ideas of performativity. Many of these women indicated that they enjoyed working in Mansueto Library because they “blend” into a group of other students working in Mansueto Library. They indicated that the level of visibility within the space affirmed their
studying habits and motivation to work, but did not come with other socialized pressures; whereas more than half of the men I interviewed said that working in Mansueto Library was a very performative act. Women indicated that there was a visibility component, but was mostly useful for holding them accountable to complete work and be studious.

Interestingly, some women indicated that Mansueto Library acted as space to validate the work they were completing. In fact, one interviewee indicated that Mansueto Library was “affirming”:

“I feel like my interest is being affirmed. People see that I am there, that I am here to study, they know it's real.”

This draws on the ideas of visibility mentioned in earlier sections of this paper. Visibility acting as both recognition and control within Mansueto Library could potentially create the context for women to embody productivity and scholarship. Being “affirmed” within Mansueto Library not only recognizes these students, but encourages them to continue working and performing these ideas of scholarship through their work. This lends validity to the ideas of “performativity” that many of the men expressed during their interviews. Additionally, the visibility within Mansueto Library, without the social hierarchies that exist within the space, allow students to exist solely as scholars in the study space. Another woman mentioned this in her interview:

_I can kind of be invisible and be part of a crowd, but I feel like I need to be more performative in other spaces. I have to be more performative in Ex Libris and the first floor [Common Space] because there are more people there and the focus isn’t studying its being interpersonal and chatty._

She indicates that her performance as a social, personable individual is more laborious than in Mansueto Library. In Mansueto Library, social perceptions of her identity are not directly linked to her interpersonal skills and socialization in a particular setting. Rather, her identity in
Mansueto Library extends from the simple existence as a student being productive and studying, because that, as she indicated, is the main focus of the space. According to a plethora of women I interviewed, Mansueto Library restricts the opportunity to display different aspects of their identities. Thus, they do not have to be reminded of any other part of their identity, whether it be race, ethnicity, gender, economic status, social capital, etc. In this way, visibility creates recognition and control simultaneously. With the restrictions on socialization in the study space, these women feel that they are more recognized as scholarly students performing productivity. The controlled space appears to create a platform for many of these women to perform their dedication to their work.

This relates further to the bandwidth of visibility that Brighenti mentioned earlier in this paper. According to many interviewees, many of their friends refuse to study in Mansueto Library because it is a “judgemental” or “restrictive” space. Interviewees indicated that their friends used “judgemental” to describe students who crafted negative perceptions of others who did not follow the noise limitations in Mansueto Library. Interviewees also indicated that their friends used “judgemental” to describe students who crafted negative perceptions of those who were not “serious” about completing their work. As an interviewee indicated in their interview:

“I think people in Mansueto are judgemental. If you’re even whispering for too long they’ll look at you and stare at you...My friends hate it, just because they mention the judgemental thing.”

Due to her friends’ perceptions of the space, they felt that Mansueto Library was a judgemental study space compared to other spaces. As mentioned within the Results Section, 13 of the 20 interviewees described Mansueto Library as a “judgemental” study space. Earlier within this paper, many interviewees correlated perceptions of productivity to the amount of noise created in
a space. This impacted interviewees’ choice to study in Mansueto Library or upper floors of the Regenstein Library, over the Common Space and Ex Libris Cafe. Thus, the amount of perceived productivity impacts decisions for some students to study in Mansueto Library versus another space on campus. The aesthetic, along with the parameters of accountability and productivity, shape perceptions of what students should be doing in the study space. Further, the visibility and affirmation from such behaviors lend greater validity to the idea that students who are “serious” about completing their work come to the space. Not only does this attract a particular group of students to work in this space, but also discourages others from engaging in the space.

Overarching Analysis

Only certain students feel that Mansueto Library affirms their work and the productivity being performed in the study space. So which groups are lacking this affirmation? It is critical to reexamine Brook’s interpretation of library spaces, and how “…the ways in which people inhabit and regulate that environment [college and university libraries], that reflect the architecture, attitudes, achievements, and ideals of “the historic White legacy of PWIs [Predominantly White Institutions]” (Brook, 2015). The University of Chicago motto currently is “Crescat scientia; vita excolatur”, which roughly translates to “Let knowledge grow from more to more; and so be human life enriched”. Mansueto Library embodies this idea of scholarship and knowledge through the productivity and visibility systems interplaying in the space. But not every student aligns with the reflected narrative of Mansueto Library, and its representational power on campus. So this study space turns into an examination of why Mansueto Library represents white women as its occupants, rather than students who identify differently.
This draws attention back to Brighenti’s conceptualization of visibility, and the bandwidth of inclusion that visibility creates. According to Brighenti, on the lower end of the visibility threshold, certain groups of people are socially excluded. When thinking critically about who exists on the lower threshold of visibility, the easiest answer points to historically disadvantaged groups. More specifically, at PWIs, this mostly pertains to students from disadvantaged socioeconomic backgrounds. Students from disadvantaged socioeconomic backgrounds were not considered during the construction of libraries at PWIs, because these institutions do not cater to this demographic of students, historically.

