

An aerial photograph of a residential neighborhood with a grid of streets and houses. A vertical bar on the right side of the image transitions through colors: teal, yellow, and red. The text 'VIRTUALITY REALITY COMMUNITY' is overlaid on the image, with 'VIRTUALITY' in teal, 'REALITY' in yellow, and 'COMMUNITY' in red.

VIRTUALITY
REALITY
COMMUNITY

Virtuality, Reality, Community

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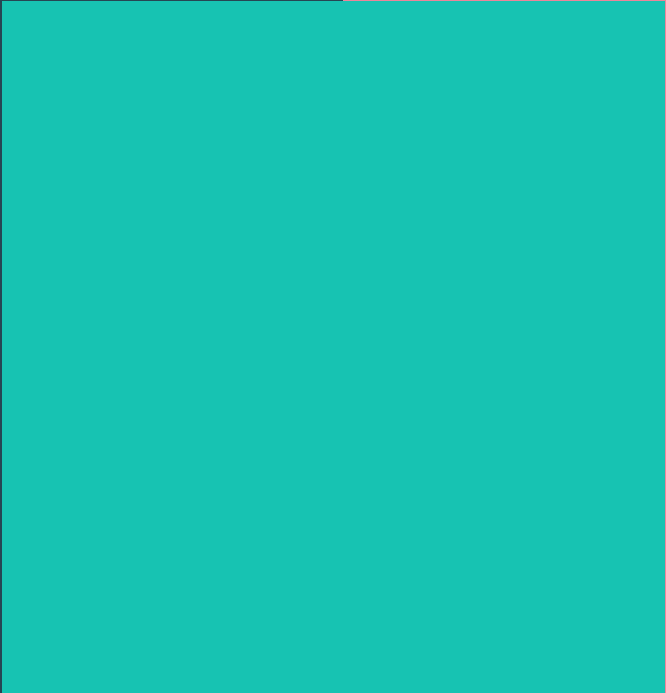
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ABSTRACT

With the popularization of the Internet and the development of technology, virtuality has penetrated into our lives and has taken up an increasing proportion of our time. However, while bringing convenience and benefits, virtuality also brings many problems, such as polarization, radicalization, cyber violence, and social isolation. In the face of these problems caused by virtualization, this thesis studies the importance of the sense of place in a community and uses some virtual technologies to enhance real-world relationships, working to alleviate problems caused by virtualization. At the same time, it explores the role of virtual tools in shaping the sense of place for neighborhood parks and open spaces. The focus of this work is in the Silver Lake neighborhood of Providence, Rhode Island.





INTRODUCTION

Here are two questions for you. Do you notice that we are spending more time on our screens? Do you feel that we are losing our sense of community?

We are attracted by the internet, and as a result, we are losing in-person relationships around us. Problems raised by digital media, such as social isolation, depression, polarization, and radicalization affect our physical mental health and even disturb our entire society.

Community relationships are an important component of society, and they can help us deal with these problems. However, with the increased use of digital media, we are losing our sense of community.

Since the virtual world is so attractive, we take advantage of virtual tools and utilize their appealing features to help restore the sense of place and ultimately connect the community.

Based on the facts and thinking, what I want to do is to address the topic of the 21st-century community in a case study and aim to build an understanding of the importance of sense of place and virtual function in contemporary social relationships. The work explores how landscape architects can use virtual tools as a bridge to build a connection to the physical world and help strengthen the sense of place in actual communities.

DEFINITION

Virtual

Not physically existing as such but carried out, accessed, or stored by means of a computer, especially over a network.
As or by means of digital media.

Community

Virtual: a group of people with a common characteristic or interest online.
Physical: a group of people with a common history or common social, economic, and political interests living in a particular area.

Sense of Place

Describes people's relationship with places, including place attachment and place meaning. Place attachment reflects a bond between people and places, and place meaning reflects symbolic meanings people ascribe to places.¹

Sense of Community

A feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together.²

1. Alex Russ and Marianne E. Krasny, *Urban Environmental Education Review* (Cornell University Press, 2017).

2. David W. McMillan and David M. Chavis, "Sense of community: A definition and theory," *Journal of Community Psychology* 14, no. 1 (1986): 6-23.

What makes a place a place?

What makes a community?

01

CHAPTER ONE



VIRTUAL AND SENSE OF PLACE

Virtual

Our phones, laptops, ipads are becoming more and more attractive. In this Internet age, many outdoor activities have been replaced by online ones.

On the one hand, we have rapidly developed technology which makes our lives more convenient. On the other hand, we tend to have less interest in the close and nearby, which can cause people to lack empathy¹ and lose relationships in the physical world. These are signs that we are shifting our focus from the physical world to the online one.

We are in an age between reality and virtuality, moving forward to the latter very fast. And the COVID-19 pandemic is undoubtedly accelerating this trend.

We used to value physical communities and now we are turning to virtual communities. What is a community? It has many meanings. But it basically describes a group, which emphasizes the relationships between people.

Physical community adds a geographic range to the community that combines the relationships between people and place. The virtual community erases the boundaries of time and distance, so it is not necessary for a virtual community to have a sense of place. As Howard

Rheingold, who wrote one of the first books treating the internet as a social and cultural environment worthy of popular and academic attention², mentioned in *The Virtual Community: Homesteading on the Electronic Frontier* (1993) :“ social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feelings, to form webs of personal relationships in cyberspace”³

It may seem like a good thing that we don't have as many restrictions as we have in the physical community. However, we are losing physical ties which are very important for both individuals and society.⁴

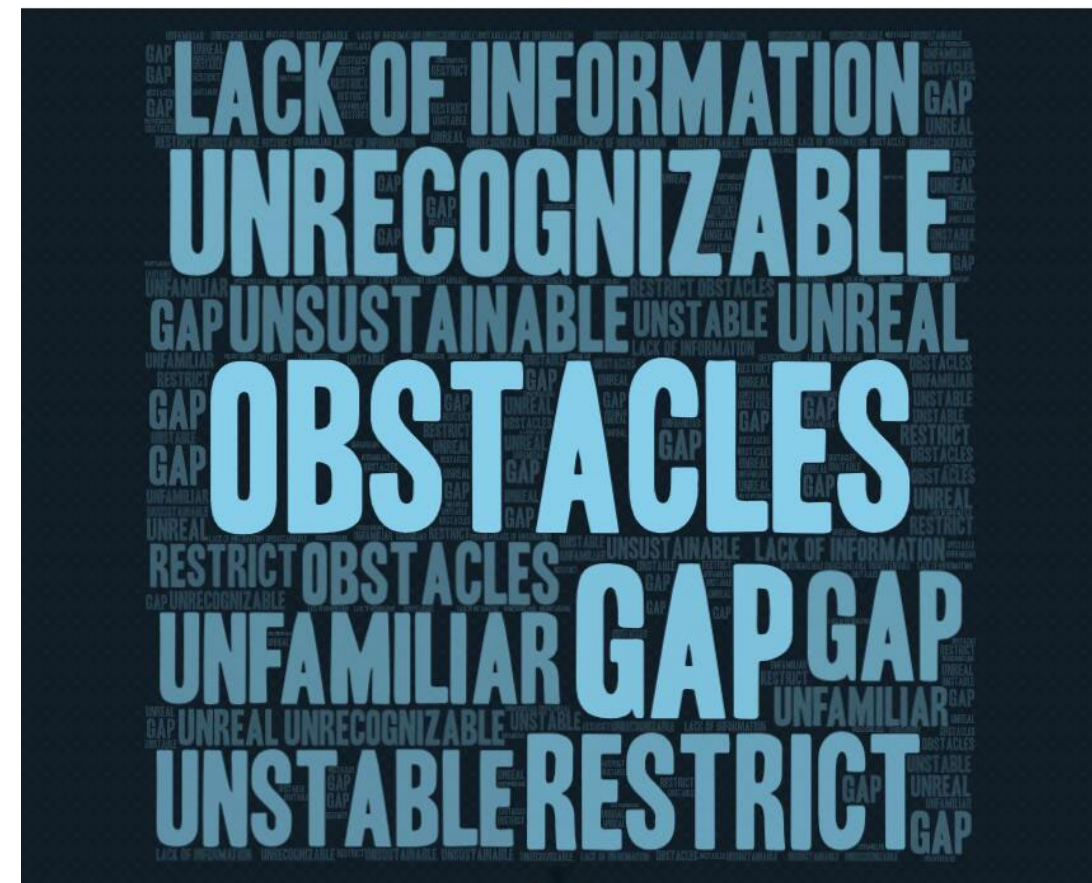
1. Mohammad Dalvi-Esfahani, Ali Niknafs, Zohre Alaedini, Hajar Barati Ahmadabadi, Daria J. Kuss, T. Ramayah, "Social Media Addiction and Empathy: Moderating impact of personality traits among high school students," *Telematics and Informatics* 57, (2021), <https://doi.org/10.1016/j.tele.2020.101516>.
 2. David Silver, "Howard Rheingold," *Encyclopedia Britannica*, March 17, 2021, <https://www.britannica.com/biography/Howard-Rheingold>.
 3. Howard Rheingold, *The Virtual Community : Homesteading on the Electronic Frontier* (Cambridge, Mass.:MIT Press, 2000).
 4. Emily J. Ruge, Richard M. Carpiano, Sarah B. Henderson, Michael Brauer, "Exposure to natural space, sense of community belonging, and adverse mental health outcomes across an urban region," *Environmental Research* 171, (April 2019): 365-377.



