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of a

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Gender

Zeitgeist

The Vignette of a Gender Zeitgeist

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Abstract

Queer genders often exist outside architecture, due to the binary spaces the practice has made hegemonic. Sociologists in the last ten years have been documenting the negative social, psychological, and physical effects of gender-segregated spaces on persons with Queer gender identities. In the last two years changes have been made to the International Plumbing Code, and civil discrimination laws to accommodate for bathrooms typologies outside gender-segregated options. By utilizing Public Interest Design methods, questions like — what inclusive bathroom spaces do stakeholders want, what do persons with Queer gender identities want in inclusive bathrooms, can these two interest groups' programs be integrated — are what this thesis uses installations, mapping, and social inquiry to answer. It is the aim of this thesis, *The Vignette of a Gender Zeitgeist*, to be a tool for architects to develop as Queer gender norms, social geographies, and architectural paradigms change.

Thesis Summary

Broadly speaking, this thesis focuses on gender segregated spaces, and those spaces that have been foisted into the gender binary. In the last decade, Sociologists have researched how the built environment affects persons that have Queer gender identities. What they have observed is that spaces that are gender segregated — like restrooms and changing-rooms — seriously impact the lives of persons with Queer gender identities.

When architectonic discrimination against persons with Queer gender identities became headline news (North Carolina H.B. 2, and *G.G. v. Gloucester County School Board*), petitions were made to change International Plumbing Code (IPC) to provide alternative typologies to gender segregation. As of IPC 2021, binary gender division in some types of architectural programs is no longer required. The consequence of this rapid social change beckons questions about user perceptions of these spaces. A handful of architects have developed case studies that illustrate the numerous spatial typologies that can be generated from IPC 2021.

After presenting this thesis' literature review to the rest of the M. Arch candidates, many responded that they did not know of the consequences of discrimination toward persons with Queer gender identities through gender segregated spaces. This illumination titrated the subject of this thesis to the University of Detroit Mercy McNichols Campus. Formerly the campus was exclusively male, and policies around gender segregated spaces have yet to become a real conversation on campus. For these reasons, the University (as of 2023) has few resources for persons with Queer gender identities. The hope of this thesis is that it brings about social and structural change for those persons with Queer gender identities.

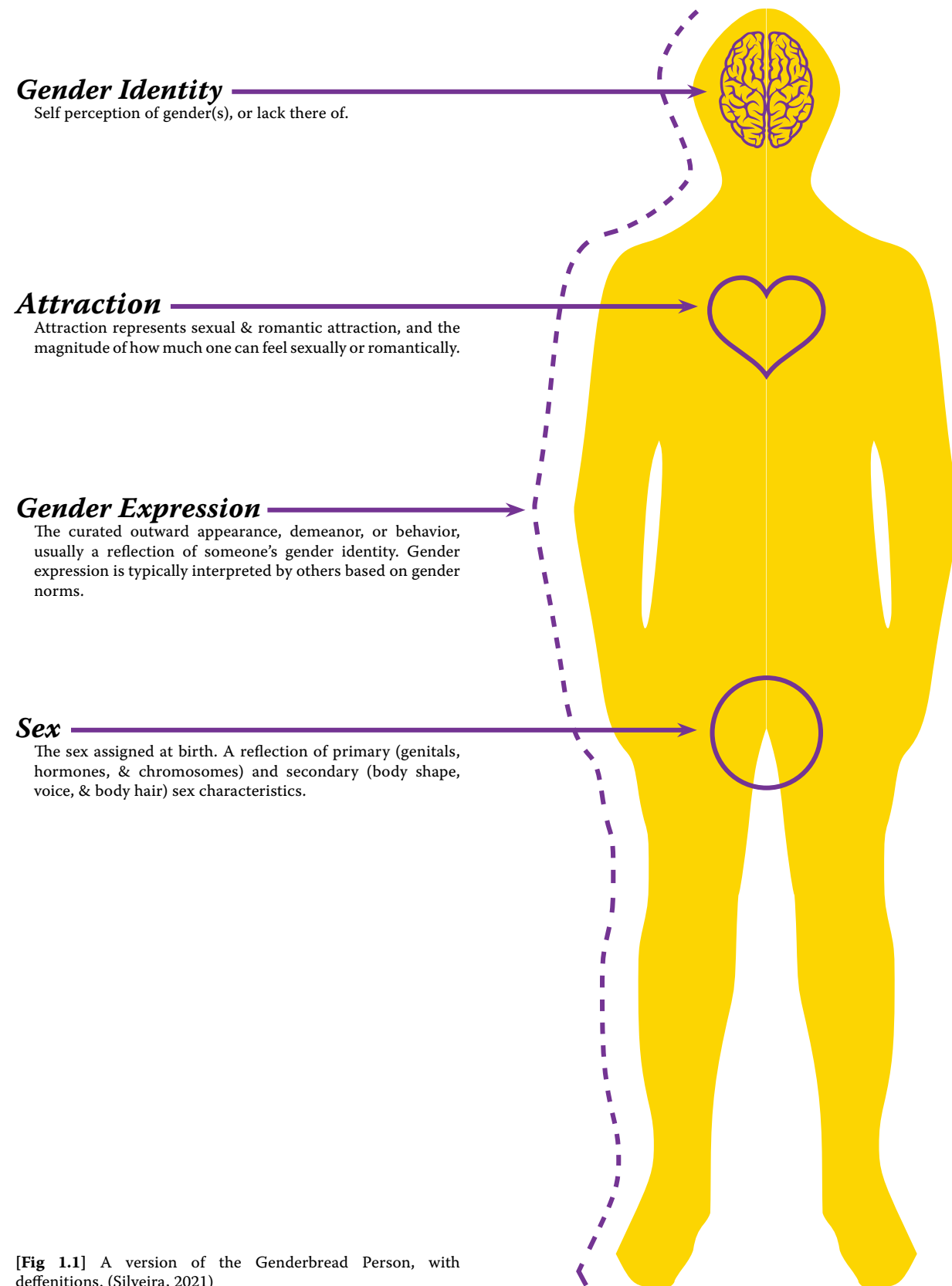
Due to the contextual framework of this thesis subject, the methodology took some time to deliberate. After reviewing architectural research on gender-segregated spaces, a gap in knowledge was observed. While architects have found satisfaction in various methods, it would seem not much consideration has been made to publish methods that give stakeholders a voice for inclusive restrooms and changing room programs. Public Interest Design methods are used in this thesis to ask the stakeholders of University of Detroit Mercy what they want in inclusive environments. These methods involve installations, surveys, and focus groups.

Between walking for graduation in May of 2022, and the submission of this thesis book in September 2023, there have been numerous changes in national and state politics, UDM campus buildings, and architectural pedagogy, regarding gender. Some changes have been added to this original thesis draft.

Chapter I

Introduction

Queer, Gender & Queer Gender Identity



[Fig 1.1] A version of the Genderbread Person, with definitions. (Silveira, 2021)

What does it mean to be Queer? Depending on the era, this answer would differ. At first, to be 'Queer' just meant that someone was strange, that some aspect of themselves was incompatible with society. But over time, this label began to take on a more sinister meaning, it was used to label those that were sexual or gender deviants. It became an insult, thrown at those who did not fit into society's strict heteronormative and binary rules. It became a slur. However, slurs can be reclaimed, and reclaimed it was. Now, many self-identify as Queer, using the label to describe how they view their sexuality or gender. Queer now has many, many meanings, often used by those who experience more than one specific form of deviancy, a preferred alternative over having to explain every unique facet of one's identity. And while not all feel comfortable reclaiming this slur, as is their right as an individual, Queer has become the accepted academic term for this community. Even popular acronyms, such as LGBT/LGBTQ/LGBTQIA+/etc., have changed rapidly since the 90's when Queer Theory originated, the acronym at the time was simply GLT.

To understand the complexity of Queer identities, it is important to understand that to be Queer, is more than just not being straight. A person's identity consists of various aspects, their sex, gender, and sexual and romantic attraction. Sex refers to a person's biological characteristics, such as primary and secondary sex characteristics, hormones, chromosomes, gonads, and external anatomy. Gender is defined by the socially constructed ideas and norms that create the cultural notion of what it means to be that gender. These can vary from culture to culture, and from society to society. Typically, one's sex aligns with one's gender, but this is not inherently the case. Sexual Orientation refers to a person's 'sexual' preferences or orientation, that is, to whom they are attracted. It is important to note that one's sexuality can change

over time, and that it is not related to one's gender identity. Sexual Identity is the label people use to describe their sexual orientations. Some people may have the same orientation but use different labels for their identity. For example, for some Trans Men, they may still identify as a Lesbian because that is the identity they used before they transitioned, so even though their orientation may now appear to be 'Heterosexual' this language may not fit the full complexity of their sexual orientation. Further, one's romantic attractions and sexual attractions may also not align. Romantic attraction is the desire to form a relationship with someone that is not platonic, but also not necessarily sexual. For example, someone could be asexual, but still bi-romantic, meaning they are romantically attracted to multiple genders, but do not desire sex with any of them. Whereas sexual attraction is the desire to have sexual experiences or a sexual relationship with another person. Often these overlap with a desire to also form a romantic relationship with that person, but not always. For example, someone could be bisexual, but homoromantic, meaning they are willing to have sex with multiple genders, but are only romantically interested in those of the same gender.

Taking these concepts and displaying them in a graphical manner has yet to be achieved perfectly. One attempt, the Genderbread person, published by Sam Killermann in 2011 describing it as "A teaching tool for breaking the big concept of gender down into bite-sized, digestible pieces." There are several things to take away from Killermann's Genderbread person. The first is that one's gender expression and identity are dependent on culture. For example, the Scottish Kilt is often a tool used as a joke in American media, where a male character will be mocked for wearing a skirt and told that they are acting effeminate by his male peers. In Scottish culture, the kilt is a symbol of masculinity, but this

cultural perception of the clothing has been altered by the society in which it is being perceived. This is stated well by Will Robertson in their critique of Genderbread person (Robertson, 2012), that “this is why cross-cultural gender expression is problematic. The ways that people in one society express their gender may be radically different than another, which can be misinterpreted.” Further, the Genderbread Person has become semi popular as a teaching tool to describe the intersections of identity within one’s body. While, it may be an oversimplification of the problem, realistically, most people need an approach that does simplify Queerness down to an easy-to-understand model. Even those who are Queer themselves, often face difficulties in describing their own experiences, as each person may have such a unique grasp of their identity.

However, as an infographic, I have a few problems with the Genderbread person. The first issue is that sex is represented by the transgender symbol, and that this symbol appears over the Genderbread person’s crotch. This highlights two common misconceptions around gender, that how one perceives their sex is only an issue for the Transgender community, and that this issue is solely focused on the genitals, or primary sex characteristics. From a graphical standpoint, it does not do a respectable job at expressing that many people may be uncomfortable with their body and sex specific characteristics, for many reasons. Further, from a medical standpoint, one’s sex is determined by many characteristics, not just one’s genitals. This graphic fails to consider how secondary sex characteristics influence one’s sex, such as their breasts, body hair, and chromosomes. Further, I also have an issue with how the categories of attraction, sex, gender identity, and gender expression, are described on a linear scale. It is an oversimplification of Queerness, and one that uses a binary idea of one side versus the other. Therefore, for this thesis, the version of the Genderbread person attached here, is a way to openly investigate the Queer identity superimposed over an abstracted humanoid.

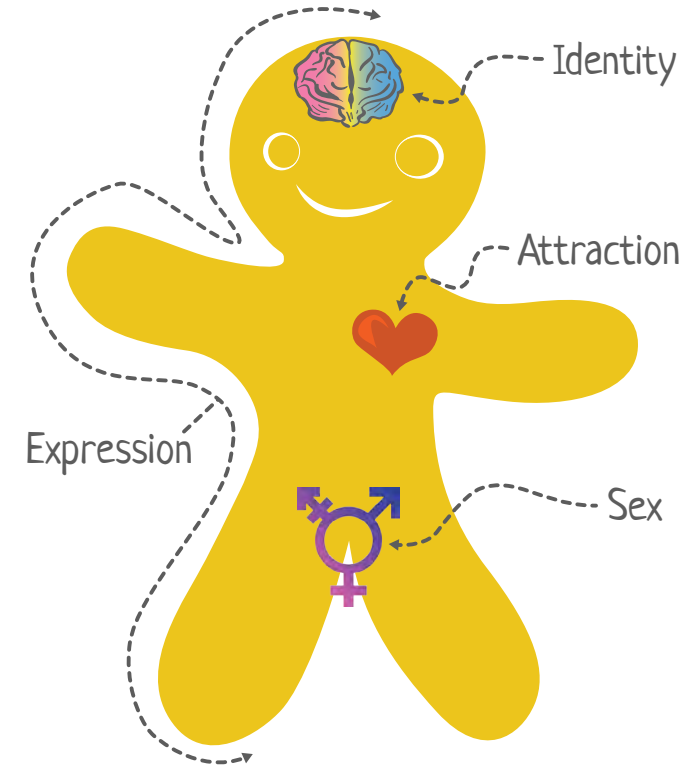
While a graphic like the Genderbread person is great for understanding Queerness from an individual and bodily level, it does not function to

define gender from a societal perspective. However, concepts like the gender binary and its relation to gender identity can be graphically represented in a macro way, and the simplest way to do this is to imagine it as a shape that can be easily understood, a tetrahedron. Two of the edges of the tetrahedron represent the binary genders roles (masculine and feminine), and the third represents the concept of being agender that is, one who identifies as having no gender. Therefore, the bottom of the triangle represents gender identity as prescribed by the binary, and one’s personal alignment to traditional gender roles is represented by moving up or down in the y axis, and one’s assigned gender role (as prescribed by the binary) is movement along the x axis. Movement along the z axis toward the non-binary point on the tetrahedron represents those gender roles that do not rely upon binary norms. Which is aligned with the non-Binary gender identity, that is, those whose gender identity does not exist within the gender binary, they are neither male nor female.

Any way of graphically describing gender, attraction and sex will become problematic because these are norms that change overtime based on the societal awareness of these identities. Give this five, ten, twenty-five years, and these graphic depictions of gender may age like milk and should be seen as a product of their current time, and current vernacular.

Finally, we must express those who experience gender outside of the gender binary, that is, people with Queer gender identities. Those with Queer gender identities are united by one thing, that their gender identity does not match the one they were assigned to at birth for some or most of the time. However, there are many, many, many ways this can manifest. Because of the complexity of the identities, the issues this community faces are also complex. For example, public attitudes towards persons with Queer gender identities can be very problematic. One Survey (Callahan & Zukowski 2019, pg.15) suggests that some American cisgender adults are likely to verbally harass and seek out authorities if they suspect someone of a different gender is in a gender-segregated space. Another survey (White & Jenkins, 2017, pg.53) suggests that having the appearance of someone fully transitioned (passing),

The Genderbread Person v4 by its pronounced METROsexual.com



⊖ means a lack of what's on the right side

Gender Identity

- Woman-ness
- Man-ness

Gender Expression

- Femininity
- Masculinity

Anatomical Sex

- Female-ness
- Male-ness

Identity ≠ Expression ≠ Sex
Gender ≠ Sexual Orientation

Sex Assigned At Birth
 Female Intersex Male

Sexually Attracted to... and/or (a/o)

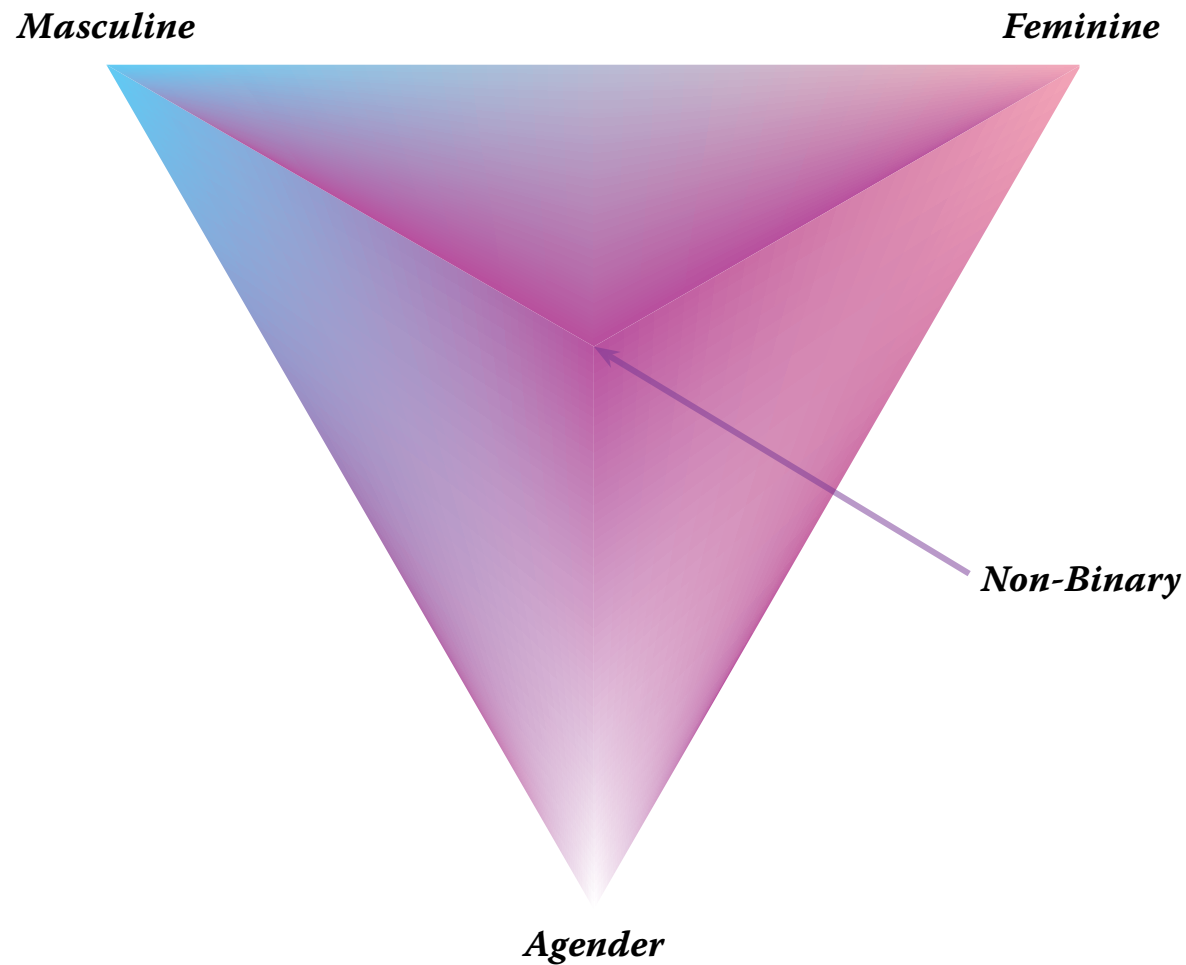
- Women a/o Feminine a/o Female People
- Men a/o Masculine a/o Male People

Romantically Attracted to...

- Women a/o Feminine a/o Female People
- Men a/o Masculine a/o Male People

Genderbread Person Version 4 created and uncopyrighted 2017 by Sam Killermann [For a bigger bite, read more at www.genderbread.org](http://www.genderbread.org)

[Fig 1.2] Sam Killermann’s Genderbread Person Version 4. (Killermann, 2017)



[Fig 1.3] Gender tetrahedron & societal definitions of gender. (Silveira, 2021)

Gender

Gender is defined by the socially constructed ideas and norms that create the cultural notion of what it means to be that gender

Non-Binary

An umbrella term to describe anyone whose gender identity is outside male or female.

Agender

An term to describe those that feel as if they do not have a gender.

Genderfluid

An identity for persons whose gender changes over time. The time one experience a gender and to what intensity vary, even the quantity of genders one identifies can change across time.

Intersex

An medical term for someone who is neither fully biologically male or female, whose anatomy, psychology, and hormones differ. Outdated terms such as hermaphrodite also describe persons of this sex.

The Gender Binary

The classification of gender into just the masculine and feminine for social or cultural homogenization.

Cisgender

Cis is the Latin prefix meaning “on the same side” and is an antonym to Trans. Ergo, cisgender is someone whose is not transgender.

Transgender

An umbrella term for persons whose gender identity differs from the gender they were assigned at birth.

directly correlates with how comfortable cisgender college students feel in gender-segregated spaces with transgender students. Persons with Queer gender identities often refrain from using the restroom or do not drink water to avoid public bathroom confrontation (James et al., 2015, pg.228). Serious health risks can happen from dehydration and voluntary urinary retention such as UTI’s, kidney infections, and bladder ruptures. Further, about one in four persons with Queer gender Identities were questioned or challenged when using the restroom in 2015, and one in ten of those questioned were then denied access to that restroom, and one out of eight Queer individuals were verbally or physically attacked during 2015 (James et al., 2015, pg.225). Of those that were physically or sexually attacked in a restroom, 80% of the assaults were in a public restroom, where the remaining 20% of the time, the assault occurred in a school restroom (James et al., 2015, pg.226). Research has also shown that there is a strong correlation between suicidal impulses in college-aged persons with Queer gender identities and being denied amenities that are not gender-segregated such as housing, bathrooms, locker rooms, showers, changing rooms (Seelman, 2016, pg.13). This has led to an inexcusable number of suicides attempts in the Queer community. Around 40% of persons with Queer gender identities have attempted suicide at least once in their lives, with 82% seriously considering attempting suicide (James et al., 2015, pg.114).

Since walking for graduation in May of 2022, Idaho passed SB 1100, which prevents K-12 schools from designing inclusive restrooms for the use of multiple persons, instead there can only be spaces designated for male or female sexes (Idaho, 2023). Kansas passed SB 180, which legally defines a female as a person “whose biological reproductive system is developed to produce ova” that creates legal president for defining gender through sex at birth, the consequences of this understanding of gender will affect athletics, prisons, domestic violence centers, rape crisis centers, locker rooms, and restrooms (Kansas, 2023). The ACLU tracker for anti-LGBTQ bills in the U.S. currently shows 494 bills as of August 2023. Queer gender identity is currently being attacked and redefined across state borders.

Obviously, this is just the beginning for problems facing those with Queer gender identities. Those with Queer gender identities also face the same issues the rest of the Queer community faces: Queerphobia, the politicization of their identity, issues with housing, employment, access to healthcare, the extra hurdles to adopt or foster children, the inability to donate blood, etc. All of this accumulates in an expansive problem too big for one individual to solve or articulate on the depth and breadth of the problem. However, what I can do is work to explore the issues of this community through my unique expertise as an Architect. As an architect, I have the possibility to examine how the issues surrounding Queer gender identities can transform the structures that make up the University of Detroit Mercy’s McNichols Campus.

DO YOU KNOW THAT YOU ARE SITTING IN A SEAT OF PRIVILEGE?

The Mission of the Restroom Revolution is to advocate for safe, accessible restroom facilities for our campus community. Currently, many people do not have access to such facilities-- particularly those whose gender identity or appearance does not conform to societal expectations. People who do not appear traditionally male or female risk harassment and violence in sex segregated facilities. The Restroom Revolution affirms the right of all people to have access to safe bathrooms.

Stop by our table in the Campus Center Concourse to learn more about Restroom Revolution.

[Fig 2.1] This was a poster placed in restrooms at UMass-Amherst by *Restroom Revolution* in 2001 (2010)

Public Restrooms & Queer Gender Identity

Historically, the plumbing code in America has been used to enforce gender segregation. In an essay by Terry Kogan, *Sex-Separated Public Restrooms and their Regulation throughout American History* (Kogan, 2018), Kogan mentions that Sex segregated restrooms “did not begin in America until the mid-nineteenth century” and that “the origins of this practice can be traced directly to a sexist cultural vision that developed at the beginning of the century.” Between the era of flush toilets becoming popular in 1851 to 1887, these notions of gender segregation existed only as a product of social norms. In 1887, Massachusetts wrote the first state legislation about gender segregated public restrooms, by 1920, 43 states would have similar laws:

“In every industrial establishment and railroad establishment there shall be provided suitable, adequate, and convenient water closets and washing facilities, separate for each sex and plainly so designated, ... No person shall be allowed to use a closet or privy provided for the use of persons of the opposite sex” (Massachusetts, 1887).

Those who live in or visit the United States, have experienced spaces designed within the confines of the International Code Council (ICC). The ICC makes the legally actionable code that ensures the safety and welfare of humans within the American built environment. To ensure that the published code reflects current paradigms in human safety and welfare, these international codes are revised every 18 months and published every three years. While this ICC code development is an open process, it has still maintained a plumbing code that enforces gender segregation. Until recently (as of the 2021 edition), International Plumbing Code (IPC) used a system where architectural programs divided maximum

occupation of an environment in half for water closet and lavatory counts, these counts enforced binary perception in restroom design, even for single user restrooms.

Many attempts were made to revise the IPC’s enforcement of gender segregation. Reported in an article in *Fast Company*, in years prior many proposals were rejected because the language was not legally defensible, a comment on one rejected proposal by a woman on the ICC jury panel said that that proposal made her uncomfortable (Miller, 2018). Knowing this QSPACE, a Queer architectural research practice, challenged New



[Fig 2.2] *Coded Plumbing*. (QSPACE, 2016)

York City's municipal code section P104.0:

“Facilities for each sex where public toilets or bathing facilities are designed for use by more than one person at a time, separate facilities shall be installed for each sex” (NYC, 2015).

Through an installation called *Coded Plumbing* (Johnson & Day, 2016), an exhibition that engaged the public with 1:1 scale plumbing partitioning coupled with “bathroom bill” legislation. The effect of this project was not just to inform the public about the toxicity of gender segregation but to spur emerging architects to use the accompanying toolkit and cad blocks to challenge gender segregated bathroom typology.

Stalled! (2016), a design initiative by MIXdesign, is a think tank representing Architect Joel Sanders, Professor of Gender and Women's Studies Susan Stryker, and Trans-rights Lawyer Terry Kogan. This group submitted a petition that succeeded in challenging the IPC to adopt

a universal multi-user stalls approach as a restroom typology. Sanders and his associates developed case studies for gender inclusive public bathrooms for a variety of architectural programs. Additional academic thought leaders contributed insight into spatial thinking regarding various noncompliant bodies (i.e., autistic, blind, & deaf persons). Stryker contributed a comprehensive history of gender segregated restrooms in the American architectural cannon. Kogan made sure that the petition to the ICC was legally defensible. Through these efforts IPC2021 accommodated code for various architectural programs to have gender inclusive public restrooms.

