

QUEER(+AR)
Fostering Healthy Queer Communities Through
Augmented-Reality-Infused Hybridized Event Spaces

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James A. Brosius

Thesis Committee:

Scott Shall, Thesis Committee Chair

Assoc. Prof. Ed Orłowski, RA, LEED AP, NOMA, SEED, Committee Member

Laura Walker, RA, NOMA, NCARB, Committee Member



Image 1: Queer Nation Manifesto: Queers Read This (1990) Source: (Members of Queer Nation 1990)

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ABSTRACT:

In the aftermath of the 2020 pandemic, the dynamics of queer space have undergone a profound shift, with conventional physical queer spaces shifting to digital forums. This transition, exacerbated by anti-LGBTQ+ legislation and rising heteronormative ideals of the United States suburban landscape, has compelled the queer community to embrace an almost exclusively online presence. This shift has left an outstanding amount of the community in the dark with very minimal physical space left to exist as their true self, begging to return to some form of anchored physicality for connection. To comprehend and contextualize this discussion of queer space's current issue, drawing reference to the idea of "event-spaces," (Bernard Tschumi, 1994-2010) helps to understand this shift in the nature of queer space. Event space ideals helps navigate the conversation around the challenges and opportunities presented by this new paradigm, emphasizing the adoption of event spaces as queer space going forward.

The transition to online platforms appears as a reaction in accordance with event-space concepts – as queer space can happen anywhere now instead of holding noteworthy scenes for assemblage. This shift has simultaneously challenged the sense of community and connection, specifically in the suburban context. Due to this shift, these specific queer communities have been left in a state of isolation and uncertainty. Being online completely challenges community mental health, wellbeing, and identity, especially when constant discrimination forces a community to reside there (Abreu, R. L., et al., 2023)(Graham, M., et al., 2023).

As both a dwindled physical and fully digital environment has shown to not keep queer communities together without issue, this investigation proposes the idea of hybridized environments to ignite a new form of connection to make up for the downfalls of each respectively. Recognizing the historical proclivity for the queer community to adopt new technologies for refuge in hostile environments such as heteronormative suburbia, hybridized environments aided by new and emerging tech aligns well with the nature of evolving queer space, with the potential of founding healthy queer communities in the long run (Miles, 2018)(Human Rights Campaign, 2023). To investigate this concern, this thesis will test the implementation of augmented reality in existing fully-physical spaces that used to be queer as an ingredient in the manifestation of post-Covid queer space, acting as a promising avenue for insight in how to re-ignite queer connections and community.

KEYWORDS: Queer Space; Augmented Reality; Hybridized Spaces; Post-Pandemic; Community Building Strategies; Grassroots Approach, Suburban Community

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Part 01: DEFINE QUEER (CONTEXT)

1.1. DEFINING CONSTRUCTS

What is being queer? What is queer space? Queer Theory in Question? There are multitudes of definitions, as individuals may (and as they should) define these concepts in their own terms. Listed below are specific definitions of queer space and community that are utilized in publications produced through academic bases, including the official definition from Merriam-Webster. Also, an architectural modernized contextual definition of queer space and theory is provided so that there is authentic grounding to reference in this conversation around a theoretical architectural outcome.

QUEER (Definitive)

The adjective queer is now most frequently applied with its meanings relating to sexual orientation and/or gender identity. When these meanings were developing in the early 20th century, they were strongly pejorative, echoing the negative connotations of the word's older meanings, which included "weird," "suspicious," and "unwell." But the adjective today is commonly used as a positive or neutral self-descriptor, and also has wide use as a neutral broad descriptor for a large and varied group of people (Merriam Webster Dictionary).

COMMUNITY (Generalized)

A group of people with a common characteristic or interest living together within a larger society... Shared values, interests, commonalities, and goals (Merriam Webster Dictionary).

QUEER THEORY – (Academic)

Queer Theory is an interdisciplinary field that encourages one to look at the world through new avenues. It is a way of thinking that dismantles traditional assumptions about gender and sexual identities, challenges traditional academic approaches, and fights against social inequality. For many academics, queer theory provides a lens through which they can "queer" ideas and works in their own disciplines. In this way, "queering" is not always about imposing queerness on an area but about utilizing the lenses of queer theory to imagine new, previously unidentified possibilities (Indiana University).

QUEER SPACE - THEORETICAL (Academic)

Queer space(s) can be defined as a space or spaces that critique the divisions of sexuality, gender, class, and race through political, cultural, social, real, ephemeral, geographic and historic contexts (J. Cottrill, Miami University).

QUEER SPACE - MODERNIZED (Architectural)

Queer spaces are designed with the intention for one's body to be, defining the need to iterate one's true identity, sexuality, and need to connection, whether that be on a physical level or through the prospect of community (Jullia Joson, 2022).

The reason that queer space (and further referred to as queerscapes) exist, are because these social and spatial constructs are here to question the norm, are an act of resistance while against conformity, and are here to celebrate capacity in terms of erotic expression, power, & violence (Walker, Styczynski 2021). These queerscapes/queer spaces are open to diverse orientations and support networks to survive and thrive. These environments are here to turn things upside down to bring awareness of said thing to allow questioning of events and spaces in the world. They reject heteronormativity, which, "as defined in queer theory, is the presumption and privileging of heterosexuality," (Pollitt, et. Al. 2019). As queer theory and queerscapes love to question reality, this upsets heteronormative ideals and environments, as those sorts of atmospheres believe that they are the only correct way of living, emphasizing a very rigid lifestyle to follow.

Heteronormativity does exist in some form in the queer community however, as

Much [of] queer theory in the United States is based on white male experience and privilege, excluding people of color and severely limiting its relevance to third world activism. This limitation leaves many people who identify with gay lesbian bisexual transgender intersex queer (GLBTIQ) communities unable to make sense of this discourse (Kawale 2003; Islam 1998; Ingram, Bouthilette, and Retter 1997) (Roskana Badruddoja, 2008).

1.2. CREATING ENCLAVES

What all of this causes in the queer ecosphere are these bindings called *heterotopias* to formulate, where there are multiple enclaves nestled together to create a collective network that pushes the boundaries back against the dominant system (Fig. 1). It is a tactical exclusion that is very much needed so that queerscapes and queer space can exist. This can be a solid base to allow an understanding of how humans interact with each other inside of community based environments.

The idea of the disruptive aspect is to destabilize the identity and to disrupt those said typical social conventions, where as the resistance piece revolves around the concept of something repeating continuously, such as a type of performance that leaves a permanent mark. An example to reference here for understanding would be Pride when June comes around. Even though it is temporary as it is recognized once a year (as pride can mean many other kinds of celebrations, small or large, any time of the year), it leaves a mark on the environments it interweaves itself in.

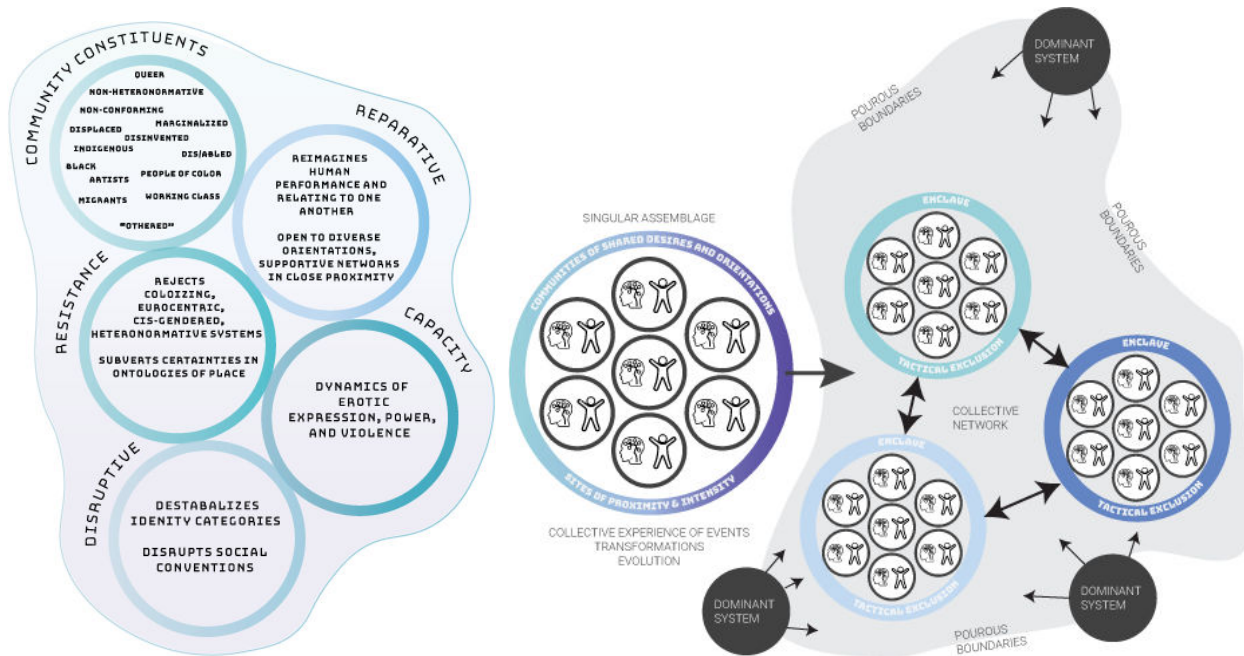


Figure 1: Recreation of Image from Queering arts-based development work Source: (Referenced Walker & Styczynski 2021)

These *enclaves* (Fig. 1) – represented as a singular assemblage – are a collaborative plane that mediates interwoven forces and *affectivities* across bodies to dissolve bodies into one another instead of centering identity or intersectionality as the main focus. What this entails is that members of these enclaves create this communality of shared desires and orientations, evolving into a collective experience of events, transformations, and evolutions. Heterotopias form when it is a collective network of these enclaves, promoting tactical exclusion to promote the focus of the program and community that is trying to survive and disrupt the dominant system.

The rule of thumb to take away here: these assemblages *should not be* for everyone.

With queerscapes / queer spaces, these do not necessarily mean it is a physical space, as it is focused around affectivity – how community enclaves affect one another, how the built & digital environments affect members, and vice versa. Through affectivity, patterns emerge on how these enclaves push back against that dominant heteronormative system instilled in the built environment.

1.3. ISOLATION FROM IDEALS

However, to restate once more, heteronormativity does *not* allow the queer community to exist – as heteronormativity views itself as a *privilege to be*, and *the ideal to be* – while disregarding anything outside this norm. This resultant leaves the majority of the queer community inside of the U.S. isolated and in a state of uncertainty.

“Despite the lack of data, reports from different parts of the world confirm the trend - LGBTQIA+ people are disproportionately affected by the ‘ignored pandemic’ of gender-based violence (GBV)” (Oxfam 2022)

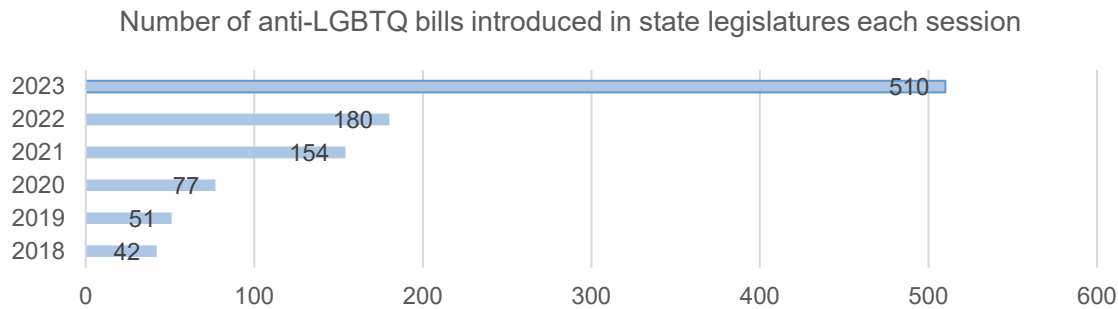
Underneath one aspect of the queer community’s network, a lot of gay men specifically are seen through hyper-masculinity and heterosexuality as feminine by the way one said man may walk, dress, speak, and behave. This inevitably creates gay spaces alone to shut out their wants and needs to conform to the places around them so that the inhabitants can exist safely in the environment they live in.