VIRTUAL BENIFIT



VIRTUAL DRAWBACK



What can we get from the virtual world and What do we lose from it?

Here are the key terms about the virtual world from my research questionnaires. We get new information quickly and easily. We have more opportunities and imaginations. We enjoy the efficiency and convenience of speed in the virtual world. We may experience less social pressure from virtual interactions.

However, in order to grab our attention and time, big data systems show information with us based on what we are interested in, which narrows our relationship circles. Gradually we find that we can only see information that we like and meet with new people who share our ideas and interests. We are reluctant to listen to the voice from other sides.¹ For these reasons, we encounter obstacles and gaps. Also, the anonymous feature of the virtual interactions create a sense of the unreal, unfamiliar, and unstable, which makes relationships online short and fragile. This is the beginning of polarization, radicalization, loneliness and social isolation.

1. Jeff Orlowski, "The Social Dilemma," *Exposure Labs, Argent Pictures, The Space Program*, 2020.



Virtuality Reality Community

The technology that connects us also controls us.

**/the
social
dilemma**

“The whole generation is more anxious, more fragile, more depressed.”

— Jonathan Haidt, PHD
NYU Stern School of Business. Social Psychologist.

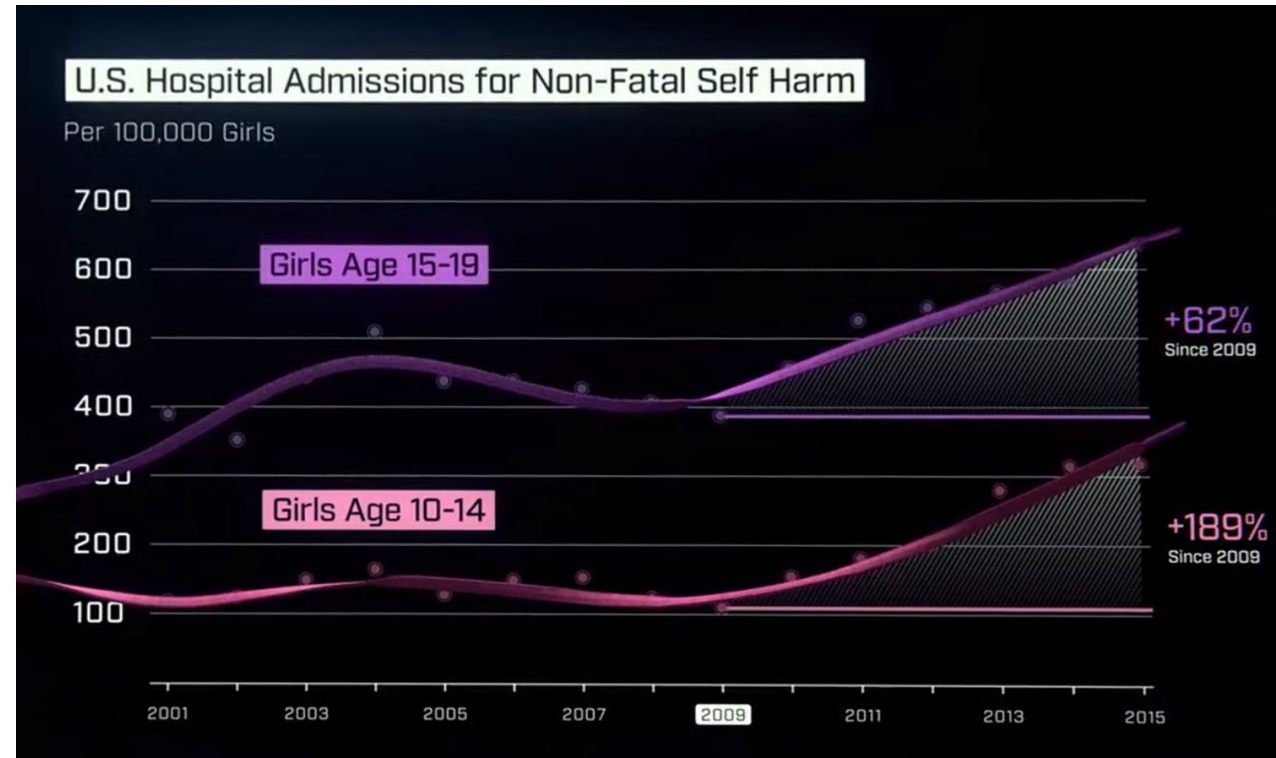
Studies have shown that today's teenagers are getting lonely and have increasing symptoms of depression, anxiety, and psychological distress². The time spent on digital media is proportional to their loneliness,³ physical symptoms of anxiety, and symptoms of social anxiety.⁴ Gen Z kids who were born after 1997 are the first generation in history that began to use digital media in middle school or even earlier.¹ Teenagers stay online longer, reducing in-person hang-out time with friends⁵. They are restricted to the small screens, focusing on the quick information that they can get easily. It is easy to get overwhelmed by certain emotions and become more anxious, more fragile, more depressed.

SOCIAL DILEMMA

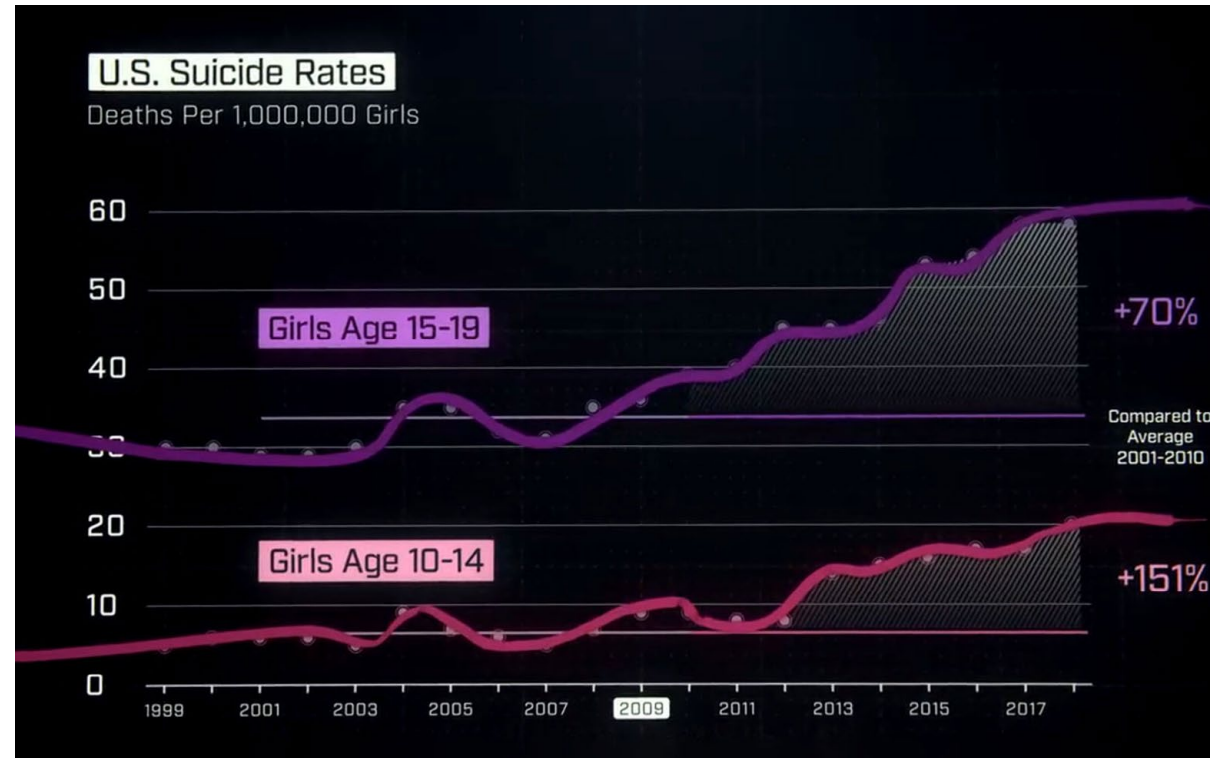
The Social Dilemma is a 2020 American docudrama film directed by Jeff Orlowski and written by Orlowski, Davis Coombe, and Vickie Curtis. It goes into depth on how social media's design is meant to nurture an addiction, manipulate people and governments, and spread conspiracy theories and disinformation. The film also examines the issue of social media's effect on mental health (including the mental health of adolescents and rising teen suicide rates).¹

(<https://www.netflix.com/title/81254224>)

1. Jeff Orlowski, "The Social Dilemma."
2. Betül Keles, Niall McCrae & Annmarie Grealish, "A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents," *International Journal of Adolescence and Youth* 25, no. 1(2020):79-93.
3. Katherine Hobson, "Feeling Lonely? Too Much Time On Social Media May Be Why," NPR, March 6, 2017, <https://www.npr.org/sections/health-shots/2017/03/06/518362255/feeling-lonely-too-much-time-on-social-media-may-be-why>.
4. Ingibjorg E. Thorisdottir, Rannveig Sigurvinsdottir, Alfgjeir L. Kristjansson, John P. Allegrante, Christa L. Lilly, Inga Dora Sigfusdottir, "Longitudinal association between social media use and psychological distress among adolescents," *Preventive Medicine* 141, (2020).
5. Ashley Knight-Greenfield, Jamie Felzer, "Teen screen time linked to feelings of loneliness: The importance of spending time with friends," abc News, March 23, 2019, <https://abcnews.go.com/Health/teen-screen-time-linked-feeling-loneliness-important-spend/story?id=61880116>.