It is important to note that before IPC2021, Bathroom codes accommodated for single user universal stalls. These types of public bathrooms would have a sink and toilet in them, in some contexts they might have a folding baby changing table and were labeled “family restroom” to denote that these public facilities were useful for young families. The intention of the single

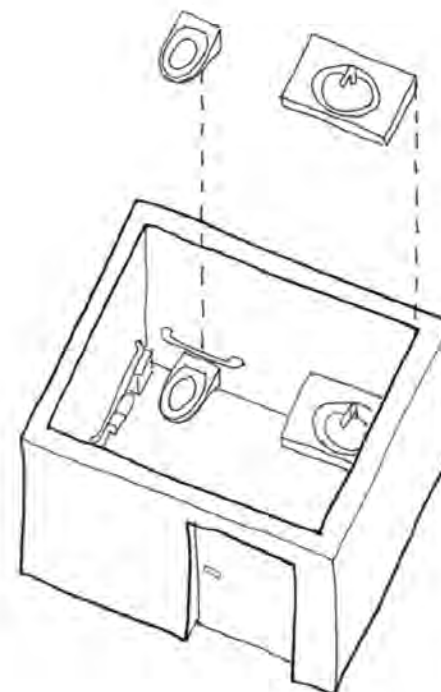
user universal stall is its intersectional approach, where intersectional design is informed by the multiple facets of discrimination from various groups of civic patrons. The idea is that regardless of physical ability, age, gender, race, or creed the universal single user stall can be used by anyone. Unfortunately, universal design does not account for equity and thus inclusion. In the case of Queer gender identities, signage like “family restroom” denote use for families, so Queer and disabled patrons alike are verbally challenged by onlookers who may idealize the use of such facilities for young families. Second is the issue where transgendered and cisgendered college aged adults alike prefer universal restrooms over gender segregated bathrooms (Caba, 2020, Pg.28). IPC before 2021 did not have a required count for how many bathrooms had to be universal single user, so inevitably there would never be enough universal single user bathrooms for their demand, plus their plan took up more space than the gender segregated bathrooms. Lastly creating a single user universal stall adjacent to gendered bathrooms

“others” whoever uses them. Regardless of a user's gender identity, the stigmatization of using a universal single user restroom when there is an expectation to just use the gendered restrooms poses a risk to social participation (Porta et al., 2017, p.110). Further if someone with a Queer gender identity did use the single user universal stall, that person may pose the social risks of being outed (GLSEN & NCTE, 2016, p.6). In the instance of architectural programs only needing one to two water closets, the universal single user bathroom is still a viable option. But for the reasons previously listed, the multi-user universal stalls approach is a better one.



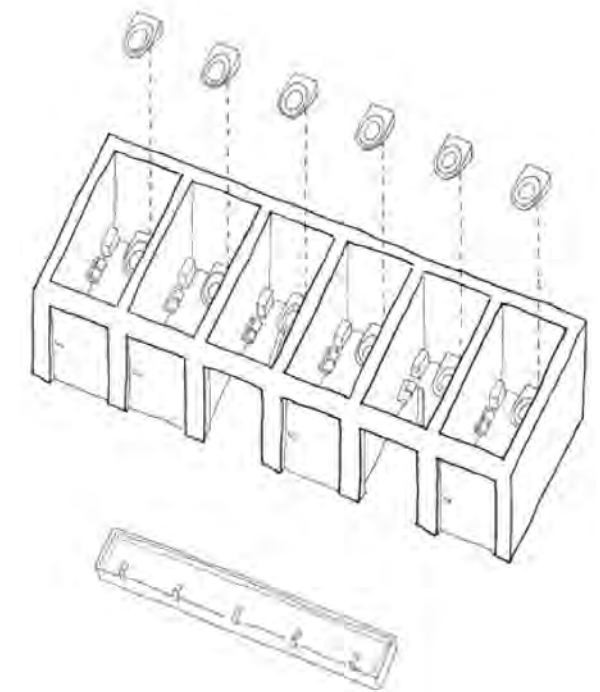
[Fig 2.3] *Coded Plumbing*. (QSPACE, 2016)

Universal Single-User Restroom



[Fig 2.4] *Typologies and Precedents*. (HCMA, 2018)

Universal Multi-User Restroom



[Fig 2.5] *Typologies and Precedents*.. (HCMA, 2018)

Inclusive Spaces

+ NAVIGATE THIS SECTION

Home - Academics - Academic Affairs - Title IX - Inclusive Spaces

Gender Inclusive Restrooms

McNichols Campus

On the McNichols Campus, all-gender restrooms are available in the

- College of Health Professions
- Library
- 1st floor of Shiple Hall
- Lower level of Ford Life Sciences

Corktown Campus

At the Corktown Campus, all-gender restrooms are available on every floor.

Riverfront Campus

At the Riverfront Campus, all-gender restrooms are available on each floor and in the library, and signs affirm the right of all users to access the single-sex restrooms that correspond to their identified gender.

All-gender restrooms are also available at the Law Clinic.

Novi Campus

At Novi Campus, all-gender restrooms are available on the first and second floor.

Lactation Spaces

The University provides a number of dedicated lactation spaces for students, employees, and visitors. These spaces are in the following locations.

McNichols Campus

- Library, first floor
- College of Health Professions, second floor
- Student Union, lower level

Corktown Campus (Dental)

- Room 458

Riverfront Campus (Law)

- Room 304

Novi Campus

- Coming soon!

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INFO FOR
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Community Members
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DETROIT MERCY
TITANS

Mission Public Safety Privacy Policy Consumer Disclosure Health Advisories

[Fig 3.1] Web capture of the inclusive restrooms on UDM Campuses. (UDM, 2023)

McNichols Campus

Inclusive Restrooms

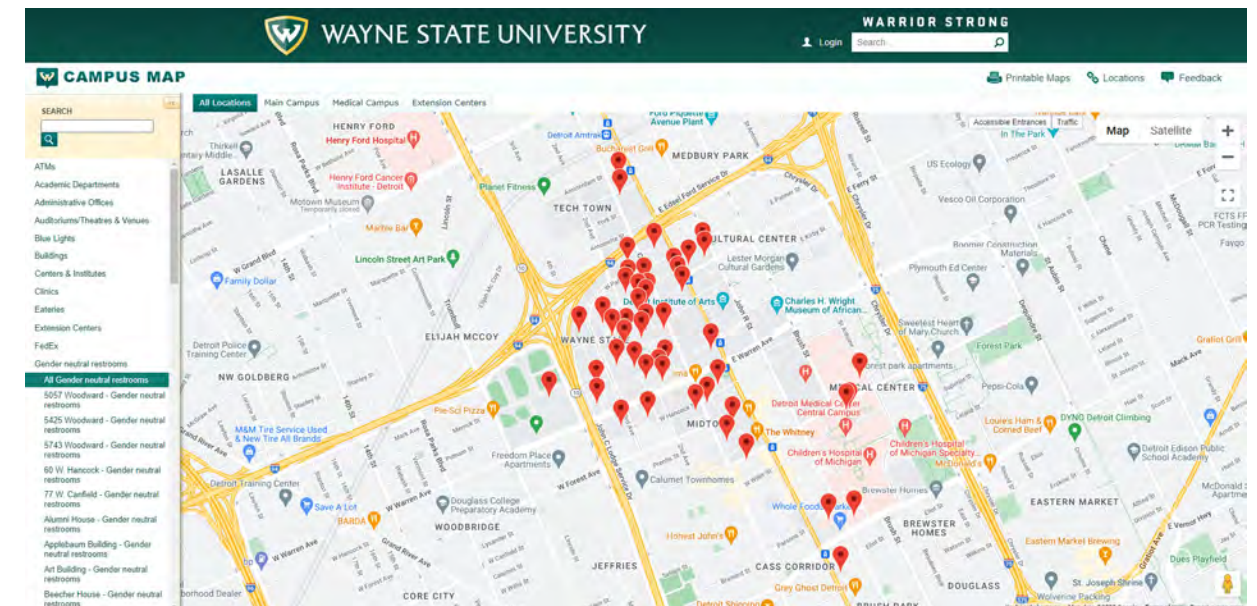
Most universities have campus maps illustrating where inclusive bathrooms are. For example, Wayne State University has a map outlining where they are in each academic building and how many per floor in some cases (UDM, 2022). University of Detroit Mercy does not have such a map, rather it has a list of two buildings where inclusive bathrooms are located on the university's Title IX webpage (Novell, 2022). Title IX of the 1972 Education Amendment states:

“No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance” (USA, 1972)

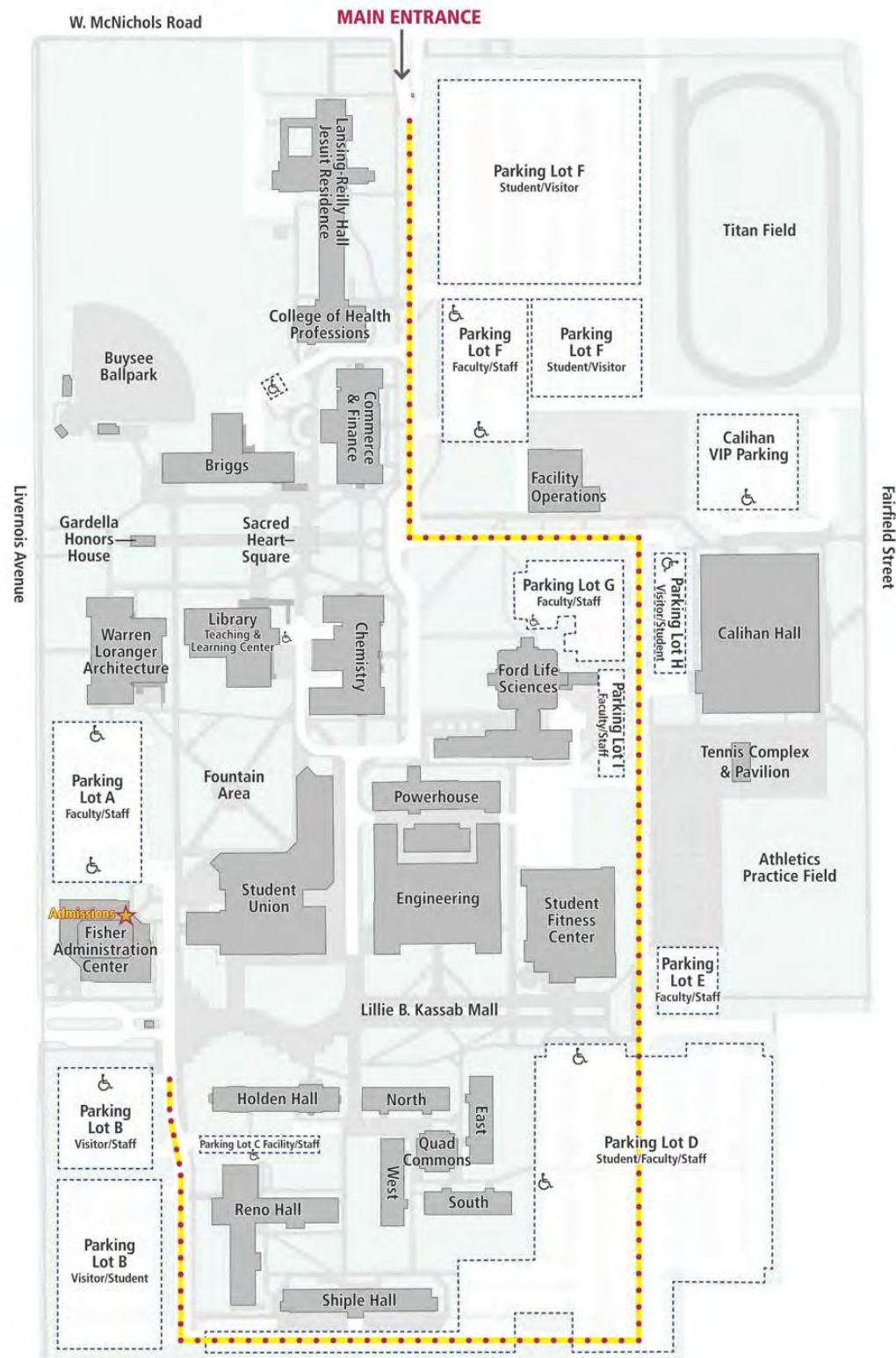
The supreme court case *G.G. v. Gloucester County*

School Board challenges if gender identities are included in the “on the basis of sex” portion of Title IX’s wording (ACLU, 2021). The Trump administration dropped the Obama era protections for trans students (Lhamon & Gupta, 2016) (Battle & Wheeler, 2017), only for Biden to write an executive order strongly suggesting that Title IX should cover the needs of persons with Queer gender identities (Biden, 2021). On June 28th, 2021, the U.S. Supreme Court ruled that Title IX would interpret the “on the basis of sex” as gender too. Making it illegal for federally funded schools/Universities to discriminate based on someone’s gender identity.

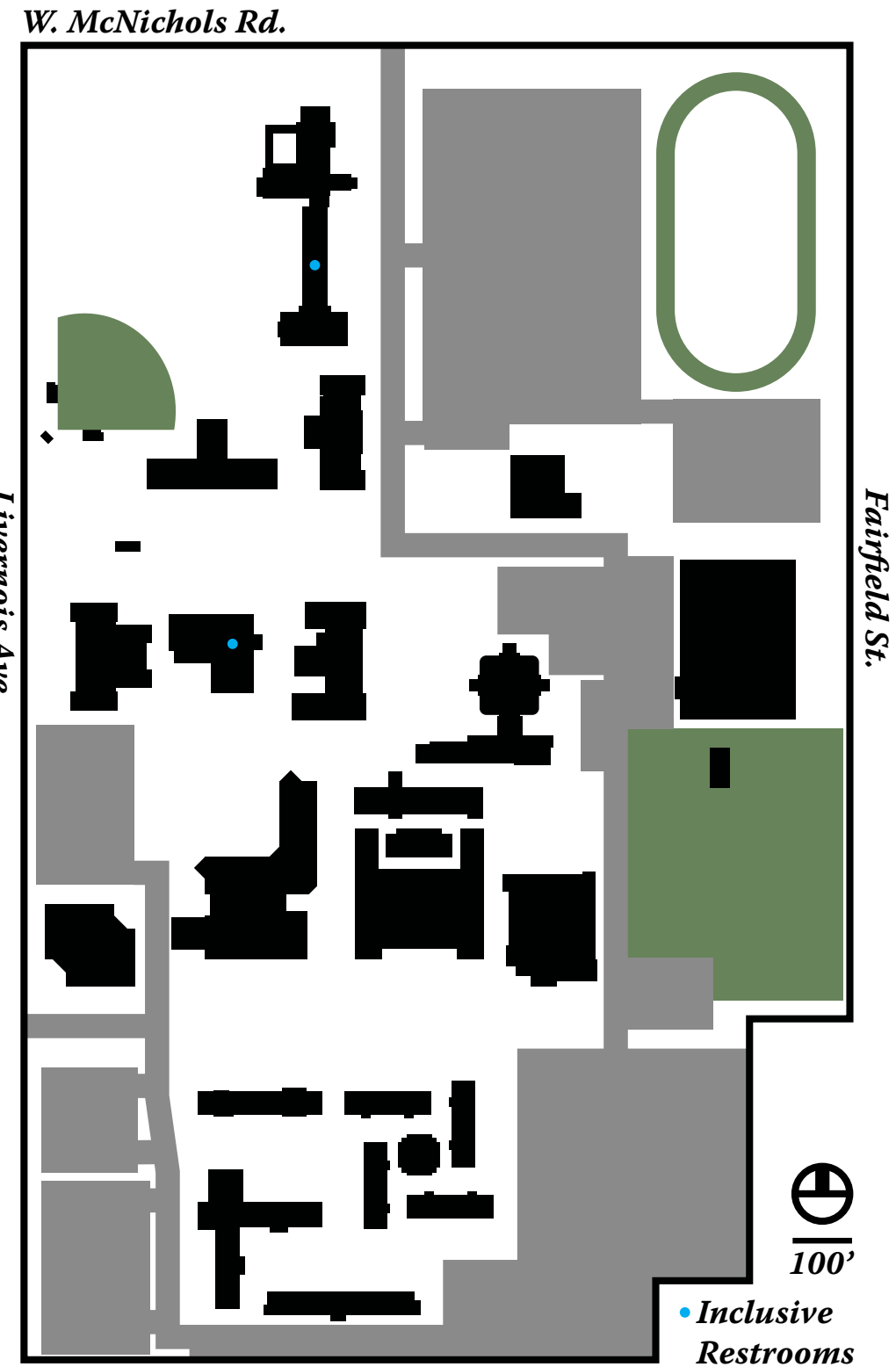
Due to these recent legal changes, It is understandable why some universities have published or have not published resources for gender inclusive restrooms. And why a university Campus like UDM’s McNichols Campus, which was



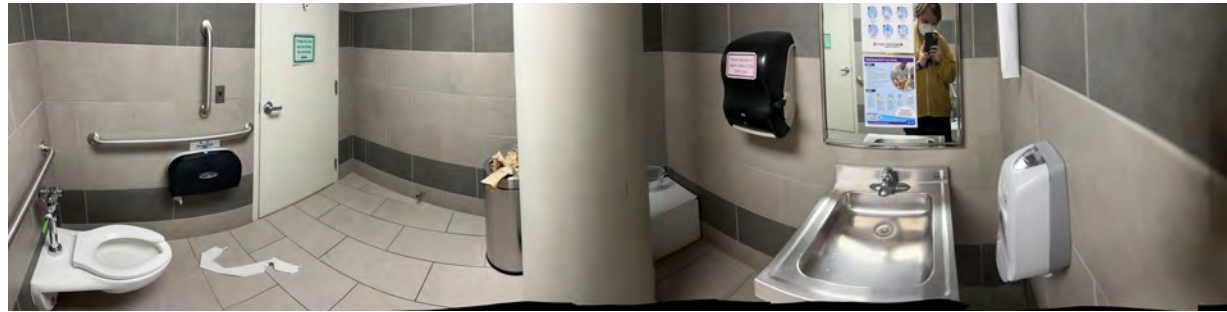
[Fig 3.2] Wayne State University's Inclusive Restrooms Campus Map. (Wayne State University, 2022)



[Fig 3.3] University of Detroit Mercy's current Campus Map (University of Detroit Mercy, 2022)



[Fig 3.4] University of Detroit Mercy current Inclusive Bathroom Campus Map (Silveira, 2023)



[Fig 3.5-8] Two inclusive bathroom in the first floor of the McNichols Campus Library, these were made durring the recent renovations to the library. (Silveira, 2022)



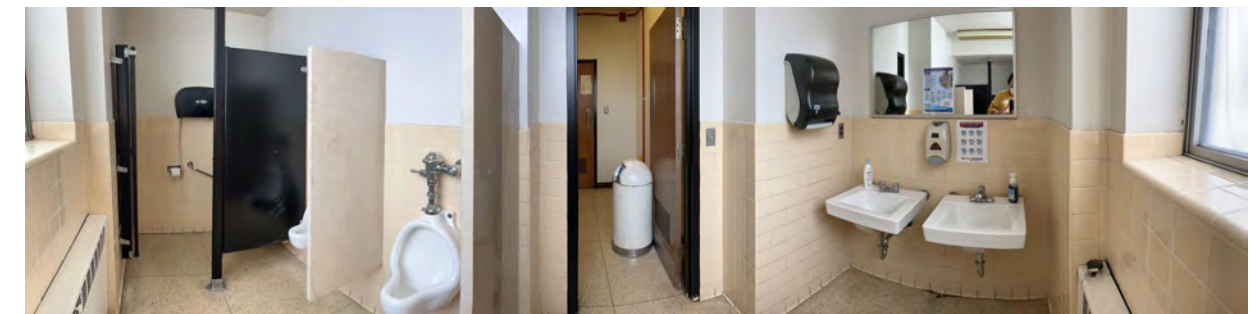
[Fig 3.9-12] Inclusive bathroom in the basement of the McNichols Campus Library, this bathroom was adapted from a former staff exclusive bathroom. (Silveira, 2022)

exclusively male at its founding, might have so few gender inclusive bathrooms. But that is no excuse to change policy and add resources to an existing campus.

For this thesis, a map with the locations of gender inclusive restrooms listed on the Title IX page was developed. It quickly becomes obvious that there are too few gender-inclusive restrooms in UDM's McNichols Campus. Many of the Civic structures like administration, the student center, and the student fitness center do not have any. The only academic building that has a gender inclusive bathroom is the School of Healthcare Professionals, which means that students from the schools of Business, Architecture, Engineering, and the Liberal Arts and Sciences, must leave the buildings they have class in (possibly in a Detroit winter) to trek across campus just to use a bathroom. Keep in mind that the gender inclusive bathrooms in the School

of Healthcare Professionals, and the library, are all single user universal bathrooms. Meaning that most of the time they are occupied due to popular demand.

While there are established focus group questions, that can be used in conjunction with a university's inclusive bathroom campus map, to engage college stakeholders with Queer gender identities. The study's report (in the zoom conference *Gender Neutral Design: Restrooms and Beyond*) did not show results, discussion, or limitations (Ortner, 2020). The method also requires that the university has a Queer campus organization to pull recruitment for the focus group, which was only recently made and excluded from recruitment due to poor visibility from the student organizations page at the time (winter 2022 semester). Currently (as of August 2023) there are LGBTQ campus resources on the University of Detroit Mercy's Title



[Fig 3.13-16] Inclusive bathrrom in The School of Healthcare Professionals, adapted from an old Men's Restroom with a lock on the front door. (Silveira, 2022)



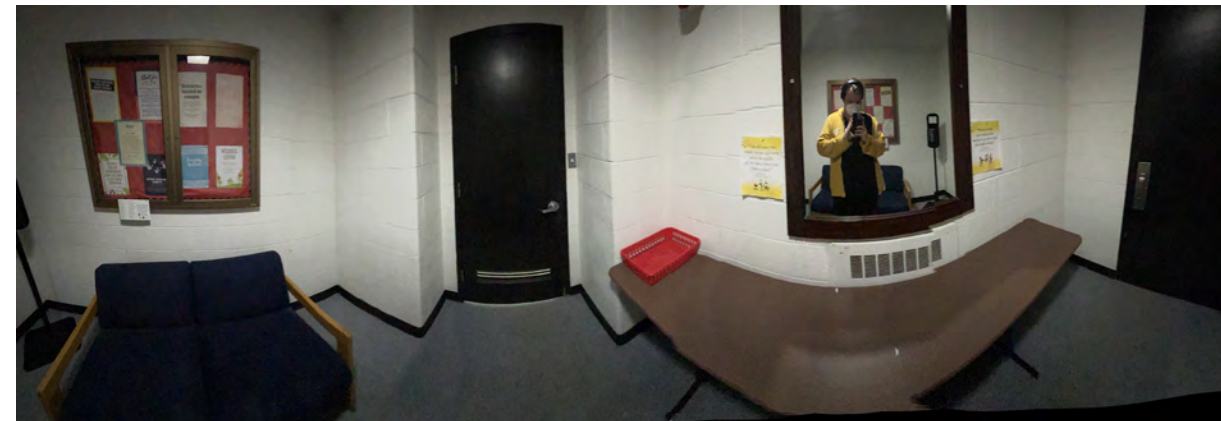
[Fig 3.17-20] Inclusive bathroom in Shiple Hall, adapted from an old Men's Restroom with a lock on the front door. This restroom has a meditation space, with a stained couch and large mirror. All light switches are limer based in this restroom, in 2023 this bathroom was demolished without a replacement. (Silveira, 2022 & 2023)

IX webpage, exclusively male at its founding, might have so few gender inclusive bathrooms. But that is no excuse to change policy and add resources to an existing campus.

For this thesis, a map with the locations of gender inclusive restrooms listed on the Title IX page was developed. It quickly becomes obvious that there are too few gender-inclusive restrooms in UDM's McNichols Campus. Many of the Civic structures like administration, the student center, and the student fitness center do not have any. The only academic building that has a gender inclusive bathroom is the School of Healthcare Professionals, which means that students from the schools of Business, Architecture, Engineering, and the Liberal Arts and Sciences, must leave the buildings they have class in (possibly in a Detroit winter) to trek across campus just to use a bathroom. Keep in mind that the gender inclusive bathrooms in the School of Healthcare Professionals, and the library, are

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(with accompanying panoramic photos) is used to show the current baseline of Queer inclusion at the McNichols campus as of August 2023.

One of the more unsettling aspects of photo-documenting the inclusive bathrooms on the McNichols campus is the lack of instruction of the bathroom locations from the Title IX webpage. The library has no information from the Title IX webpage on the location or quantity of inclusive restrooms, also the library entrance has no signage to indicate the inclusive bathroom locations. The school of healthcare professions inclusive restroom is nowhere near the entrance and is tucked between the faculty offices and the Jesuit residence on the first floor. The Ford life science building does not currently have an inclusive restroom, and has multiple floors with a basement, so when the Title IX webpage says it has an inclusive restroom in the lower levels that is not exactly helpful for wayfinding. In trying to locate the inclusive bathroom in the ford life science building I

was accosted by two staff members. And was finally told by the receptionist in the office on the first floor of the ford life sciences building that there was no inclusive bathroom in this building but that there were considerations to make the additional men's bathroom on the first floor inclusive.

Shiple Hall's restroom was adjacent to the entrance on the first floor in August 2022, but after the renovations to the first floor, the restroom was converted into storage and was replaced by multiuser gender segregated restrooms. The inclusive restrooms list in the UDM LGBTQ resources webpage still has not been updated for this loss in asset. There are two buildings in this list, the Ford Life Sciences building, and Shiple Hall that have no inclusive restroom, and it is obvious that these lists are not updated frequently. This is a gross misrepresentation of facilities, to prospective Queer students, and to current Queer students, faculty, and alumni to see a resource taken away.