In addition, homophobic and transphobic laws contribute to institutionalization of violence against the queer community, as data reports that

At least 510 anti-LGBTQ bills were introduced in state legislatures across the United States last year — a new record, according to American Civil Liberties Union data. That’s nearly three-times the number of such bills introduced in 2022 (Choi 2024).

It is worth mentioning that just alone in the U.S., sodomy was not fully terminated until 2003, where the U.S. Supreme Court in *Lawrence V. Texas* struck down a Texas sodomy law as unconstitutional. The United States finally legalized same-sex marriage in 2015, yet as of 2020, that ruling has been challenged continuously. The queer community is struggling to exist when these laws are being passed, while existing beneficial ones are on the verge of being annulled.

Table 1: Chart Showcasing Legislation Targeting LGBTQ Rights Nearly Tripled Between 2022-2023 Source: (Data from ACLU, chart creation provided by Choi 2024)



Note: Data as of December 21, 2023. Bills carried over from previous legislative sessions are included in each year

Table 2: Summary of Data on LGBTQIA+ Discrimination and Issues Source: (Data provided by CAP 20, list creation by Author)

ISSUE	PERCENTAGE
Some kind of Discrimination	More than 1 in 3 LGBTQIA+ Adults
Workplace discrimination or harassment due to S.O., G.I., or I.S.	Half of LGBTQIA+ Adults
Housing Discrimination due to S.O., G.I., or I.S.	3 in 10 LGBTQIA+ Adults
Took Action to Avoid Discrimination based to S.O., G.I., or I.S.	4 in 5 LGBTQIA+ Adults
Postponed or Avoided Medical Care due to Cost Issues	More than 1 in 3 LGBTQIA+ Adults
Postponed or Avoided Medical Care due to Disrespect or Discrimination	More than 1 in 5 LGBTQIA+ Adults
Recent Debates about Anti-LGBTQ Laws Affected Mental Health	More than Half of LGBTQIA+ Adults
Hid a Personal Relationship to Avoid Discrimination	More than Half of LGBTQIA+ Adults

Note: S.O. – Sexual Orientation G.I. – Gender Identity I.S. – Intersex Status

1.4. POST-PANDEMIC ISSUES

The 2020 COVID-19 Pandemic had a huge say in shaping queer space, as the economic fallout exacerbated already challenging access to safe housing, healthcare services, economic opportunities, and social connections for the queer community. For starters, in an economy post COVID-19 and in a current sky rocketing housing market crisis, the majority of typical queer spaces outside of urban environments have vanished due to monetary, visibility, and acceptance issues.

In the 1970's – after the Stonewall Gay Rights Riots – the decade brought the rise of gay neighborhoods, where as now, “a glance at most Western cities reveals that gay districts are as ubiquitous as Chinatowns and Irish pubs,” (Burton 2022). These neighborhoods and districts are so decentralized now that the community that was once there no longer exists. COVID-19 has played a significant role in skyrocketing the decentralizing of queer communities across the world, creating isolation islands in all types of environments from urban to rural.

“The truth is, however, that these establishments have long been threatened, whether by the AIDS epidemic, the decentering of physical space in queer life, or the fact that marginalized communities [are] at a higher risk for poverty have less expendable income to spend on a night out,” (Lang, 2020).

Part 02: FIGHTING FOR PLACE (ARGUMENT)

2.1. CHANGING REALMS & THE RESULTING EFFECTS

It is very evident that through history, the queer community has frequently been the first adopters of new tech to survive (Miles, 2018). The 1980s brought the official Pride flag and the personal computer. Along came AOL Chat rooms, instantaneously adopted into the queer community as a safe space to revert to during the 1980s AIDS/HIV Epidemic (Auerbach 2014). Fast forward to 2007 and 08 when the first iPhone and Android smartphones were released, with the almost instantaneous release of the gay hookup app Grindr in 2009. The 2020 Pandemic had the queer community resorting to TikTok as a tool for queer movements and worldmaking (Duguay, et. Al. 2023), booming usage and user engagement. During this change in 2020, physical queer space has dwindled in unprecedented numbers, yet it has posed the question as to what queer space actually is.

Aside from big corporations changing logos for pride month and then wiping it clean once July 1st hits, a lot of queer space in the past 40+ or so years has taken place manifesting at first through online interaction on dating & hookup websites & apps, with the latest being Grindr, Scruff, Surge, Taimi, The Spaces App, and many more.

For the LGBTQ app user, Grindr or Scruff or HER can reconfigure any street, park, bar, or home into a queer space by brokering a meeting between mutually attracted individuals (Miles S. 2020).



Figure 2: Current Common LGBTQIA+ Dating, Hookup, and Social Apps Source: (Put together by Author)

There is no escape to the digital aspect of the world today, as the development and adoption of technology has significantly impacted how the queer community interacts with each other now. With the queer community, it was realizing that anything can be queer space, as long as both parties mutually agreed online that it was that kind of space before physically interacting. Being online is an easier & safer space for a queer individual to find community to express themselves in a way that goes against that heteronormative norm, as the definitions of queer space reference.

What this means for the physical space – which clearly has not protected the community from all of the inequalities that they currently are facing – is that permanent physical space for assemblage are not necessarily needed. This trend can be seen from the late 1970s to now – as that is when technology boomed, the AIDS epidemic arose, and the 2020 pandemic ran course. From 1970 to 2021 the U.S. went from 206 specifically Lesbian bars down to 21 only (Nixdorf & Lewis 2021). Between 2007 and 2019 alone resulted in 37% of queer bars and nightclubs in the United States to close (Lang 2020). Stonewall Bar – home to the start of the gay riots of the late 1960s – had to start a crowdfunding campaign in late 2020 to stay afloat to preserve that physical piece of queer history once the pandemic hit earlier that year. Even in urban environments – which tend to be queer friendly – are slowly losing out on physical community post pandemic.

Data is indisputably showing this dwindling physical queer landscape and rampant increase in online presence, with this dynamic even more evident in suburban environments. Focusing specifically on the suburbs, the 2022 & 2023 Municipal Equality Index by the human Rights campaign shows that surprisingly this year, there is a huge shift in support (municipal laws, policies, and services) in rural areas for the queer community. However, throughout history in the suburbs – which is representative of heteronormative white middle class America – is scoring a lot lower on the MEI - making it harder for queer people to exist there, while the urban centers – even with their slow dwindle of physical queer space – are more inclusive as figured. Less protection for the community in the suburbs leads to more online presence in those environments, leading to this paradoxical physical isolation to formulate.

2.2. ON THE RELEVANCY OF EVENT SPACES

This shift of physical to digital for the queer community can further be understood through the work of Bernard Tschumi's *Event Cities* writings, where the idea was that any physical space could potentially hold something different than what the intended program already hosts. So, the mall's not like a mall, the park is not like a park, and the theater is not like a theater as any kind of event could go on there. The relationship between event, form and space is very complex, and different event patterns can appear in one space at the same time.

Event-Cities explores contemporary architecture through its confrontation with the major programs defining the edge of the twenty-first century - airports, business centers, multipurpose railroad "cities," downtown areas, and multimedia art centers, as well as video installations and domestic environments (Bernard Tschumi 1994)

From the general trend, event architecture pays more attention to the connection between people and space, and pays attention to people's experience and feeling in space. If people can see the narration with architecture from the perspective of events, then architecture will be regarded as an existence that can communicate with people, constantly developing and changing, and a process of continuous growth of architecture (Hong 2020).

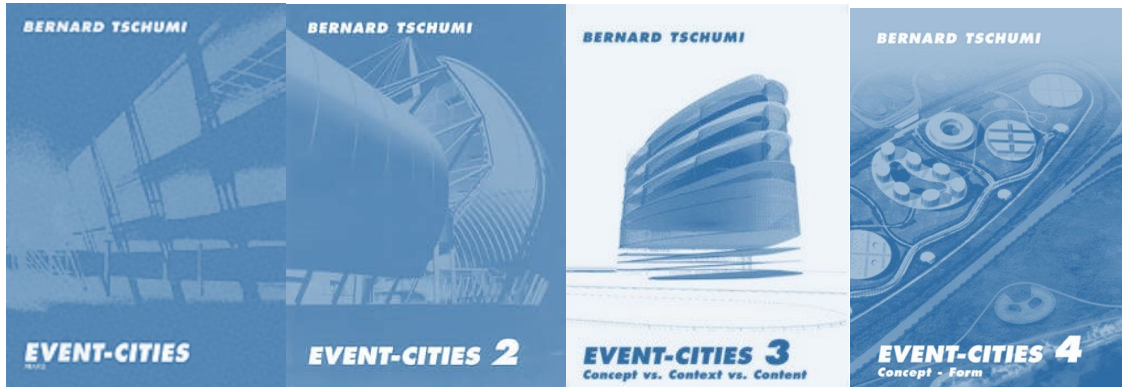


Image 2: Event Cities 1-4 (1994-2010) Source: (Covers Provided by BTA's Website)

This book series helps guide the start of the architectural speculations proposed in Part 03 of this conversation, as *event space* ideals represent the nature of queer space and how it has shifted. All queer space is event space as it can manifest anywhere now, where the community has turned places like parks, rec centers, saunas, event halls, and other spaces into queer space, starting with the potential online interaction. It very much mimics the notion of placemaking and connection between people and space along with their feelings and experiences – relating back to the embodiments from heterotopias and enclaves discussed earlier. The concepts here express that the physical and digital elements of the queer community need to act as an event themselves, working together and lending out a hand from each side to foster as a community building element.

2.3. PATTERNS IN THE DIGITAL REALM

The digital realm is safer for queer communities to represent themselves without being *physically* attacked. The online spaces that tend to attract LGBTQIA+ users appear to be Twitter, Tumblr, TikTok, and forums where individuals can curate their community, and where real names and profile photos aren't fully required. It is a form of closeting oneself, but for the sake of creating an identity that can be expressed and accepted fully online, away from discriminating inputs such as conservative family members and friends.

Inside of the queer community, an estimated 83 percent of those who identify as lesbians, gay, or bisexual - keep their orientation hidden from all or most of the people in their lives according to a new study by the Yale School of Public Health that could have major implications for global public health (Collin Poltras, 2019)

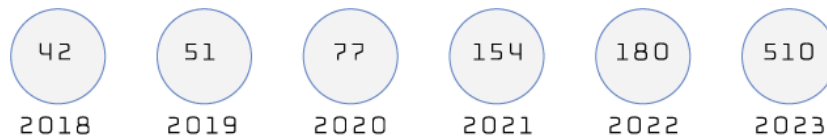


Figure 3: Recap of Legislation Targeting LGBTQ Rights Nearly Tripled Between 2022-2023 Source: (Data from ACLU & Choi 2024)

The drawback of being fully digital for a community connection strategy is that a community has been shown to still need a physical component to survive for extensive periods of time. Post-COVID research specifically ranging from needing to formulate community support organizations in gay neighborhoods during a pandemic (Hess & Bitterman 2023), to working from home during a pandemic and the employees' sense of community and social support (Graham, et. Al. 2023), to even how young people's perspectives on engagement (Hoskins et. Al. 2022) shows that a remote support system is not enough for an individual and their overall health. Research also is showing that coming together after tragedy will nevertheless reaffirm the strong sense of community and pride that the queer community has (Abreu et. Al. 2023).

Communities also need to tell their story. Individuals in these queer communities are wanting to be self-determining, open to transformation and evolution, without judgement added at all (Walker & Styczynski 2021). Connecting and existing on a physical level like this relates back to the original definitions of queer space defined at the beginning of this conversation, highlighting the urgent need of the physical component as of lately. However, it seems to be almost near impossible to do so without some aspect of digital without being harmed.

2.4. DIGITAL CONCERNS

It also does not help when the vast majority of the world is becoming chronically online, especially when in recent news this year (2024), the U.S. government has proposed to ban TikTok – queer spaces online safe space. This threat to online safe spaces for the queer community raises concerns on where the online realm is going to go next.

The House overwhelmingly passed a measure on March 13 that gives ByteDance a choice: Sell TikTok within six months, or lose access to app stores and web-hosting services in the U.S. The six-month window for ByteDance to sell TikTok or face a ban would start once the bill becomes law. (Yilek, 2024).

It also is crucial to bring up in the digital argument that the Kids Online Safety Act (KOSA for short) has the potential to be in effect this year as well. With KOSA, in theory, parents could sensor and know when you browse websites that gives access to resources for trans youth, understanding queer sexuality, access to sex education, and even info on how to recognize and report abuse. The bill will limit the now dwindling amount of safe spaces for queer youth, potentially intensifying abusive relationships at home (Woke-Karen, 2024).