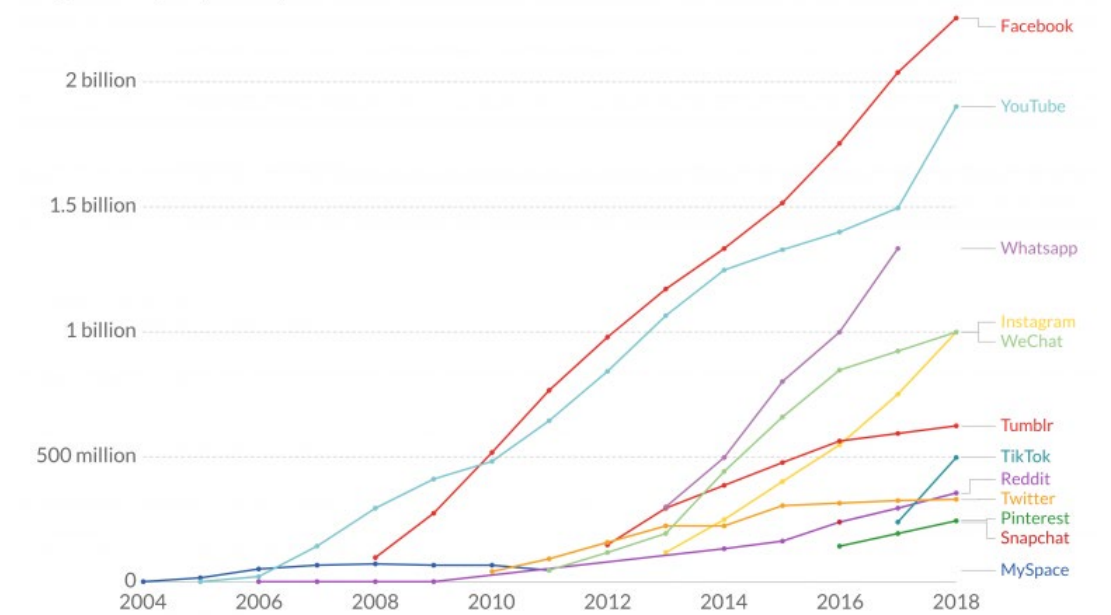


Jeff Orlowski, "The Social Dilemma."



Number of people using social media platforms

Estimates correspond to monthly active users (MAUs). Facebook, for example, measures MAUs as users that have logged in during the past 30 days. See source for more details.



Source: Statista and TNW (2019)

CC BY

steban Ortiz-Ospina, "The rise of social media," September 18, 2019, <https://ourworldindata.org/rise-of-social-media>.

DATA AND FACT

Data from Centers for Disease Control and Prevention show a sad fact: The rate of teen girls' self harm and suicide has been rising dramatically.¹ The pattern was relatively flat right before 2008 and 2009. This change points to the wide use of social media.² What is revealed with the data is the fact that depression, anxiety and even mental health problems are increasing among teenagers. Furthermore, a rise in social comparison and cyberbullying correlate with the rise of these issues.³

1. Melissa C. Mercado, Holland K, Leemis RW, Stone DM, Wang J, "Trends in Emergency Department Visits for Nonfatal Self-inflicted Injuries Among Youth Aged 10 to 24 Years in the United States, 2001-2015," *JAMA* 318, (August 2017):1931-1933.
 2. Joe Gramigna, "Social media use may play important role in youth suicide, expert says," *Healio*, October 05, 2020, <https://www.healio.com/news/psychiatry/20201005/social-media-use-may-play-important-role-in-youth-suicide-expert-says>.
 3. Carol Vidal, Tenzin Lhaksampa, Leslie Miller, and Rheanna Platt, "Social media use and depression in adolescents: a scoping review," *International review of psychiatry* 32, no. 3 (2020): 235-253.

To some extent, virtuality cuts out some important relationships in the physical world.

However, it's easy today to lose sight of the fact that these tools were initially created for positive things.

So how can we take advantage of virtuality to encourage people's engagement in their communities and connect with the physical world?

Sense of Place

Our sense of community has significantly declined for the past half century.¹

Physical community tells the story about the relationships between people and places. It emphasizes the place attachment with emotional bonding and behavioral commitment.² Effective public spaces in physical communities help build the sense of community which inspires people to be more socially active, encourages more community participation, and improves physical and mental health.³

Public spaces, such as streets and parks, foster sense of community by facilitating chance encounters between neighbors⁴ and expressing a shared goal and vision that increases community pride and belonging.⁵

With that in mind, how can we make an effective, high quality public space that fully plays its role?

Sense of place is a perfect way to enhance a sense of community.

The charm of a physical community lies in its historical memory and cultural heritage. And these will naturally generate a sense of place.

One of the outcomes of virtualization is we have less interest in our

physical space or the sense of community enhanced by it.

Correspondingly, strengthening the sense of place can help to deal with the issues raised by virtuality and can contribute to the whole society's well being.

1. Robert D. Putnam, *Bowling Alone: America's Declining Social Capital* (Journal of Democracy, 1995), 65-78

2. Russ and Krasny, *Urban Environmental Education Review*.

3. Rugel, Carpiano, Henderson, Brauer, "Exposure to natural space, sense of community belonging, and adverse mental health outcomes across an urban region," 365-377.

4. Jacinta Francis, Billie Giles-Corti, Lisa Wood, Matthew Knuiaman, "Creating sense of community: The role of public space," *Journal of Environmental Psychology* 32, no. 4 (2012): 401-409.

5. Camilla A. Michalski, Lori M. Diemert, John F. Helliwell, Vivek Goel, Laura C. Rosella, "Relationship between sense of community belonging and self-rated health across life stages," *SSM - Population Health* 12, (2020), <https://doi.org/10.1016/j.ssmph.2020.100676>.





CONLAN MEMORIAL PARK



BUCKLIN PARK



MAJOR PARK



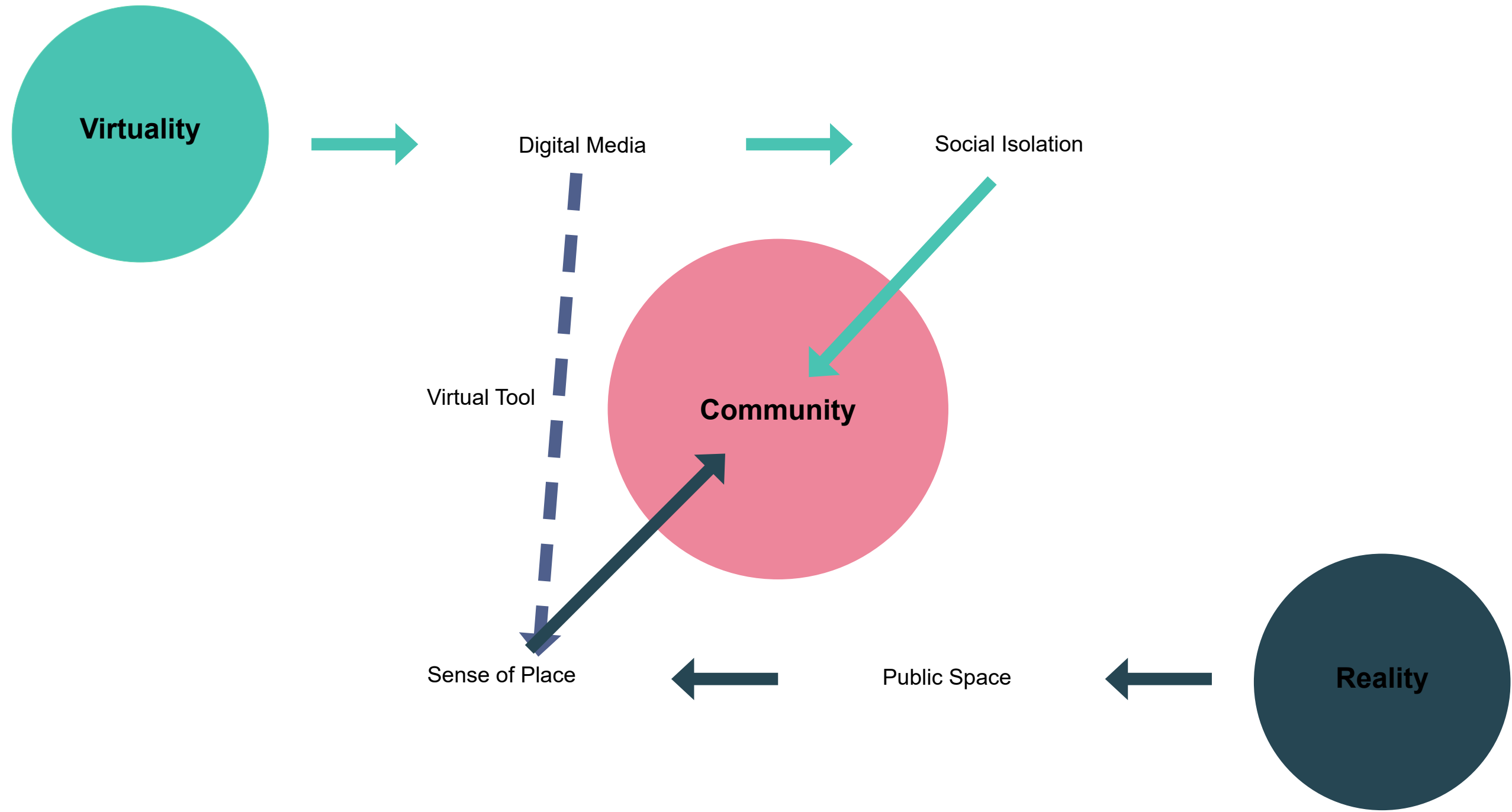
WHAT DO OUR PUBLIC SPACES LOOK LIKE?