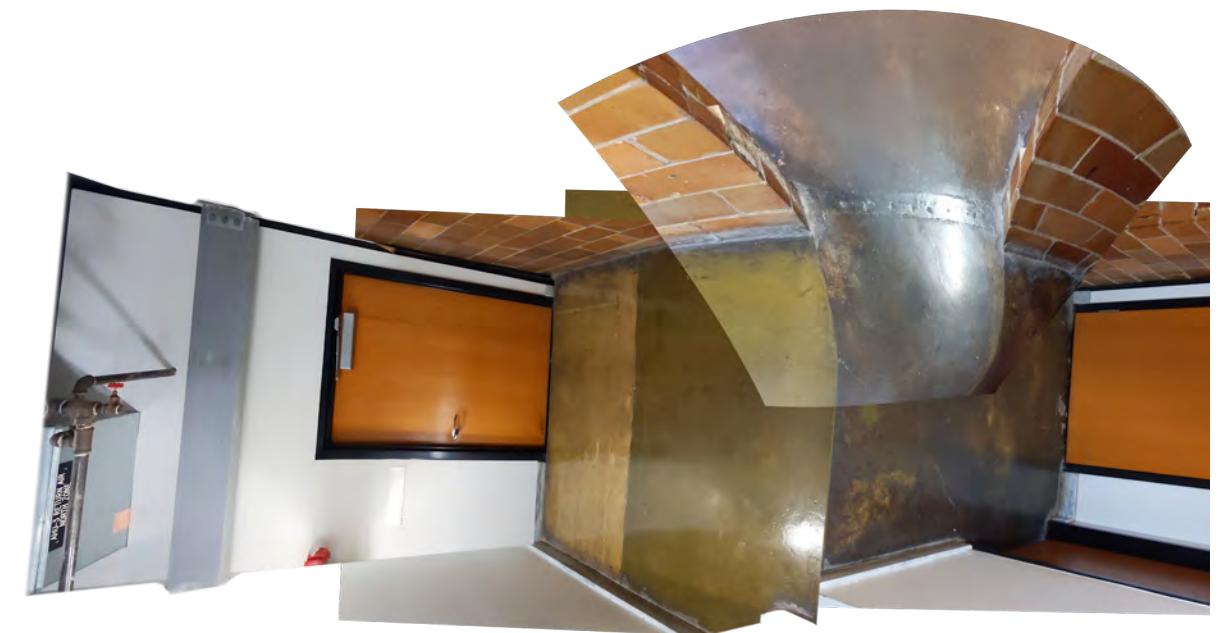
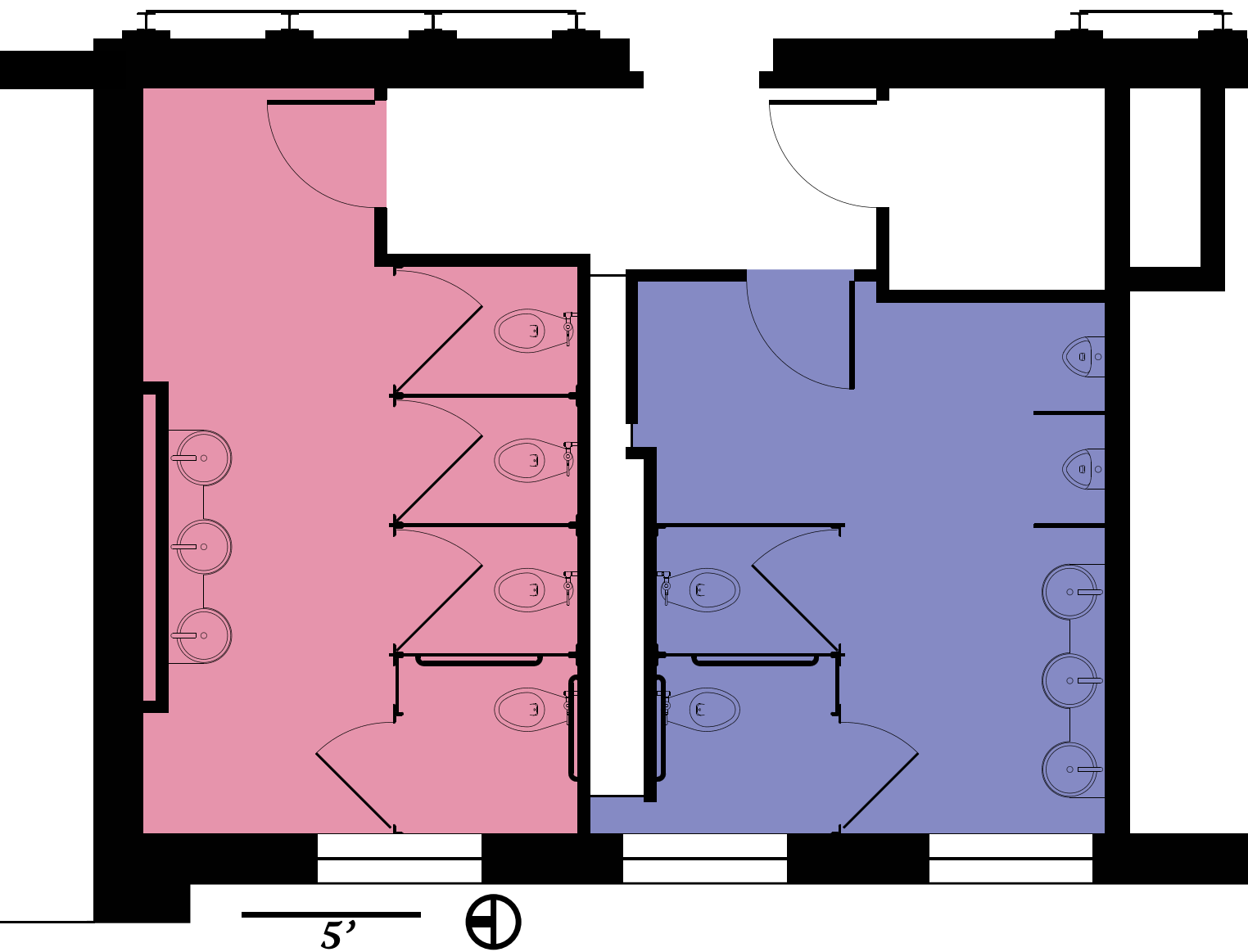
Hall of Mirrors: The Body Actualizes the Binary Choice

After presenting the literature review for this thesis to the rest of the M. Arch thesis candidates, many responded not knowing the consequences of gender segregated design on persons with Queer gender identities. It makes sense that the School of Architecture and Community Development (SACD), which prides itself on being a socially radical school of design, would be open to the idea of questioning the gender-segregated restrooms there.

For some time at the beginning of the thesis process, there was an idea about making an installation. Something that captured the sense of urgency of the thesis subject through advocacy. In this Thesis' Literature review process, one of the texts disseminated was Bell Hooks' *Choosing the Margin as a Space of Radical Openness*. In it, Hooks posits that sites of marginality need to be addressed, that these sites can become spaces

of resistance. That in these margin spaces "a central location for the production of a counter-hegemonic discourse that is not just found in words but in habits of being and the way one lives" (Hooks, 1989, pg.206). Currently the restrooms at the SACD are strictly gender segregated. There is a vestibule that foists a choice, the men's, or women's restrooms. For people whose expression exists outside the gender binary, navigating the binary choice of restrooms can become a performative task. Fears of being verbally or physically confronted for not using the "right" restroom paralyze an action that most people take for granted. In the Installation *Hall of Mirrors: The Body Actualizing the Binary Choice*, the vestibule of the SACD restrooms has been coated with mirrored sticky back vinyl film.

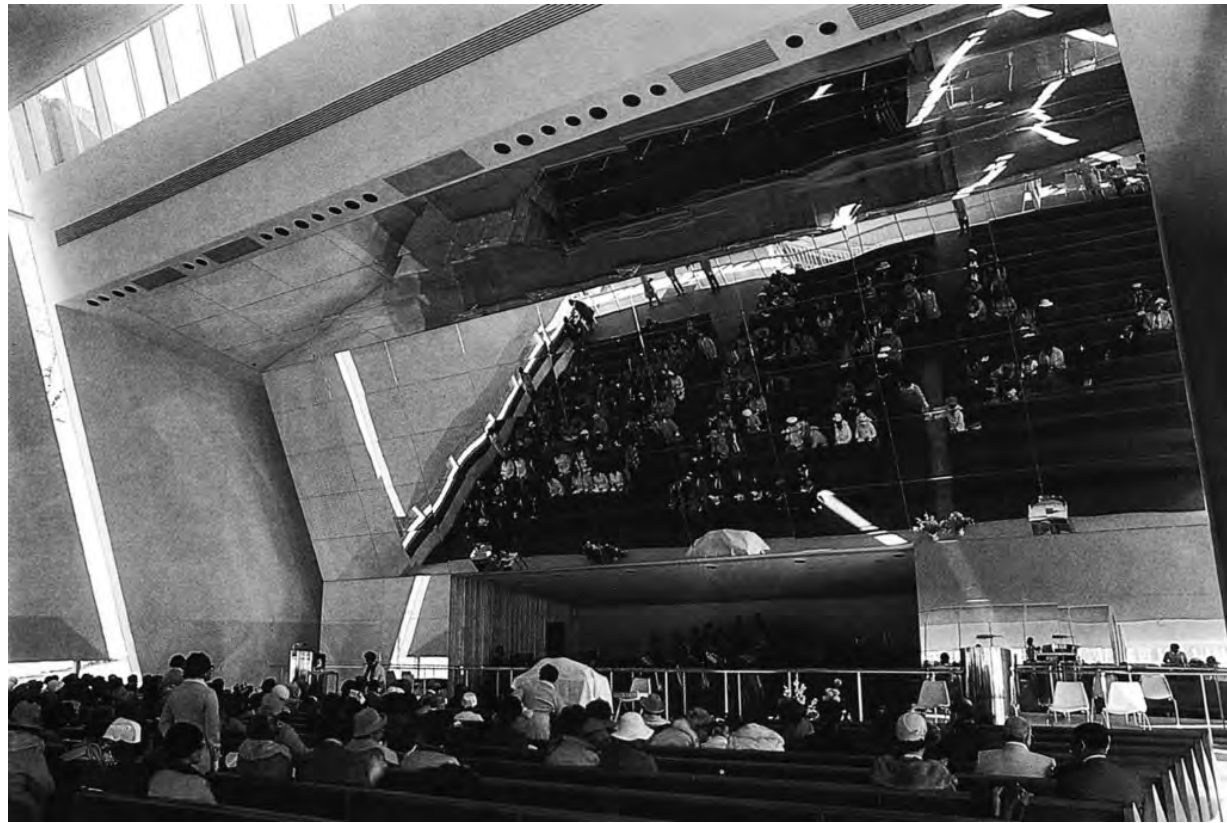
There was a building precedent at the forefront of thought around this installation, the



[Fig 4.1-2] Plan of the Warren Loranger Architecture building's gender segregated bathrooms, and collage of the bathroom vestibule. (Silveira, 2021)

Calvary Baptist Church in Detroit's Lafayette Park neighborhood, erected in 1977, and designed by Gunnar Birkerts. The pews of the church, besides facing the pulpit, confront a giant mirror reflecting the image of the parishioners back onto them. When a whole space is mirrored rather than a small surface for reflection, a mirror is less a symbol of the narcissistic and more about awareness of our body within a space, which allows it to transform into a message about what our bodies mean in that space (Heyne, 1982, pg.29). In the case of Calvary Baptist Church, the large mirror reflects all the parishioners to the highest point of the worship space, promoting an idea that the worship community is transcending using the Mirror. When the walls of the vestibule of the gender segregated bathrooms at the SACD are mirrored with sticky back vinyl. This reflection brings self-awareness to the body within the environment and speaks to what it means to be a body sorted by the binary.

Outside the phenomenological reasons for using mirrors for the installations. Mirrors are not just a material but an allegory for the stakeholder. What does the SACD stakeholder want in a bathroom, and how does identity exist in the bathroom? These are the reflections of thought about what this space could become.



[Fig 4.3] Calvary Baptist Church (Lin, 1982) [Fig 4.4-6] *Hall of Mirrors: The Body Actualizing the Binary Choice* (Silveira, 2021)





Lauren Johnson & Ryan Day of QSPACE

Johnson & Day founded QSAPCE after graduating (in 2016) with their M.Arch degrees from Columbia University. While students they founded QSAPP, a club within Columbia’s Graduate School of Architecture, Planning, and Preservation (GSAPP) dedicated to Queer research. QSPACE’s work is comprised of exhibitions, publications, digital archiving, and design guidelines. Sometime in 2018 Johnson and Day disbanded QSPACE and moved on to different ventures (Johnson & Day, 2016).



Joel Sanders of JSA & MIXdesign

Sanders besides being the Principal of his own design studio in New York City, he is also currently a Professor and the Director of Yale’s M.Arch program. Sanders is the editor of *STUD: Architectures of Masculinity* (1996) and has written extensively on the relationship between social spaces and evolving cultural forces (like gender and the body). In 2015 Sanders, and two others, founded the *Stalled!* initiative to address the urgent social justice issues around inclusive public restrooms (Sanders, 2022).



Heidi Neumueller of Cuningham Group

Neumueller is an Associate Principal at Cuningham Group Architects in Minneapolis Minnesota, She is an accomplished Project Manager in Cuningham’s education related projects. As the Principal Investigator of the *Inclusive Restroom Design Guide*, Neumueller has illustrated her ability to connect with stakeholders transforming their visions and needs into wonderful environments of learning. Neumueller is also the recipient of the 2018 AIA Minnesota Young Architect Award (Cuningham, 2022).

Three Precedents

For Universal Multi-User Restrooms

The IPC 2021 is quite vague when it comes to how multi-user universal restrooms should be spatially compartmentalized for a given program. Outside of the specifics – water closet/lavatory/drinking-fountain count, full length walls and doors for the stalls, and requirements around urinals (if you are going to have them) being relocated to specifically labeled stalls – the code is ambiguous to how Multi-User universal restrooms spatially differentiate from gender segregated restrooms. In this section three precedent Multi-User Universal Restrooms, which could work for a University architectural program, are presented in context with how they encourage inclusion of persons with Queer gender identities.

403.1.1 Fixture Calculations (Ex #2)

Where multiple-user facilities are designed to serve all genders, the minimum fixture count shall be calculated 100 percent, based on total occupant load. In such multiple-user facilities, each fixture type shall be in accordance with ICC A117.1 and each urinal that is provided shall be located in a stall.

403.2 Separate Facilities (Ex #6)

Separate facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by both sexes and privacy for water closets is provided in accordance with Section 405.3.4. Urinals shall be located in an area visually separated from the remainder of the facility or each urinal that is provided shall be located in a stall.

TABLE 403.1—continued
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES* (See Sections 403.1.1 and 403.2)

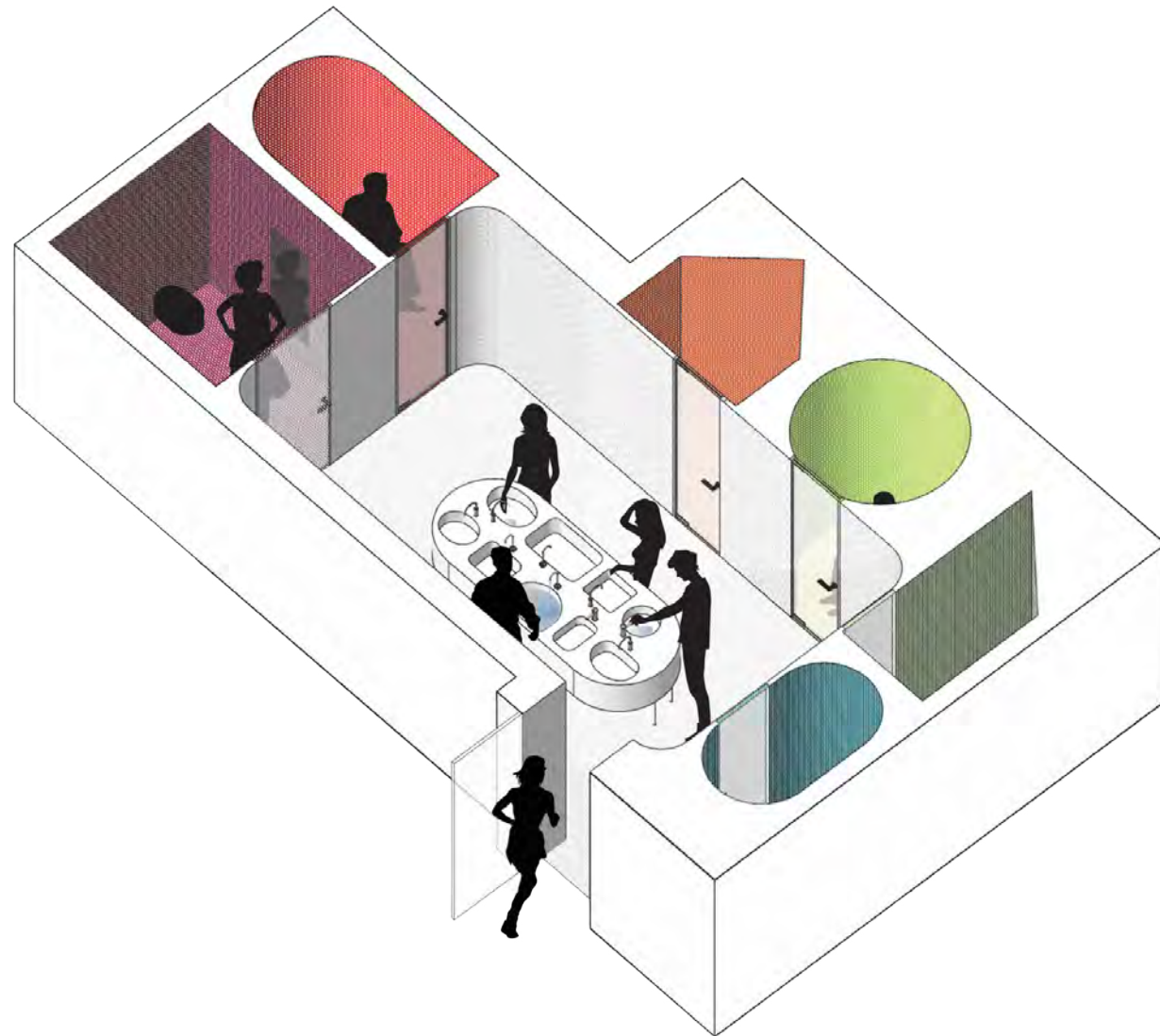
NO.	CLASSIFICATION	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 424.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410)	OTHER
			MALE	FEMALE	MALE	FEMALE			
3	Educational	Educational facilities	1 per 50		1 per 50		—	1 per 100	1 service sink

[Fig 5.1] Ryan Day & Lauren Johnson (AIANY, 2018) [Fig 5.2] Joel Sanders (Hamza, 2020) [Fig 5.3] Heidi Neumueller (Cuningham, 2013)

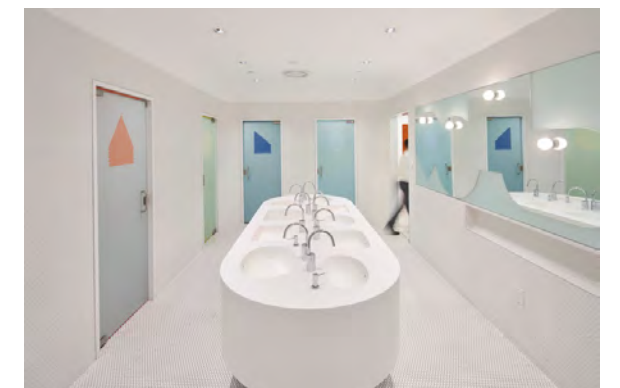
[Fig 5.4] Minimum Number of Required Plumbing Fixtures (ICC, 2020)

RISD Student Center

Universal Multi-User Restroom



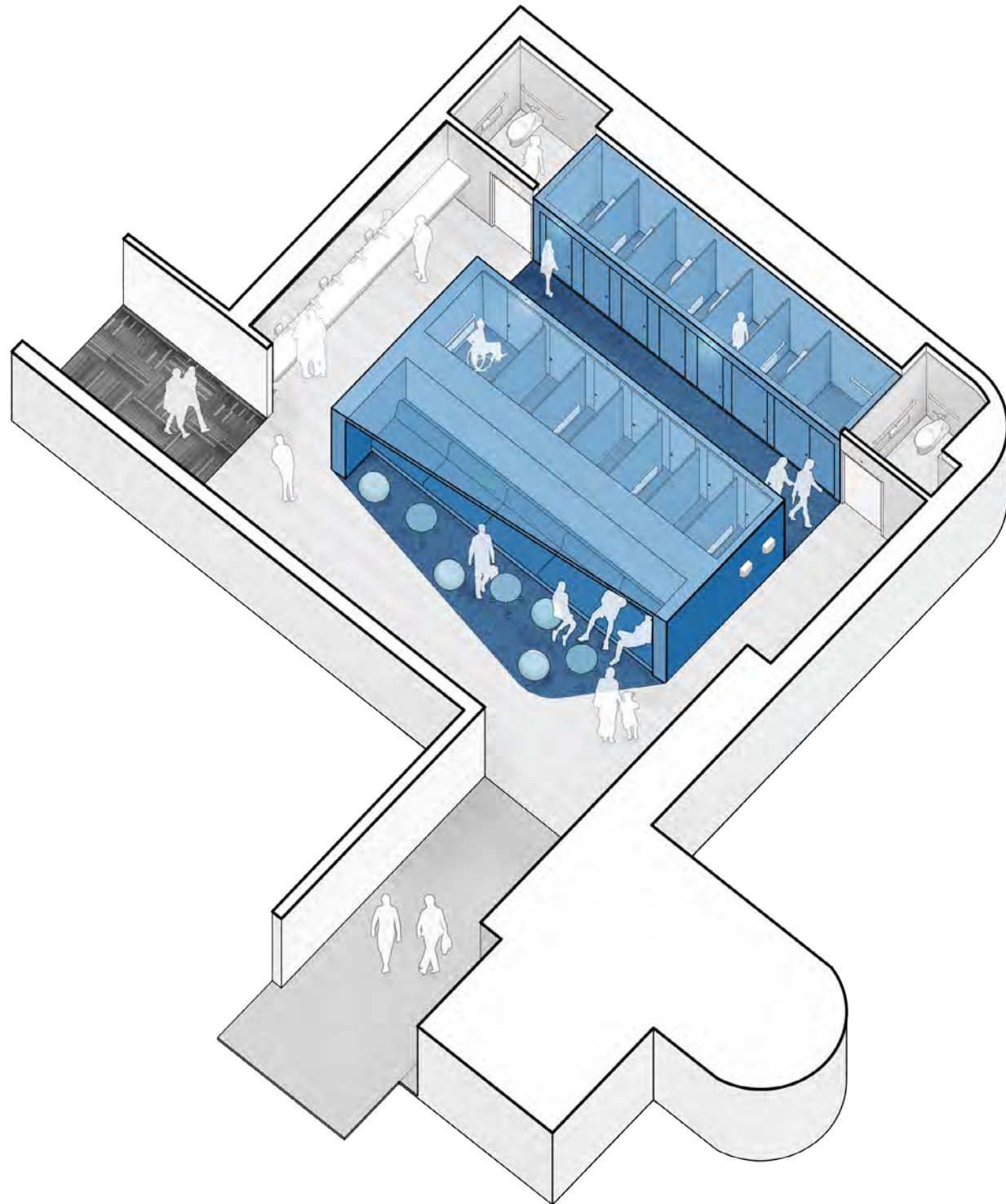
WORK(ac) in collaboration with QSPACE designed the restrooms in the Rhode Island School of Design (RISD) student commons. QSPACE in a holistic Queer approach, used small Queer focus groups to influence this collaborative project. In WORK (ac)'s own words "the project is one of the first custom designed gender inclusive bathroom spaces in the country. Six sizable private water closets are arrayed around communal sinks. Their exuberant shapes and rainbow colors celebrate that this bathroom does not force its users into fixed gendered boxes" (Andraos & Wood, 2019). This typology uniquely uses a closed sink vestibule, making the sink area closed off from the circulation space. It also features mirrors and a small shelf in each stall.



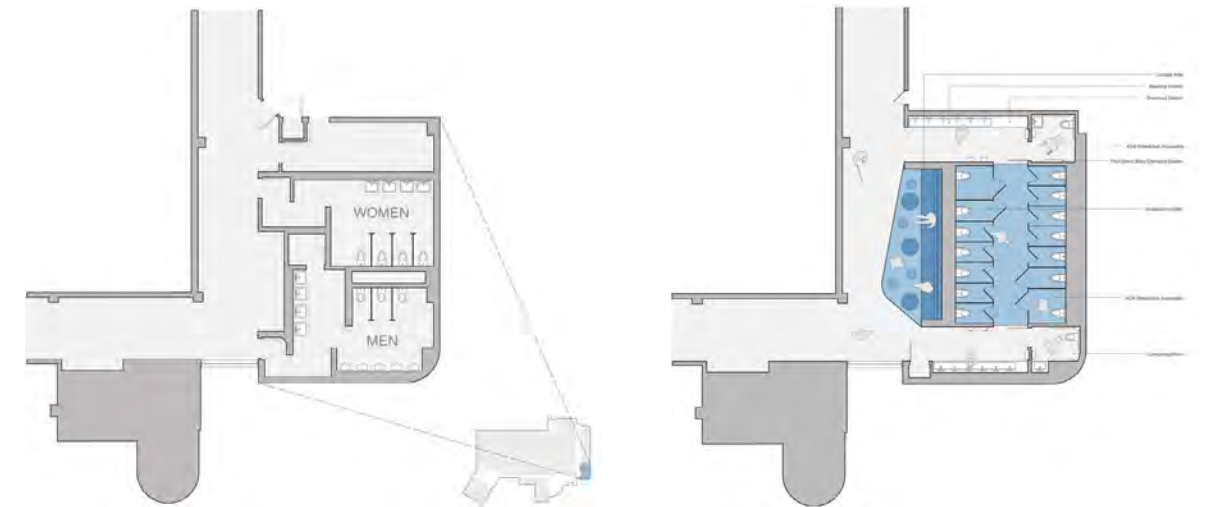
[Fig 5.5-8] RISD Student Center Universal Multi-User Restrooms (WORK(ac) & Damonte, 2019)

Gallaudet University

STALLED! Case Study



Gallaudet's bathroom case study was one of many from *MIXdesign's* project *Stalled!* This was the first case study to illustrate existing gender segregated bathrooms being converted to an inclusive archetype (Sanders, 2017). What makes this typology so interesting is its openness to the corridor. That the sinks are treated as an extension of the circulation path. This case study uses different stall types: standard, ADA-compliant, & ambulatory. At least one stall has a sink, and a folding baby changing table within. This archetype also includes a lounge area.

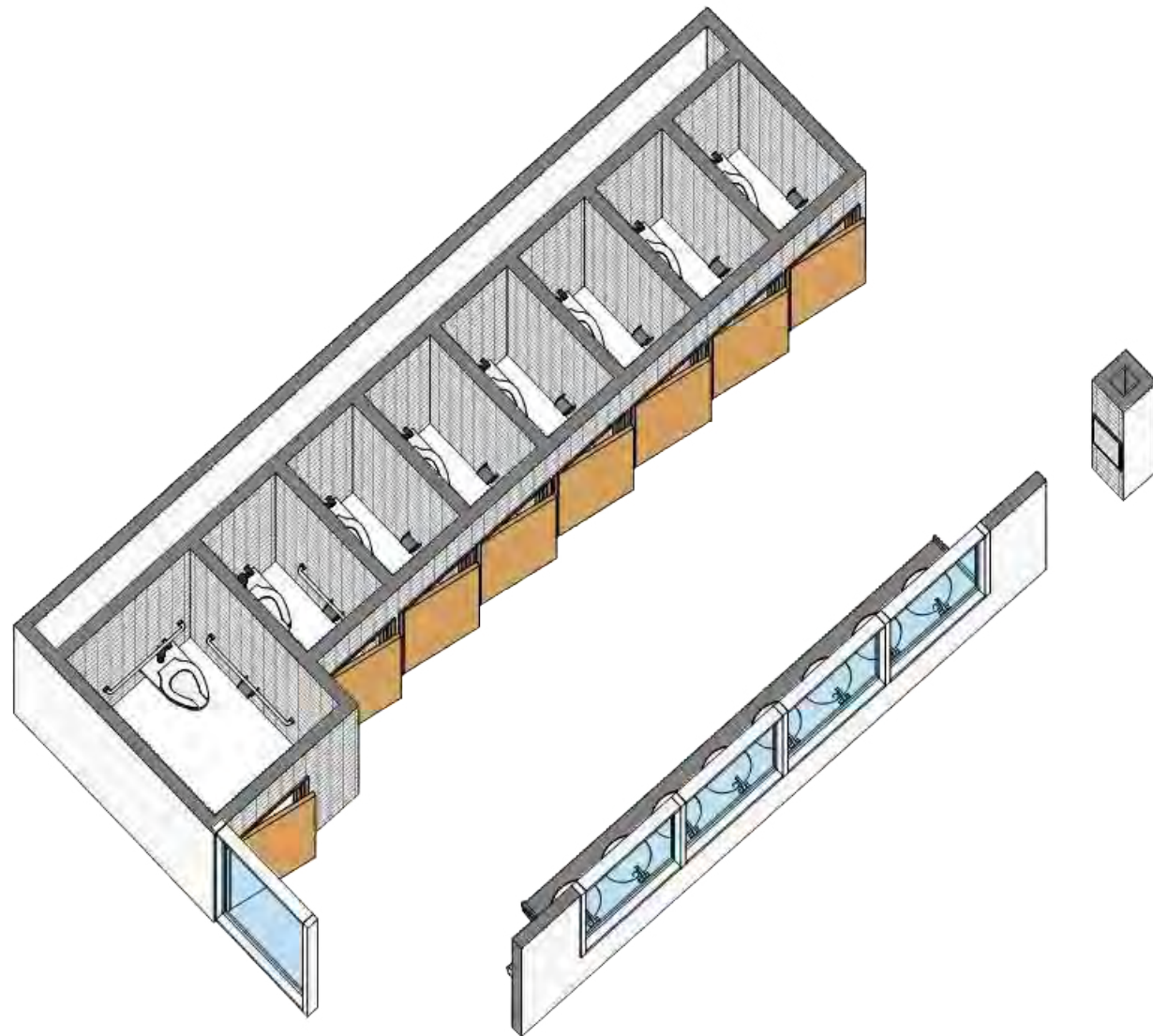


[Fig 5.9-13] Gallaudet University Stalled! Case Study (MIXdesign, 2016)

St. Anthony Park P.S.