And KOSA's burdens will affect adults, too, who will likely face hurdles to accessing legal content online as a result of the bill. As a result, KOSA would make platforms liable for the content they show minors, full stop. It will be based on vague requirements that any Attorney General could, more or less, make up (Kelley, 2023).

A scenario where an Attorney General could argue that content regarding trans healthcare poses health risks to minors due to existing laws labeling gender-affirming care for trans youth as child abuse, is plausible. Now with the challenge of the digital and physical for queer space, there needs to be some sort of change architecturally that could aid in providing those safe community spaces.

2.5. TEMPORARY / CYCLICAL / PERMANENT

However, first, the Post-COVID question posed here between this physical-digital dynamic is that if this shift is temporary, permanent, or cyclical.

If temporary or cyclical, the results are consistent with community-recovery post-disasters where, at least for a time, large numbers of people seek physical, psychological or social distance from the disaster (Simon Rosser BR, West W, Weinmeyer R. 2008)

Key informants in all but the largest cities described their gay communities as undergoing significant structural decline, and after careful analysis, it does seem that the majority of queer space in its current state is staying permanent for a while. This now raises the concern of the lack of connection between the physical and digital, and leads to an avenue for investigation and discussion.

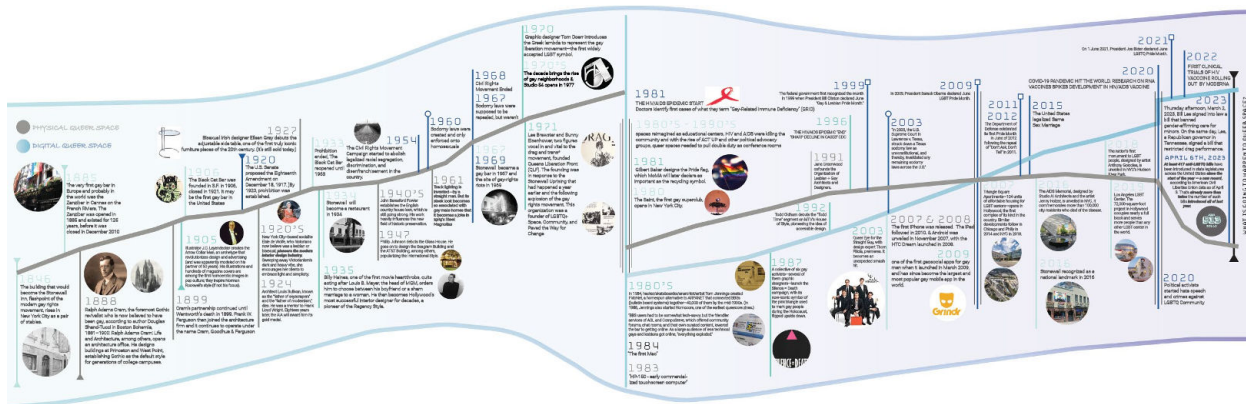


Figure 4: Mapping Out the Physical and Digital Rise of Queer Space in Relation to the U.S. Since 1846 Source: (Created by Author)

2.6. WHAT NEXT?

Considering that the physical and digital are both being currently challenged in their own respective ways in relationship to each other, the question begs if there is another alternative type of space currently that could be manifested for the queer community to adopt. With the rise of hybridized spaces Post-COVID appearing in mainstream conversation, plausibly this may be the way queer communities makes their next move to exist amongst everyone else. This relates back to the ideals of queer space usually being pioneers and adopters of new tech, along with queerscape ideals about being self-determining, open to transformation and evolution, without judgement added at all (Walker, Styczynski, 2021). Perhaps both sides of queer space take on this role of reaching out a hand to one another, marrying the two together going forward for the time being as the new self-determining environment to question.

2.7. HYBRIDIZATION MEANS (+AR)

With the physical and digital both reaching a hand out to each other, hybridized space meets in the middle at that connection point.

Hybrid space is the space of combination between physical objects and digital information-communication networks; a combination between virtual and actual space, between physical concrete space and digital ephemeral space (Chapter 11 in Digital Urban Art in Historic City Centers in Times of Democratic Transition)

Today's digital experiences are embedded within larger activities through which people interact with their social and physical world. Understood through this expanded framework, experiences mediated by design include what users do before and after their interactions with technological screens. It is about experience and journey (event cities & heterotopia ideas).The digital and physical add to each other, rather than leading to each other.

The digital component here resides in augmented reality's world, acting as an *affectivity* (Figure 3) that embraces other perspectives by showcasing different types of queer mediums through projections and hologrammatic visuals. Learning how AR can be utilized to tell a story and enhance user engagement is the goal at this point. However, queer space has not fully considered the use of AR as an act of community building, so learning from other precedents that specialized in this sort of AR tech in the use of a space benefits the work being done here. This tech is the part that bridges the digital and physical together, fostering engagement and interaction, and utilized as a tool to draw people in, allowing an individual to transcend through a space enveloped in an augmented environment.

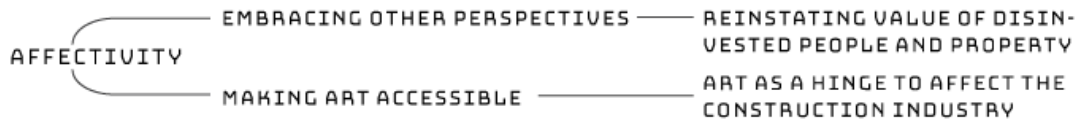


Figure 5: Augmented Reality as Affectivity Source: (Created by Author with reference of Walker & Styczynski 2021)

2.8. AUGMENTED REALITY'S JOURNEY

For the sake of context, it would be beneficial to mention what is augmented reality, where it is going, and why this was chosen over other extended reality technologies. To start, augmented reality technology is understood as two different types – marker-based AR, and markerless AR.

Marker-based augmented reality (AR) applications rely on target images, known as markers, to position digital objects within a designated space. These markers serve as reference points for the application to determine where to place 3D digital content in the user's field of view. In the early stages of AR development, markers were a fundamental component. In simpler terms, these applications are tied to specific physical image patterns – or markers in the real world – where AR tech overlays 3D virtual objects onto these markers. To achieve this, the application's cameras continually scan the environment to identify and recognize the marker's image pattern, allowing the application to accurately position the digital content. If the camera is not properly focused, the virtual object may not be displayed correctly. There is a decent amount of AI integration here to help marker-based tech function properly.

Consequently, a marker-based image recognition system requires several modules, such as camera, image capture, image processing and marker tracking, among others. Generally, this is a simple and inexpensive system to implement in filters through a custom application to recognize specific patterns through a camera (Softtek, 2021).

Markerless augmented reality (AR) enables virtual 3D objects to be placed in real-world environments by analyzing real-time data without the need for markers. This approach utilizes smartphone hardware like cameras, GPS, and accelerometers, along with AR software. It primarily relies on simultaneous localization and mapping (SLAM) to map the environment and position virtual objects accurately (Softtek, 2021). SLAM-based markerless image tracking scans the environment, creates 3D maps, and places virtual objects even when they're not in the user's immediate view, don't move with the user, and don't require continuous scanning.

Therefore, this technology is able to detect objects or characteristic points in a scene without prior knowledge of the environment, for example, it can identify walls or intersection points. This is a technology that is characterized by its association with the visual effect of combining computer graphics with real-world images (Softtek, 2021).

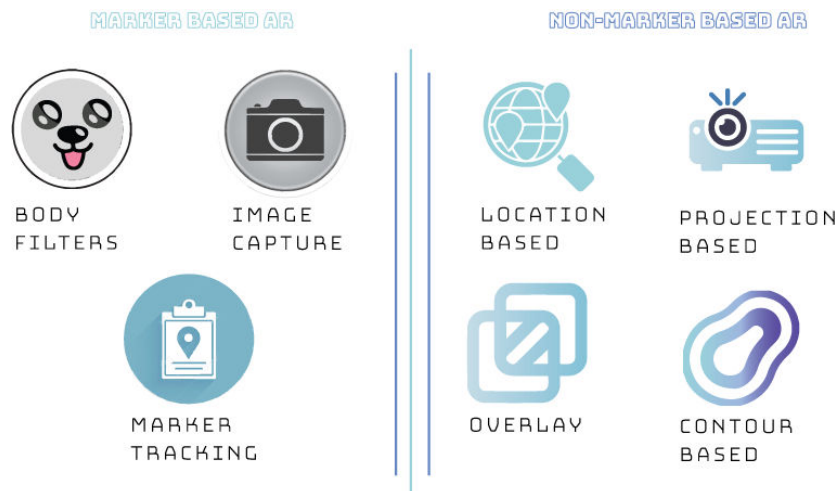


Figure 6: Different types of Augmented Reality Tech Source: (Created by Author)

For this work, both marker-based and markerless AR tech (Figure 4) would be utilized to see a vast range of what the next type of queer space could manifest as with this hybridized concept formulating.

2.9. AUGMENTATION VS EVERYBODY ELSE

Augmented Reality technologies were chosen over Virtual Reality and Mixed Reality tech due to VR requiring a headset, demanding a lot of user input and movement, blocking off actual connection with other people since it's now all digital. Referencing back to the deficits of being fully virtual and cut off physically in the queer world, this would not be the ideal path to go to build community if people go to a location to just put on a headset and technically isolate all over again behind a screen. VR also would not allow an individual to question the norm by being themselves physically since they are only doing it digitally now, which would go against queer theory in a physical aspect, especially when the goal is to substantially provide the tools and space to foster this hybridized digitally *supported* physical community.

Furthering discussion, Mixed Reality requires a decent amount of physical input (but not needing a headset), yet AR allows for itself to speak without requiring any physical input, and can tell a story with projections and hologrammatic visuals as needed. The idea is to allow the building to tell a story and speak for itself without having to have much physical or mental demands from the user in this hybridized spatial concept. Engagement could be provided with different interactive building components, with AR integrated to respond to these changes to tell a story that the user created. It is this blend between AR and MR that this project sits, with a greater emphasis on the AR side of things.

It is about giving the building a voice, or much more of a personality that can be guided by the end-user in the space to determine what it needs to be that day and, in that moment, to support this community fostering potential. It goes back to the notion of queerscapes of being “self-determining” and “open to transformation and evolution” each day without judgement added, pushing back against the typical norm of what life and the environment should be such as, just now applied to the building. This mimics the idea that each AR element acts as an event in the building program, as each element and building component can change based on the day and interaction in relation to event spaces/cities.

Current evolved AR display systems operate based on a combination of various refractive, reflective, and diffractive optical elements, such as lenses, prisms, mirrors, and gratings. Recent years have witnessed the emerging of a new type of optical elements—metasurfaces, which are widely believed to be an enabling tool for overcoming the limitations faced by current AR displays (Liu, et al., 2023). AR Tech is still developing; however, it very much has a growing existence in everyday life (Figure #), posing favor to utilize it beyond the current uses of product promotion, concert visuals, placing furniture, 3D modeling, wayfinding, homework helping, or facial recognition. Let's utilize this tool as the start of a grassroots community building exercise, giving way to a new type of queer space integrated with the built environment by using AR for interactive experiences to foster community.

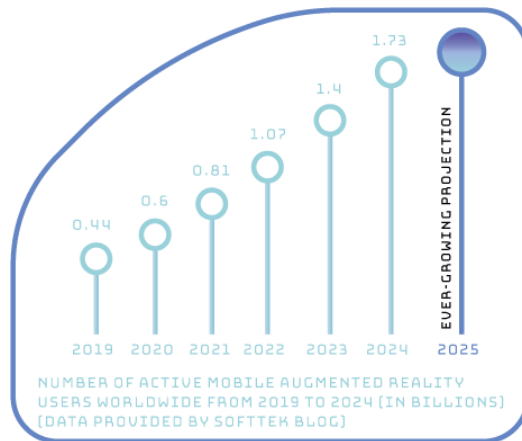


Figure 7: Rising Usage of AR Source: (Created by Author referencing Softek, 2021)

Part 03: SUPPORT FOR THE SHOW (VARIABLES)

3.1. INTENTION & CONSIDERATIONS

Before delving into a discussion about parameters, it's essential to acknowledge the introduction of two additional topics as variables are introduced. The first topic centers around the concept of fostering social engagement through augmented reality. This complements the mentioned notion that AR serves as a bridge, facilitating opportunities for storytelling and experiences distinct from conventional queer spaces. The underlying theme is that augmented reality has the potential to ignite dialogue and engagement rather than imposing the existence of a community, allowing for the organic emergence and nurturing of connections over time. Again, it links back to the deeply rooted self-determining idea of Queerscapes and pushing boundaries to exist as needed through the lens of Queer Theory.