If we take a walk around many neighborhoods in America, what can we see? Empty streets, empty parks, empty public spaces... and they look indistinguishable. Lack of identity is an expression of lacking sense of place. Another expression of this lack of sense in place is that we talk less with our neighbors and we don't know who lives near us. We care less about our neighborhoods and we are less inclined to participate in community activities. The living unit is shrinking, from the size of neighborhoods to blocks, to finally families.

“America is in the grips of increased polarization, social isolation and economic inequality. We are more segregated by income than ever before. We spend less time with our neighbors. Loneliness is a public health crisis. And trust between Americans is in free fall. While these trends have advanced, we have neglected to invest in our shared public spaces that have the potential to bring us together: our parks, libraries, community centers and trails.”

— 2020 Reimagining the Civic Commons

How can public space help people build a sense of place and maintain the communal relationship?



Virtuality and Reality

This is the point where virtuality and reality come together. Digital media from virtuality issues like social isolation, which has a negative impact on the community. In contrast, public space in reality can help enhance the sense of place and resolve the issues raised by virtuality. Another idea is that virtual tools can be used in the physical world to fortify a sense of place.



Pokémon GO

<https://pokemongo.com/en-us/>

Case Studies: Virtual through Devices

Many attempts have been made to use virtual tools to link the virtual and physical worlds and draw people's attention to reality.

Augmented reality (AR) is a big step in the virtual experiment. Placing virtual imagery in reality increases people's interaction with the physical world and strengthens the senses in reality.

Pokémon Go is one of the most typical cases of AR application. It encourages people to accomplish virtual missions, and the outcome is action in the real world. In this process, this app played a role in connecting the virtual and the real. However, people still pay more attention to what occurs on their devices instead of things that happen in the space around them.

Virtual mural is an art experiment applying AR that explores the potential of creative aesthetic.

POKÉMON GO

Niantic, Nintendo, The Pokémon Company

Pokémon Go is a 2016 augmented reality (AR) mobile game developed and published by Niantic in collaboration with Nintendo and The Pokémon Company for iOS and Android devices. A part of the Pokémon franchise, the game is the result of a collaboration between Niantic, Nintendo and The Pokémon Company. It uses mobile devices with GPS to locate, capture, train, and battle virtual creatures, called Pokémon, which appear as if they are in the player's real-world location.

(<https://www.pokemongo.com/en-us/>)



Tool of North America. "Tool AR Mural"
<https://www.toolofna.com/work/tool-ar-mural>

SIGHT BEYOND SIGHT

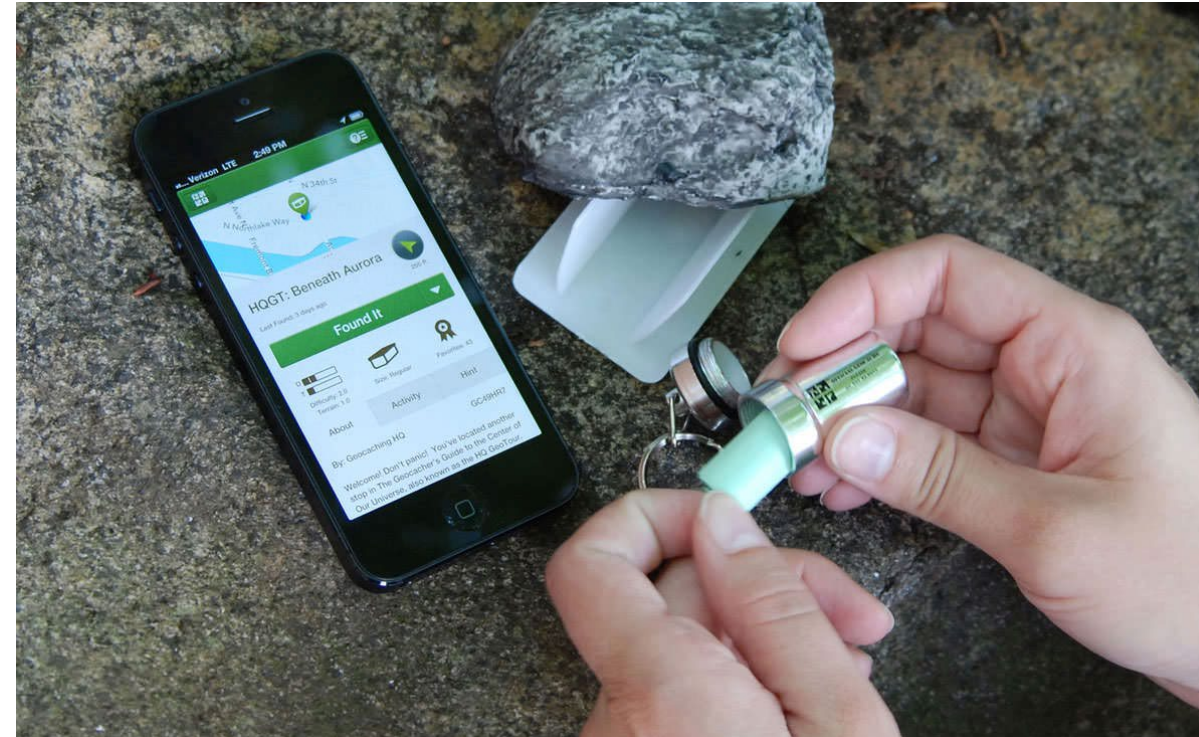
Tool of North America

An augmented reality mural to experiment with the future of art in public spaces by artist DJ Neff. It is displayed on the outside of the Tool warehouse office in Santa Monica. The camera lens is a powerful symbol that enabled the designers to explore a wide variety of AR possibilities. Serving as a look into their imagination, the portal gives them a chance to create content for different types of AR worlds over time.

(<https://www.toolofna.com/about>)



Geocaching
<https://www.geocaching.com/play>



Case Studies: Virtual as Guide

Compared with AR application like Pokémon Go, the Geocaching take Virtual as a guide that leading people to take a closer look and investigate the real world.

The applying of virtual feature: immediate feedback and reward system to the outdoor activity stimulates entertaining and attracting.

GEOCACHING Groundspeak

Geocaching is an outdoor recreational activity, in which participants use a Global Positioning System (GPS) receiver or mobile device and other navigational techniques to hide and seek containers, called "geocaches" or "caches", at specific locations marked by coordinates all over the world.
(<https://www.geocaching.com/play>)



Building projection
https://www.eventful.hr/riznica_znanja/3d-mapping/



Nysci. "Connected Worlds"
<https://nysci.org/home/exhibits/connected-worlds/>



TeamLab. "Graffiti Nature." 2016.
https://www.teamlab.art/w/graffiti_nature/

Case Studies: Virtual Projection

Projection is a great way to express virtual imagery in the physical world. Everything can be a screen at night to bring the virtual world to reality. The strong visual stimulation blends the colorful virtual elements and the texture of reality together, attracting people to enjoy the new experiences.

CONNECTED WORLDS NYSCI with Design I/O

Presented in the iconic Great Hall, Connected Worlds immerses museum visitors in a fantastically animated world. In this exhibit about sustainability, your actions – gestures, movements and decisions – impact how well the world is kept in balance. Connected Worlds includes six environments: jungle, desert, wetlands, mountain valley, reservoir and plains. Each contains its own trees, plants and animals, but they share a common supply of water. As a result, what happens in one environment may cause changes in the others. The environments are fed by a central waterfall. This waterfall stands 38 feet high and flows out across an interactive floor that spans 2,300 square feet.
(<https://nysci.org/home/exhibits/connected-worlds/>)

GRAFFITI NATURE

TeamLab, 2016-, Interactive Digital Installation

This is a wide three dimensional space constructed by slopes of various height. This is a world where the creatures that visitors draw will come to life. In this world there are tall mountains and deep valleys, and living things overcome both these mountains and valleys to spread throughout. The creature that you draw is also somewhere in this space. Try looking for them. Plus, all of the butterflies that you and everyone else have drawn will transcend this space, cross the floor, and overcome the boundaries of this installation to fly into other spaces.
(https://www.teamlab.art/w/graffiti_nature/)

02

CHAPTER TWO



SILVER LAKE



HARTFORD

OLNEYVILLE

WEST END

SILVER LAKE

ROUTE 10

CRANSTON

In order to better understand and explore the connection between placemaking and virtual tools, I chose to focus in on the Silver Lake neighborhood in Providence.