Universal Multi-User Restroom

Saint Paul Minnesota public schools commissioned the Cunningham Group to remodel and construct new schools for the district. One of the programmatic elements St. Paul Public Schools wanted was gender inclusive bathrooms. Heidi Neumueller, one of the practitioners at Cunningham Group, took on the endeavor of researching the many facets of designing Multi-user Universal restrooms in K-12 schools (Neumueller, 2020). St. Anthony Park Elementary School's inclusive restroom typology was informed by a questionnaire answered by high school and middle school students in the same area (St. Paul, MN). The survey primarily probed how students felt about the inclusive bathrooms designed in their schools prior. Here you see the beginnings of well-documented social research, Inclusive design changes between Jackson HS and St. Anthony's are very socially challenging. The design that was settled on is very exposed. From the hallway, you can see all the sinks and stall doors, and security cameras peer into this space from the outside.



SURVEY

PART 3

Introduction:
We are doing an evaluation of the restrooms in your school to understand how your new all-inclusive restrooms compare to the separate boys' and girls' restrooms that were here before. Your feedback is extremely valuable as it will inform future school designs. The components of each restroom in Figure 1 are labeled to reflect the terms used by this survey.

Your responses to this survey are completely anonymous. Please answer all relevant questions to the best of your ability.

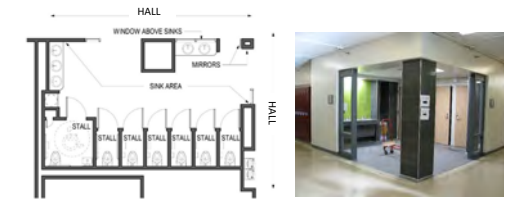


Figure 1. Johnson High School All Inclusive Restroom Plan
Figure 2. Johnson HS All Inclusive Restroom Photo

- To which gender do you most identify?
 Male Female Other: _____
- Do you identify as transgender, non-binary or gender-fluid?
 Yes No Prefer not to say
- Grade:
 Freshman Sophomore Junior Senior
- Personal Safety: How safe do you feel using the current, all-inclusive restrooms?
(Check the box that best applies)
 Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe
- If you were a student at Johnson High School before the renovation, do you feel that the new restrooms are more or less safe than the previous restrooms? (Check the box that best applies if applicable)
 New Restrooms are more safe than before
 New Restrooms are less safe than before
 I don't notice a difference
- Please describe briefly why you feel the new restrooms are more or less safe than the previous restrooms (if applicable). (Please write comments in space below)

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First Published December 2018
Updated December 2020

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[Fig 5.14-15] Graphics form the Cunningham Group Survey report. (Neumueller, 2020)

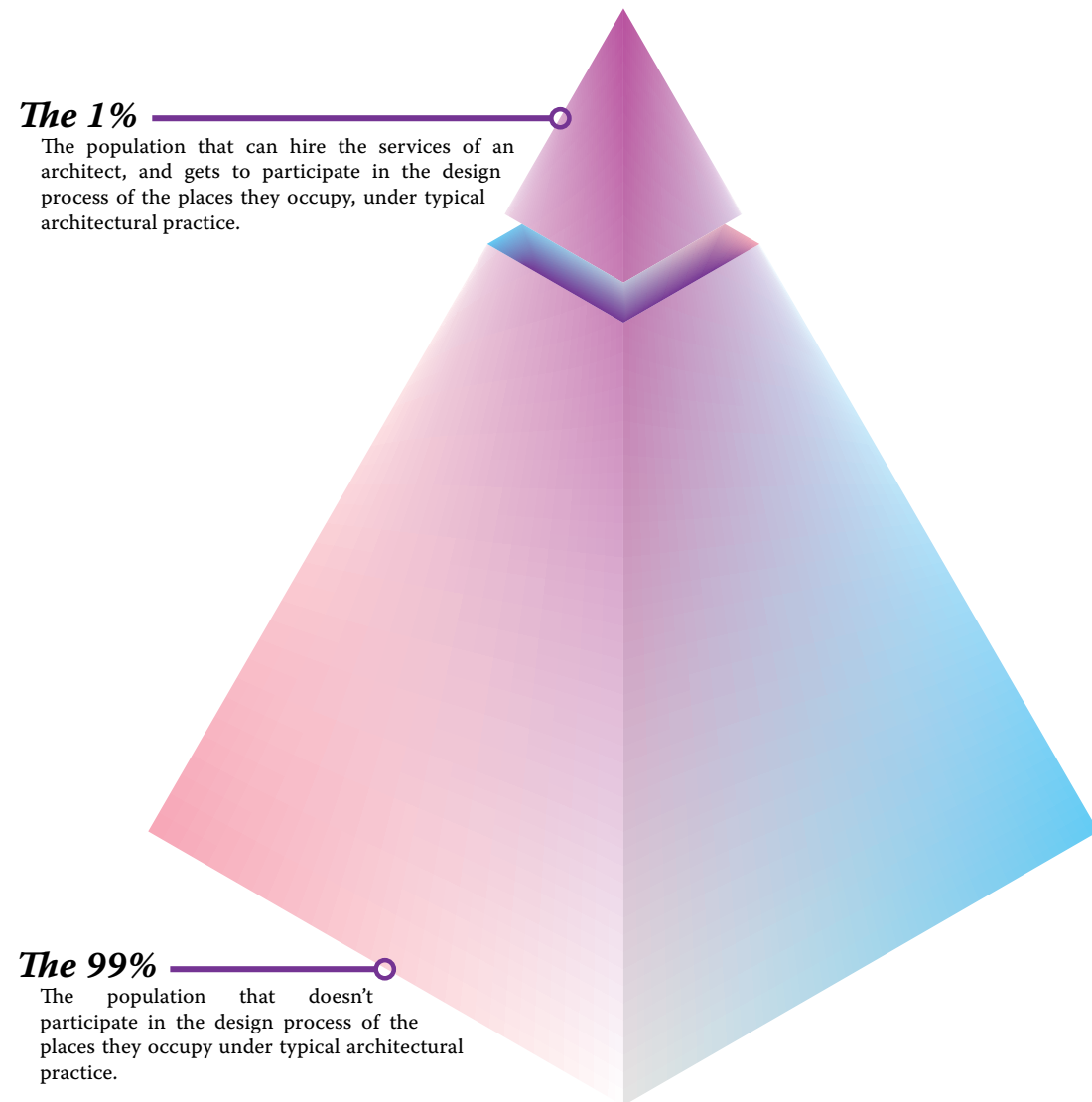
[Fig 5.16-17] Photos of St. Anthony Park Elemnery School. (Neumueller, 2020)

Chapter II

The Vignette of a Gender Zeitgeist

Public Interest Design

As a Methodology for Gender Inclusion



Deciding what methodological framework best encapsulates designing spaces for persons with Queer gender identities took some time. At first, universal design was thought to be an effective framework. However, universal design does not necessarily account for social equity, as stated earlier, universal single user bathrooms had many consequences. Intersectional sociology was considered too, intersectional sociology is a framework for addressing institutionalized oppression. Focusing on the intersection of identities allows us to better understand those who are affected by multiple lenses of oppression due to race, gender, age, physical or mental disability, creed, and class. For architects, civic spaces like public restrooms, need to be designed to consider the many social intricacies and needs of its patrons.

Stalled! describes a method of thinking about architectural program called MIXING, although it is only conveyed in generic infographics that lack the context of social participation. Joel Sanders collaborations are not documented in a way in which MIXING can be understood on a level of research methodology. According to Joel Sanders' public speaking and literature, the stakeholders of public bathrooms are not a part of STALLED!'s publication. While seminars with colleges and businesses to include inclusive restrooms on a

campus are one of MIXdesign's offerings, without details on how stakeholders on those campuses are approached on the design process, it is impossible to critique MIXING as a method in academic discourse. As an emerging designer, you would think transparency about methods would foster a larger academic conversation about how best to incorporate gender inclusive restrooms to a campus. As a result, I used Neumueller's research as a model for my thesis because it was published online and involved stakeholders through a questionnaire. As an outcome, through a dichotomy of research, Public Interest Design was chosen as the approach.

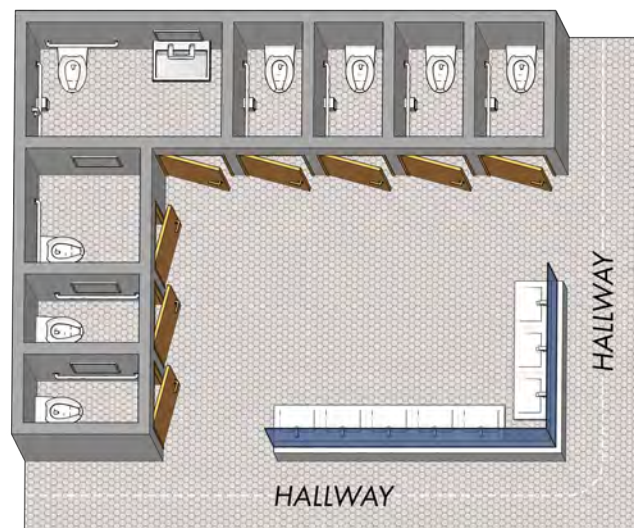
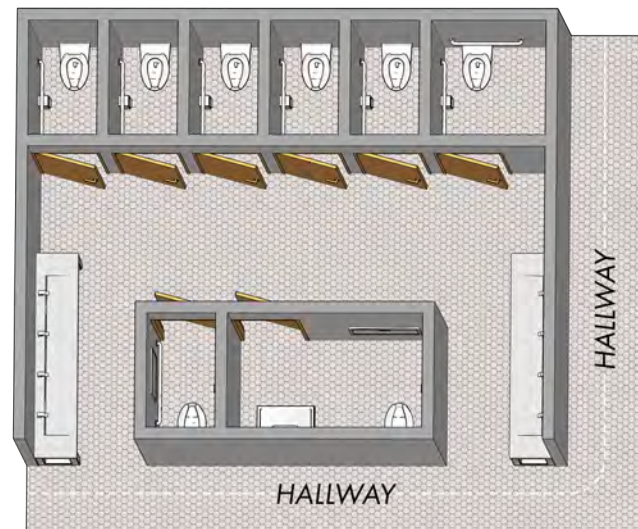
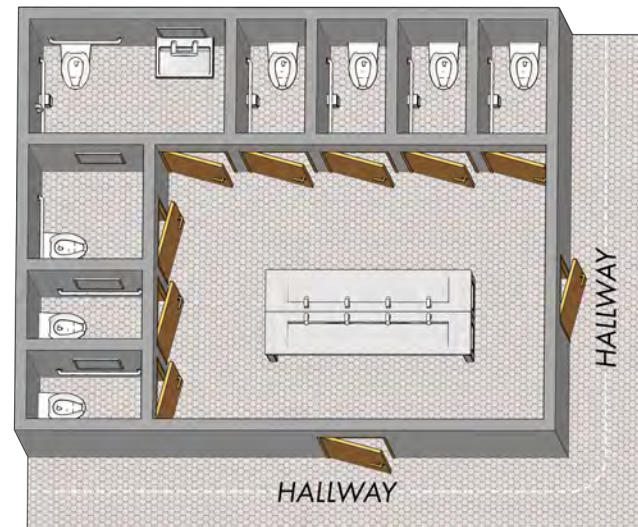
As defined by report *Wisdom from the Field*:

“Much of the work of Public Interest Design practices is to figure out ways to serve people who cannot afford the services of our profession and to address systemic problems in the built environment that create the needs in the first place” (Feldman et al., 2013, pg.2).

The main methods used in this thesis include stakeholder focus groups, participatory design workshops, and stakeholder questionnaires. This design only makes sense through the lens of Public Interest Design.

[Fig 6.1] This diagram is based off one presented by Dan Pitera (Silveira, 2023)

SACD Stakeholder Questionnaire



[Fig 7.1] Typology 1, Based on the RISD Student Center (Silveira, 2021)

[Fig 7.2] Typology 2, Based on the Gaudette University Case Study (Silveira, 2021)

[Fig 7.3] Typology 3, Based on the St. Paul Public School bathroom typology (Silveira, 2021)

It was through questionnaires I gathered data on stakeholder perceptions of persons with Queer gender identities to the built environment. It was through these lenses I saw multiple architectural issues, in the civic environment (bathrooms), recreation (changing rooms), housing, and shelters. Architects have not yet started to publish questionnaires to engage audiences in Queer gender inclusive bathrooms, outside of Heidi Neumueller's research for Cuningham Group. Although Neumueller's questionnaire only engages Cuningham's iterations in bathroom features, rather than spatial typologies.

Methods

The survey was distributed through LimeSurvey, a survey building, and result encryption tool provided to UDM students. The survey was open to respondents from October 17th, 2021, to November 3rd, 2021, to coincide with the *Hall of Mirrors* installation I made. Recruitment for participants was achieved by convenience sampling, and was done through word of mouth, through a listserv email of current students, staff, and faculty, and the posting of flyers around the Warren Loranger architecture building. Flyers were posted on all classroom doors and the bathroom, and adjacent to the *Hall of Mirrors* installation mentioned earlier in this thesis.

The survey data was then exported to SPSS, where the quantitative questions were analyzed with basic statistical tools. Qualitative responses were transposed to a word document, analyzed, and organized in an excel sheet, so they could be evaluated on their content.

Survey Instrument

The survey employed a mixed method approach, utilizing qualitative and quantitative questions. Respondents were asked to answer how they felt about three scales: *Public Bathroom Perception Scale*, *Restroom Design Safety Perception*, and *Attitudes Toward Queer Gendered People*. To give feedback on three design typologies, through the use of images, and to then respond with their thoughts on the examples provided.

The first scale, *Public Bathroom Perception Scale - Safety Subscale*, (PBPS) was inspired by Corradi et al.'s work (Corradi et al., 2020, pg.4). Survey questions and format for the PBPS can be read in the appendix at the back of the thesis (pg. A1). Respondents were then given the response option of a five-point Likert scale from "Not Important" to "Very Important." The *Safety Subscale* was specifically chosen because this subscale was the only part relevant to the project. Further, it was decided to start the survey with this scale because it is non-confrontational, and it was thought that it would not make participants think about the true goal of the survey, and that this would lead participants to answer honestly the next part of the survey.

The second scale, *Restroom Design Safety Perception*, (IBT1, IBT2, & IBT3) were administered in three parts, each part focusing on a different design topology. The scale was originally designed by Heidi Neumueller (Neumueller, 2018). Participants were asked to then examine the three multi-user gender inclusive public bathroom design typologies: one informed by the restroom in the Rhode Island School of Art and Design student commons, one informed by the STALLED! case study of Gallaudet University, and

one informed by the bathroom at St. Anthony Park Elementary School in St. Paul. Survey questions for IBT1, 2, and 3 can be found in the appendix at the end of this thesis Pg. A-3. The original response options were carried over, which was a five-point Likert scale, from “Very Unsafe” to “Very Safe.” This scale was chosen to test correlations between general bathroom safety perceptions and safety perceptions of the new inclusive multiuser typologies, as well as determine which typologies are perceived the safest to the SACD stakeholders.

Participants were also asked to rate their *Spatial Perception* of the three-bathroom typologies. Respondents were shown the design typologies again and given extra descriptive information specific to the space. Respondents were then asked to “please rank from 1 (poor design) to 7 (excellent design) how you perceive the following features of this inclusive restroom typology?”. This line of questioning was chosen to determine if a correlation exists between safety perceptions of a typology and the appreciation of the typology’s execution. Following this, respondents were given the chance to answer an open-ended question, which asked them “If you have any thoughts on how the design above makes you feel, or if there are any aspects of this design that you enjoy or dislike, please leave your feedback here.”

The third scale was designed to probe stakeholder respondents *Attitudes Towards Transgender Men, Women, & Queer* (ATTM, ATTW, ATTQ). This measure was based on the popular scale of the same name developed by Thomas J Billard (Billard, 2018, pg.5). Questions and format for the survey measures ATTM, ATTW, and ATTQ can be found in the appendix at the end of the survey (p. A-3-11). The participants were asked eight questions on their attitudes toward transgender persons both inside and outside a public bathroom setting. The questions are presented as a seven-part Likert scale listed between “Strongly Disagree” to “Strongly Agree.”

At the conclusion of the survey participants were asked demographics questions (DEMO). Participants were asked about their employment

or enrollment status at UDM, their area of study or enrollment, their gender, if the participant was a part of the Queer community, and finally if they used the handicap stalls on a regular basis, and if they did, was it because it was medically necessary.

After the demographics questions respondents were asked if they saw the *Hall of Mirrors* installation accompanying the survey at the SACD restroom. This was followed up with two open-ended questions: “If you have seen the installation, please answer here what you think the installation means based on your own observations and having answered this questionnaire.”, and “If you have anything else you would like to say regarding this survey or the installation, please leave your thoughts and feedback below. Any kind of comment of thought is welcome and appreciated!”

Results

To disseminate the results from the survey, some nomenclature about statistics of quantitative survey analysis must be understood.

(N) refers to the number of respondents to the survey, (n) refers to the number of respondents to a measure within a survey.

“Mean” refers to the average value, the sum value of the survey respondents’ questions is divided by its (n).

“Median” is the value that is most submitted by respondents to a given measure.

“Standard Deviation” represents the variance in respondents’ values (between 0 to infinity) within a measure, which can reflect the total possible range that a respondent could answer or could group around a single value.

“Cronbach’s Alpha” is a value (between 0 to 1) attributed to internal consistency, or how closely a set of items are as a group. High alpha values show that participant response values

are consistent over a set of questions. Low values, on the other hand, show that the set of items cannot reliably measure the same construct. It is a general rule of thumb that a value below .7 may mean the results do not have adequate internal consistency.

“Pearson’s Correlation” is a value (between -1 to 1) that denotes the linear relation of two compared data sets. If the data sets’ relationship is strong the line will be close to the data points, this will be represented by a higher number (1 or -1) a chart where the plot points are scattered far away from the fit line have a low correlation (a value close to 0). The correlation will have a negative if the slope of the fit line is negative and positive if the line’s slope is positive.

“Significance 2 tailed” a test where compared data sets are given a value (1 to 0) where the relation of the values had been determined to most likely be by cause rather than random chance. The smaller the value the more likely that the relation of data sets is not random. It is a general rule of thumb in research that a significance two tailed of .05 or .01 (also called the alpha) and lower are considered statistically significant results. That is, results that are statistically unlikely to be “random.” This is not the end all be all of statistical analysis but is often a useful test to run.

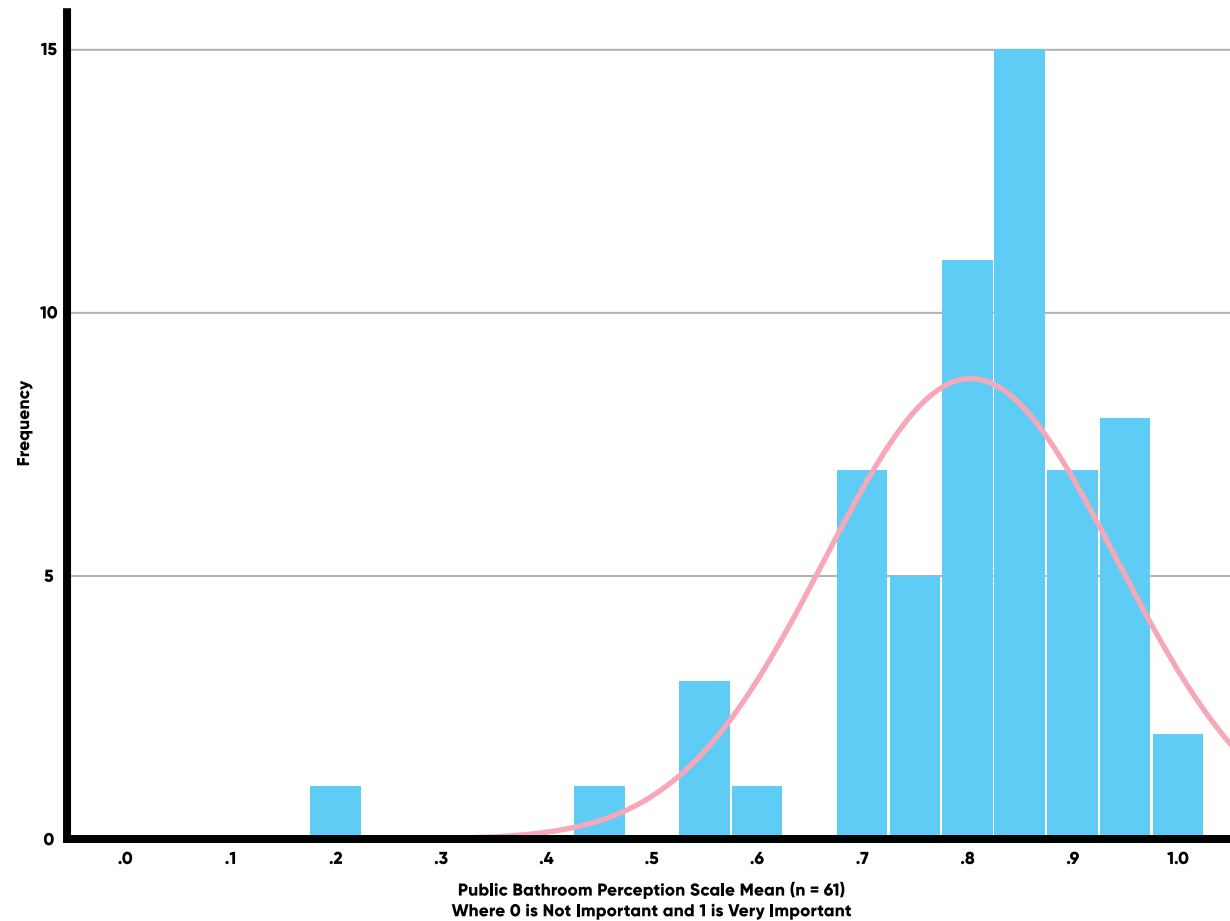
Seventy-five (N=75) people started the survey and fifteen people completed the survey. Due to the nature of online surveys participants can stop answering at any time, each measure will have its own (n) size (where (n) is the number of responses). At the time of the survey there were 271 students, faculty and staff that make up the Stakeholder Population of the SACD. With seventy-five respondents that accounts for a 27.7% participation rate from the population of interest. Fifteen respondents finished the survey accounting for a 5.54% completion rate from the population of interest.

P.B.P.S. Scale Statistics [Chart-1]	
Cases	N = 61
Mean	.8033
Median	.8500
Standard Deviation	.13901
Cronbach’s Alpha	.781

Of the fifteen respondents that finished the survey (Demo, Appendix pg. A18-19) seven were undergraduates, five were graduates, one was teaching/faculty, one was staff, and one responded as “Other”. Thirteen of the respondents said their area of study was architecture, and two from the school of community development. Three respondents identify as Cis Male, eleven respondents identify Cis Female, and two persons preferred not to answer their gender identity. When asked if respondents are members of the LGBTQ+ Community, two answered yes, 12 answered no and two answered Unsure/Questioning. Thirteen respondents do not use the handicap stalls on a regular basis, three do and those three do not use the handicap stalls for any medically necessary reason.

Sixty-one (61) persons responded to the *Public Bathroom Perception Scale* (PBPS) (Appendix pg. A1-2). The five-point Likert scale was transformed so that a value of 0 would be read as the respondent not valuing perceptions in a public bathroom, to 1 where the respondent does value perceptions in a public bathroom. The data from Chart-1 shows that the mean was .8033 and the Median was .85, suggesting that stakeholder participants highly value perceptions of safety. That standard deviation for the PBPS dataset is .13901. These results can be visualized in Graph-1 where a histogram has been made for the mean value of all the participants, the frequency of the mean values of the respondents can be abstracted to make a normal line. This curve indicates a dense clustering around a higher mean response

Public Bathroom Perception Scale Histogram with Normal Distribution Curve [Graph-1]



we know that in a normal distribution curve the first standard deviations will contain 68.27% of all responses. This would mean that if the results are indicative of the population of interest 68.27% of stakeholders would have a mean value between .74129 and 1. This would suggest that a super majority of the respondents value safety measures in Public Restrooms. Chart-1 indicates PBPS has a Cronbach's Alpha of .781, which is just enough to denote that the measure most likely does not have any internalized inconsistencies. Comparing Cronbach alphas from the original score to mine, Corradi et al.'s was .821 and mine is .781 which means that it maintained a similar consistency. It can be surmised that the measure would perform well considering its proven consistency.

The Inclusive Bathroom Typologies measures (Appendix pg. A3-5) were divided into three

groups. n=37 people responded to IBT1. The first six five-point Likert questions were about special perceptions of the typologies, similar to how the PBPS inquired about public restroom perceptions. Similarly, the Likert scale results were translated between 0 and 1, where one (1) denotes favorable impressions of the typology and zero (0) represents adverse perceptions. Using Chart-2 as a guide, 38 participants answered to this measure, with a mean of .5768 and a mean of .5208, .22585 was the standard deviation. Cronbach's alpha for this first measure was .873, which shows high internal consistency in the measure.

The second measure of the first typology was a seven-point Likert scale with five questions focusing on impressions of design execution. The Likert scale scores were transformed into values ranging from 1 to 0, with 1 representing

I.B.T.1. Safty Subscale Statistics [Chart-2]	
Cases	N = 38
Mean	.5768
Median	.5208
Standard Deviation	.22585
Cronbach's Alpha	.873

I.B.T.1. Design Subscale Statistics [Chart-2.1]	
Cases	N = 38
Mean	.6167
Median	.5960
Standard Deviation	.21450
Cronbach's Alpha	.741

Statistics & Correlations Between the Three Typologies' safety mean & the Three Typologies' Design Mean				
[Chart 2.2]		Typology 1 Design	Typology 2 Design	Typology 3 Design
Typology 1 Safety	Pearson Correlation	.758	.513	.498
	Significance (2-tailed)	.000	.005	.025
Typology 2 Safety	Pearson Correlation	.461	.855	.677
	Significance (2-tailed)	.014	.000	.001
Typology 3 Safety	Pearson Correlation	.517	.802	.858
	Significance (2-tailed)	.009	.000	.000

outstanding design perception and 0 representing bad design perception. Referencing Chart 2.1, the measure's Cronbach's alpha was .741, with a mean of .6167, a median of .5960, and a standard deviation of .21450, the measure's Cronbach's alpha was .741.