To allow a specific type of control to define the project, introducing the idea of *time based design* gives the notion that the amount of AR is gradually introduced until a community starts to build, resulting in the physical building program can finally reach a hand out and meet halfway. *Time based design* references back to the during the course of the 20th century. The late 1960s in particular saw research done into techniques that would allow buildings to adapt to meet the demands made by time. Often this resulted in buildings that were programmatically neutral and characterless. The new

3. Third, it should be expected that there will be an interplay controlled between the physical and virtual working in tandem with *time based* concepts to incorporate certain amounts of each side into this hybrid amalgamation. Having this control allows a process to be incorporated into the experiment, where at certain points in the trial, more digital shall be incorporated when manifestation goes accordingly. This is also in reference to how enclaves are potentially created to foster heterotopias from a grassroots approach strategy.

4. The evident digital control to accept is the augmented reality component producing different kinds of augmentation into the physical realm. There will be projected holograms showcasing specific queer moments/scenes of assemblage, ranging from drag shows to proposals, 3D hologrammatic performances, and interactive dynamic walls with AR integration to tell a story. The placement of these elements determines this as a control, seeing how much AR is potentially needed and in what way should it be integrated in a building to foster a queer community while letting the body flow freely between physicality and augmentation as desired for social engagement shifting.

5. To support the digital control, an architectural physical component needs to be instilled and partnered eventually with AR. The physical design component will be focused around the program of this event space site, understanding how the body may move and interact and transmit between augmentation and between physicality. This in turn will help act as a support space for AR elements to be integrated into the physical world for interaction.

Disclaimer: In the first part of the experiment, this control focused on movable elements paired with AR to learn from. As work matured and proceeded, that sort of hyper-extendibility of the building started to drift off for various reasons mentioned later, resulting in the focus on program and transmission of the body.

3.5. MEANS OF MEASURE & POTENTIAL OUTCOMES

1. There would be an engagement score card to each element and how much engagement each physical and digital component modification and element adds to help manifest a queer community. The score card would be an overall analysis per element after the design experiment is carried out and refined to solidify what worked and what may need tweaking to optimize. It allows discussion into how a queer community could be created through AR and other related designed elements. It would give insight as to what design elements could be considered queer space manifesting, finally defining a physical building program in this realm, as queer space is very fluid and always wanting change.

2. This also sparks the conversation to compare existing fully physical and digital queer communities to a hybrid queer community to see what can be learned and improved on, and if the hybrid community leans more physical or digital.

3. In the end, the hope is that a guidebook/playbook could be created than can be applied anywhere in suburbia like a step by step recipe book teaching suburban neighborhoods how to manifest community and potentially retain one as well.

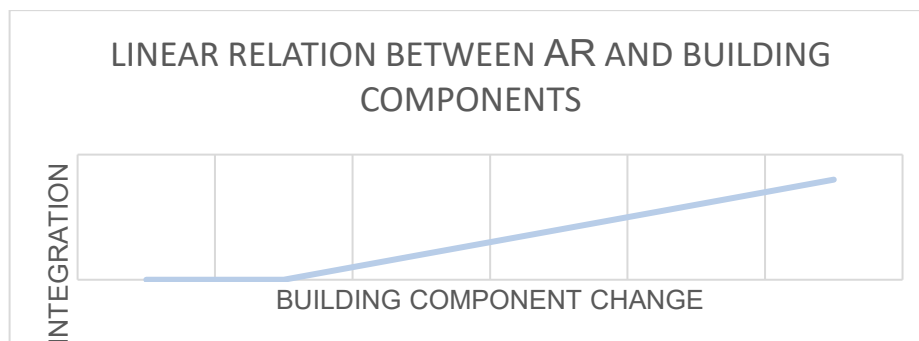
Augmentation in a hybridized setting could be used to ease social anxiety and tensions to engage interactions to formulate that community wanted. It would give a voice to community members for creative storytelling expressions. Augmented reality would be seen as an enhancer to performances, giving events a new meaning and feeling for new and specific community identity. New stories, events, memories, and identities can be expressed through new queer events with AR. Last but not least, AR would act as the identifying piece for queering space.

Part 04: ACT ONE & TWO (EXPERIMENT)

4.1. LEARNING THROUGH SECTION

To start this design investigation, the decision to render in section made sense as this part of the experiment was to be more serial and something quicker to learn from. What resulted here is that the focus zoomed in to the entrance of the test building in Clarksville, Tennessee to see how AR can be applied to the facade and just slightly inside the building. This was done as a quicker learning lesson to see if any patterns emerged from this AR to physical intersection.

Table 3: Generic Relationship Founded Between AR and Building Components Source: (Creation by Author)



What was realized very early on, is that the more building components that were controlled and manipulated, the more augmented reality was allowed to be integrated (Table 3). This ratio became very evident as iterations 1-2 (Fig. 3)

focused around just utilizing projection mapping, whereas 3-4 (Fig. 3) added to the façade and allowed the roof to become a usable space, inviting the usage of 3D hologrammatic performances to the building.

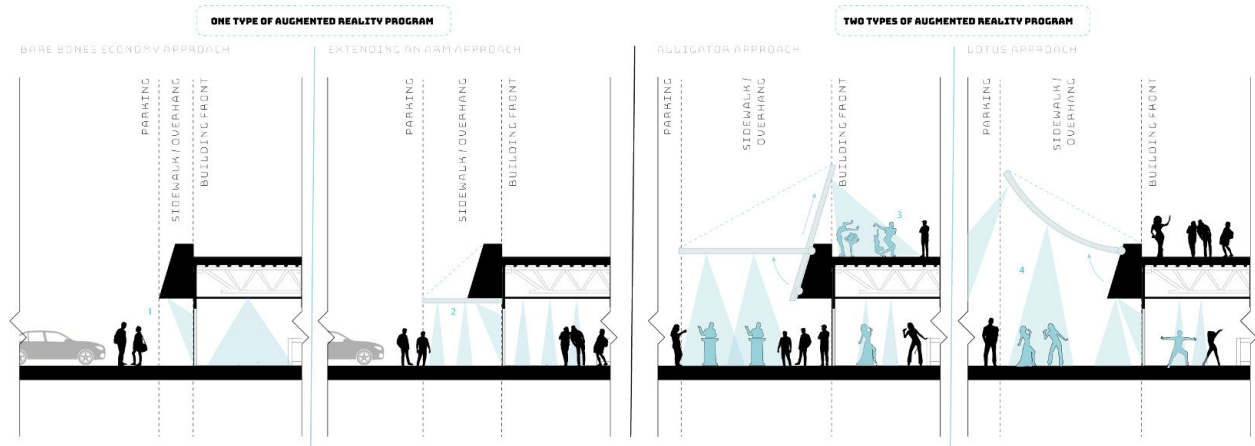


Figure 9: Iterations 1-2 and 3-4 Source: (Created by Author)

At iterations 5-6 (Fig. 4), the design naturally progressed to adding movable wall panels that were accompanied by AR to transmit the inside to the outside as a larger scale single event instead of two separate spaces. Walls started to become non-barriers of a building anymore, where users could express a story on these panels to tell others something defining in their life. It is like queer space is emerging through a form of individualized user performance.

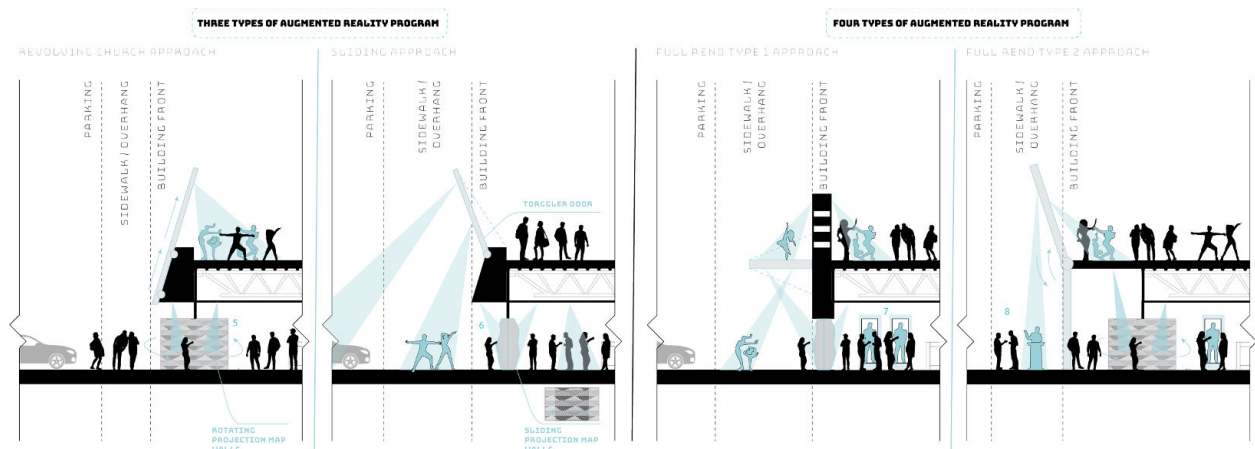


Figure 10: Iterations 5-6 and 7-8 Source: (Created by Author)

When iterations 7-8 (Fig. 4) were realized, the whole design has gone from a base model with simple projections to now a full-blown renovation to see if renovating the whole façade would invite queer space to foster easier. Holoboxes were added at this time as the fourth element of AR as the space permitted for interaction with this AR element when the façade expanded.

4.2. SEEING PERSPECTIVE

So, it took 8 tries basically to get from a base model to a full reno to see in section what could be an evolving form of queer space. However, the sectional drawings lean very physical, and lack digital. This is where the integration of perspectives of each introducing or modifying of AR elements told almost a completely different story as the perspective found its place in the augmented digital realm. It is this drastic dynamic between the two views that was very much needed to show a much better picture and relate overall to the next steps going forward in manifesting queer space.

In perspective 1-2 (Figure 5), AR tells a story, but that is it. There is no interactivity here with just projection mapping, and it is only encompassing the exterior. It is not really giving way to queer space.

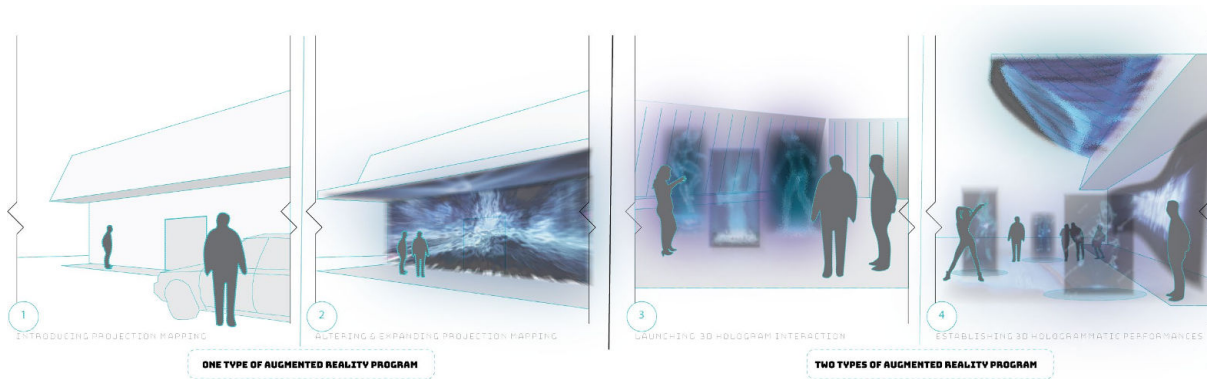


Figure 11: Perspectives 1-4 Source: (Created by Author)

Moving over towards perspectives 3 and 4 (Figure 5), comparing and contrasting the two start to see some form of potential queer space manifesting itself as more AR elements are implemented to engage in. At this point, 1, 3, 5, and 7 are introductions of each element, and 2, 4, 6, and 8 speak more towards adaptations of those said introductions.