Even though Mansueto Library neutralizes various parts of a student’s identity through its regulation of the space, the bandwidth of visibility seems to permit certain individuals with greater freedom to navigate in Mansueto Library unilaterally as a productive scholar. Within a restrictive setting that is unilateral, students’ identity becomes more salient, encouraging them to further engage with the space and maintain the expectations of that space. Because these restrictions create a one-dimensional space, students from disadvantaged socioeconomic backgrounds must conform to this unilateral engagement with the space. This group creates the lower bandwidth of visibility in Mansueto Library.

On the upper threshold of visibility, certain students become the individuals who embody “super-visibility” in spaces. The socioeconomic privilege developed within their identity allows them to seamlessly navigate space without restrictions. However, with the restrictions inside Mansueto Library, many of these students are deterred from the space, as visibility seeks to empower in one way, but disempower in another. The disempowerment relates to the limitless navigation of space with full control, and the empowerment aligns with the ideal scholar at a
university or college. The restrictions may not align with the identities of these individuals, pushing them to leave the space. For the students who choose to stay in the study space, they must conform their identities to a certain degree. They must subvert their identities to fit into the controlled setting of Mansueto Library. This precludes the notion that they want to move unilaterally in the study space as a student, nothing more.

With an ontological understanding of the historical context of the University of Chicago, the bandwidth of visibility in Mansueto Library appears to exist, as it excludes certain groups of people from performing in this space. Restricted forms of socialization, specifically related to noise regulation, allow individuals to exist within Mansueto Library as a scholar performing productivity. This aligns closely to ideas of removing the “male gaze” and the “white gaze” in spaces of social interaction. This creates a setting of unilateral movement in Mansueto Library as a student completing work, lending validity to the ideas of affirmation and encouragement that many women mentioned in their interviews.

As a space that creates a bandwidth of visibility that aligns with the socialization patterns of quietness, it appears that white women benefit most from Mansueto Library as a platform. Mansueto Library creates an affirming space of scholarship for white women to embody and enable through the aesthetics, accountability, and productivity in the space. The space maintains a superficial level of oppressive forces, i.e. noise regulation, that align with the identity politics most salient to white women. Thus, Mansueto Library embodies present forms of unilateral navigation in a learning space because students function solely through their academic scholarship. Students are partially drawn to this student space for the purpose of scholarship as a college student.
Discussion

Contemporary Issues

In this context, my findings are a cause for concern. The most current library designs being employed by the Joseph Regenstein Library are inherently benefitting particular groups of the student population throughout their educational trajectory. Such exclusivity leads one to questions who these study spaces are actually created for presently and in the future. The dissonance between how these library design innovations tie back into several pieces of literature that point out this dichotomy. In many case studies, a particular factor, such as limited community engagement, lack of inclusivity, construction delays, etc. contributed to the failure of presently used library design layouts throughout the United States, not only on college campuses, but for public use. These findings tie into the greater context of urban design for learning spaces and spaces of social engagement on college campuses across the world.

The reason libraries are crucial to analyze is for their potential impact in students’ lives. Libraries are crucial for student success in college for a number of reasons. Most interviewees indicated that they came to the library because they could not complete their work at home. Thus, this shows that libraries are an integral part of the college experience for students. Libraries offer unique opportunities to develop study habits, attain knowledge, socialize with friends, and achieve academic success. So, when libraries are not designed in a way to foster these critical experiences of academic success, students are missing an enormous growth opportunity. Students should be entitled to the resources, learning opportunities, and privileges that would enable them to succeed in whatever setting they study. If not, we are continuing to enable historical inequities within the urban context of student life.
Recognizing that library designs that are historically aimed at enabling certain able-bodied, straight, white men is crucial to reevaluate as student demographics become increasingly diverse. As communities, corporations, and other entities start to recognize the value of urban designs that are fundamentally equitable, we need to critically examine the ways we choose to design every aspect of the built environment. My findings contribute knowledge on the current library designs and learning spaces that are used to create a culture of learning for students on college campuses. Specifically, the lens of visibility contributes to the salience of identity in certain spaces with particular manifestations, leading to a greater critical analysis of visibility in open study spaces. Understanding the tensions that exist will further conversations around the best design elements possible to further include students who can utilize the space in an according way.

Moving Forward

The critical next step in this agenda for research and action is the generational evidence of library design implementations to dismantle current architectural frameworks of creating learning spaces. Such evidence would provide an invaluable knowledge-base to enable policy-makers, decision-makers, and funders to prioritize urban development programs throughout the city that are more equitable. This research would require the careful ethnographic research of organizations and communities exploring the development of learning spaces frameworks, and analyzing the potential positive and negative outcomes of this implementation.

Conclusion

This provides readers with foundational knowledge on the greater implications of designs for “learning commons”, which have been an ever growing pursuit of higher level educational
institutions. The socializing patterns crafted within different learning spaces I examined question the underlying design methodology currently being used to construct learning spaces in a private and public space. As evidenced by substantial case studies and theoretical analyses by scholars of library design, the development of library spaces without prioritizing student populations can result in an exclusive manifestation of learning. Such designs create direct conflict with potentially radical designs that intersectionality cater to the entire student population in a substantially positive way.