LOCATION

Silver Lake is a neighborhood located on the western side of Providence, Rhode Island. It is bordered by the Hartford and Olneyville neighborhood to the north, West End neighborhood to the east, and Cranston on the west and south.



DiVeglia, Angela. "Silver Lake Basin." Rhode Tour. accessed May 26, 2021. <https://rhodetour.org/items/show/340>.



History photo of Silver Lake <https://www.providenceri.gov/>

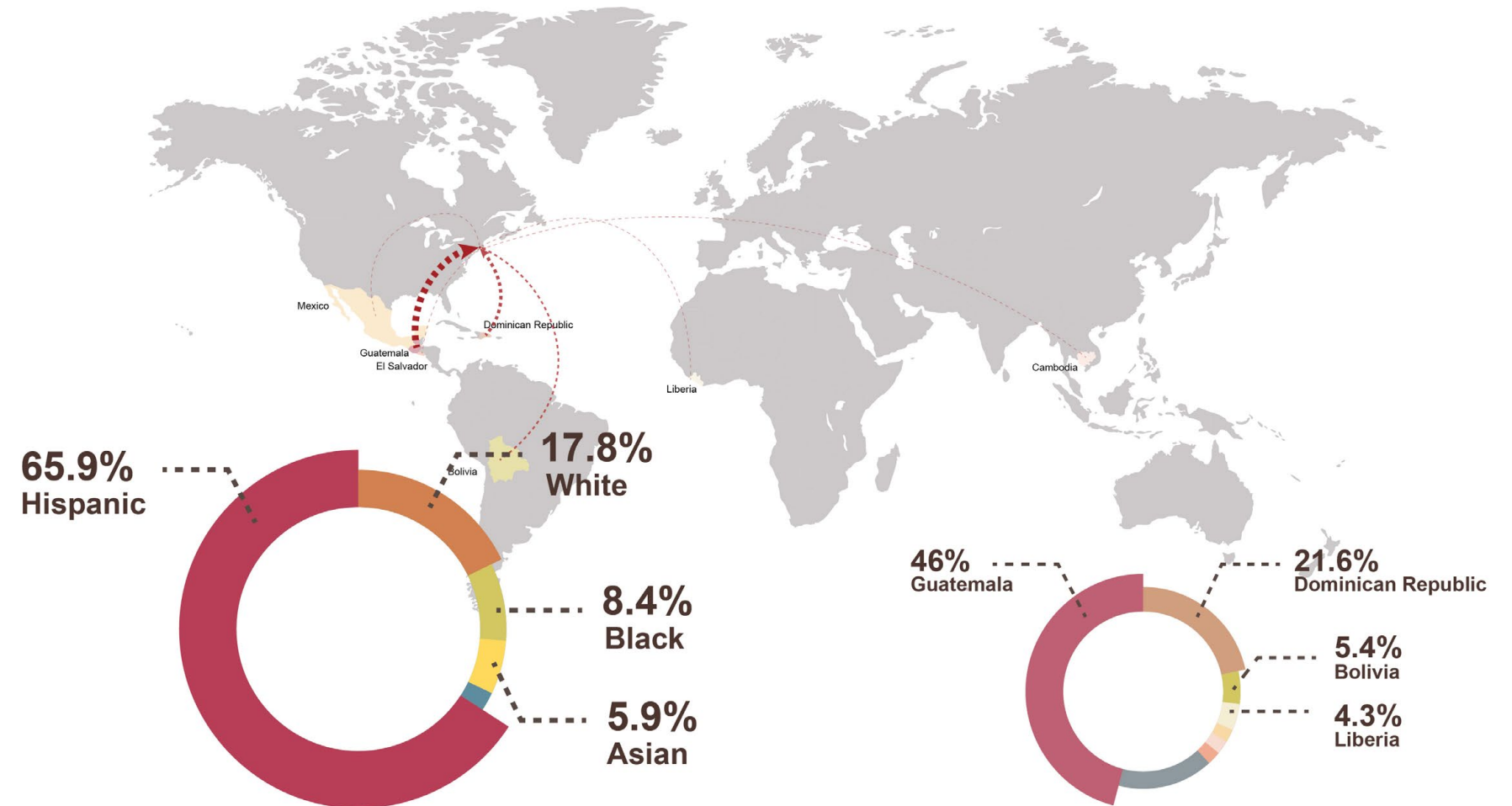
DEMOGRAPHIC AND HISTORY

Silver Lake was originally named after a lake which was later dredged and filled in. It was a quiet, rural area. Many workers and Italian immigrants came here after the extension of the Plainfield Street trolley line in 1882.¹ Silver Lake then became an Italian-American neighborhood.

Since the mid-1990s, rapid development and more job opportunities have attracted more immigration from Latin America². Thus, Silver Lake has transformed into a largely Hispanic neighborhood.

The neighborhood is now predominately Hispanic from Guatemala, Dominican Republic, Bolivia, El Salvador, etc.³

1. Angela DiVeglia, "Silver Lake Basin," Rhode Tour, accessed May 26, 2021, <https://rhodetour.org/items/show/340>.
 2. "Rise, Peak and Decline: Trends in U.S. Immigration 1992 – 2004," Pew Research Center, September 27, 2005, <https://www.pewresearch.org/hispanic/2005/09/27/rise-peak-and-decline-trends-in-us-immigration-1992-2004/>.
 3. "Race and Ethnicity in Silverlake, Providence, Rhode Island," Statistical Atlas, updated on September 14, 2018, <https://statisticalatlas.com/neighborhood/Rhode-Island/Providence/Silverlake/Race-and-Ethnicity>.





CULTURE FEATURES

Cultural features are important for creating a sense of place in a Hispanic community.

Some of the most significant features are textiles. Bright color liner and zig-zag patterns with triangle shapes are used a lot in textiles such as Aguayo (used for blanket and diaper in Bolivia, Colombia) and Huipil (traditional women's dress from Mexico to Central America).



PAPEL AMATE
Image reference in the end

Handcraft trading is also a wonderful tradition. They have amazing handcrafted works such as Papel Amate (bark paper art) and Alebrijes (brightly colored Mexican folk art sculptures).¹

1. Jennifer Olson, "Fiesta Latina! Encourages Exploring New Cultures and Ancient Traditions," Western New Mexico University, May 22, 2018, <https://wnmu.edu/fiesta-latina-invites-cultural-exchange-encourages-exploring-new-cultures-and-ancient-traditions/>.



Image reference in the end



STREET VIEW

Colorful painted buildings and storefronts can be seen on every street and is one of the cultural features of Hispanic communities. Bright colors and patterns light up the streets and provide vibrance to the communities. Vendors along the streets sell special street food such as Mistas, Shucos, Hilachas... stimulating the local economy.