Figure 12: Perspectives 5-8 Source: (Created by Author)

Now this is where the perspectives turn to a more intimate personal feeling, giving a sense of expression through the building components. These moments start to blend the time based concepts into the building while emphasizing engagement of users defining their stories, determining how the building needs to adapt to in the moment. Perspectives 5-6 (Figure 6) express a desire for closer connection and storytelling through the utilization of different movable interactive wall assemblies paired with AR supported by AI integration. What this realizes is that the components are moments, and not a full assemblage at this point. Yes, they all work together as a whole, but this starts to raise the question of spreading them through out the building instead of being concentrated to one location.

Ending with 7 and 8, the Holoboxes are introduced and so is a full frontal ensemble. As just mentioned, limiting the AR integration only towards the front means that every single user has to go through the same journey and path, not letting them create their own journey through the building. It is very much the anti-thesis to queer space and queerscapes when the body is limited to express itself. Setting every user on the same path feels very heteronormative, as “this is how it should be, everyone has to be this way.” This is bringing up a huge design concern now that realizes that a full renovation like this is not in the works for queer space.

4.3. COMBINING PERSPECTIVE INTO FULL SECTION

Learning through zoomed in sections and perspectives is a great way to understand the correlational relationship between AR and building, yet now how do those elements formulate and represent queer space is the question going forward. This is where the design experiment changed, where two full sections of the test building from frontage to rear were taken, and then perspectives were cherry picked to be applied to each section. Focusing only on perspectives to be integrated lets those moments created to be applied anywhere, allowing for the AR integration to feel less constrained and less limited to one area, promoting an expansion of queer space.

The first full section (iteration 9) revolved around picking all four intro perspectives (1, 3, 5, and 7) and applying those moments to the whole building (Figure 7). Overall, the section constitutes more queer space in nature as it is not limiting to one area. Users can flow between spaces to interact on a different scale level of AR depending on what they may need to help engage with others. AR can be utilized in different levels now for different preferences of engagement in a building. This is where the ideas start to formulate that these moments of AR integration can be like a kit of parts for fostering queer space.

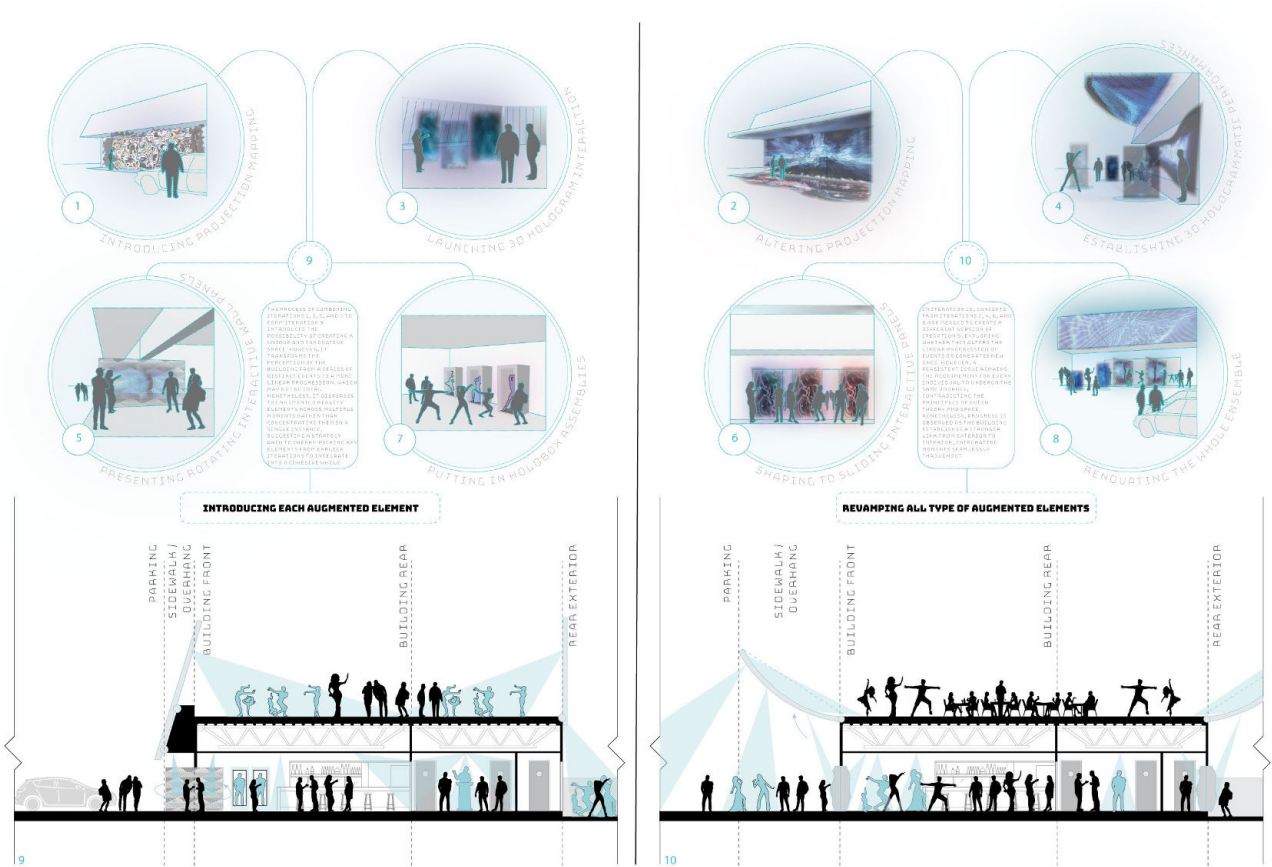


Figure 13: Iteration 9 & 10 Source: (Created by Author)

The second full section (iteration 10) revolved around picking all four intro perspectives (2, 4, 6, and 8) and applying those moments to the whole building (Figure 8). The initial reaction here was that the alternate forms of AR tend to work better for this space. However, the big thing realized after creation of these two full sections is that everything is still on one axis. Yes, spreading the AR moments through the building in section is better than concentrated, yet it still limits users to be on one single path. The building is still a full event, even with transitioning linearly.

4.4. SEEING THE WHOLE PICTURE FINALLY

Through iterations 1 to 10, learning via diverse perspectives and sections has effectively addressed numerous issues, especially when viewed from an axonometric perspective. Adopting this view enables the conceptualization of "zones," facilitating the creation of a genuinely inclusive queer space where individuals can interact and transition freely. This exploration, spanning from focused to broader scopes, has proven invaluable in expanding our understanding across all aspects of the project.

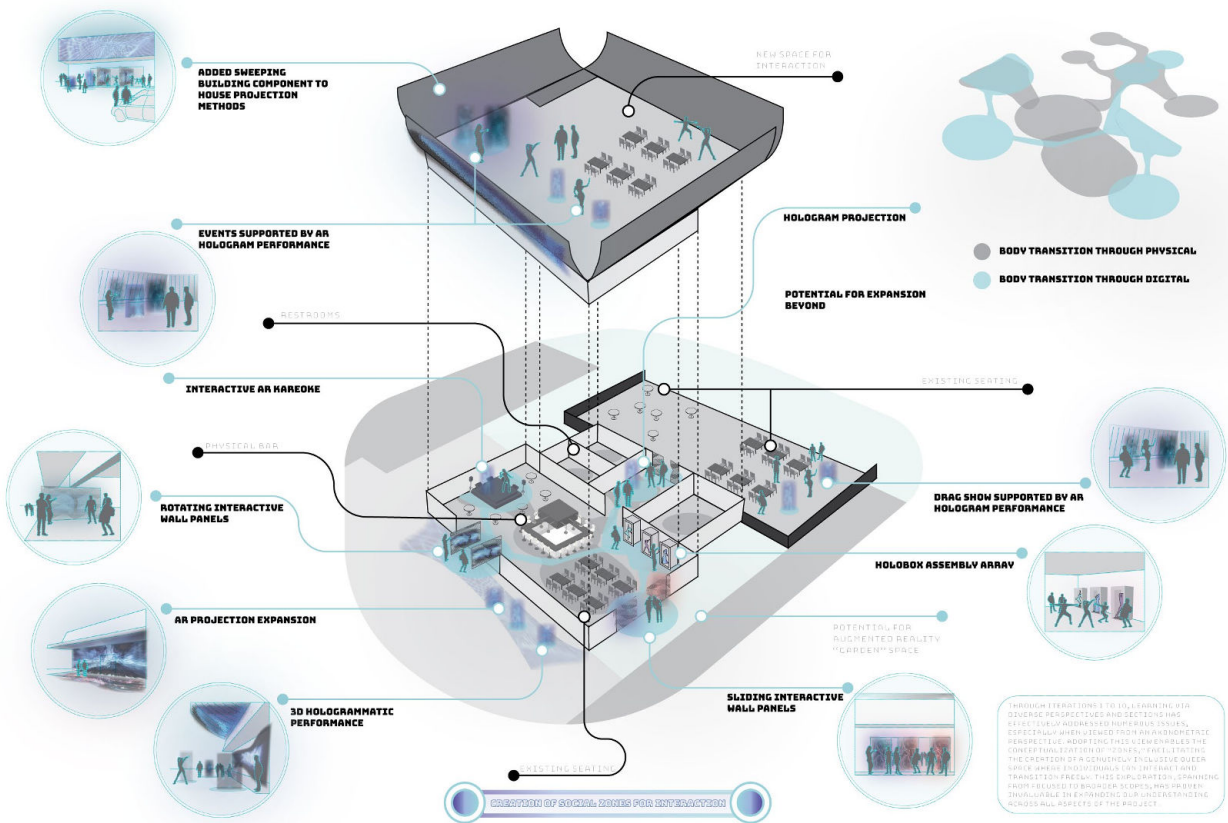


Figure 14: Final Culmination Pass 01 Source: (Created by Author)

These “zones” act as an integrated woven net through physical zones, creating more connectivity and visibility as users transition their bodies through physical and now digital transmission. This type of documentation showcases that very nature queer space and queer theory wants to emit. Allowing users to transmit to define their own path, create their own event, create their own connections, exist without judgement in doing so, all while not being fixed to one path is the culmination that this thesis wanted to achieve all along.

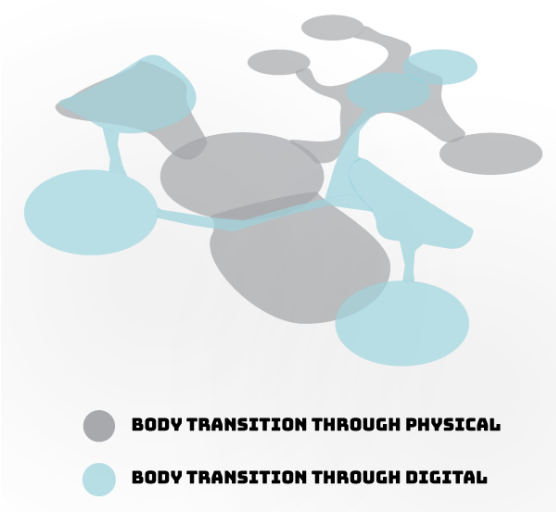


Figure 15: Transition of Body with Physical and Digital Weaving Source: (Created by Author)

4.5. REFRAMING AND REDIRECTING

After this late realization of how queer space may be formed and intertwined between augmentation and the physical realm, the discussion rose about shifting the focus from “zones” to the term “social” – focusing on interactions in these designated zones and how they may be altered, defined, and developed going from here. The reason for this change was that the proposed suggestions were merely just that – suggestions at best, and not flushed out spaces that could be adapted to other suburban buildings as this thesis wanted.

It was also realized that even though due diligence was done with the initial run of this experiment being at a level 5-6 overall to be subtler to digest, it just resulted in limiting what this space could actually be. It became apparent that this was not the true nature of queer space, as the experiment was restraining itself and needed to grow and change to flourish and accept itself for what it is. This is where the conversation pitted around upping the scale to a 10 or greater throughout, augmenting and renovating everything.

However, the experiment still wants to be at a humble scale of architecture since a bar in the suburbs generally should not be represented as a grandiose mega mall sky scraper amalgamation that would probably be more akin to an urban environment. Guiding the design to be expressive in a way that does not completely blow the roof off and put six stories of program in and instead is more transmissible between what it was and where it is now is the whole idea with this conversation going forward.