When comparing the two data sets of the two aforementioned parts of this initial typological measure, a statistical correlation of .758 was recorded in the case of these sub scales (cited in Chart-2.2). A correlation of .5 or higher is deemed significant. A good association indicates that the data sets are strongly related.

Sixteen (16) of the thirty-seven participants answered the open-ended question at the end of IBT1: "If you have any thoughts on how the design above makes you feel, or if there are any aspects of this design that you enjoy or dislike, please leave your feedback here?" (Appendix pg. A5). Of the

responses fourteen statements were made with a negative connotation, these would be statements that begin with "I don't like" or "I am Concerned." Of the negative statements four were about the lack of visual barriers, one referred to being displeased at the full-length doors, one about the bathroom mirror being full length, one addressed concern about sexual assault, one statement had concern about trapped smells, and one statement thought the typology was ugly. Six respondents' statements were positive, containing prefix "I like" or "I love", etc., four of the statements were about the full-length doors/enclosures, two were about the typology's mirrors, and one statement applauded the sound proofing. Nine statements were written in a way that gave criticism but not from a personal perspective or were worded neutrally. Four statements had some criticism about the mirrors, and five statements had some criticism about the sightlines.

I.B.T.2. Safty Subscale Statistics [Chart-3]	
Cases	N = 28
Mean	.5030
Median	.4375
Standard Deviation	.29330
Cronbach's Alpha	.908

I.B.T.3. Safty Subscale Statistics [Chart-4]	
Cases	N = 20
Mean	.4292
Median	.3542
Standard Deviation	.32447
Cronbach's Alpha	.930

I.B.T.2. Design Subscale Statistics [Chart-3.1]	
Cases	N = 28
Mean	.5535
Median	.5310
Standard Deviation	.23408
Cronbach's Alpha	.794

I.B.T.3. Design Subscale Statistics [Chart-4.1]	
Cases	N = 20
Mean	.5030
Median	.4980
Standard Deviation	.23793
Cronbach's Alpha	.836

IBT2 (Appendix pgs. A6-8) used the same three subscales as IBT1 but used a different bathroom typology for the questions and had twenty-eight respondents (Chart 3). The Cronbach's Alpha for the IBT2 safety subscale was .908 (Chart 3), indicating that the subscale has extremely good internal consistency. The mean of the abstracted five-point Likert scale on the proposed bathroom safety was .5030, the median was .4375, and the standard deviation was .29330 (Chart 3). A mean value of .5030 indicates that respondents' choices for the questioned safety measure of the subscale's second type were typical. The large standard deviation indicates that the clustering is scattered, and responses ranged significantly from the mean value.

Design Execution Subscale of IBT2 Cronbach's Alpha is .794 (Chart 3.1), indicating that the subscale has good internal consistency. The subscale of the typologies had a mean of .5535, a median of .5310, and a standard deviation

of .23408 (Chart 3.1). The average mean and broad range of standard deviation for the subscale reflect heterogeneous clustering, which is also demonstrated by the findings of the subscale's individual questions, the only two of which had a mean (.7004 for Q1 and .6464 for Q2) that did not fall within the normal range (.5±.0999).

When the safety subscale of IBT2 is compared to the design execution subscale of IBT2, the Pearson's Correlation is .855 (a significant positive correlation) and has a two-tailed significance of .000 (the compared data is within the margin of not being random) (Chart 2.2).

IBT2's open-ended question (Appendix Pg. A8) had just nine responses, with nine negative remarks, two positive, and four neutral. Four of the negative responses had difficulties with the typology's sightlines, two with possible odors, one with accessibility, one believed the typology was confusing, and one just "didn't enjoy it." One of the

Additudes Twards Transgender Scale Statistics [Chart-5]					
	A.T.T.M.	A.T.T.W.	A.T.T.Q.	A.T.T.P.B.	A.T.T.P.G.
Cases	N = 19	N = 17	N = 17	N = 19	N = 19
Mean	.7124	.7117	.7252	.7275	.7280
Median	.7900	.7038	.8100	.8017	.7739
Standard Deviation	.20525	.25209	.25950	.19708	.24017
Cronbach's Alpha	.907	.944	.960	.857	--

favorable comments said she liked the design and believed the stall and sink layout was more secure than IBT1. All four neutral remarks were focused on establishing a visible barrier from the corridor to the restroom and sink area.

IBT3 (Appendix pg. A9-11) uses identical questions as measures IBT1 and IBT2 but refers to a different toilet typology; the measure had n=20 respondents (Chart 4). IBT3's safety subscale has a Cronbach's Alpha of .930 (Chart 4), indicating that it has extremely good internal consistency. The mean of the abstracted five-point Likert scale illustrates that restroom safety was .4292, the median was .3542, and the standard deviation was .32477 (Chart 4). A mean value of .4292 indicates that respondents' choices for the questioned safety measure of the third type from the subscale were rather typical. The large standard deviation indicates that the clustering is scattered, and responses ranged significantly from the mean value.

IBT3's Design Execution Subscale has a Cronbach's Alpha of .836 indicating strong internal consistency (Chart 4.1). The subscale of the typologies had a mean of .5030, a median of .4980, and a standard deviation of .23793 (Chart 4.1). The average mean and broad range of standard deviation for the subscale reflect varied clustering, which is also seen in the findings of the individual questions (Q1 .7810, Q2 .6060, Q4 .3645, Q5 .2815) where the mean deviates from the normal range (.5±.0999).

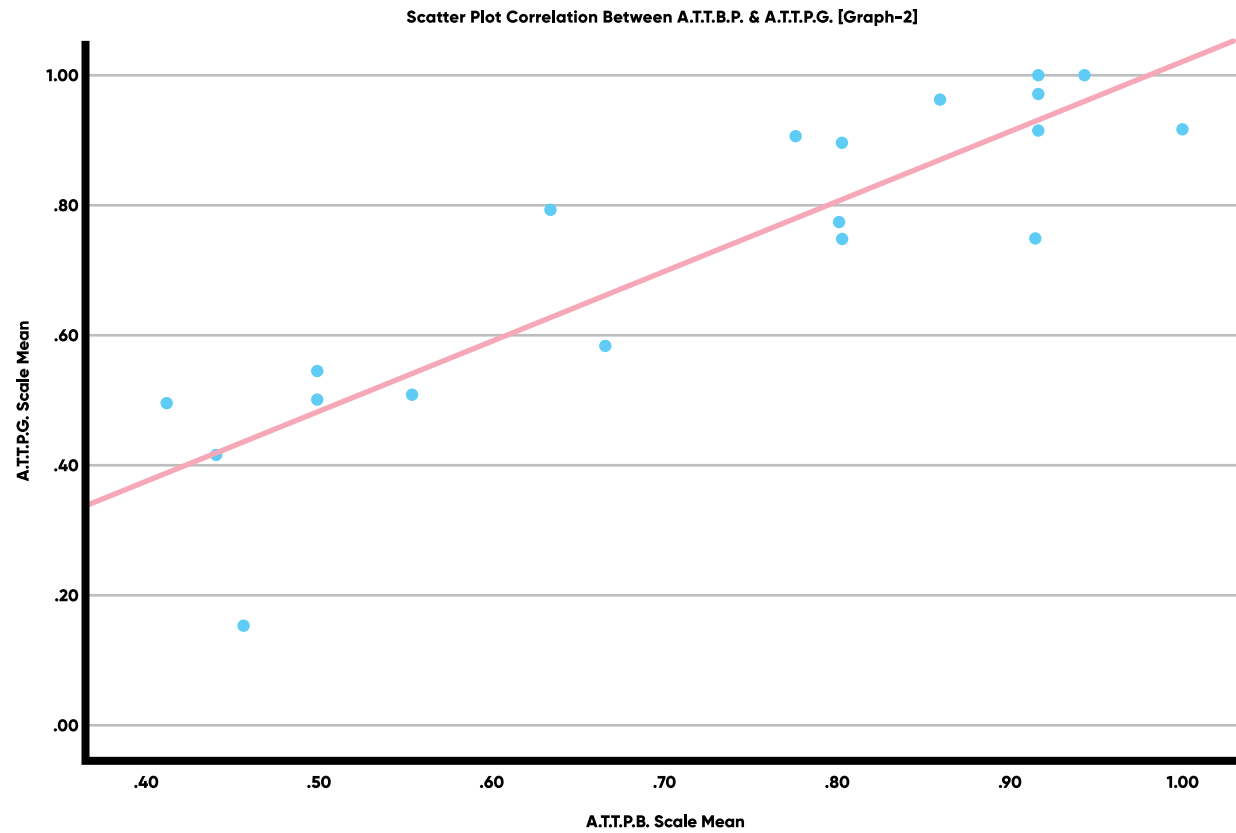
When the safety subscale of IBT3 is compared to the design execution subscale of IBT3, the Pearson's Correlation is .858 (a high positive

Correlation Between A.T.T.P.B. & A.T.T.P.G.	
Pearson Correlation	.888
Significance (2-tailed)	.000

correlation) and has a two-tailed significance of .000 (the compared data is within the margin of not being random) (Chart 2.2).

IBT3's open-ended question (Appendix pg. A11) received just eight comments, with six remarks being critical, two being favorable, and no neutral criticism. The six negative replies were all about concerns with sightlines from the hallway to the sink/bathroom area. One of the two favorable responses believed the plumbing layout was reasonable, and the other enjoyed the sink placement.

The n=19 respondents for the *Attitude Toward Transgender Men* (ATTM) (Appendix pg. A12-13) measure has a Cronbach's alpha of .907 (Chart 5), indicating that the measure has a good level of internal consistency. ATTM's seven-point Likert scale yielded a Mean Value of .7124, a Median Value of .7900, and a Standard Deviation of .20545 (Chart 5). The n=17 respondents for the *Attitude Toward Transgender Women* (ATTW) (Appendix pg. A14-15) Cronbach's alpha for ATTW is .944, indicating that the measure has a high level of internal consistency. The seven-point Likert scale used by ATTW yielded a Mean Value of .7117, a median of .7038, and a standard deviation of .25209 (Chart 5). n=17 people completed the *Attitude Toward Transgender Queer* (ATTQ)



(Appendix pg. A16-17) measure. ATTM has a Cronbach's alpha of .960, indicating that it has a high level of internal consistency. The ATTQ's seven-point Likert scale yielded a Mean Value of .7252, a median of .8100, and a standard deviation of .20950 (Chart 5). ATTM, ATTW, and ATTQ all have means around .7, far above normal ($.5 \pm .0999$), and have quite modest standard deviations, implying that respondents have positive attitudes toward transgender people. Two of the eight questions in each measure (ATTM, ATTW, ATTQ) asked respondents about their attitudes toward transgender people in public bathrooms (ATTPB), whereas the other six questions in each measure simply asked respondents about their general views toward transgender people (ATTPG). Both ATTPB and ATTPG have an $n=19$ response. Cronbach's Alpha is .857, indicating strong internal consistency, with a mean of .7275, a median of .8017, and a standard deviation of .19708. The mean of ATTPG is .7280, the median is .7739, and the standard deviation is .24017 (Chart 5.1). The Pearson's correlation between

ATTPB and ATTPG was .888, with a two-tailed Significance of .000 (Chart 5.1). The substantial positive association (Graph 2) indicates that respondents' sentiments about transgendered people are positive regardless of where it is situated (in or outside a public bathroom).

Participants were asked at the end of the survey if they had visited the *Hall of Mirrors* exhibit at the SACD. Following this, an open-ended question asks, "If you have seen the installation, please answer here what you think the installation means based on your own observations and having answered this questionnaire" (Appendix pg. A20). Overall, twelve people responded to the question. A few people mentioned how the installation made them feel, and one person wrote, "As I approached the bathroom, I clearly noticed something was very different and jarring. I was a bit disoriented at first but just realized I was observing myself more than I ever had before walking to the restroom. I was aware of my movements more. I feel like then installation is placing more attention on identity

and movement and the actions we make."

Finally, participants were asked, "If you have anything else you would like to say regarding this survey or the installation, please leave your thoughts and feedback below. Any kind of comment of thought is welcome and appreciated!" (Appendix pg. A20). The open-ended question was answered by seven people in total. Two of the answers acknowledged the survey, with one saying it had "Very very good questions" and the other said "I enjoyed the survey and the installation." The other five responses were focused on the installation, one stated "It kinda reminds me of mirrors in a funhouse. It's distorted enough to be unsettling, but the concept is cool. It'd be interesting to see what it would look like with real mirrors up from a perception stance." Another respondent said "When I first walked in the vestibule, there was sense of surprise and shock because I was not expecting to see myself outside of the restroom mirrors, however, as the installation was up for the few weeks, I began to feel unaffected or used to it."

Discussion

Respondents generally are receptive to safety measures in public restrooms based on results from the PSBP (Public Bathroom Perception Scale). PSBP did not show any significant correlation to the safety subscales of IBT1, IBT2 or IBT3 (Inclusive Bathroom Typology 1,2, or 3). While the lack of correlation between PSBP and the three typology safety subscales does not provide data to support the hypothesis that stakeholders value safety features in public restrooms regardless of gender segregation or inclusive typology, the subscales' questions could be reworded more similarly in their measures. The two measures by themselves had good internal consistency. If the survey was to be done again a more significant comparison will be necessary to answer definitively the relation between gender segregated public restroom safety and safety perceptions in inclusive restroom typologies.

When it comes to typology preference, whether it was through the lens of safety or design preferences, typology one was the most preferred

by the respondents. Sightlines from the outside in the open plans of the last two typologies were a big concern when considering the question from the safety subscale and the open-ended response. In Neumueller's report *INCLUSIVE RESTROOM DESIGN GUIDE*, cost analysis of typology three's gender-neutral multiuser bathroom was compared to a gender segregated multiuser bathroom (and even without a double vestibule of typology one) each compartment costs \$12,500 (2017 USD) more compared to their gender segregated counterpart (Neumueller, 2017, Pg. 10). In Bovens and Marcoci's paper *The Gender-Neutral Bathroom: A New Frame and Some Nudges*, in institutional settings, like college campuses, multiuser inclusive restrooms have a lower wait time to use the stalls in comparison to their gender segregated counterparts. They propose that a simple payback model for toilet wait time might pay for the extra cost of construction during the building's lifetime. Even though all three multiuser inclusive bathroom typologies are expensive (with typology three being the cheapest), typology one is well worth it if stakeholder preferences align with the double vestibule.

Results from ATTM, ATTW, and ATTQ, (Attitudes Toward Transgender Men, Women and Queers) show that respondents have favorable attitudes toward transgender persons both in and outside the public restroom. Stakeholders' mean value for ATTM, ATTW & ATTQ are past neutral, and are all positive. Using the empirical rule, we know that the first standard deviation from the mean represents 68.27% of responses. The first standard deviations from the means for ATTM, ATTW & ATTQ are between neutral to very supportive. This supports the hypothesis that Stakeholders would be supportive if there was a gender inclusive restroom within the SACD. Moving forward I feel that UDM, at least the stakeholders of the SACD, would benefit from changes made to the school regarding inclusive restrooms. While it is one thing to see favorable hypotheses in a single study it is another thing for UDM to make informed policy decisions based on this data.

Limitations

The software (LimeSurvey) had a few issues, one is that while there was a setting that allowed participants to save their results and resume the questionnaire later, this did not work and prevented participants from restarting the survey. One participant E-mailed, saying the images for the three typologies did not generate in the questionnaire. This was a server issue with Lime Survey that was resolved early in the questionnaire's timeline. Both issues from LimeSurvey could have been a reason for the low completion rate. Participation from the population of interest could have been higher using a financial incentive. Typically, a gift card raffle is used for small scale, and sparsely funded studies. However, this would have required that participants submit their UDM email to be entered into the lottery for the financial gift. I wanted to refrain from emails being attached to submission data for the questionnaire to remove as much social-desirability bias as I could from the respondents.

“The concept of social desirability rests on the notions that there are social norms governing some behaviors and attitudes and that people may misrepresent themselves to appear to comply with these norms” (Kreuter et al., 2008, pg.848). The participants were stakeholders of the SACD, these were my peers, teachers, and staff I knew personally, based on the sensitivity of the questions, it can be surmised that social-desirability bias had a significant effect on results from the survey. To prevent the uncomfortable idea that there would be an unbiased review of data, great effort was made on my part to scrub any part of the submissions being attached to a respondent identity, including a special review of the written open-ended responses. Open-ended responses were reviewed by my thesis advisor and stripped of their respondent number. Ensuring there was no way that I could correlate open-ended responses to other responses. Respondents did not know this though when responding to these questions. As the questionnaire moved on from PSBP to the three inclusive typology measures the (n) dropped significantly, as questions regarding thoughts on bathroom architecture might be

considered sensitive. Thoughts on gender politics are a known issue to be uncomfortable with college aged adults. Measures like ATTM, ATTW and ATTQ had Ns between 19 to 17 which was just a small fraction of the original N=75 that started the survey.

Speaking of incomplete surveys, participants may have had a poor completion rate due to the length of the survey. The survey was 68 to 69 Likert questions, and five optional open-ended questions. During the testing of the questionnaire the average response time was between 20 to 30 minutes. In Galesic and Bosnjak's journal article *Effects of Questionnaire Length on Participation and Indicators of Response Quality in a Web Survey*, illustrates that longer surveys (30 minutes in length in the study) generally had a high completion rate (around 42%) if the participants were informed of the survey length (Galesic & Bosnjak, 2009, pg.355). The listserv email, the fliers put up around the Warren Loranger architecture building, and the informed consent at the beginning of the survey indicated the amount of time that it would take to complete the survey. If Galesic and Bosnjak's survey had no social desirability bias, by comparison my survey lost 22% completion rate due to social desirability, but a whopping 58% completion rate just due to the survey being 30 minutes long. Shorter web surveys have much higher completion rates, in the case of Galesic and Bosnjak's survey, the survey listed as being ten minutes long had a 59% completion rate (Galesic & Bosnjak, 2009, pg.353). Even a short questionnaire has a drop in completion. Meaning there is really no justification to drop questions for such a small potential completion rate change.

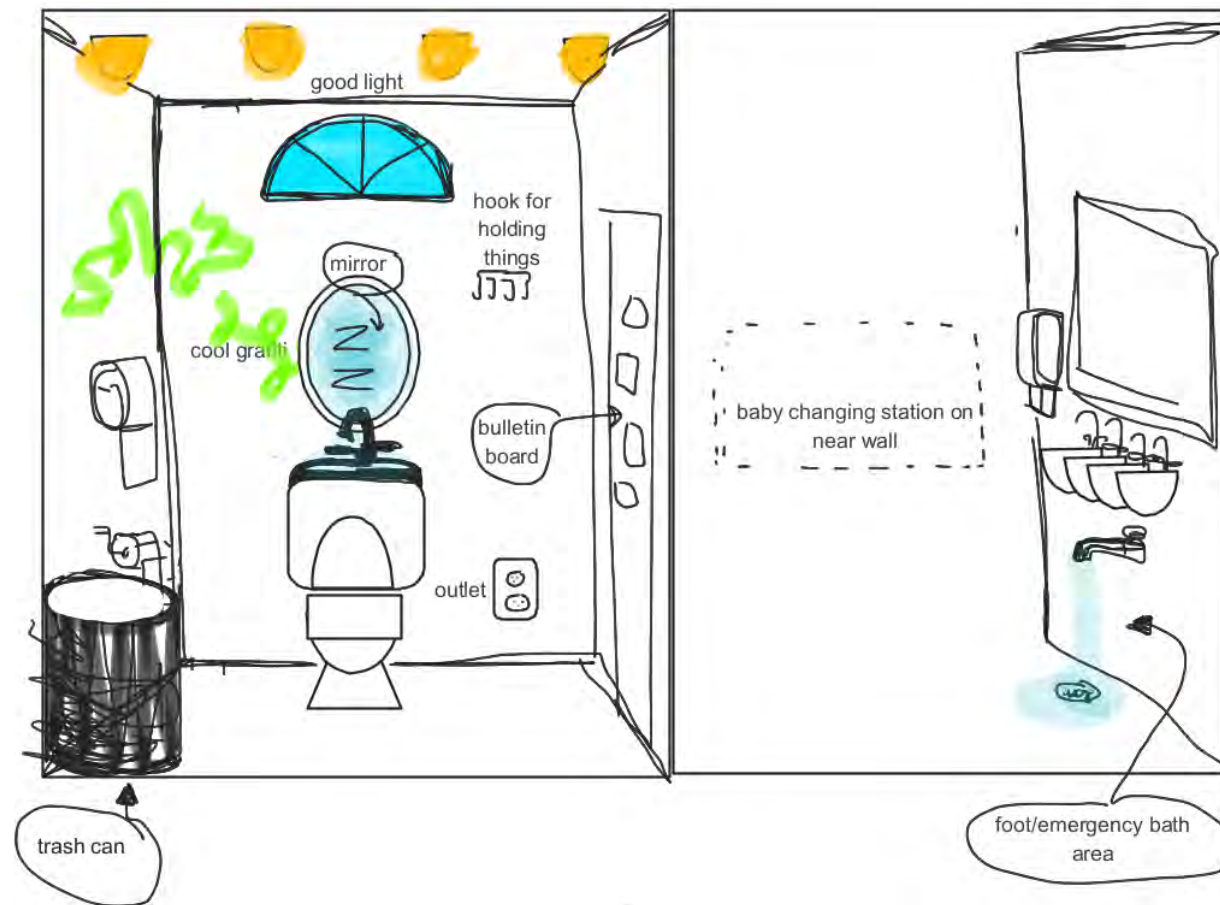
This is the first questionnaire I have made where scientific rigor was considered in its inception. Regardless of literature review, consultation with thesis advisors, and time constraints, this is also a first for me. I do not have any significant background in social science or methods of scientific inquiry. Certainly, a limiting factor in this study is experience, I am far from mastery with an expectation of meeting that of social science experts.

Conclusion

The key takeaways from the *SACD Stakeholder Questionnaire* are.

- **SACD Stakeholders value perceived safety measures in all public restrooms.**
- **SACD Stakeholders perceive the first typology as safer because of visual barriers from the double vestibule.**
- **Among SACD Stakeholders there is a strong correlation between perceived safety of an inclusive typology and being able to enjoy amenities of said typology.**
- **SACD Stakeholders are supportive of Inclusive restroom typologies and persons with Queer gender identities in public restrooms.**

Queer Focus Group Workshop



[Fig 8.1] Blare's Illustration from the workshop (Silveira, 2022)

There have long been notions in social research that ALL persons use public restrooms far outside the scope of bodily elimination and grooming (Cahill et al., 1985, pg.33). While the previous questionnaire was used to denote broad perceptions of stakeholders of spatial compartmentalization both quantitatively and qualitatively, focus groups allow for a richness of qualitative data that can develop architectural program beyond the perfunctory. The demographic results from the SACD Stakeholder Survey indicate that finding Queer stakeholders for a focus group would be difficult. What are the experiences of persons with Queer gender identities in public bathrooms that reflect the age, and regional background, and level of education of the SACD stakeholder?

Participants and Recruitment

The population of interest are college age persons with Queer gender identities, living in Michigan. A study by Herman et al. in 2022 estimates that population around 33,000 persons., where 10,800 persons between the age of 18-24, and 19,600 between the age of 25-64 (Herman et al., 2022, pg.20). The population of interest reflects the demographics of UDM. The average age of UDM students is 26 years (UDM, 2022) with 80% of UDM students from Michigan of which 89% of those are from the Detroit metropolitan area (UDM, 2022).

The eligibility criteria were limited to persons with Queer gender identities that live(d) in southeast Michigan and are currently enrolled or recently graduated college within an age range between 18-35 years. The aim of this study is to determine secondary architectural programming for public restrooms beyond the perfunctory. These secondary architectural programs need to

be informed by the current Queer community, which is the rationale for the eligibility criteria for participation in the workshop.

The participants for the focus group were chosen by convenience sampling, a process in which participants are selected based on their availability or convenience (Creswell, 2014, pg.204). One of the benefits of this type of sampling is that it can be done quickly with little need for advertisement. Word of mouth was used in lieu of a formal list, using personal contacts to gather participants for the workshop. The number of participants (n=4) was amicable when the participant range for the workshop was expected to be between three to ten people (Un, 2020) (Resnik, 2020). Out of the four that were asked to participate, all four committed to the workshop.

Respondents consented to being recorded and results published if the identities of the participants were removed and replaced with proxies for this thesis. Proxy names were chosen using a list of most common unisex names in America published by Andrew Flowers in 2015. Participants introduced themselves after a brief presentation, this introduction included name, age, education level, gender identity, pronouns, and current bathroom preferences. Participant demographics will proceed in order of who logged into the Zoom meeting first. Amari is 25 years old Graduate Student, they identify as Non-Binary (assigned female at birth), using they/them pronouns. Amari's statement regarding current bathroom preferences are "If possible, the gender-neutral option/family one, but most often, the women's restroom. Sometimes if a place is not crowded, and it's closer, the men's." Blare is 31 years old, holding a bachelor's degree, identifies as Transgender using he/him pronouns. Blare says "I prefer to use a bathroom that is explicitly

ok for me to use. A gender inclusive multi-user restroom is better because I know I am allowed to use it.” Carey is twenty-three years old and possesses a bachelor’s degree, identifies as Non-Binary (assigned male at birth) and uses they/them pronouns. Carey’s bathroom preferences were listed as being the same as Amari’s but with the genders reversed. Devyn is 25 years old, working on their Bachelor’s degree, identifies as Transgender and uses she/her pronouns. Devyn says she prefers “Single/Family/Separate Bathrooms: I’m not a fan of bathrooms with stalls, being so close to other people while going... also while on this topic, what the Flippin’ Heck is up with urinals why would I want to stand next to someone?”

Environment

The workshop was scheduled for March 27th, 2023, solidly in the recovery of the Covid-19. Since the advent of the Covid-19 pandemic focus groups have been conducted virtually rather than in-person to reduce the spread of disease. Virtual communication in general has become more popular, with virtual tools becoming common knowledge. Due to the discrepancies between where an architectural practice is and where a project is located, methods that utilize virtual tools to understand the needs of stakeholders and community will probably be standard for the foreseeable future. For this study Google Jamboard was used for the workshop exercise in conjunction with Zoom for presenting, and auditory communication. Jamboard was chosen over Miro due in one part because it is free, and for its intuitive interface.

Moderator Role

For this workshop, the role of moderator was myself. For focus groups in general, it is the moderator’s job to facilitate discourse and activities between the participants, but also give structure and focus to the developing questions. The length of the workshop was planned for between 45 to 90 minutes (Gibbs, 1997), this is to prevent burnout and loss of focus on the questions from the participants (Billups, 2012, pg.9). The workshop started with a short (five minute)

informal introduction (listed in participants and recruitment) and a seven-minute presentation composed of the material from chapter one in this thesis (Chronology of gender segregation in the U.S. built environment, the McNichols campus map with accompanying pictures of current inclusive restrooms, and the three inclusive multi-user typologies). The introduction gives the participants a frame of reference to each other, for discourse, and the workshops developing questions (Billups, 2012, pg. 9).