This analysis of Mansueto Library, the Common Space, and Ex Libris Cafe suggests that there are limitations to how students can take advantage of learning in an inclusive and welcoming space. These library designs depend on a system of historical architectural development to understand the needs of students who interact in a learning space. Thus, such designs impact the validity of such learning spaces. My findings identify the tensions and pitfalls of using library designs meant to embody the ultimate ideas of “UChicago-ness”. If colleges and universities are interested in pursuing modifications to library designs that create the best learning opportunities for all students, understanding library designs as anything other than a learning space will limit the adaptability and growth curve of these libraries.

Unlike past studies on the development of library designs to further suit the student population, this research explores the sociocultural and institutional dynamics that impact the inclusivity of a learning space like a library. Designing a library requires active participation by entire ecosystems for implementation that cultivates impactful results for not only the student population, but for the community as a whole. Thus, university affiliates and organizations, businesses, community members, and students must be willing to evolve library designs.
This study is important for library design projects that universities, particularly Predominantly White Institutions (PWIs), pursue. Without understanding how socialization patterns enable the exclusion of certain groups of people, scalable application of equitable learning space designs would be futile. Raising consciousness around the built environment interplays directly with ideas of urban design and holistic ecosystems that have intersectional viewpoints of creation. Additionally, as more people move into cities, sustainable development practices will no longer be applicable on a large scale for a set timeframe. The future of urban design will require the input, adaptation, and resilience of multiple stakeholders on an indefinite timescale to sustain humanity and its migration into urban areas.

Moreover, the current library design modifications being promoted throughout the country have major setbacks for students across the country. As Brook et al. suggested through her piece, library designs need to undo the inequities associated with historically privileged spaces in order to create a more inclusive and dynamic learning space (Brook, 2015). Other prominent scholars on the subject of library design, such as Scott Bennett, highlight the incompatibility of current library designs with the learning habits of the incoming generations of students on college campuses. This questions the validity of using library designs that are not more intersectional in approach and measurement, with regards to measurements like mental health and well-being.

When rethinking the development of sustainable cities, understanding the ecological tensions and approaches to designing spaces of inclusivity are critical for creating a more equitable existence for humanity. This study is limited through its capacity to have a fundamental agreement on what this ideal state looks like on a macro and microlevel, thus
creating tension on how to best measure the limitations of sustainable development for any and all buildings. Future research would need to focus on how to best individualize and understand the impact of more equitable spatial designs on populations of people who are not historically advantaged in these spaces.

With more and more people moving into urban areas, understanding the best ways to ensure intersectional city development throughout the future is critical for several stakeholders. On a more fundamental level, library design analysis allows for marginalized groups to have a greater platform of expression, allowing people to cultivate stronger feelings of agency and identity than previously allowed in an urban setting and historically exclusive spaces. Learning spaces, though not an all-encompassing solution to inequities throughout the world, will allow for equitable spaces to flourish on an indefinite scale in educational settings. This will ultimately create a sense of empowerment for people to nurture throughout their lives, enabling people to have greater well-being and agency from a younger age.
Sources


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APPENDIX

Consent Form:

University of Chicago Consent for Research Participation

Study Number: IRB19-2088
Study Title: The Inclusion and Exclusion of Student Populations in The Joseph Regenstein Library: A Case Study of the Joe and Rika Mansueto Library
Researcher(s): Jaida Nabayan & Charles Broughton

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate. Your participation is voluntary.

Purpose: The purpose of this research is to further understand varying factors that impact why students choose to study in certain spaces within The Joseph Regenstein Library.

Procedures and Time Required: You will be asked to participate in 1 30-minute interview in- person. With your permission, the interviews will be audio-recorded.

Financial Information: Participation in this study will involve no cost to you. You will not be paid for participating in this study.

Risks and Benefits: Your participation in this study does not involve any risk to you beyond that of everyday life.

Confidentiality: I will collect the email of interview participants to schedule the interview at Regenstein Library if they are not available for an interview during the present request. Email addresses will not be used outside the study. I will be taking some handwritten notes. I will type them up as soon as possible and will store them on UChicago Box. I will destroy the original paper notes as quickly as possible by shredding them. I will store data on my personal laptop and transfer data to a secure encrypted server in UChicago Box.

● Identifiable data will never be shared outside the research team
● If you decide to withdraw from this study, the researchers will ask you if the information already collected from you can be used,
● The information collected as part of this research will not be used or shared for future research studies, even if all identifiers are removed.

Contacts & Questions:
If you have questions or concerns about the study, you can contact the Jaida Nabayan at jnabayan@uchicago.edu.

If you have any questions about your rights as a participant in this research, feel you have been harmed, or wish to discuss other study-related concerns with someone who is not part of the research team, you can contact the University of Chicago Social & Behavioral Sciences Institutional Review Board (IRB): phone (773) 702-2915, email sbs-irb@uchicago.edu.

Consent:
Participation is voluntary. Refusal to participate or withdrawing from the research will involve no penalty or loss of benefits to which you might otherwise be entitled. By continuing to complete the interview, you agree to participate in the research.
Gender Distribution Maps