4.6. PROTOTYPES

To start this reframing, a list was formulated of potential spaces that either already exist or could exist at this test site and in typical queer spaces (Figure 11). It was later determined that an auxiliary exhibit area may want to be added to give queer users a sense of control of the space they will inhabit by only using augmented reality. This space later developed into more of a makerspace concept immersed fully in AR focused around the two types of necessities – the queer youth community and queer adult community.

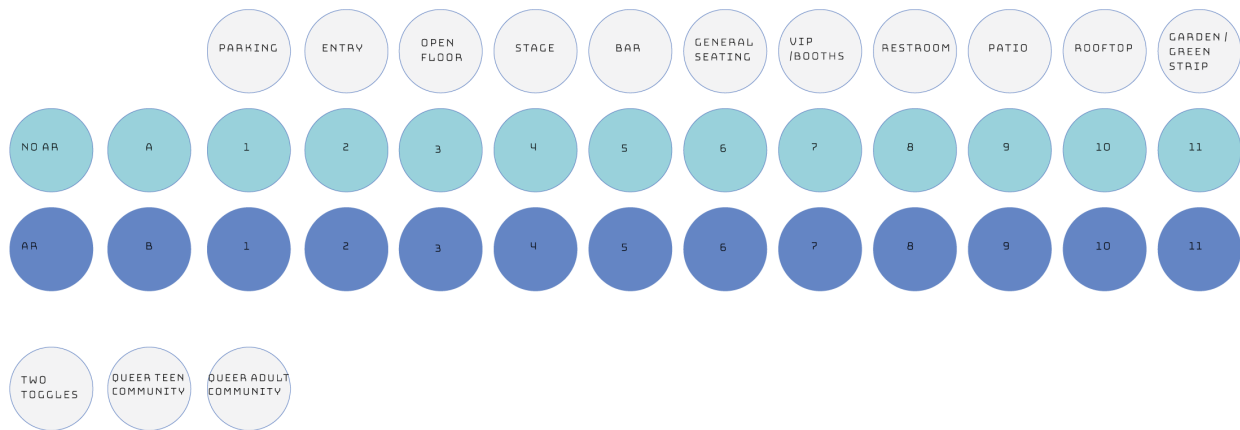


Table 4: Initial Space List Source: (Created by Author)

Eventually the discussion revolved around the idea of creating these “social prototype modules” (Figure 12). that could be added or subtracted anywhere for modifiability and phasing per individual suburban environment that would adapt this program into its environment. Developing these specific zones by focusing on what it could be between the queer teen community and queer adult community was a very invigorating challenge, as it led the project to really adapt event cities ideals in every space so every prototype became very flexible. This in turn allowed the prototypes to be suggestive still, while still giving context and program to what could be done to build community through this hybridized amalgamation. It turned into letting the user and engager to define the context presented with the stage set forth in this writing.

While this was being developed, it would be beneficial to mention that an architectural style was realized and emerged through iterating. Streamlined Modern Art Deco Inspired forms were developed due to how clean, bright, movement-inspired and flowy the style is, allowing each prototype to represent a certain expression that heightens the experience of the user by letting them create their story within the space while still providing that physical grounded place in general. This style was developed here since if it was more modern-esque, it would feel like an art museum, and that is not the intent here. There should be some form of physical design that gives a sense of place, while also allowing augmented interactions to be the center of the show working in tandem with the environment they were installed in.

Nonetheless, an architectural style like this is in itself a whole other thesis that would need to be developed, so the conversation needed to stay revolved around these prototypical modules being formulated and integrated into the chosen site.

1. AR RELATIONSHIP WITH PHYSICAL

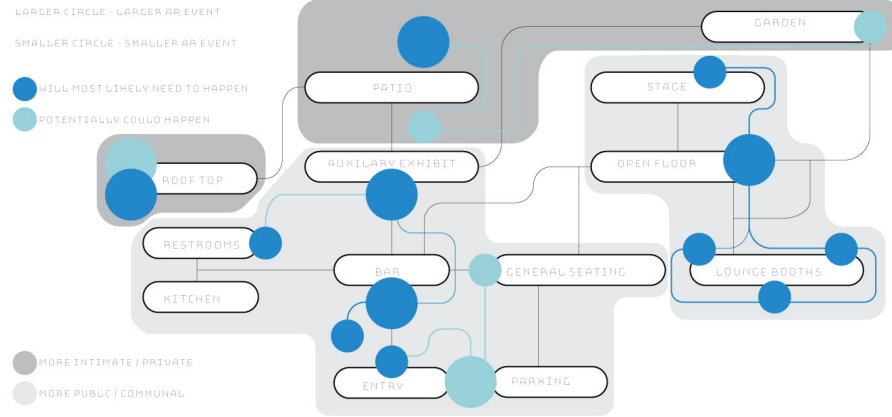


Figure 17: Sequence Mapping Source: (Created by Author)

2. BLURRING PROTOTYPICAL SOCIAL ZONE MODULES TO RELATIONAL DIAGRAM

AFTER MAPPING OUT THE RELATIONSHIP BETWEEN EACH SPATIAL PROGRAMMATIC ZONE INFUSED WITH AR, APPLYING EACH PROTOTYPE MODULE FROM THE LIST OF DIFFERENT SPACES TO THAT MAP TELLS A SLIGHTLY MORE REALISTIC STORY OF HOW QUEER SPACE MAY BE MANIFESTED INSIDE OF A BUILDING WITH AUGMENTED SPACES. UNDERSTANDING THIS MAPPING AS SORT OF A KEY IS CRUCIAL TO UNDERSTAND HOW THE BODY MAY MOVE BETWEEN THESE AUGMENTED SOCIAL ZONES ALONG WITH TRANSMISSION BETWEEN THE PHYSICAL IN GENERAL SO THAT AN ARCHITECTURAL FORM MAY EVOLVE FROM THESE PROTOTYPICAL MODULES.

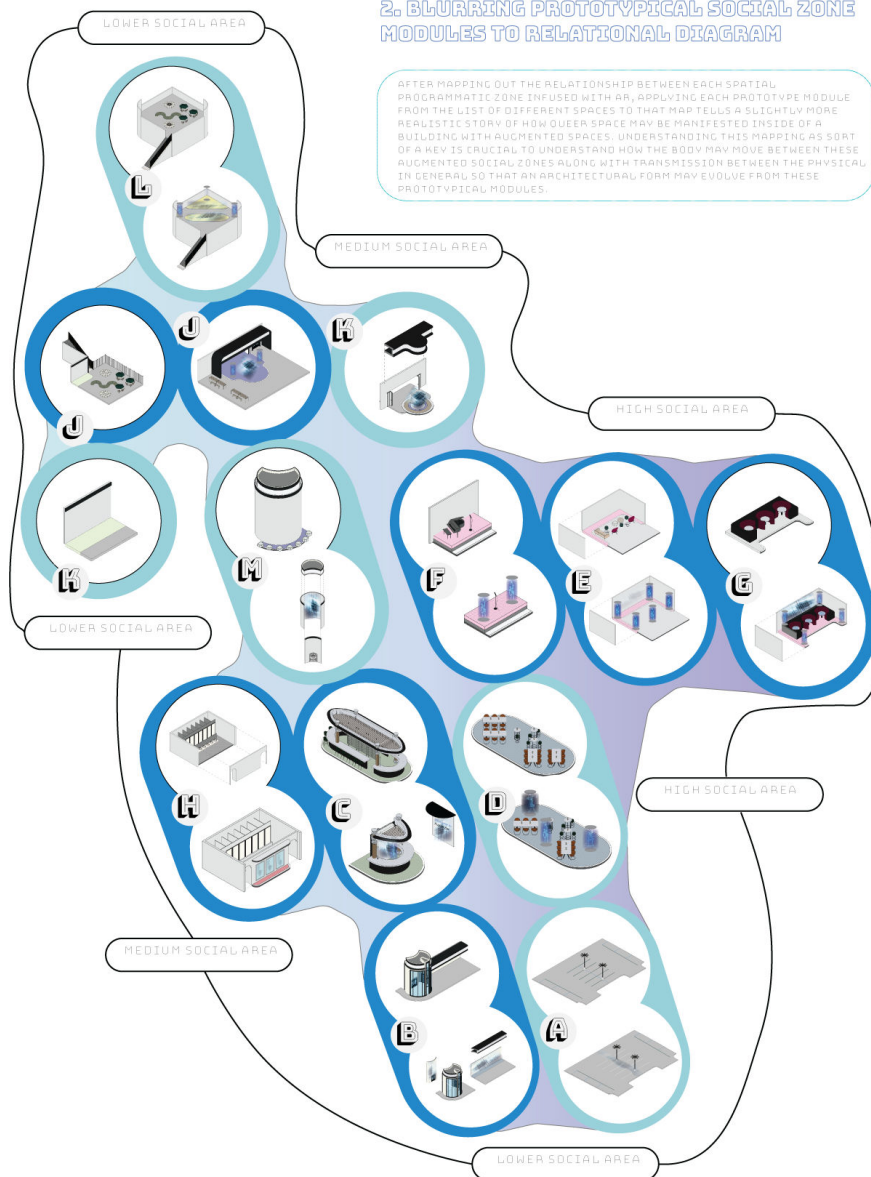


Figure 18: Prototype Mapping Source: (Created by Author)

3. TESTING CONCEPT ON TEST SITE (FUSION BAR AND GRILL, CLARKSVILLE, TN)

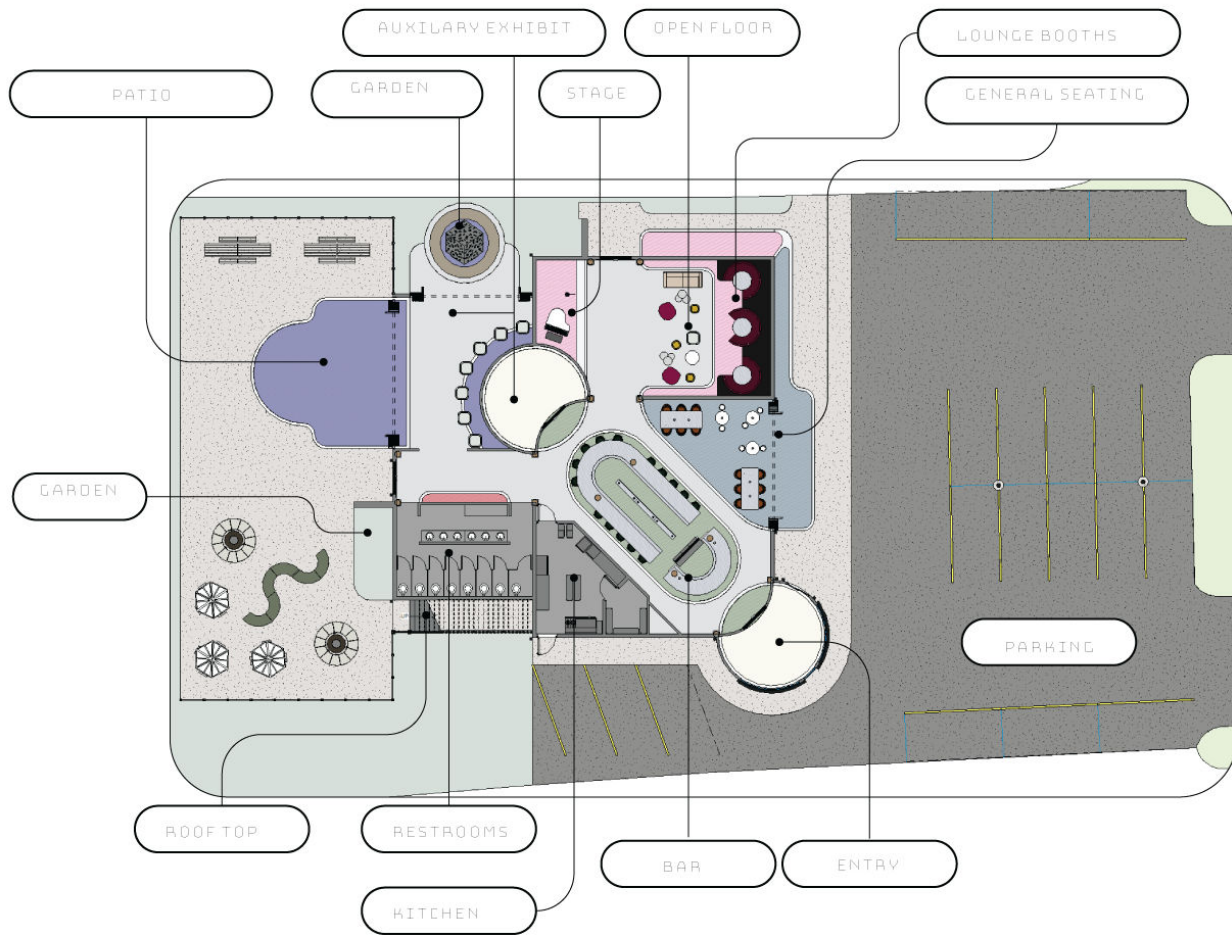


Figure 19: Test Model Floor Plan Source: (Created by Author)

After understanding the logic as to why these spaces relate to each other, the prototypes – both no AR and AR versions – were inserted (Figure 14) into the sequence map to give a different reading of the full space created initially. Learning from this showed that a flowy and very easily transmissible environment is crucial for queer space to exist. Letting people choose their toggles and choosing their own determining path reminisces on queerscapes ideologies.