Developing Questions

Focus groups should have no more than six questions to keep within the time limit of a given session (Billups, 2012, pg.9). Including the introduction that only left five developing questions. The first developing question has a special importance, it is what is colloquially referred to as an “ice breaker” or a “conversation starter.” This is a question that is topical and usually warms people up to the follow-up questions (IDEO, 2015, pg.45).

The focus group was asked “*What sort of media do you consume in the bathroom?*” This became a lighthearted way to get the participants to understand their own rituals (and others) in the bathroom beyond bodily elimination. Participants were encouraged to write their answers using the sticky note function of Jamboard, and then discuss answers with each other. This type of workshop aid is known as list-making. List-making is beneficial in focus group exercises because it allows all participants the opportunity to voice their own ideas, a single individual does not steal focus from the group’s work with this aid (Billups, 2012, pg.9). Amari’s list showed that they played mobile games and browsed Instagram. Blare favored the Bee simulator in Roblox, along with browsing Reddit and CNN, and watching muted YouTube with closed captions on. Carey had no clear preferences, just that they consumed new media, and whatever ads came with them. Devyn’s list showed a love of Reddit, and YouTube videos muted with closed captions.

The three following questions asked to the participants were also list-makers, where like the

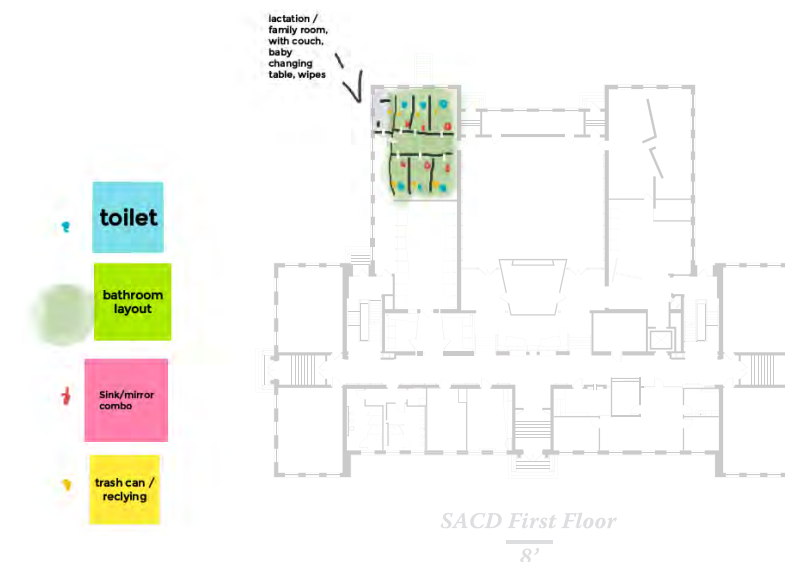
ice breaker, participants were asked the question, given time to write down a list in a Jamboard using the sticky note tool, and then presented in a round table discussion. Participants were then asked, “*What do you do in a public restroom (besides “going”)?*” Amari listed they wash their hands, cry, and have a panic attack. Blare picks zits, texts, washes their face, drinks coffee, eats granola bars, rearranges the stuff he is carrying, and warms his hands with hot water. Carey washes up, brushes their teeth, cries, smokes/vapes, and hides from annoying peers. Devyn just tries to leave the bathroom as soon as possible.

Participants were then asked, “*Is there something that you wish you could do in a restroom?*” Amari wishes are for sound makers, bidets, bigger trash cans by toilets (touchless to open), recycle bins, (for parents): cleaner parenting rooms, folding baby changing tables and wipes for those tables. Blare wants facilities for cleaning things other than hands, and functional trash cans. Carey desires bidets and a place to wash feet. Devyn wants for nothing when it comes to public restrooms.

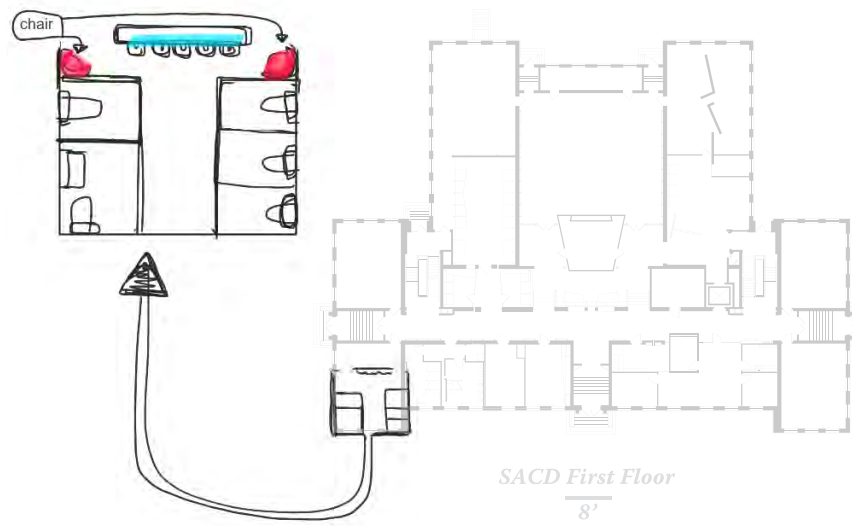
Then participants were asked “*What things that you have enjoyed about public restrooms? (Please provide context).*” Rather than a formal

list, some respondents wrote about experiences that were memorable. Amari wrote public restrooms are enjoyable “When in a separate room to the bathroom there is a couch and maybe an electrical outlet, when the bathroom is clean with natural lighting and good ventilation.” Blare’s list illustrates enjoyment in hot water, relief from bad weather, interesting art/graffiti, fliers for events, and gossip. Carey wrote that restrooms are enjoyable “when they are empty, so I can be as loud as I want.” Devyn enjoys “the Design, sometimes the acoustics, when a bathroom is well kept, space away from others.”

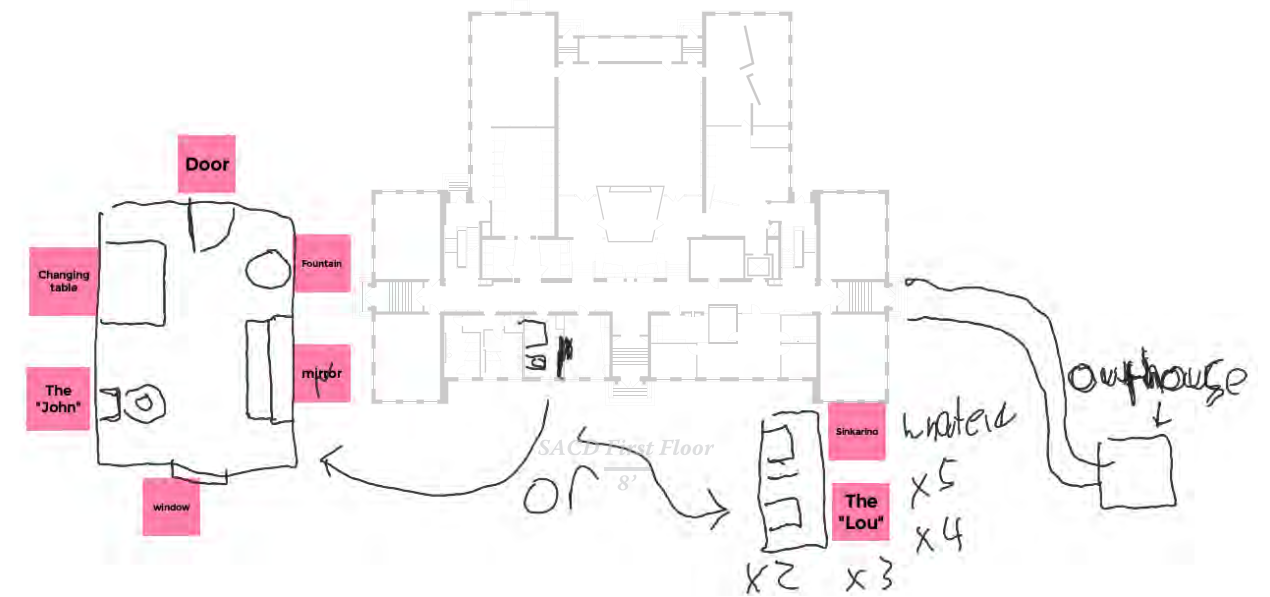
For the final prompt participants were asked to draw. Drawing is a popular method used in workshops to spur community-based design (IDEO, 2015, pg.65), and is an aid like list-making that is known to coordinate a group mentality while empowering the individual (Billups, 2012, pg.9). Participants were asked to “draw what you would like to see in a multiuser inclusive restroom.” The respondents were given their own slide in Jamboard where the background was the first-floor plan of the Loranger architecture building at the University of Detroit Mercy. Participants could use the drawing tools in Jamboard to illustrate their own ideas of what an ideal bathroom can be.



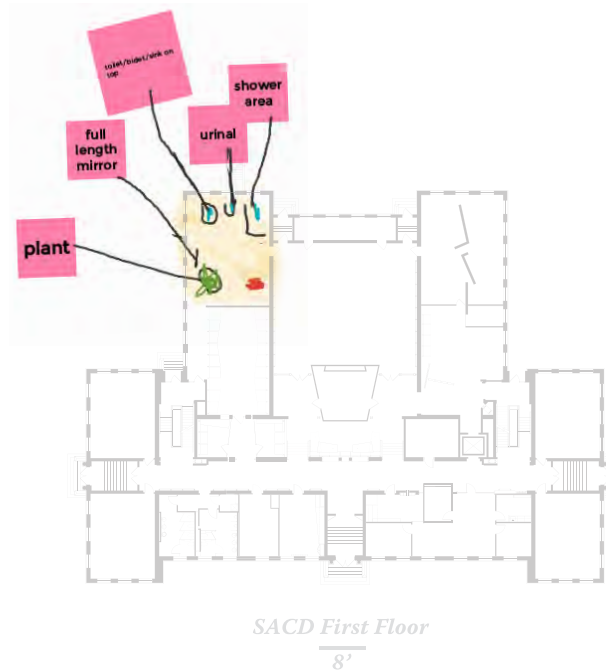
[Fig 8.2] Amari’s Illustration from the workshop (Silveira, 2022)



[Fig 8.3] Blare's Illustration from the workshop (Silveira, 2022)



[Fig 8.5] Devyn's Illustration from the workshop (Silveira, 2022)



[Fig 8.4] Carey's Illustration from the workshop (Silveira, 2022)

Data Analysis

Because the focus group was run through zoom no one was needed outside the role of moderator to record the workshop. The zoom meeting was recorded, and a closed caption software was used to disseminate what was said by both the moderator and participants. While the Jamboard was good at generating qualitative data in list-making and drawing, efforts must be made to unpack the lived experiences expressed by the participants in the presentations of each other's lists/drawings. The 2-hour MP4 and closed caption transcript was reviewed using the listening guide highlighted in *The Sage Encyclopedia of Action Research* (Raider-Roth, 2014, pg.510-512). A proper review of the recording requires four reviews, the first listening is referred to as a "plot" listening. The first listening needs an understanding of the narratives (especially repeat words, phrases) along with themes. The second listening is referred to as "listening for self." How do the participants speak of themselves? This type of listing attempts to note all the "I" participants use. The last two readings are referred to as "conceptual"

listening's. What are the narratives to each other, how are they met by the other participants? How are these lived experiences of participants dynamic, and not flat?

Thematic Findings

During the presentation at the beginning of the zoom meeting participants showed visual signs of discomfort around the images of the current state of the inclusive restrooms at UDM. When prompted All focus group participants felt that the repurposed gender inclusive bathrooms at UDM were uncomfortable and unwelcoming. Things like uncleanliness of the common space in Shiple Hall's public restroom, or the label on the inside of the restroom at the school of healthcare professionals indicating binary usage. These became a focal point of discussion before people formally introduced themselves.

None of the participants showed any interference to each other's lists, drawings, or

lived experiences shared during the workshop. Generally speaking, the participants seemed supportive of each other's ideas about public bathroom space. Devyn's ideas regarding a public bathroom being perfunctory did not conflict with the other participants' desires to have more utilities in a public bathroom. After all, all the participants had stories of how awkward the social environment of gender segregated public bathrooms can be. The key takeaway from this lack of conflict is even if a single list item, experience, or drawn feature, was not shared by any other participant, it can still be valuable to all.

Whether superimposed over the existing gender segregated restrooms or elsewhere, participants of the Queer focus group desire distinctive, inclusive restrooms space. The first prompt after the ice breaker "draw what you would like to see in a multiuser inclusive restroom?" illustrated that none of the participants were sated by gender segregated multiuser restrooms, even the really perfunctory responses from Devyn show a desire to change, some might say there was a leading bias in asking participants for "inclusive" multiuser restrooms preferences, but in the transcripts of the focus group no one questioned the bias, that is because almost all gender Queer college aged adults prefer and desire inclusive restrooms on university campuses (Caba, 2020, pg.28). However, it is more than just preference, it is the "distinct" quality of being inclusive of having amenities that make a restroom become a place of belonging. In Abraham Maslow's hierarchy of needs, posited in his 1943 essay *A Theory of Human Motivation*, Belongingness is the third need, after safety needs and the physiologic. Designing a bathroom that is token with an inclusive design typology will only satisfy the physiologic and safety needs. Devyn even stated during the focus group that she didn't think she "needed anything other than the bare necessities." When people's basic needs are not being met, like feeling safe in the bathroom or even being able to use the bathroom, it is hard to imagine a possibility beyond where you can simply belong.

Discussion

As an initial statement, it should be said that while the crux of the Queer focus group workshop was to determine the secondary architectural programming of Queer inclusive restrooms, there was a reiteration of a lot of those things that were learned in the literature review. That the participants primarily just want facilities that make them feel safe, that are clean, and do not "other" them. The current repurposed faculty restrooms made single user inclusive restrooms at UDM, are not safe, or clean, or prevent "othering." UDM's current inclusive facilities do not even meet the primary, let alone secondary, programmatic needs of this workshop. However, from thematic findings applications to secondary architectural programming can be found. Current gender-neutral facilities provided by UDM are not enough, even through the lens of pure utility from the Queer focus group, the current standards of amenities are not enough. The amenities that the Queer focus group want is a luxury of privacy that persons of *any* gender identity could want, and I think speak to the notion that all public restrooms lack this sense of amenity and luxury. One of the key benefits of architectural design is being able to deviate from pure utility to create a sense of belonging. When Blare requests a place to clean up and eat a granola bar, when Amari requests a couch, when Carey requests for a place to be alone so they can be loud, these are demands on a space to be more than a place of elimination, but also a place of privacy. These are just findings from a single focus group. The idea of the perfunctory gender segregated multiuser stall does not exist in the eyes of what can make a space feel familiar.

Limitations

One of the biggest fallacies in conducting any live social research where a researcher is talking directly to a subject, is that the researcher may "lead" the subject to a particular response. Social-desirability bias is a respondent bias in which subjects will respond inaccurately to appeal to the social natures of the researcher, or in the case of a focus group, the other participants (Kreuter et al., 2008, pg.848). After all there was no conflict between the respondents or myself, for any of the

prompts, and social-desirability bias is heightened if the questions are perceived as intrusive, or if there are perceived social repercussions for answering a certain way. While assumptions can be made that college aged persons with Queer gender identities almost unanimously desire inclusive restrooms (Caba, 2020, pg.28). To be a devil's advocate, it would be nearly impossible to know if the participant snuck a peek at their co-participant's work before the prompt's discussion. In the list making portion of some prompts there is some overlap between participants, while the drawing portion shows little overlap between participants. This oversight could have been dealt with by putting each participant in a Zoom breakout room before regrouping to discuss the prompt activity.

More focus groups need to be conducted with these questions. One focus group does not carry the same weight as many focus groups, and it could have been interesting to use this method and these questions on a broader audience. Initial attempts to conduct a focus group (minimum of three persons) using Queer students at UDM were unsuccessful. At first, I thought there was not a Queer student organization at UDM after no such organization was in the UDM student organization database during the Winter 2022 semester. But I learned too late that UDM Pride was founded in March 2022, and was not in the database at the time. If I had known this at the time of recruitment, a UDM student Queer focus group could have been done.

Conclusion

The key takeaways from the *Queer Focus Group Workshop* are.

- **All focus group participants felt that the repurposed gender inclusive bathrooms at UDM were uncomfortable and unwelcoming.**
- **Whether superimposed over the existing gender segregated restrooms or elsewhere, participants of the Queer focus group desire distinctive, inclusive restrooms space.**

- **Common bathroom amenities desired by the Queer focus group (two or more participants) are, trash cans in the water closets, electrical outlets, the ability to wash the body other than hands, additional seating areas, parenting areas, and baby changing tables.**
- **Uncommon bathroom amenities desired by the Queer focus group (just one participant) are, wall hooks, flier door, cool art/graffiti, full-length mirrors.**

Chapter III

Implementation

Three Philosophical Underpinnings

Architecture provides a wide array of philosophical thought. Architecture after all is intrinsically a social artform (Fisher, 2015). Architecture will always have an impact on human experience and expression. Phenomenology is a school of philosophy that accounts for the consciousness and objects of direct experience. Phenomenology can exist in the way we orient our consciousness to architecture, in the way we abstract our body and bodily experiences into architecture, and the way we socialize or isolate in architecture. In this sense it is prudent to expand on the philosophical natures of Orientation and disorientation, building and unbuilding, and unity and division as they relate to this thesis.



[Fig 9.1] *Untitled* (Silveira, 2023)



(Dis)Orientation

Phenomenology in Perceptions of Space

Orientation is a concept brought up in Sara Ahmed's book *Queer Phenomenology*, is the idea that our consciousness can create a frame of reference around objects in our environment (Ahmed, 2006, pg.4). Immanuel Kant uses the analogy of being blindfolded in an unfamiliar room to illustrate this point in his pivotal essay *Qu'est-ce que s'orienter dans la pensée* (Kant, 1786). While blindfolded you stumble onto a table, do you think a chair might be nearby, or something might be on the surface of that table, like a lamp? Disorientation is when there is a disruption in this sense of orientation, for Queer identities Ahmed describes Queerness akin to being an immigrant, in the sense that the social norms around navigating space are disrupted by cultural prejudices (Ahmed, 2006, pg.9). For example, a culture where chairs are an oddity and people sit on the floor, if one were blindfolded in this space, one may trip over a low table rather than bump into the table with sitting chairs, and not have any contextual knowledge for why this happened.

When it comes to Queer gender identity, gender segregated bathrooms that enforce the binary are disorienting phenomenologically. It becomes difficult to conceptualize equity through the lens of Queer phenomenology. Designers

could take a satirical note off the art installation *Don't Miss a Sec* by Monica Bonvicini, its mirrored outside reflect pedestrians regardless of gender and users on inside get the pleasure of others looking at their reflections on the inside, regardless of if you are outside or inside the installation you will be disoriented, and uncomfortable (Bonvicini, 2004).

The satire around water closet design disorienting everyone is not exclusive to art installations, Shigeru Ban made single user inclusive restrooms for Haru-no-Ogawa Community Park for the 2019 Tokyo Olympics, the envelope of the restrooms uses "smart glass" that is transparent when not in use, showing the outside that the bathroom is not occupied and its cleanliness, the glass turns opaque when occupied. The fact of the matter is many of the patrons of the Olympics thought this design choice was deeply concerning (May, 2021). While disorientation is a valuable tool to create something philosophically thoughtful, it can often come at the expense of social expectation and comfort. It is difficult to balance restroom design with enough orientation to socially navigate and become familiar to a new restroom typology while being disorienting enough to include societal groups outside the gender binary.

[Fig 10.1-2] *Don't Miss a Sec*, Monica Bonvicini (Linders, 2004) [Fig 10.3] *Haru-no-Ogawa Community Park Bathroom*, Shigeru Ban (Fong, 2020)







(Un)Building

Bodily Representation in Architecture

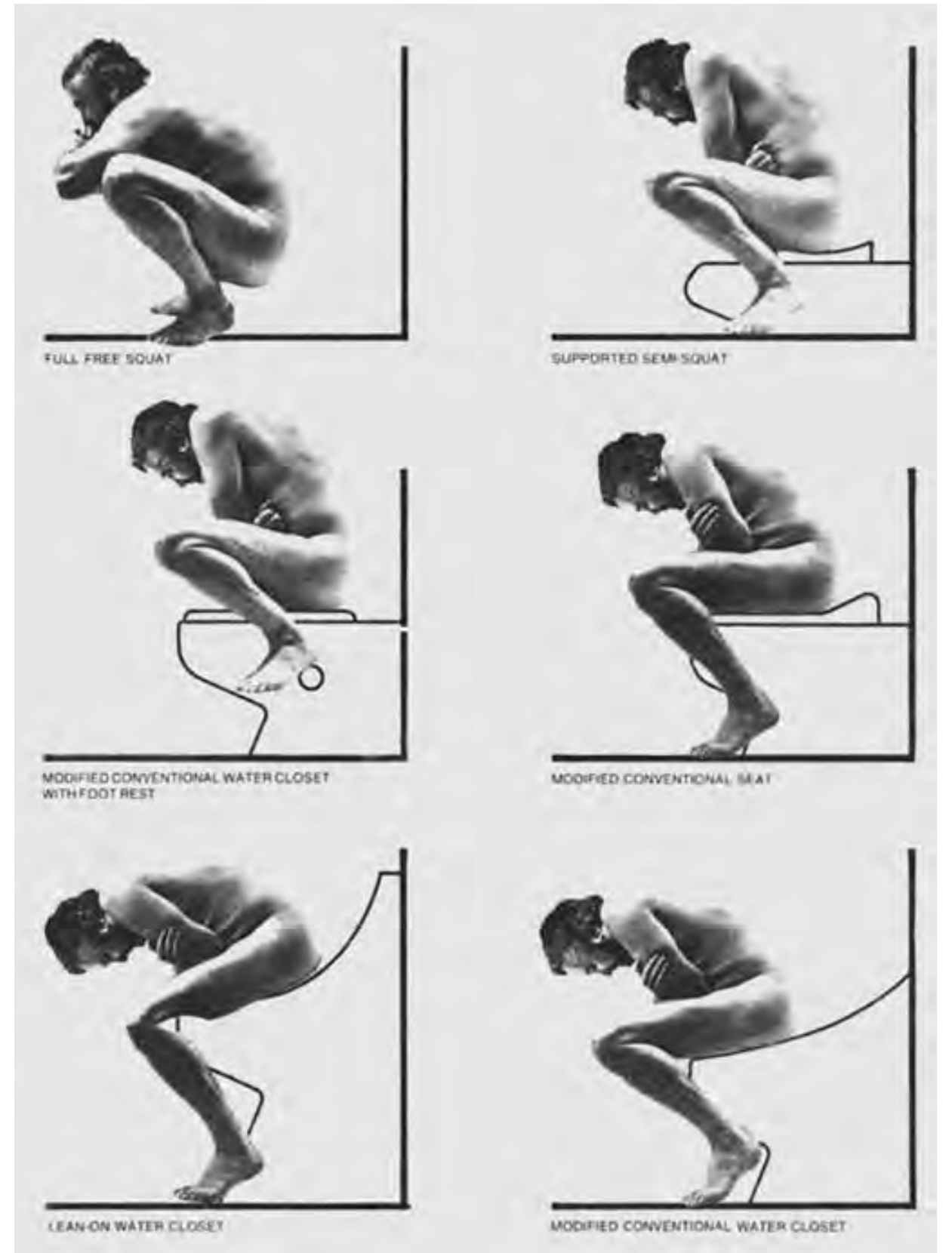
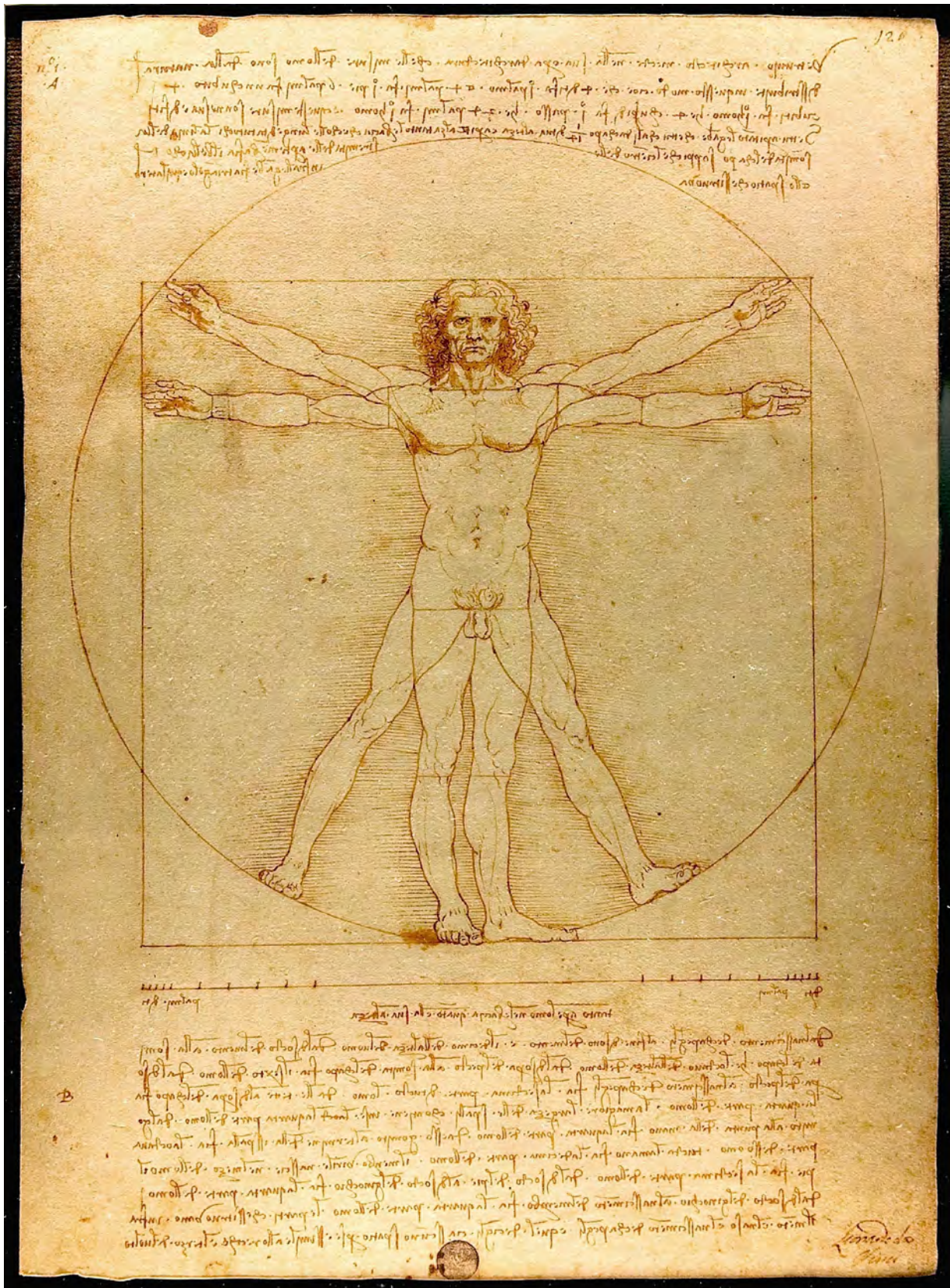
The human body has always been the measure Architecture uses to determine dwelling. In the western canon of architectural history, Vitruvius (the oldest author on architecture) abstracts human geometry to understand hallowed space (Morgan, 1914, pg.72). Over time this abstraction of the body has led to design as finite as bathroom ergonomics in *The Bathroom* by Alexander Kira (Kira, 1976), to abstract understandings of the body like the *Endless House* by Frederick Kiesler (Bogner et al., 2001, pg.21). Social understandings of the body, like gender, are also representative in architecture, for example artist Louise Bourgeois in her exhibition *Femme Maison* defends the identity of femininity beyond the role of the housewife by showing the feminine body exceeding the form of domestic structures (Pera Museum, 2017).