LATIN DANCE
Image reference in the end



BAILE FOLKLORICO

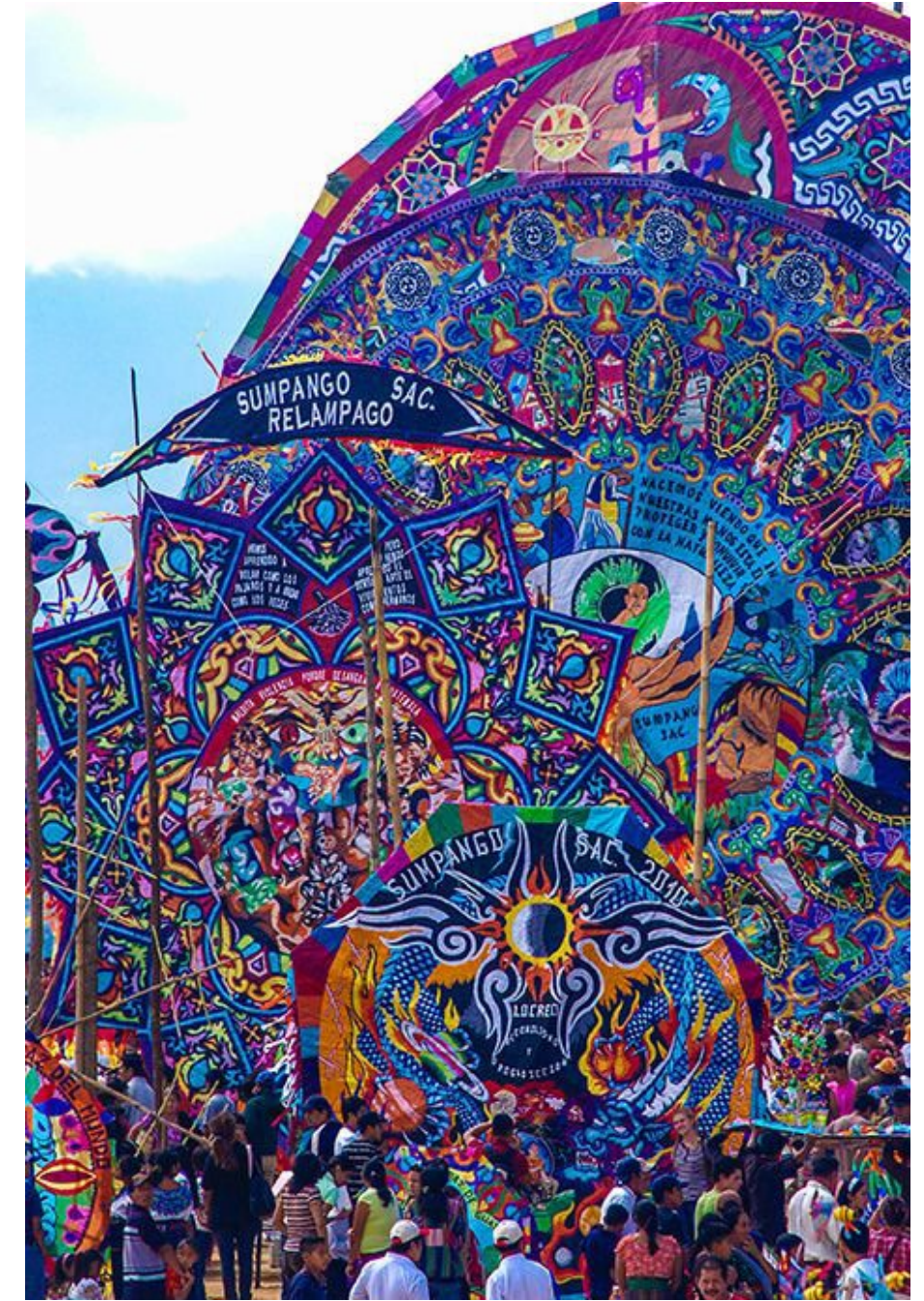


ALFOMBRAS (STREET CARPET)

ACTIVITY

Dances, such as Salsa, Baile Folklorico, and Mambo, are indispensable for Hispanic people. Each Holy Week, the cobblestone streets of Guatemala are covered in alfombras, rich carpets of colored sawdust.¹ Taking place on November 1st of each year, the Dia de los Muertos Kite Festival is one of the biggest celebrations in Guatemala.¹

¹. "5 Guatemalan Festivals You Just Can't Miss," CoEd Project Tours, September 16, 2016, <https://coeduc.org/blog/5-guatemalan-festivals-you-just-cant-miss/>.



DIA DE LOS MUERTOS KITE FESTIVAL

NEIGHBORHOOD

The Silver Lake neighborhood has many Latin American restaurants from Guatemala, Mexico... and many storefronts are painted in bright colors that represent Hispanic culture. They have murals, but these murals do not express the local community very well. Aside from these features, this neighborhood does not look much different from most that can be found across the US.

Some of the stores closed because of the pandemic, which created an

economic strain on the neighborhood.

This is a neighborhood with a high percentage of teenagers. However, it is hard to find the vibrancy many teens need here, and people have fewer opportunities for activities.



PLAINFIELD STREET VIEW

PARK

The existing James Ahern park, on the east end of Silver Lake, has two sports areas for baseball and basketball, a kids playing area, and a water fountain only open in summer. This park is relatively small and hasn't been fully used by the neighborhood.

The sports areas take up much of the space; however, they are used for little else. Also, the water fountain is restricted by season and is blocked off in seasons other than summer. People come here for limited activities:

sports, dog walking, sun-basking and using the playground.

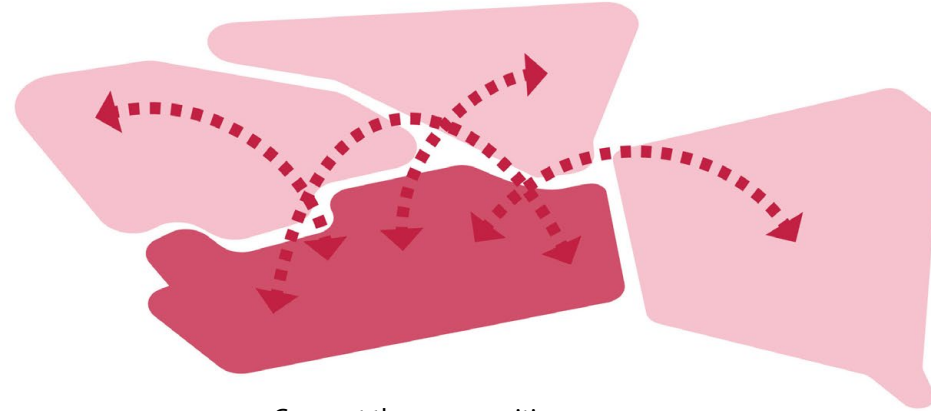
Based on the survey I did on the site, people here like this park. They think this is a safe place and provides an easily accessible green space.

People here complain about dogs pooping on the lawn because they don't have a sitting area. Another thing is the space limitation, most spaces are for sports and kids.



JAMES AHERN PARK

PLACE VISION



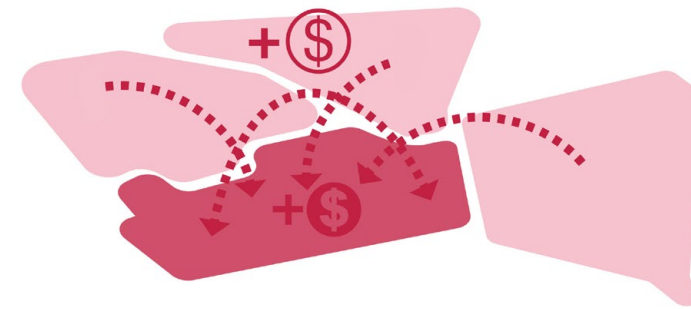
Connect the communities.



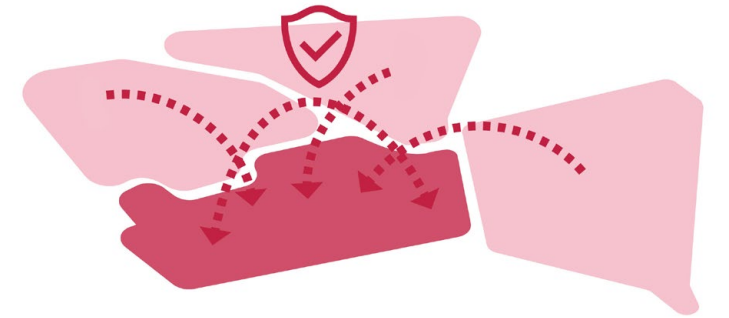
Provide more opportunities for residents and sociable environments.



Enhance the sense of place by expressing community identification, increasing community participation and community pride.



Improve aesthetic quality and vibrancy attract visitors to restore community economic.



Contribute to a safe and welcoming environment



03

CHAPTER THREE



DESIGN

STRATEGY

Using the commercial corridors to link the inside and outside community by giving vibrancy to residents and inviting visitors. The park works as a central area, tying the whole community together through access to social dialogue and cultural activities.





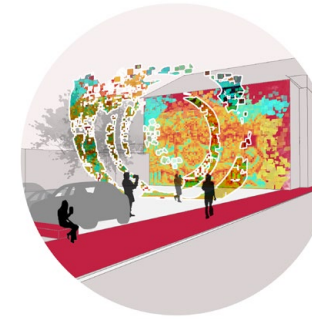
WELCOME CORNER

Reuse the old welcome sign which is now a concrete mound to give a sense of arrival to visitors and residents. Bright color extends the sidewalk pavement pattern and shows the Hispanic cultural ties of the Silver Lake neighborhood. AR text can be seen from a distance that emphasizes the gateway experience through devices.



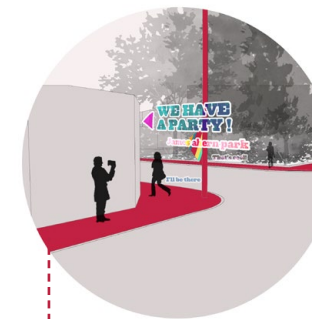
BUS STOP

The bus stop has a framework with triangle structure and textile pattern which extends to the pavement. Sensor benches track people's movement and light up which provides an interactive experience to people and works as light at night. Colorful benches and covers enliven the gate area of the neighborhood.