Then for a final reveal, seeing this fully in a 3D axon (Figure 16) instead of just schematic diagrammatic relationships and floor plans would tell the story best, as it did in the initial run of the experiment before the shift happened. Seeing the full picture come to life truly gives a sense of hybridized queerscapes potential. These prototypes set the stage for the queer communities that inhabit their spaces so that a community can survive and thrive.

Last but very much not least, this work needs to also exist in real time perspective to show that kind of engagement proposed (Image #). Experiencing the creation of these spaces in moments gives a feeling that these spaces are not prototypical. They intertwine and relate in the types of events being experienced in those said spaces to create meaningful connections to foster community with multiple types of events at play all at once.

Without doubt, the axonometric diagram (Figure #) and experiential moments (Image #) pair very well hand in hand, giving a full compass view of what these spaces can exist as. As these are both prototypical assemblages paired with heavy suggestions as to what can be used in each space, the possibilities are endless as to what can be created in a hybridized queer space.

This whole experiment and its journey was inevitably queer in itself, constantly fluctuating and resulting into new forms to meet new desires and identities that this project required. Queer theory questioned everything along the whole way if it was going in the correct direction to allow for queer space to exist in this realm. Overall, the opportunities may be resolved to a very finalized extend here, but as queerscapes, theory, and space want, it will continue to change and evolve as needed as new technology emerges in the extended reality realm.

Going forward, each space can and will change, as it should. Queer theory would want it to, so by leaving open and modular elements in these spaces allows the user to engage in the event at play as time goes on and community is growing. Future renditions of these kinds of hybridized spaces are limitless as tech evolves and becomes better in every facet of life. In due time, this thesis should be revisited and compared with current tech in this writing and how new technology could be implemented or taken further with hybridized spaces for community.

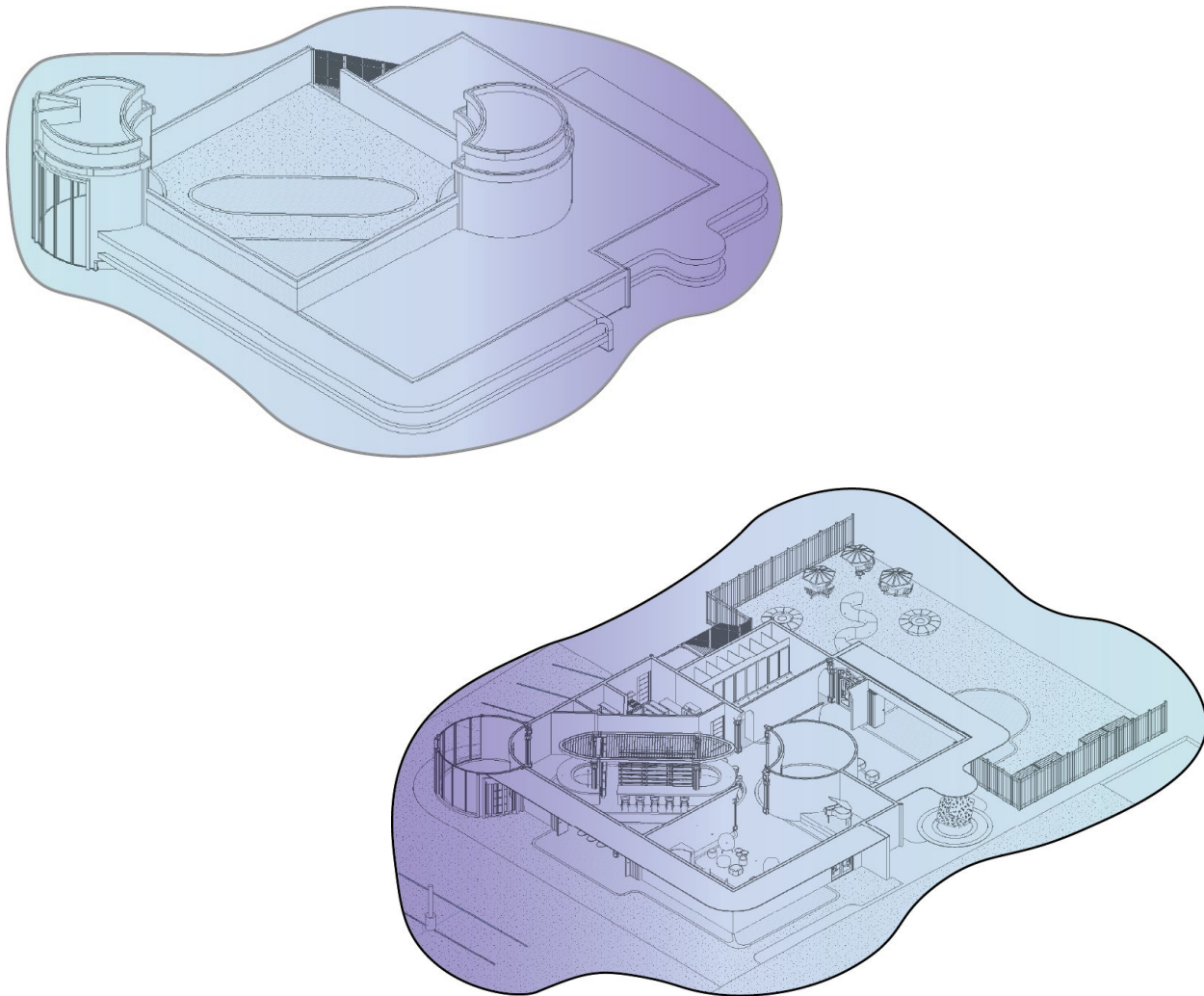


Image 3: End Source: (Created by Author)

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APPENDIX A – LITERATURE REVIEW

Are Gay Communities Dying or Just in Transition? Results from an International Consultation Examining Structural Change in Gay Communities

This is a report on an international consultation examining structural change in gay communities. The study used a modified focus group format to solicit participants' impressions on the changes in their gay communities. Participants from all cities, except London and New York, identified their gay communities as undergoing similar structural decline. The study concludes that a multi-factorial and multi-layered approach is needed for effective HIV prevention in the post-gay community era to be identified.

The changes in gay communities were attributed to several factors. One of the key factors was the gentrification of gay neighborhoods, which led to a greater integration of heterosexuals into historically gay-identified neighborhoods and movement of gay persons into suburbs. Another significant factor was the achievement of civil rights, which has led to less discrimination against the gay community. This has resulted in decreased visibility and identification as a gay community, as individuals feel less need to cluster for safety and acceptance. The rise of the virtual community was also identified as a major factor. The online gay community was reported to be larger than the offline physical community in all cities surveyed. This has led to less attendance at gay events and decreased volunteerism in gay or AIDS organizations. Changes in drug use were also mentioned as a factor influencing the structural change in gay communities. Lastly, societal acceptance and effective HIV treatments were noted as reasons why gay men may not feel the need to come together as a community as strongly as in the past.

STATEMENTS & NUMBERS

Municipal Equality Index 2023

The Municipal Equality Index (MEI) rates cities on a scale of 0-100 based on their laws, policies, benefits, and services for LGBTQ+ people. The scores are calculated using publicly available information, and cities are given an opportunity to review and provide additional information before the final report is released. The MEI is not a ranking of a city's atmosphere or quality of life, but an evaluation of its inclusivity for LGBTQ+ people. The scorecards for each city can be viewed on the See Your City's Score page or the Municipality Database.

HISTORY REVIEW

LGBTQ history timeline reference

This is a timeline of significant events related to LGBTQ history in the United States. It includes events such as the repeal of "Don't Ask, Don't Tell" policy, the creation of the Gwen Arujo Memorial Fund for Transgender Education, and the approval of Truvada as a daily preventative for HIV. The timeline also includes important court cases, such as the Supreme Court's decision to overturn sodomy laws and the ruling that same-sex marriage is constitutional. Additionally, it highlights the work of LGBTQ activists and organizations, such as GLSEN, and significant cultural contributions, such as James Baldwin's novel Giovanni's Room.

The State of the LGBTQ Community in 2020 (& 2022 Edition)

The Center for American Progress, in partnership with NORC at the University of Chicago, conducted a comprehensive survey to understand the experiences and attitudes of LGBTQ Americans. The survey collected data on various aspects of their lives, including discrimination, physical and mental well-being, medical care, workforce, education, and government services. The survey results provide insights into the challenges faced by LGBTQ individuals, particularly during the COVID-19 pandemic, and can inform policy responses to address disparities and promote well-being.

The Leading LGBTQ+ Milestones in the World of Design

This is an article from Architectural Digest that highlights significant milestones in the world of design achieved by members of the LGBTQ+ community. The article covers various events, from the early 1900s to the present day, that have contributed to the evolution of design and the LGBTQ+ community's visibility. The article aims to provide a better understanding of the past and present for all individuals, regardless of their sexual identity.

Event Cities 1-4



Bernard Tschumi's book "Event-Cities" presents a selection of his most recent architectural projects, which are at the center of discussions on architecture and cities. The book explores contemporary architecture through its confrontation with major programs defining the edge of the twenty-first century, such as airports, business centers, multipurpose railroad "cities," downtown areas, and multimedia art centers, as well as video installations and domestic environments. Tschumi uses different modes of notation, from rough models to sophisticated computer-generated images, to reveal the complexities of the architectural process and the rich texture of architectural events that define the nature of urban reality. The book includes a selection of Tschumi's main recent projects like the National Center for Contemporary Arts in Tourcoing, France; the "inhabited bridges" for the city of Lausanne, Switzerland; the mile-long "airport city" for Osaka, Japan; and a new business and entertainment center in Chartres, France.

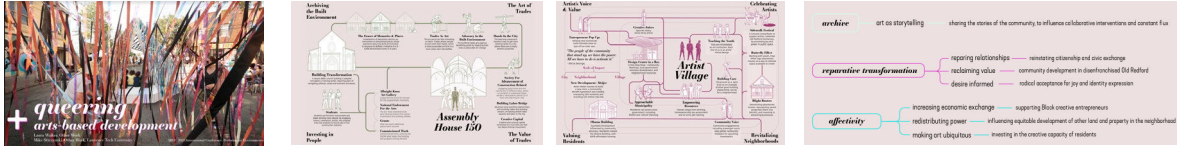
TEMPO E ARCHITETTURA – time and architecture



The text is about the relationship between architecture and time as a variable design factor, with a focus on the Umbrian town of Norcia, which was affected by the 2016 earthquake. The research aims to explore the potential for sustainable regeneration of fragile architectural contexts, using time as the material itself of the project. The design process has paid attention to the enhancement of the identity of the landscape and the participation of the population to maintain a high sense of belonging and co-design experience. The project also considers the use of recycled materials in new typological reconfigurations, guaranteeing high eco-systemic qualities of urban spaces. The text emphasizes the importance of designing the city in terms of processes inherent to use/reuse/recycling, and having a green and circular approach to the building process.

APPENDIX B – PRECEDENT ANALYSIS

ARCC 2021 Performative Environments – Queering arts-based development



This is a study that explores how creative collectives use queer theory to create new types of architectural and urban forms that empower marginalized communities. The study highlights the ways in which arts-based communities reimagine normative conceptions of urbanism and use shared tactical and cooperative appropriation to reclaim undervalued land. The paper introduces a framework to understand queering and queerscapes in land-use development and examines the ways in which abandoned or privately-owned sites have been queered for dwelling, learning, and performances by different communities aligned by shared values. Ultimately, the study shows how arts-based development and queer theory both contest social norms and explore power struggles against heteronormative constructions of identity to disrupt and transform social conventions.