When it comes to understanding the bodies of persons with Queer gender identities in an architectural sense it is building and unbuilding. Susan Striker in her earlier work, *My Words to Victor Frankenstein Above the Village of Chamonix: Performing Transgender Rage*, she mentions that the trans body as “an unnatural body” that it “is a product of medical science. It is a technological construction. It is flesh torn apart and sewn together again in a shape other than that in which it was born” (Striker, 1994, pg.238). It is Striker’s idea of building and unbuilding transgender bodies that is used in Athina Angelopoulou’s journal article, *A Surgery Issue: Cutting through*

the Architectural Fabric. Angelopoulou proposes that if human bodies can be cut in ways that they heal faster (Langer’s lines) then there is a way of understanding adaptively reusing space under the guise that a trans body undergoes gender confirmation surgery (Angelopoulou, 2017, pg.26). There is a fallacy in assuming that the Queer gendered experience is a surgical one, according to the *United States Transgender Survey Report of 2015* only a quarter of respondents have had any gender confirmation surgery. To say there is a quotient of Queer gendered persons who do not desire surgery is not out of the question (James et al., 2015, pg.103). However, while not every person with Queer gender identities undergoes gender confirmation surgery, the trans experience is still underpinned on the building and rebuilding of identity akin to the surgical. In the most extreme sense, as we adaptively reuse existing space in a building to imagine Queer space, it could be as aggressive as Gordon Matta-Clark’s interpretations of cutting into existing space (Halberstam, 2018). Anarchitecture was a term developed by Matta-Clark with his artist friends, it was a combination of the words *anarchy* and *architecture*, and it posited the idea of focusing on voids, gaps, and unused spaces (Rian, 1993). While there is beauty in seeing space in a new context like Matta-Clark’s, cutting a hole in a building does not build anything, it just changes the social perspective of the space.

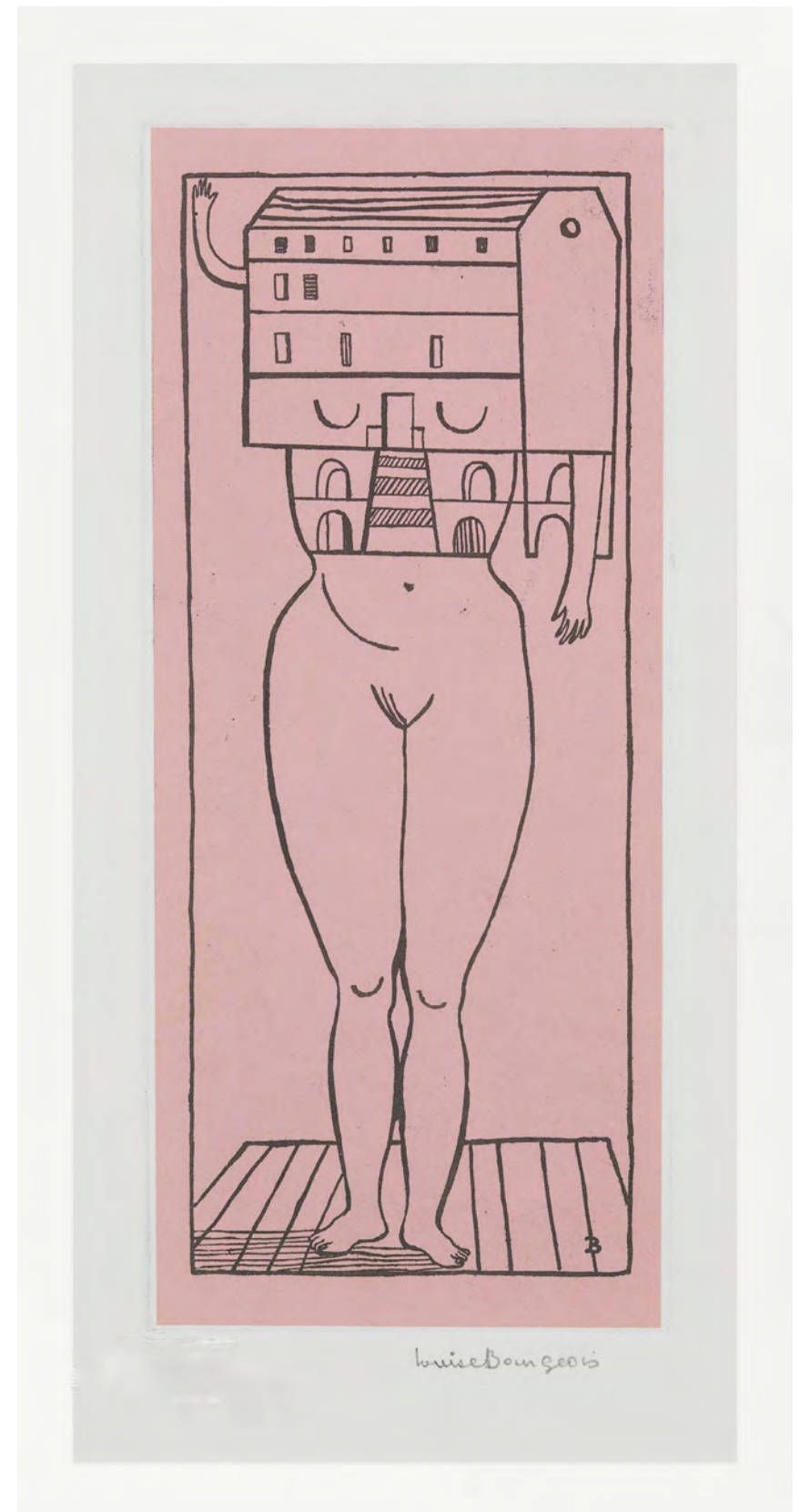
[Fig 11.1] *Circus (Caribbean Orange)* (Matta-Clark, 1978) [Fig 11.2] *Vitruvian Man*, Leonardo da Vinci (Viatour, 2007) [Fig 11.3] *Untitled* (Kira, 1976) [Fig 11.4] *Endless House*, Frederick Kiesler (Barrow, 1958) [Fig 11.5] *Femme Maison*, Louise Bourgeois (Burke, 1984) [Fig 11.6] *Langer’s Lines Diagram* (Goran_tek-en, 2021) [Fig 11.7] *Conical Intersect* (Matta-Clark, 1975)

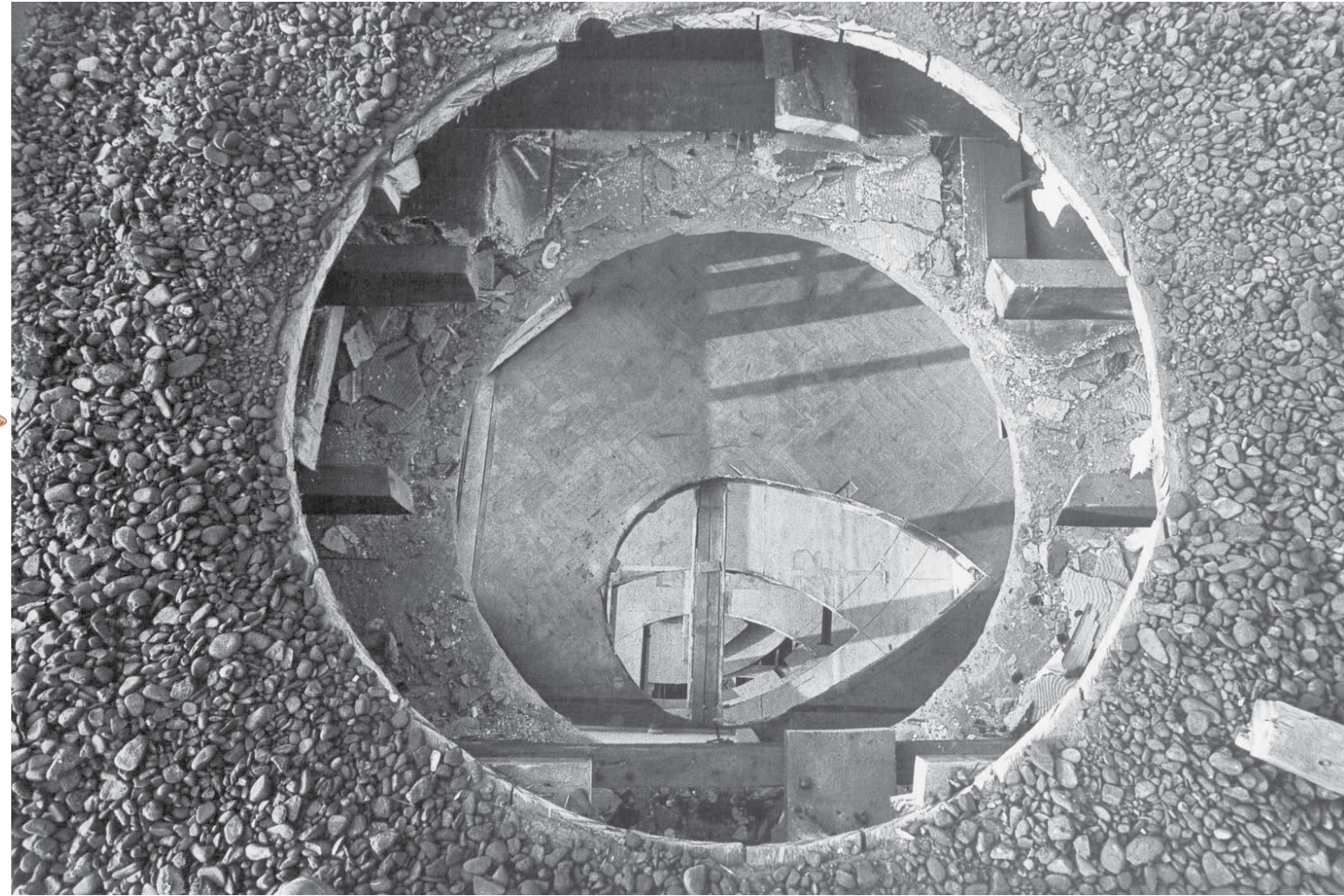
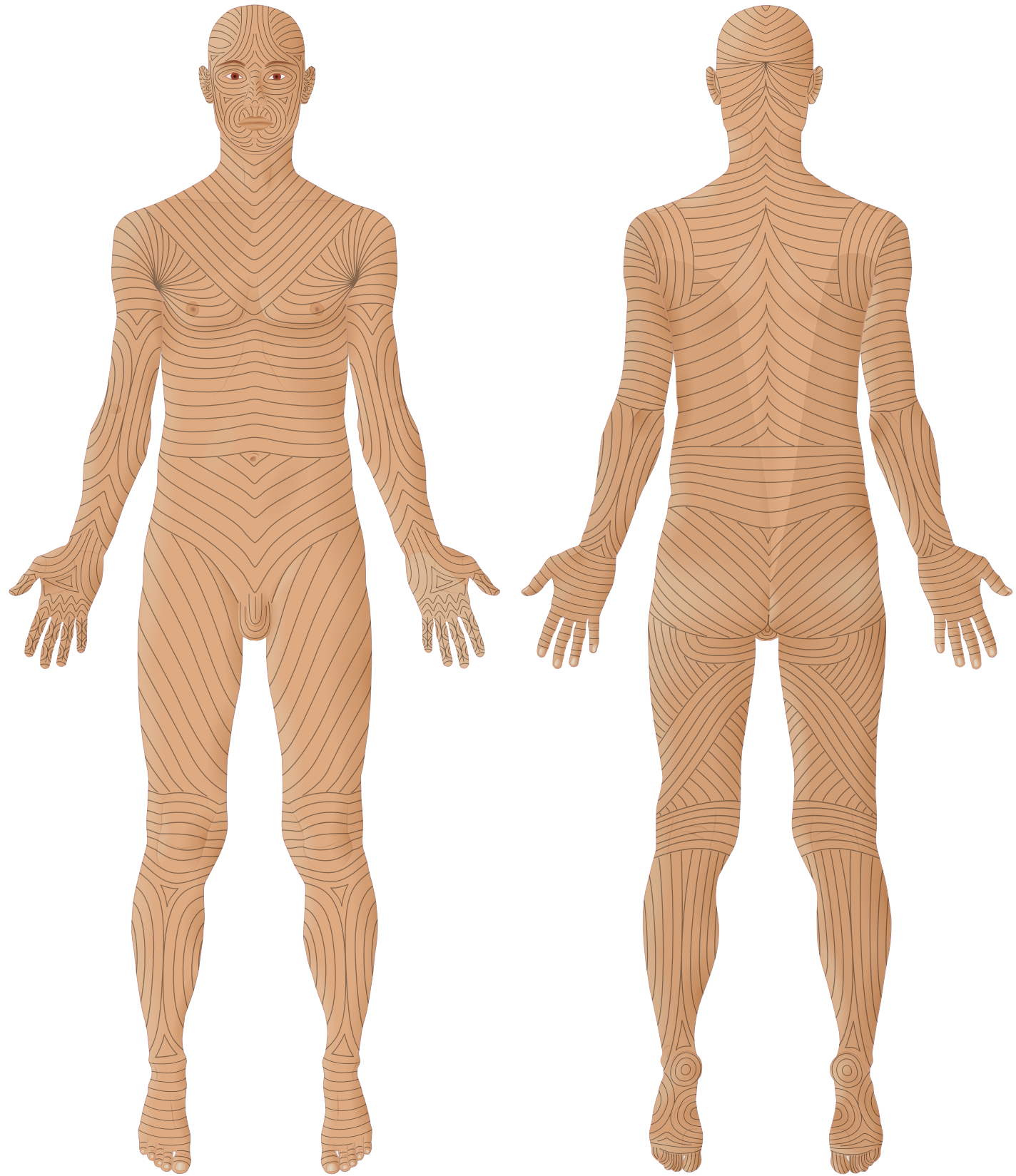
[Fig 12.1] *Cabina dell’Elba*, Aldo Rossi (Unknown, 1984) [Fig 12.2] *Roman Public Bathroom in Ostia Antica* (Harney, 2021)





Implementation





(Unity) & Di·vi·sion

Solidarity & Sovereignty in Sanitation

Spirituality at its core is experiences that connect us as human consciousnesses. If we look at some of the earliest examples of commercial plumbing, like roman bathrooms, it is easy to establish that restroom use, and bathing were activities where personal space and privacy were not upheld as social norms (Koloski-Ostrow, 2015, pg.55). Tasks like grooming and bodily elimination did not need prescribed privacy. Division is not just about privacy; it can be autonomy too. Aldo Rossi's *Cabina dell'Elba* is a superlative example of autonomy in division regarding a gender inclusive space. In an interview with furniture maker Bruno Longoni, Rossi said "I had simply remarked on the peculiarity and universality of the booths on the beaches. Not only at Elba. The point is that seeing is not enough. You have to watch till you take possession of the image and through the image of the thing. So, I met thousands of such booths, on the beaches of the Mediterranean, in California, in Argentina. The booth is a small house, is the idea

of the house" (Rossi, 1992). In a way, the changing rooms that Aldo Rossi describes could also be said of restrooms. A restroom can be more than just a small room but be the idea of a house. With how prolific public restrooms are there is no excuse for them to not have this quality.

The economy of space in designing public restrooms is not an excuse to design more shared space. QSPACE did a lot of work with the student body of RISD to determine that a communal sink would be an appropriate design choice for the RISD student center multiuser inclusive bathroom. That work that QSPACE did also allowed them to add amenities (like mirrors) to each stall, Unity can prescribe some sense of solidarity. Do not overuse unity to cheapen its impact. Outside of privacy, the autonomy of division, like Aldo Rossi Said about the *Cabina dell'Elba*, can provide some sense of home, after all the greatest luxury a public place can provide is the familiarity of home.



Fabrication

From Feelings to Findings to Fabric to Form

“The word fabric, from the Latin faber, signals its resonance with fabrication, construction, building” (Bryan-Wilson, 2017, pg.24).

In the case of this installation the title *Fabrication* is a play on words, both to make the space fabric and construct the installation. For the last Installation of this thesis, a full-scale inclusive restroom was fabricated from white Premium muslin cloth and furnished with muslin draped abstractions of utilities, and features of an inclusive bathroom distinguished by findings from the SACD Stakeholder Questionnaire and the Queer Focus Group Workshop.

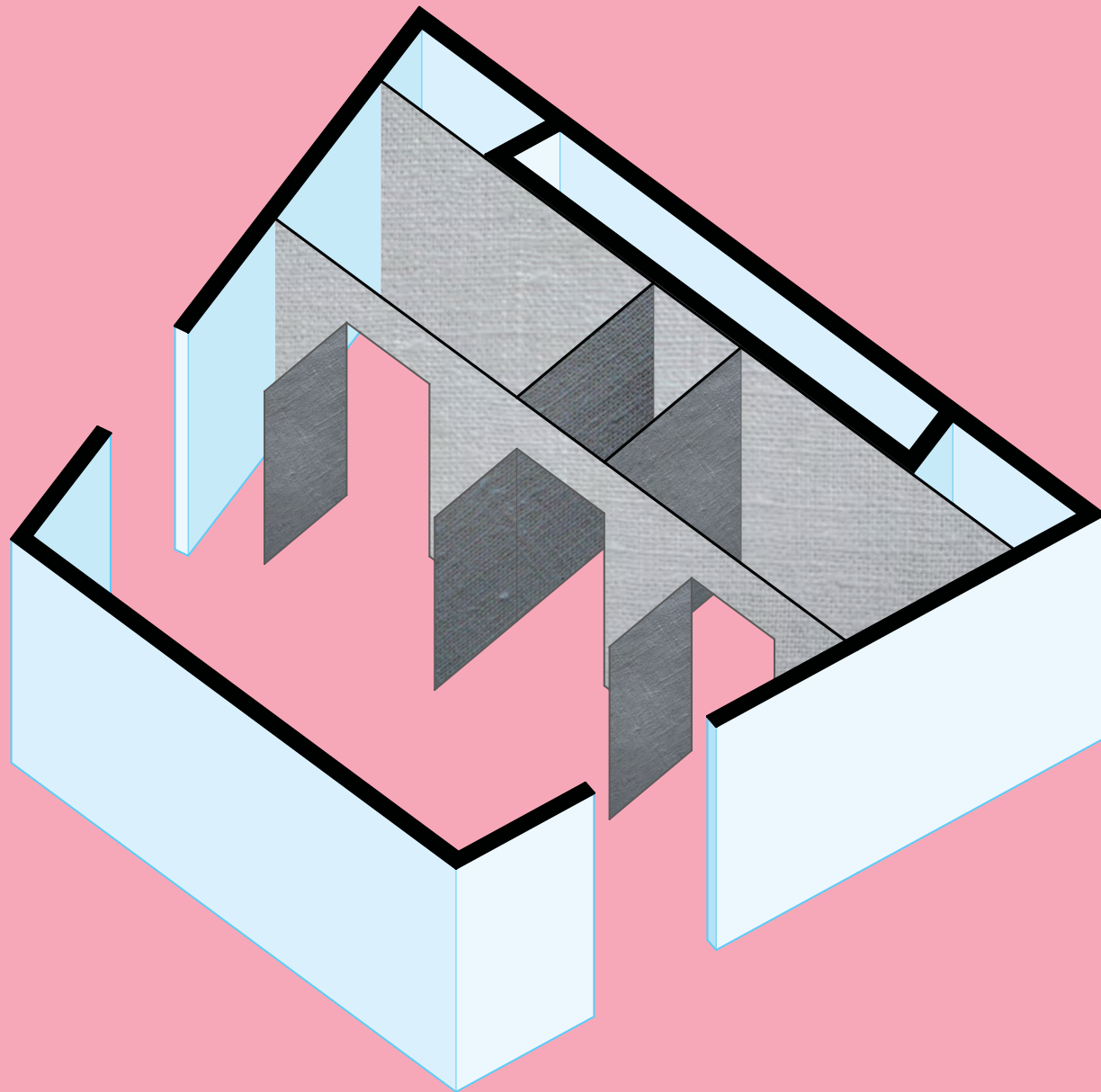
The Hot Box at the SACD was selected as the site for the installation. The selection criteria for the installation site were in one way chosen because of its proximity to the other M. Arch Thesis presentations, but it would be remiss to not mention its selection based on proximity to social space. The Pit is an active social gathering space at the SACD. From the findings of Stalled!'s Gallaudet University case study (Sanders, 2019), and from the Queer Focus Group Workshop, inclusive bathrooms should be located adjacent to social spaces. Another criterion for selection was the vacancy of the site. The Hotbox, for as long as most SACD professors can remember, has been an unglorified storage unit. Originally it was supposed to be a space for studio crits, but the air circulation in the space is poor leading it to be extremely hot, thus its name the Hotbox. Now it is used for photographing student models, but the floor was littered with the SACD's hoard to the point it would be hard for any student to use the space for that program. In the time before the installation's erection the space was cleaned on three separate occasions, right after the space was cleaned the first time (three hours to clean), it was filed with bottles and cans and food waste from an alumni event (one and a half hours to clean), and then after that the Hotbox was filled with unused

chairs and tables to empty the exhibition space (a half an hour to clean). It is not like there are no closets or waste bins near the exhibition space for seats, tables, or trash. The Hotbox was a candidate for installation for another reason, there is no bathroom on the same level as the ADA entrance to the SACD. To currently use the restrooms at the SACD from the ADA entrance you would have to use an elevator. Imagine having to climb a ramp and then use an elevator just to get to a single, gendered, bathroom stall that might be occupied before you even get there. From Elizabeth Ortner's presentation in *Gender Neutral Design: Restrooms and Beyond*, an important criterion for an urban commuter university is to address access of restrooms to the entrance of a building from the main paths of egress, Parking Lot A in this case (Ortner, 2020).

Muslin was selected as the main material for the installation for a variety of reasons. First textile can be used as a material that can orient one in space. In the book by Julia Bryan-Wilson, *Fray: Art and Textile Politics*, it is stated that:

“Textiles as dense and multivalent sites of inscription help define our relationship to interiors and exteriors; they shape how we move through space, and they alert others to our sense of self and signal our attempts to collectively belong. In many respects they map the coordinates of social status, including our allegiances and disidentifications with categories of gender, race, class, sex, age, ethnicity, subcultural stylistic affiliation, and much more” (Bryan-Wilson, 2017, pg.34).

In this sense fabric draping from the ceiling to the floor could orient human senses like a wall. If fabric can be used to abstract spaces like bathrooms, the installation can be understood as bathrooms.



[Fig 13.1] 3D model representing the intervention of the *Fabrication* installation in the hotbox of the SACD (Silveira, 2023)



Second, Textile arts are a medium of gender building and unbuilding. There is a much larger history before advancements in supplemental hormones and gender confirmation surgeries, to textile being used to augment a body to change gender perceptions of the body. Again, we can look to the writings of Julia Bryan-Wilson, in *Fray: Art and Textile Politics*, in that:

“Indeed, Queer drag and textile craft could be considered closely aligned, parallel practices—historically, non-gender-conforming folks like drag queens, drag kings, butch lesbians, and femmy fags (as well as transgendered folks who aim to pass “seamlessly,” to invoke a sewing metaphor) have had to make their own clothes, significantly tailor garments, and invent body-altering modifications like breast binders and packing cocks” (Bryan-Wilson, 2017, pg.60).

Radical reimagining of preexisting space like Gordon Matta-Clark’s Anarchitecture, can be contextualized as Queered through the lens of Angelopoulou, but they cannot reflect the medium of bodily gender expression like fabric can. It can be argued that reconstituting a space through fabric is Queerer, because its material understanding is more based in Queer gender identity than Anarchitecture.

One of the benefits of using muslin is its cheap cost, much like the mirrored sticky back

vinyl used in *Hall of Mirrors*, the cost was below \$250 for the project (in 2022 USD). By using premium white muslin, the fabric is thick enough to be opaque without doubling it up, and it can be painted on. Another method of inquiry beyond the scale of this thesis might be to ask stakeholders, or the Queer focus group to paint on the muslin, allowing a superposition of innovative ideas to be incorporated with the previous inquiry findings.

Architecture is a study in representation of built space. Architectural drawings are representations of built space, models are representation of built space, and drawings and models are a cost-effective way of describing designs for built space. But they lack the presence of sensorial experience that buildings provide. To the layperson, can they understand what a space is from drawings and scale models alone? In 2020 Antonia Caba authored a graduate thesis titled *Associations Between Campus Bathroom Use and Mental Health Among Gender Minority and Cisgender Students*, in it one of her findings is both Cisgendered and Gender Queer students preferred both multi-user universal restrooms and single-user universal restrooms over gender segregated restrooms (Caba, 2020, pg.28). However, this line of questioning was only asked of university students on three campuses that also had these new inclusive restroom typologies. Impressions of inclusive typologies are questionable when there is no local precedent for these new inclusive typologies.

The form factor of the Hot box allowed the installation composition to have a double vestibule, reflecting a finding from the SACD Stakeholder Questionnaire, where respondents found public bathrooms that had visible shielding from egress spaces as safer/better. Amenities for the installation were generated from the lists-making and drawing exercises from the Queer focus group. Amenities like couches, electrical outlets in the waiting area and stalls, trash receptacles in stalls, places to put up fliers, and even the breath mints in the communal area were generated from the focus group data.



[Fig 13.2 & 6] Panoramics of stalls and common area (Silveira, 2022)

[Fig 13.3-5 & 7] Details of each stall and parenting room, and detail of the common room (Wilson, 2022)



[Fig 13.8-10] Panoramic photographs of the ADA single-user inclusive stall, ADA ambulatory stall, and Parenting Room (Silveira, 2022)

[Fig 13.11-16] Detail photographs of the ADA single-user inclusive stall, ADA ambulatory stall, and Parenting Room (Wilson, 2022)

Conclusion

When I was 17 years old someone close to me attempted to take their life because of the fears of coming out of the closet to an unwelcoming world. This thesis was cathartic in some ways, and incredibly painful in others. There is an incredible burden in loving something as socially and aesthetically, and physically complex as architecture, and watching its paradigms change at a glacial pace. I was incredibly motivated to do THIS thesis because I wanted to change my peers' minds that this is a real issue in our time (that this issue is zeitgeist). That if I spend a whole year talking to my M. Arch peers about this issue that there will be an entire class that at least have heard me talk and research Queer gender issues in architecture. But a thesis book is different; it will sit in an online database or a dusty bookshelf in the campus library, unchanging in this volatile world, it may be unread, or read in a very different social world than it is today. For those that read this wanting to create real social change in architecture, you can do it. The cost of change may require a lot of discipline, and can be thankless, but you should do it, I feel no regrets in picking this subject of my thesis in this way.