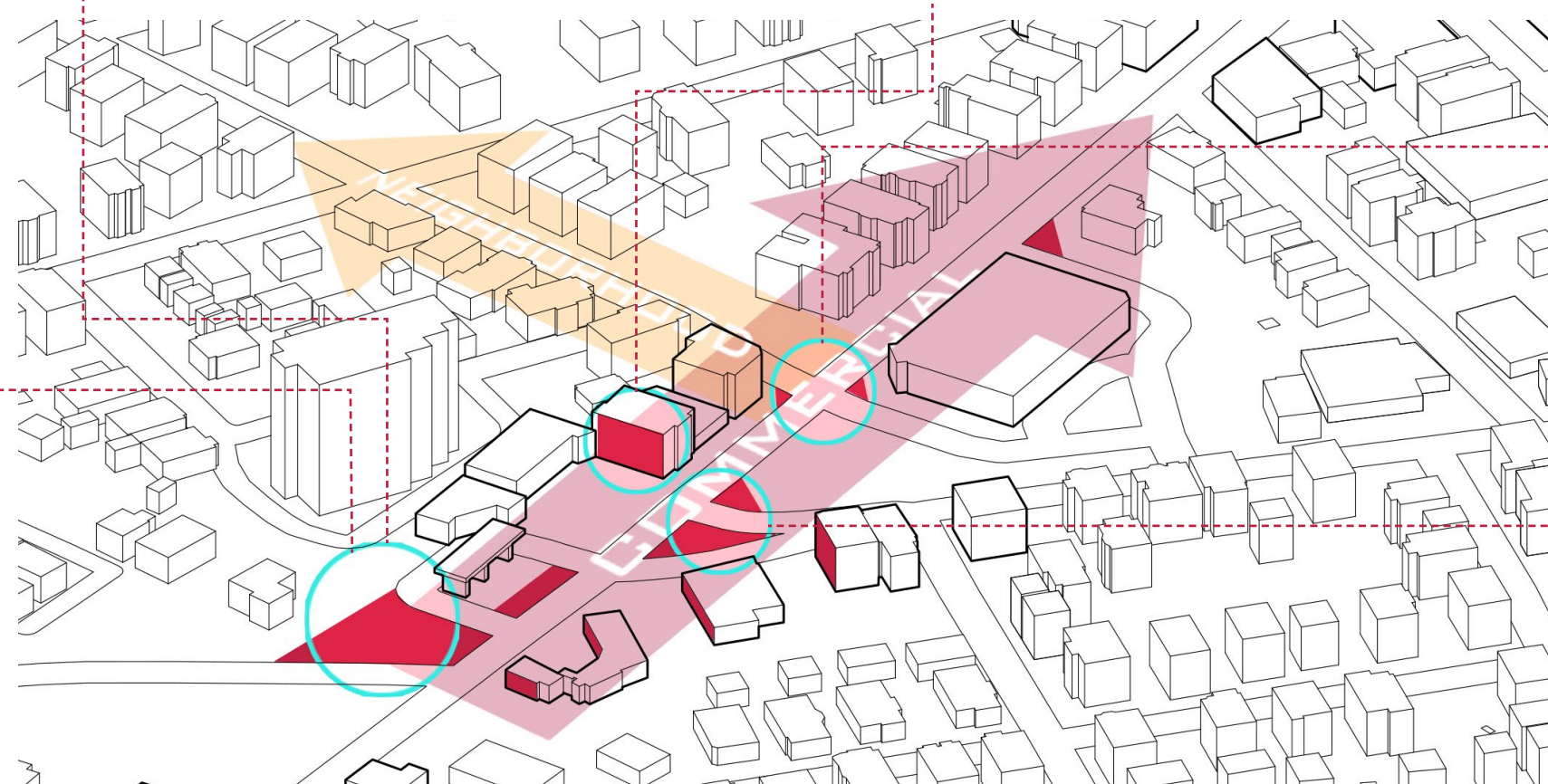
AR MURAL

Hispanic-style murals are valued artworks that express cultural features and recall cultural memory. 3D AR experience activates the murals by encouraging people to interact with them. This adds vibrancy to the neighborhood and attracts visitors, which can help restore the community economy.



COMMUNITY BULLETIN BOARD

Smaller, lighter installation signs are installed on street corner areas without much space. They provide entrance to the virtual platform through AR, adding more space to the physical community. The bulletin board gives information about the neighborhood events such as parties, markets, dancing activities, celebrations which invite civics to the James Ahern park and link the whole community.

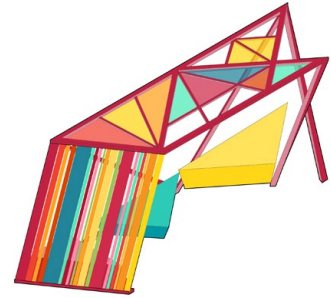


COMMUNITY CHAT BOARD

Leaving comments and chatting with neighbors creates chances to become familiar with people nearby and build up a sense of community by participation and engagement. Compared with chat groups online, AR chat boards link to the place and tie the physical world together.

NEIGHBORHOOD SCALE

Build up the sense of place along the commercial corridor by addressing a continuous visual experience and applying virtual tools to express Hispanic cultural features at the arrival area, roads, murals, storefronts, and street corners.

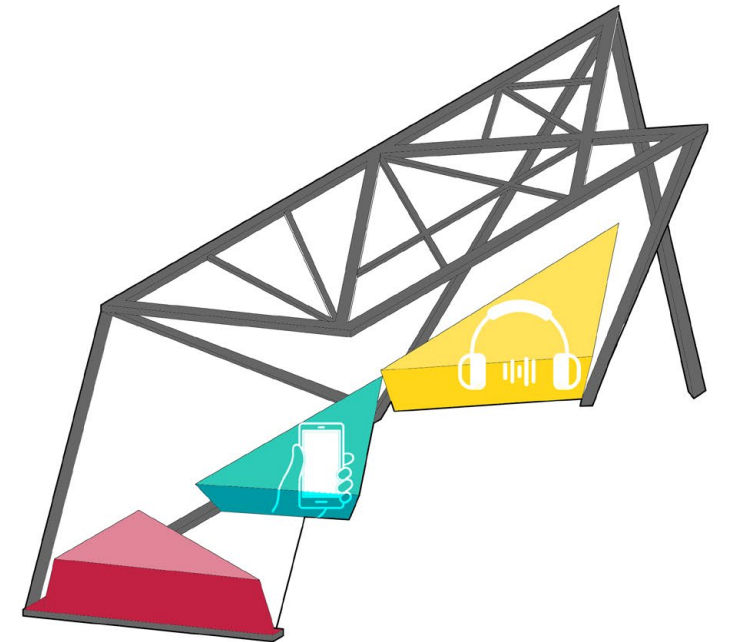
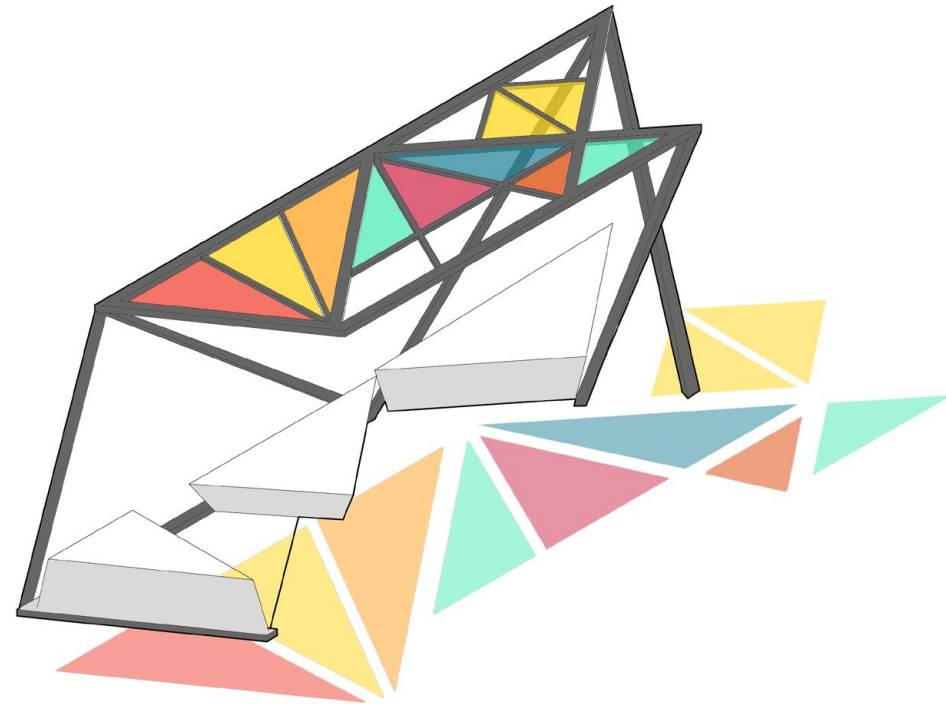
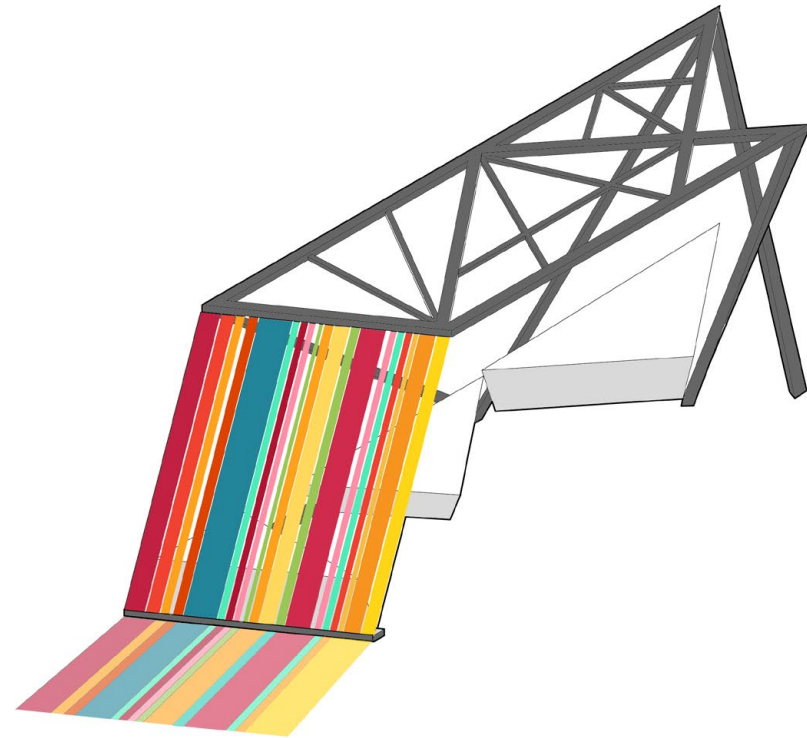


ELEMENT EXTRACT

Simple geometric patterns and colors from the Hispanic textiles represent the cultural vocabulary and recall the original culture of immigrants in the community.