The Pride Atlas – 500 Iconic Destinations for Queer Travelers



The Pride Atlas is a comprehensive guidebook specifically designed for LGBTQ+ travelers. It is filled with full-color photographs and provides an immersive reading experience that can inspire actual trip planning. The book is inclusive and informative, catering to a wide range of interests within the LGBTQ+ community, from drag show fanatics to queer travelers seeking international community. The Pride Atlas offers practical information on various aspects of travel, including the best drag shows, Pride parades, and film festivals around the world. It also provides resources regarding laws, restrictions, and cultural attitudes in different regions, ensuring that travelers can safely enjoy their trips and find community wherever they go. The guidebook covers a wide range of destinations, from well-known LGBTQ+ hotspots like the birthplace of Pride in New York and the world's first gayborhood in Berlin, to lesser-known gems like a trans designer's clothing store in São Paulo or the first LGBTQ+ bar in Nepal. The Pride Atlas is written by a diverse team of LGBTQ+ travel bloggers, making it a unique and valuable resource for anyone planning a trip, whether they're seeking relaxation, romance, or adventure. It's also a great resource for those who simply want to learn more about queer culture in other parts of the world.

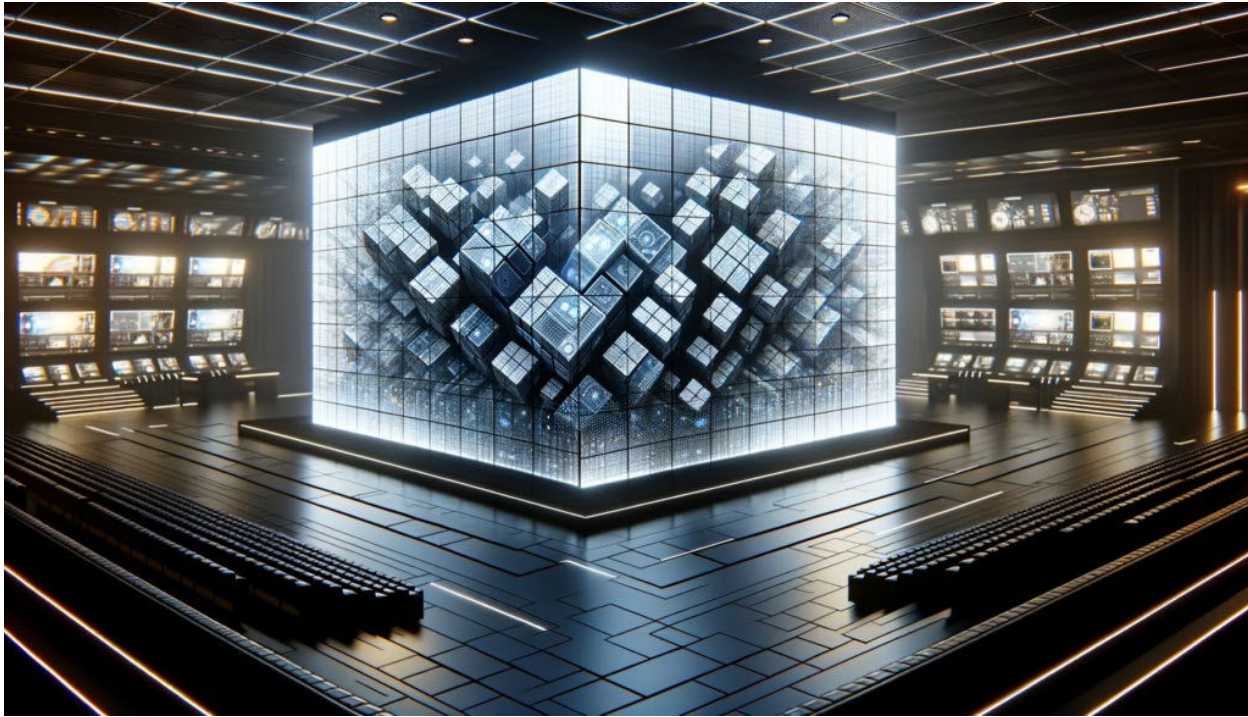
Queer Spaces - An Atlas of LGBTQIA+ Places & Stories edited by Adam Nathaniel Furman & Joshua Mardell



Queer Spaces by Adam Nathaniel Furman and Joshua Mardell is an atlas of LGBTQ+ places and stories. It is a collection of stories about spaces that range from the educational to the institutional to the re-appropriated, and many more besides. The book recognizes LGBTQIA+ life past and present as strong, vibrant, vigorous, and worthy of its

own place in history. It also suggests visions of what form these spaces may take in the future to continue uplifting queer lives. The book features historic, contemporary and speculative examples from around the world, including Black Lesbian and Gay Centre in London, Christopher Street in New York, Coppelia in Havana, New Sazae in Tokyo, ONE 0Institute for Homophile Studies in Los Angeles, Pop-Up spaces in Dhaka, Queer House Party online, Santiago Apóstol Cathedral in Managua, and Trans Memory Archive in Buenos Aires.

Projection Cube Video Wall : Classic Display Technology with a Modern Twist



(Image - 21st Century AV)

This text explores the transformative impact of projection cubes on visual display technology, particularly when integrated with video walls. It covers various aspects, including projection mapping, 3D mapping technology, interactive projection, and the evolution of video walls. The guide discusses the components and advantages of projection cubes, their integration with video walls, and tips for designing immersive multimedia installations. It emphasizes the cutting-edge capabilities of projection mapping and interactive projection, highlighting their role in enhancing visual experiences and engaging audiences. Additionally, the text delves into the benefits of projection cube video walls, their setup, maintenance, and the advancements in projection technology. Overall, it underscores the projection cube video wall as a pinnacle of interactive multimedia and creative visual displays, offering innovative solutions for businesses and creatives alike.

Augmented Reality Fashion Mirror, Changing Room, USA



Virtual On launched an innovative Augmented Reality fashion mirror in the USA, providing customers with a unique way to try on clothes virtually in real-time. This freestanding screen allowed users to explore different outfits without needing physical garments, revolutionizing the shopping experience. It seamlessly integrated with smartphones to collect valuable customer data, enhancing marketing strategies and personalizing offerings. Customers were impressed by its capabilities, which streamlined decision-making and empowered them to make informed choices. Virtual On invites viewers to witness the mirror's transformative power in a video, highlighting the fusion of technology and fashion and urging everyone to embrace the future of immersive shopping experiences.

Adidas new Beijing store immerses shoppers in a series of interactive 'phygital' installations



The Adidas Sanlitun flagship store in Beijing has been transformed into an immersive and interactive space by YSP and OUTPUT. As online shopping gains popularity, the challenge is to entice consumers back to physical stores. The revamped store features 'phygital' installations that blend virtual and physical experiences, offering visitors a customized exhibition-like journey. Highlights include a giant interactive cube for limited-edition product lotteries, a digital sound garden where visitors can create personalized music videos with Adidas branding, and a digital art exhibition connecting online and offline communities. These multi-sensory installations not only entertain but also allow direct communication between Adidas and its consumers, fostering inclusivity and co-creation. The store's design integrates futuristic LED displays and interactive elements to redefine the shopping experience, encouraging visitors to explore and engage with the brand in new ways. The Talk of the Town digital art display acts as a bridge between online and offline communities, showcasing Adidas events in Beijing through interactive AR experiences.

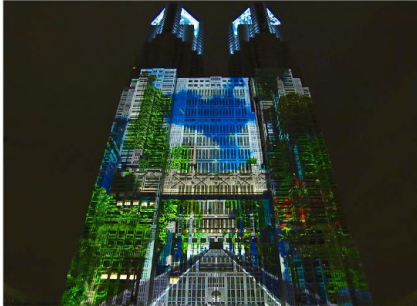
Digital Decorating 101: Surface Projections



The article discusses how to use projectors for creating Halloween displays on various surfaces like walls, floors, and props. It suggests using lighter-colored walls for better projection quality and provides tips for creating illusions, like haunted portrait galleries, even on dark walls. It also advises on projecting onto floors, ceilings, and props to enhance spooky effects. The article includes specific decoration collections and tips for optimal projector placement to maximize the illusion.

“When you’re thinking about which wall you’d like to project onto, keep in mind that lighter colors work best for displaying images – especially ones that have a lot of colors and detail. So, if you have a choice between using a light-colored wall and one that’s a darker color, try the light one first.”

world's largest projection mapping display by Panasonic lights up Tokyo with live animations



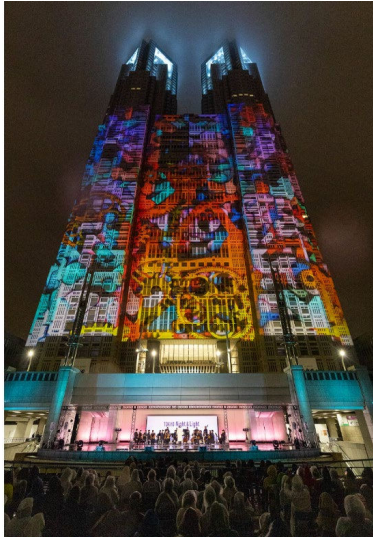
there are forty high-brightness projectors that deliver clear, bright, and immersive visuals



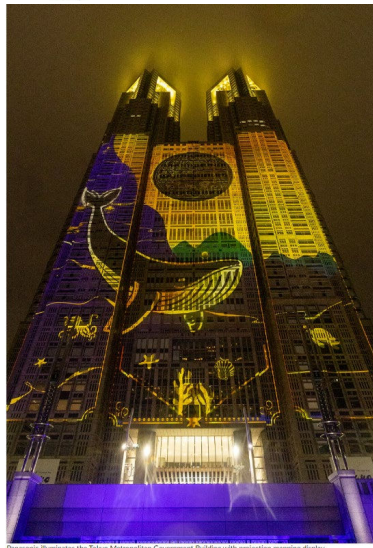
the system the display uses which enables the people handling the live animations to monitor and maintain it remotely



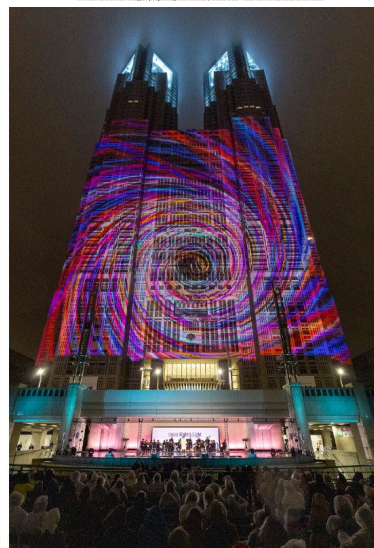
the four projectors focus projection on maximum 70m, 100m and 120m and 150m from



being the world's largest permanent projection mapping display, Panasonic secures the Guinness World Record



Panasonic illuminates the Tokyo Metropolitan Government Building with projection mapping display



Panasonic has created the world's largest permanent projection mapping display on the Tokyo Metropolitan Government Building in Shinjuku, Japan. This display features joyous live animations controlled remotely through cloud technology by Panasonic AcroSign and Remotely Managed Service. The display, which began on February 25th, 2024, holds the Guinness World Record for its size and continuously projects moving images at night, enhancing Tokyo's skyline. Panasonic employs its AcroSign digital signage, high-brightness projectors, and immersive sound system to create this spectacle. The system allows for remote monitoring and maintenance, utilizing Panasonic's surveillance cameras and cloud-based management. Forty high-brightness projectors deliver clear visuals over a vast area, complemented by synchronized audio from a RAMSA sound system. The projectors are designed to withstand outdoor conditions, ensuring long-term operation regardless of weather. This display has become a new tourist attraction in Tokyo, drawing visitors to the Metropolitan Government Building in Shinjuku.

The Waterfall on Audi R8 - teamLab



“Projection mapping of a waterfall simulation onto an Audi R8. The simulation of the waterfall was created by calculating the movement of water as it was allowed to fall on a 3-D model of an Audi R8 in a virtual computer environment. With the R8 like a rock, the waterfall simulation is projected onto a real R8 for this projection mapping artwork.

The artwork is created by same process as Universe of Water Particles.”