The literature review and development of three multiuser inclusive restroom typologies was exciting. It was good to see that Queer social issues were being studied. Three architects had developed their own multiuser inclusive restroom typology but there was no anthology compiling their findings. A good month of this thesis was dedicated to developing a quality understanding of the architectural possibilities underlining the known needs of persons with Queer gender identities and presenting it in a way that my peers could easily internalize.

The McNichols Campus Inclusive Restrooms' photo documentation and map were not just a graphic representation of the amenities UDM offers; they would also serve as a barometer for assessing UDM's readiness for new legal interpretations of gender equality under Title IX and IPC code options for Queer gender inclusion. Since walking for graduation, there are even less accessible restrooms than are indicated on the Title IX website for Queer resources as of August 2023. I worry that the McNichols Campus will not have the inclusive resources that are standard at other universities. My experiences at UDM have been a wonderful, and the SACD is a supportive environment (according to the findings from the *SACD Stakeholder Questionnaire*) whose stakeholders have positive perceptions of persons with Queer gender identities. I question the dereliction of the Title IX office of UDM, in not foreseeing the discrepancy between that the McNichols campus offers and what the stakeholders will accept on said campus.

The *SACD Stakeholder Questionnaire* and *Queer Focus Group Workshop* were interesting methods to use to gain architectural insight. One thing I have realized while using social science methodology is how infrequently it is used in relation to architecture. There is very little research published that focuses on perceptions of architectural designs before they break ground. Published social science research is not involved in the act of designing architectural projects, and it is not used in the training of architecture students. Part of me thinks if architecture was practiced in this way, where stakeholders were asked what they want in a scientifically publishable way, civic architectural works would be much attuned to the needs of their audience. An issue like accommodating bathroom to person with Queer gender identities has been a known issue since the 90's with "restroom revolution" at UMass Amherst, if architectural practice had the reliability that comes with published social scientific research, social issues endemic to architecture might be solved faster than a glacial pace. What I would like to see in the future is not just architect's literate in understanding social science research, but those that are not scared of showing the design process in the academic and practicing sectors through a lens of social science research.

Installations were the only real way to engage in social research and architecture as a student with a limited budget. I am grateful for the opportunities this thesis gave me to confront what I can produce. In *Hall of Mirrors: The Body actualizing the Binary Choice*, I used installation as a means of advocacy, the entirety of the SACD was confronted by my installation at some point in the academic year. This coincided with the *SACD Stakeholder Questionnaire* which would not have had the reception it had without its unveiling. *Fabrication: From Feelings to Findings to Fabric to Form* was a culmination in results from the *SACD Stakeholder Questionnaire* and the *Queer Focus Group Workshop*. Installation's use was far from just being a tool of social research. Its forms were analogues to architecture. Mirrors and fabric became the walls in which I described an architectural experience. There is an incredible philosophic nature to the mediums I used for my installations (mirrors and fabric) both are tied to Queer gender identity and were used in a way to confront my audience. Even with everything that was learned through social inquiry, I know my thesis would be lacking without the experience my installations provided.

The hardest part of any project like endeavor is how you end it. After all, once this thesis book is printed, that is it. As the last words in this thesis, I cannot reiterate enough how important it is that budding architects need to research those things that are hard. Personally, writing is very difficult for me. Yet, rather than focusing on an issue that lends itself to visual craft, I chose a theory-based thesis that required more writing. I have strong emotions for instilling Queer advocacy in architecture. Spending the extra time to make sure this thesis will stand the test of time felt necessary. However, getting to this point is quite satisfying, and with more than just satisfaction, I have left this thesis with confidence in the diversity of skills I developed. I am incredibly grateful to my thesis advisors for the patience, wisdom, and guidance they have provided throughout this thesis. For those that have read this thesis to this point, thank you for making it this far, I am grateful you read what I have written, I hope it helps you on your journey.

References

Queer, Gender & Queer Gender Identity

- ACLU. (2023). *Mapping attacks on LGBTQ rights in U.S. state legislatures*. American Civil Liberties Union. <https://www.aclu.org/legislative-attacks-on-lgbtq-rights>
- An act establishing the women's bill of rights; providing a meaning of biological sex for purposes of statutory construction, SB 180, Session Day 33 of 2023. (Kansas, 2023) http://kslegislature.org/li/b2023_24/measures/documents/sb180_00_0000.pdf
- Callahan, M. P., & Zukowski, K. T. (2017). Reactions to transgender women and men in public restrooms: Correlates and gender differences. *Journal of Homosexuality*, 66(1), 117–138. <https://doi.org/10.1080/00918369.2017.1395661>
- Chapter 66, Title 33, SB1100, 77th Legislature, First session of 2023. (Idaho 2023). <https://legislature.idaho.gov/wp-content/uploads/sessioninfo/2023/legislation/S1100.pdf>
- James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). *The Report of the 2015 U.S. Transgender Survey*. Washington, DC: National Center for Transgender Equality.
- Killermann, S. (2017). The Genderbread Person Version 4 - it's pronounced metrosexual. It's Pronounced Metrosexual. Retrieved 2022, from <https://www.itspronouncedmetrosexual.com/2018/10/the-genderbread-person-v4/>
- Robertson, W. (2012, February 12). *The Genderbread Person: A Critique*. Queereka. Retrieved 2022, from <https://queereka.com/2012/02/07/the-genderbread-person-a-critique/>
- Seelman, K. L. (2016). Transgender adults' access to college bathrooms and housing and the relationship to suicidality. *Journal of Homosexuality*, 63(10), 1378–1399. <https://doi.org/10.1080/00918369.2016.1157998>
- White, C. R., Jenkins, D. D. (2017). College students' acceptance of trans women and trans men in gendered spaces: The role of physical appearance. *Journal of Gay & Lesbian Social Services*, 29(1), 41–67. <https://doi.org/10.1080/10538720.2016.1261749>

Figures

Queer, Gender & Queer Gender Identity

- Fig 1.1** Silveira, J.T. (2021). *Rendition of the Genderbread Person* [Digital Poster]. University of Detroit Mercy, Detroit, MI, USA
- Fig 1.2** Killermann, S. (2017). *The Genderbread Person Version 4* [Digital Poster]. It's Pronounced Metrosexual. <https://www.itspronouncedmetrosexual.com/2018/10/the-genderbread-person-v4/>
- Fig 1.3** Silveira, J.T. (2021). *Gender Tetrahedron* [Digital Poster]. University of Detroit Mercy, Detroit, MI, USA

Public Restrooms & Queer Gender Identity

- Fig 2.1** Restroom Revolution. (2010). *Did you know that you are sitting in a seat of Privilege?* [Poster]. Author's Privet Collection. In O. Gershenson, *The Restroom Revolution: Unisex Toilets and Campus Politics* (p. 197). New York University Press. (Original work 2001).
- Fig 2.2-3** QSPACE. (2016). *Coded Plumbing* [Photographs]. QSPACE. <https://www.qspacearch.com/codedplumbingimages>
- Fig 2.4-5** HMCA. (2018). *Typologies and Precedents* [Drawings]. In HMCA, *Designing for Inclusivity: Strategies for Universal Washrooms and Change Rooms in Community and Recreation Facilities* (p. 17-18). HMCA. https://hcma.ca/wp-content/uploads/2018/01/HCCA_Designing-for-Inclusivity_V1-1.pdf

Appendix

P.B.P.S.	Public Bathroom Perception Scale
I.B.T.1	Inclusive Bathroom Typology I
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A.T.T.Q.	Attitudes Toward Transgender Queer
DEMO	Demographic Questions

P.B.P.S.

Public Bathroom Perception Scale

How important to you is the privacy a public restroom offers?

Not Important Low Importance Neutral Important Very Important

How Important to you is that the restroom is isolated from the rest of the building?

Not Important Low Importance Neutral Important Very Important

How important is it to you to be able to close the restroom stall door securely?

Not Important Low Importance Neutral Important Very Important

How important is it to you the privacy offered by individual bathroom stalls?

Not Important Low Importance Neutral Important Very Important

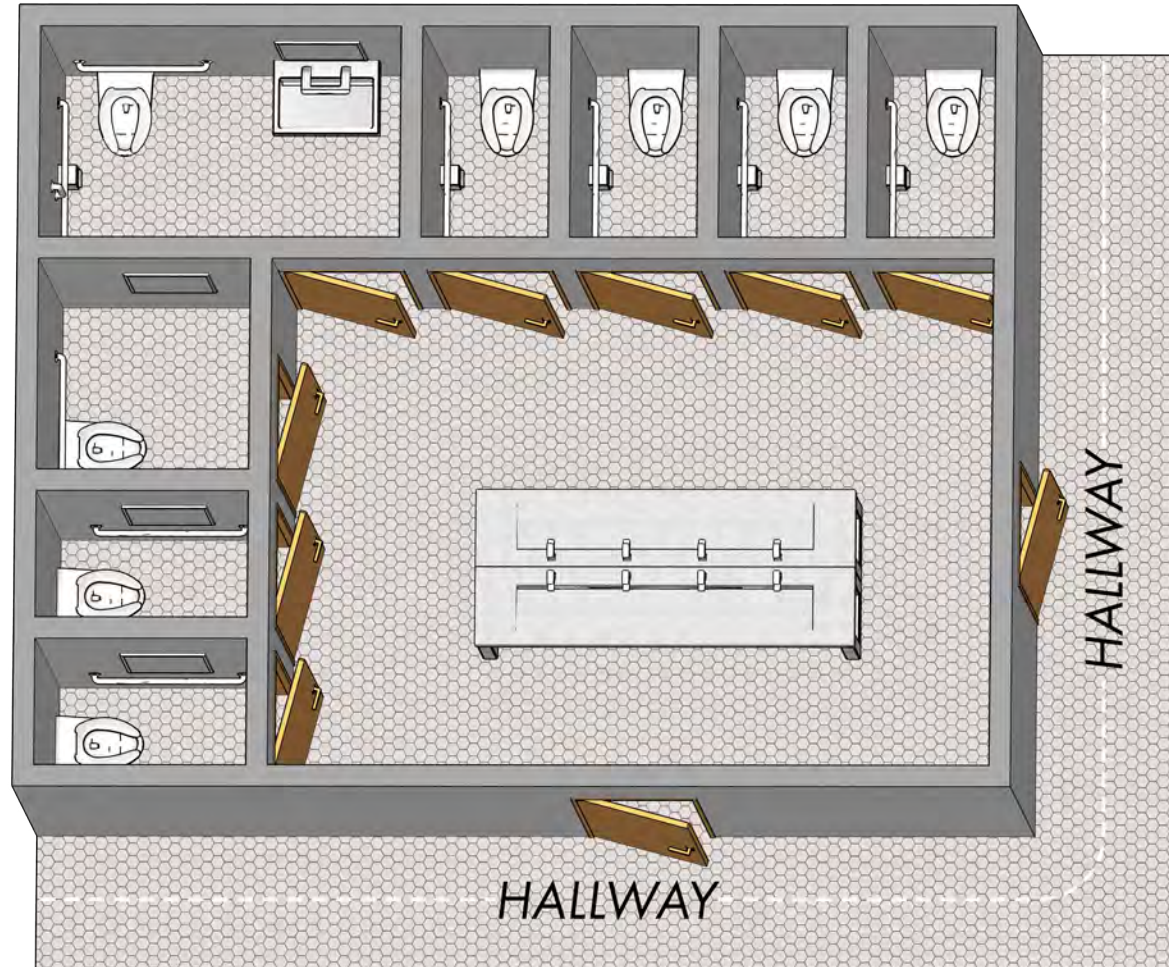
How important to you is it to not feel exposed while in the restroom?

Not Important Low Importance Neutral Important Very Important

Please rate the level of importance the following items have on your experience within public restrooms, such as the restrooms in the School of Architecture and Community Development.

I.B.T.1

Inclusive Bathroom Typology I



Please take a moment to examine this restroom design. The following questions will be asking you to regard this design as you answer the questions.

Please describe how the following aspects of the restrooms design affect your feeling of safety?

This level of visibility of the communal sinks from the hallway makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

The experience of these communal sinks makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

The experience of these inclusive stalls makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

The level of visibility people have into the bathroom from the hallway makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

This level of visibility from the hallway makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

Mirrors in the stalls make me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

The image above has bathroom stalls whose walls are full length (from floor to ceiling) and are sound attenuated. The stall doors are also full length and sound attenuated. Each stall has at a mirror for private use. At least one stall has a baby changing table. The communal sinks and stall doors cannot be seen from the hallway. The communal sinks and stall doors are not open to the hallway, and are only accessible by entering a door from the hallway.

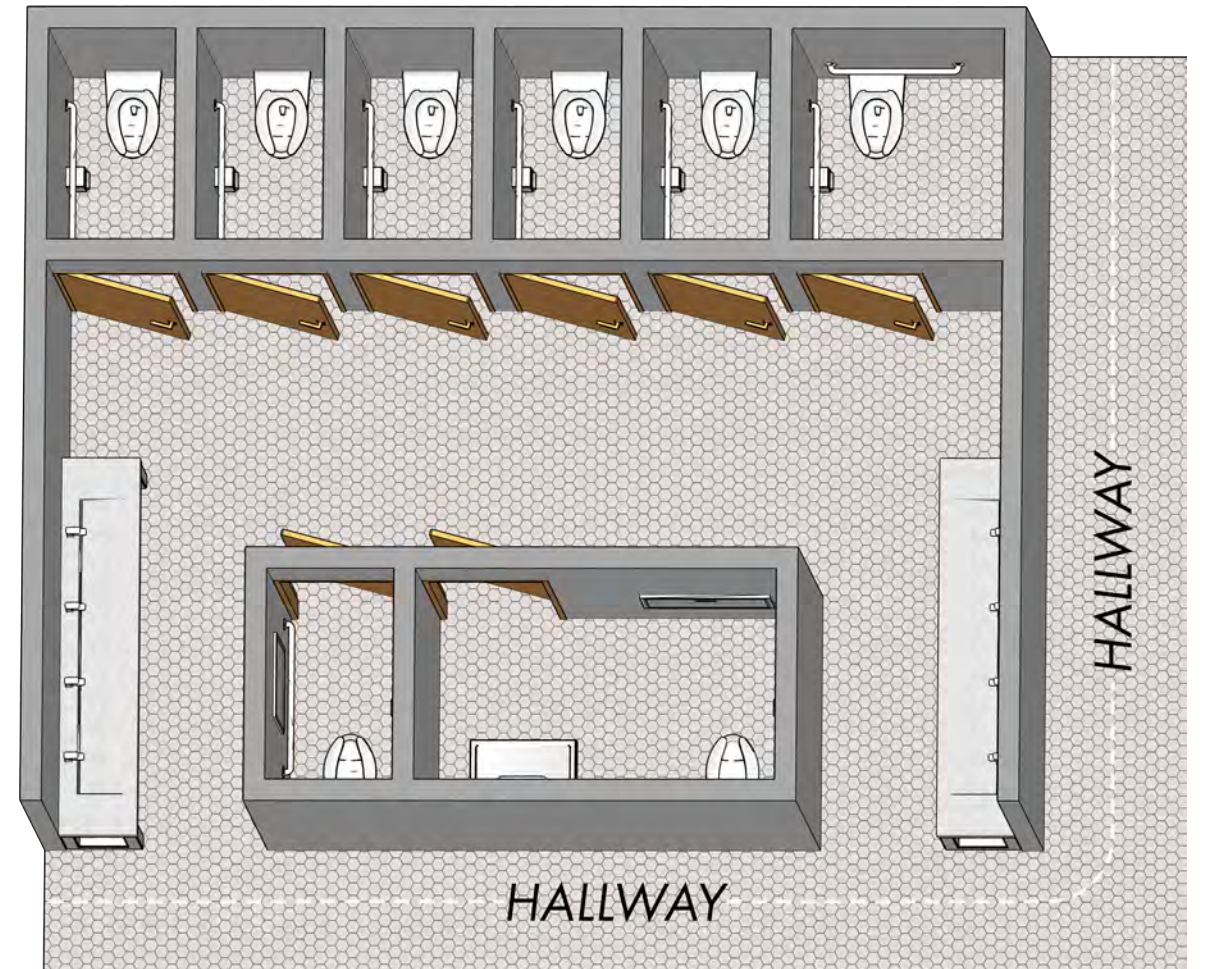
Knowing this information, please rank from 1 (poor execution) to 7 (excellent execution) how you perceive the following features of this inclusive restroom typology?

	1 (Poor Execution)	2	3	4	5	6	7 (Excellent Execution)
Having a folding baby changing table in at least one stall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mirrors in the stalls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The stall composition in this typology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The communal sinks composition in this typology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How open this typology is to the hallway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you have any thoughts on how the design above makes you feel, or if there are any aspects of this design that you enjoy or dislike, please leave your feedback here?

I.B.T.2

Inclusive Bathroom Typology II



Please take a moment to examine this restroom design. The following questions will be asking you to regard this design as you answer the questions.

Please describe how the following aspects of the restrooms design affect your feeling of safety?

This level of visibility of the communal sinks from the hallway makes me feel?

Very Unsafe
 Somewhat Unsafe
 Neutral
 Somewhat Safe
 Very Safe

The experience of these communal sinks makes me feel?

Very Unsafe
 Somewhat Unsafe
 Neutral
 Somewhat Safe
 Very Safe

The experience of these inclusive stalls makes me feel?

Very Unsafe
 Somewhat Unsafe
 Neutral
 Somewhat Safe
 Very Safe

The level of visibility people have into the bathroom from the hallway makes me feel?

Very Unsafe
 Somewhat Unsafe
 Neutral
 Somewhat Safe
 Very Safe

This level of visibility from the hallway makes me feel?

Very Unsafe
 Somewhat Unsafe
 Neutral
 Somewhat Safe
 Very Safe

Mirrors in the stalls make me feel?

Very Unsafe
 Somewhat Unsafe
 Neutral
 Somewhat Safe
 Very Safe

The image above has bathroom stalls whose walls are full length (from floor to ceiling) and are sound attenuated. The stall doors are also full length and sound attenuated. Each stall has at a mirror for private use. At least one stall has a baby changing table. The communal sinks and stall doors can somewhat be seen from the hallway. The communal sinks and stall doors are open to the hallway, and are openly accessible from the hallway.

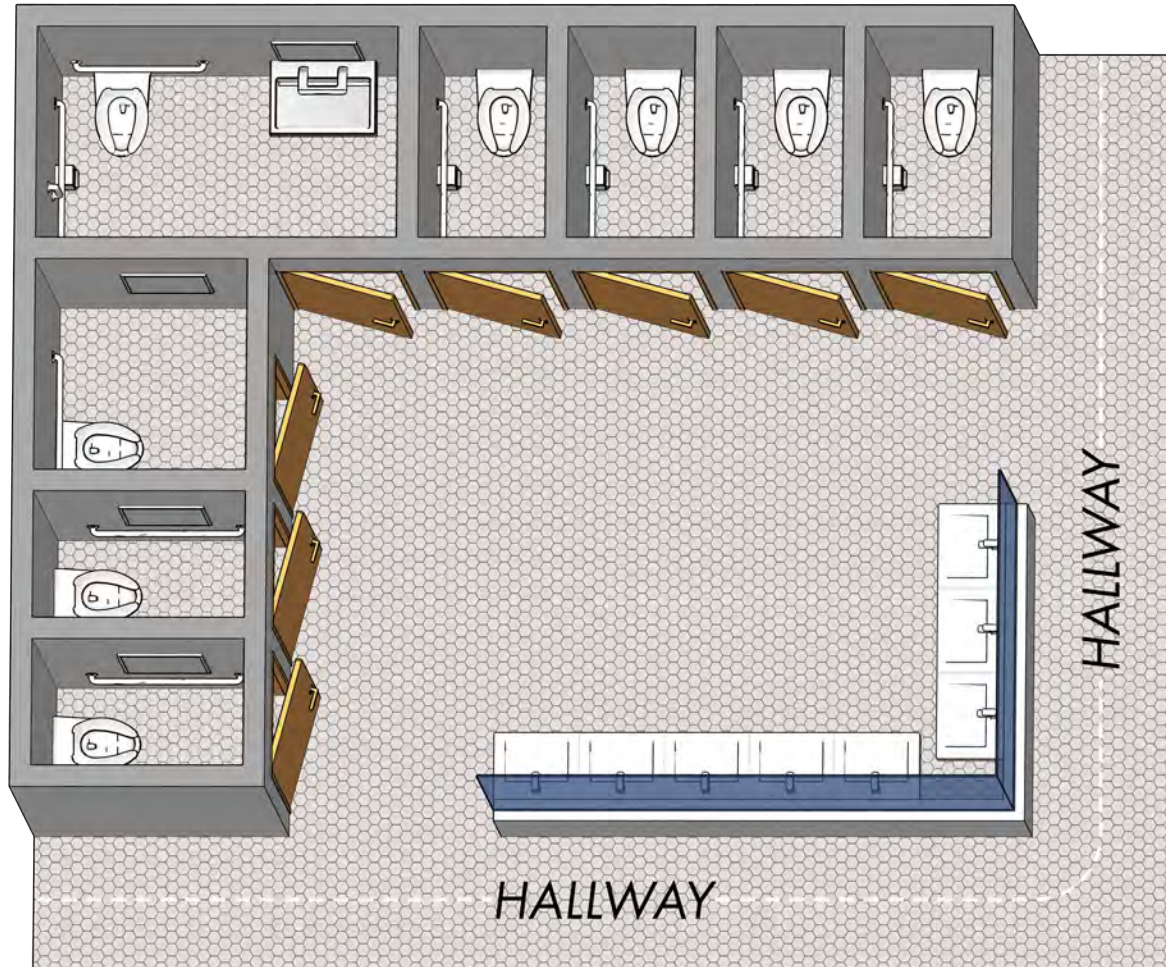
Knowing this information, please rank from 1 (poor execution) to 7 (excellent execution) how you perceive the following features of this inclusive restroom typology?

	1 (Poor Execution)	2	3	4	5	6	7 (Excellent Execution)
Having a folding baby changing table in at least one stall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mirrors in the stalls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The stall composition in this typology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The communal sinks composition in this typology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How open this typology is to the hallway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you have any thoughts on how the design above makes you feel, or if there are any aspects of this design that you enjoy or dislike, please leave your feedback here?

I.B.T.3

Inclusive Bathroom Typology III



Please take a moment to examine this restroom design. The following questions will be asking you to regard this design as you answer the questions.

Please describe how the following aspects of the restrooms design affect your feeling of safety?

This level of visibility of the communal sinks from the hallway makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

The experience of these communal sinks makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

The experience of these inclusive stalls makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

The level of visibility people have into the bathroom from the hallway makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

This level of visibility from the hallway makes me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

Mirrors in the stalls make me feel?

Very Unsafe Somewhat Unsafe Neutral Somewhat Safe Very Safe

The image above has bathroom stalls whose walls are full length (from floor to ceiling) and are sound attenuated. The stall doors are also full length and sound attenuated. Each stall has at a mirror for private use. At least one stall has a baby changing table. The communal sinks and stall doors can be seen from the hallway. The communal sinks and stall doors are open to the hallway, and are directly accessible from the hallway.

Knowing this information, please rank from 1 (poor execution) to 7 (excellent execution) how you perceive the following features of this inclusive restroom typology?

	1 (Poor Execution)	2	3	4	5	6	7 (Excellent Execution)
Having a folding baby changing table in at least one stall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mirrors in the stalls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The stall composition in this typology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The communal sinks composition in this typology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How open this typology is to the hallway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you have any thoughts on how the design above makes you feel, or if there are any aspects of this design that you enjoy or dislike, please leave your feedback here?

A.T.T.M.

Attitudes Toward Transgender Men

The following statements concern transgender men. The term “transgender man” is used to describe people who were identified as female at the time of their birth but who currently live their daily lives as men. Be sure to read the prompts carefully and to answer honestly.

Please rate your agreement with the following statements on a scale from 1 (strongly disagree) to 7 (strongly agree).

Transgender men are only able to look like men, but not be men.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender men seem absolutely normal to me.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender men cannot just “identify” as men.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender men are misguided.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender men don’t really understand what it means to be a man.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender men are emotionally unstable.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender men should not use the men’s restroom.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender men are in danger if they use the men’s restroom.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

A.T.T.W.

Attitudes Toward Transgender Women

The following statements concern transgender women. The term “transgender woman” is used to describe people who were identified as male at the time of their birth but who currently live their daily lives as women. Be sure to read the prompts carefully and to answer honestly.

Please rate your agreement with the following statements on a scale from 1 (strongly disagree) to 7 (strongly agree).

A.T.T.Q.

Attitudes Toward Transgender Queer

Transgender women are only able to look like women, but not be women.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender women don't really understand what it means to be a woman.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender women cannot just "identify" as women.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender women only think they are women.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender women are defying nature.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

There is something unique about being a woman that transgender woman can never experience.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender women should be able to use the women's restroom.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender women are dangerous in the women's restroom.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

The following statements concerns Transgender people as a whole and those who are Non-Binary. The term "Non-Binary" is used to describe people who were identified as male or female at the time of their birth but who currently live their daily lives as neither exclusively a man or woman. Be sure to read the prompts carefully and to answer honestly.

Please rate your agreement with the following statements on a scale from 1 (strongly disagree) to 7 (strongly agree).

Transgender and Non-Binary people will never really be the gender they want to be.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Non-Binary people cannot just “identify” as an imaginary gender.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Non-Binary people are unable to accept who they really are.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender and Non-Binary people are trying to be someone they’re not.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Transgender and Non-Binary people are unnatural.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Non-Binary people should just stick to using the bathroom that matches their genitals.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Non-Binary people are just mentally ill.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

Non-Binary people deserve to feel comfortable in the restroom.

Strongly Disagree Disagree Slightly Disagree Neutral Slightly Agree Agree Strongly Agree

DEMO

Demographic Questions

The following section will be asking you about yourself. Please answer honestly, and remember that the survey is anonymous.

Please select the option which correlates to your enrollment or occupational status at the University of Detroit Mercy.

- Undergraduate Student Graduate Student Faculty, Teaching Faculty, Other Staff Other

Please select from which area of study you are either enrolled or work in at the University of Detroit Mercy.

- School of Architecture School of Community Development Other

Please indicate to which gender you identify as. This does not need to be your biological sex. For example, someone whose sex is female and identifies as female is a Cisgendered women. Someone whose sex is female, but identifies as male is a Trans Man.

- Male (Cis Man) Female (Cis Woman) Male (Trans Man) Female (Trans Woman) Non-Binary or other Gender Queer identity (i.e. genderfluid) Prefer not to Answer Other

Please indicate if you are a member of the LGBTQ+ (Queer) community.

- Yes No Unsure/Questioning Prefer not to Answer Other

Please indicate if you use the Handicap stalls on a regular basis.

- Yes No

If you indicated yes on the previous question, please indicate if this use is due to medically necessary reasons.

- Yes No

Have you seen the instillation at the SACD restroom on the first floor.

- Yes No

If you have seen the instillation, please answer here what you think the instillation means based on your own observations and having answered this questionnaire.

If you have anything else you would like to say regarding this survey or the instillation, please leave your thoughts and feedback below. Any kind of comment of thought is welcome and appreciated!