The bus stop has triangle and zig-zag structures with triangle top glass that cast colorful shadows to the ground, enhancing the language of color and shape. The sidewall for wind protection gets the form of linear texture and extends to the sidewalk pavement.

The virtual technology is applied to the benches. They have heat sensors that can track people's movement and react to it. Also, they can connect to your devices when you focus on your screen and notify you that there are many AR to explore in the neighborhood. When people are wearing earphones, the benches can share music in real time from the DJ Booth of the park which links the whole community together with music and invites people to join the activities.





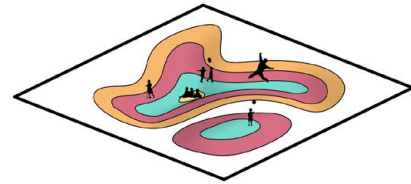
Welcome to Silver Lake

Come and Interact

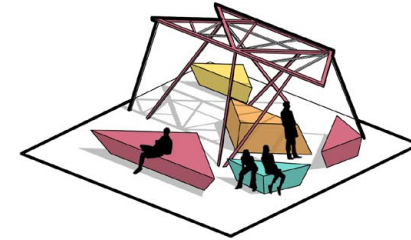
Gas Station here

Bus Stop

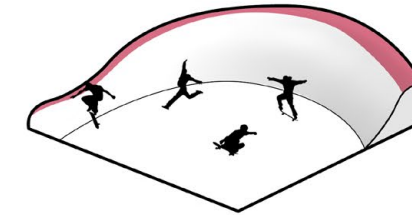
EL @ Today



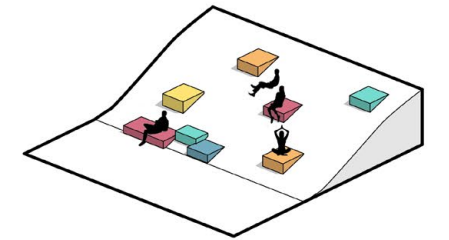
KIDS PLAYGROUND



PAVILION



SKATEPARK



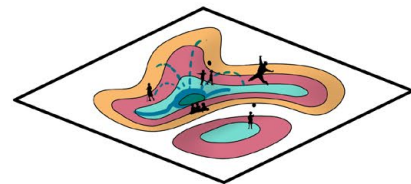
RESTING SLOPE

PARK SCALE

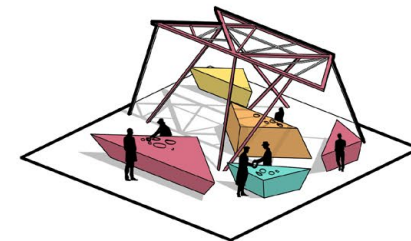
Making the park more easy to use in multi-faceted ways offers the neighborhood a diversity of activities and meets the needs of multiple groups, enhancing prosocial neighborhood relationships. From daily use to event use to virtual tool use, the new park breaks the limitation of a single-purpose area and provides more options for how to use the public space.

The use of virtual tools such as projection, AR and sensor technology enhances visual stimulation and creates new opportunities to interact with space and people, encouraging dialogues between civics.

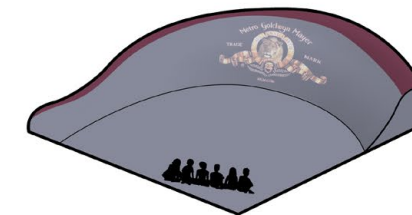
The kids' playground has a painted microtopography, which can also work as a waterscape in summer and become an immersive experience by projection. The water fountain area won't be restricted by season as the existing one does.



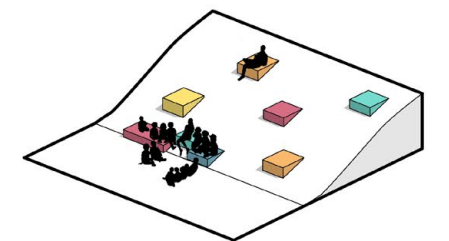
FOUNTAIN



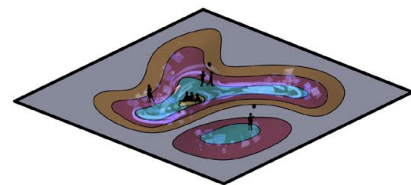
MARKET



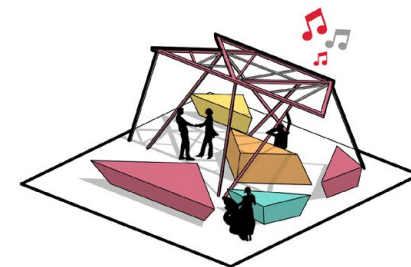
OPEN AIR CINEMA



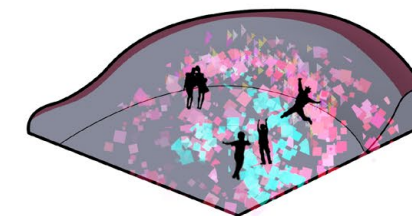
STORY TELLING AREA



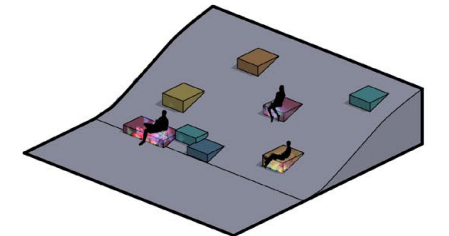
WATER IMMERSIVE



DJ BOOTH



IMMERSIVE PARK



LIGHTING STEPS



PAVILION - MARKET - DJ BOOTH

The pavilion works as a resting area and provides shade during the day. It can be a trading area in market activity and a DJ booth when parties happen as well.

Handcraft trading and vendors are now available in the park, benches turn into tables for displaying. Triangle structures help hang textiles and decorations. Food trucks park near the market to support the activities.

When parties happen, benches turn into DJ booths and have digital color change recordings synced with the music. Sports areas then become big dance floors to allow more people to join.



SKATEPARK - OPEN AIR CINEMA - IMMERSIVE PARK

Half of the topography basin circle is a concrete surface. This is a perfect field for roller skating and skateboarding, which is beloved by young people.

The smooth surface is a great screen for movies. At night time, it becomes an open-air cinema, where people sit on the other slope of the basin and enjoy movies.

Immersive projection gives the site new feelings and attracts more people to come and experience this time of virtual blending.



RESTING SLOPE - STORY TELLING AREA - LIGHTING STEPS

The other half of the basin is a resting slope with a lawn and block steps.

The blocks are the same module as the benches that have a sensor interaction.

People in the neighborhood get a place for storytelling in both Spanish and English, and kids get the whole concrete ground for drawing

Step blocks solve the problem of sitting on dog poop by separating the sitting areas from the lawn.

At night, the blocks change color together with the projector and show a dramatic scene.

CRITICAL REFLECTION

Since the advent of computers, people have been exploring the virtual world. At the same time, attempts to combine virtuality and reality have never stopped. Such a new thing has brought many problems, but it has also brought unexpected potential and possibilities. Today, it is a common experience to see so many people attached to their phones, which shows that virtualization is an inevitable process that is difficult to reverse. Because of this, what we can do is try to alleviate the problems caused by virtuality.

Landscape architects have been working on placemaking. Many books and articles talk about how to create a sense of place. It might be time to innovate and update our physical placemaking with virtualization trend

In this semester's study, I explored the possibility of the intersection of virtual and physical in the community. I think the use of virtuality is a new opportunity to re-establish a sense of place, encouraging people to open up a dialogue with the place and people nearby, which is the beginning of a community relationship.

Virtuality and reality is a very huge topic. When I explored this topic more

deeply, I found that it is very complex, and there is still more for me to learn about it. The different facets of this subject can be better understood with interdisciplinary knowledge, such as sociology to systematically understand the needs of residents and the community structure. Virtualization happens all over the world, and many countries are facing a decline of sense of community. The convergence of the virtual and the physical can be a wide discussion based on different cultures and communities. Virtual tools can be used effectively to strengthen a sense of place and enhance people's interaction with the physical world.



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