GAME PLAY

PROMOTING PARK RETENTION, PHYSICAL ACTIVITY, AND SOCIAL INTERACTION IN CENTRAL MINNEAPOLIS THROUGH POKEMON GO.

KYLE W. MALECEK | THESIS 2018

GAME PLAY

PROMOTING PARK RETENTION, PHYSICAL ACTIVITY, AND
SOCIAL INTERACTION IN CENTRAL MINNEAPOLIS THROUGH
POKEMON GO

A DESIGN THESIS SUBMITTED TO THE
DEPARTMENT OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE
OF NORTH DAKOTA STATE UNIVERSITY

BY
KYLE W. MALECEK

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
BACHELOR OF LANDSCAPE ARCHITECTURE

_____   _____
PRIMARY THESIS ADVISOR   SECONDARY THESIS ADVISOR

MAY 2018
FARGO, NORTH DAKOTA

i

THESIS ARCHIVAL NOTE

THE FOLLOWING THESIS PROJECT, ENTITLED *GAME PLAY: PROMOTING PARK RETENTION, PHYSICAL ACTIVITY, AND SOCIAL INTERACTION IN CENTRAL MINNEAPOLIS THROUGH POKEMON GO*, WAS COMPOSED OVER THE COURSE OF THE 2017-2018 ACADEMIC SCHOOL YEAR. THE THESIS PROGRAM, AS CONTAINED HERE, WAS INITIATED AND COMPLETED IN THE FALL SEMESTER AS PART OF THE **LA 563: PROGRAMMING AND THESIS PREPARATION** COURSE. SUPPLEMENTAL MATERIAL, INCLUDING THE THESIS BOARDS AND THE THESIS PRESENTATION DOCUMENTS, WERE GENERATED IN THE SPRING SEMESTER AS A PART OF THE **LA 572: DESIGN THESIS STUDIO**. ANY INCONSISTENCIES BETWEEN THE DIFFERENT DOCUMENTS, IN TERMS OF RESEARCH AND DESIGN, SHOULD BE EXCUSED PER THE EVOLUTION OF THE PROJECT ACROSS THE TWO SEMESTERS.

FIGURES

DESIGNED BY KYLE W. MALECEK

GOOGLE

-https://i.pinimg.com/originals/eb/b7/bb/ebb7bb5c505496a15fa289c71a9a82d.jpg
-https://assets.pcmag.com/media/images/393179-fastest-mobile-networks.jpg?width=410&height=230
-

TABLE OF CONTENTS

THESIS ABSTRACT

ITS BECOME INCREASING OBVIOUS HOW TECHNOLOGY HAS IMPACTED AND INFLUENCED OUR EVERY DAY LIVES. PEOPLE ARE CONSTANTLY ON THEIR PHONES, LAPTOPS, TABLETS, OR GAMING CONSOLES FOR ENTERTAINMENT AND STAYING CONNECTED WITH THEIR COMMUNITY. WITH THE RISE OF DEPENDENCE ON TECHNOLOGY, PEOPLE HAVE LESS NEED TO GO OUT AND INTERACT WITH THE PEOPLE THEY WISH TO SPEAK WITH, WHEN THEY CAN SIMPLY SEND THEM A MESSAGE FROM THEIR HOME. THIS TECHNOLOGY HAS ALSO CREATED AN EASY WAY TO LOOK UP INFORMATION USING THE WORLD WIDE WEB. THESE POINTS WILL BE THE BASIS OF MY THESIS WORK.

RATHER THAN TRY AND REMOVE TECHNOLOGY FROM OUR EVERYDAY LIVES, I THINK WE SHOULD EMBRACE AND USE OUR SUDDEN DEPENDENCE ON IT TO BENEFIT US. I WANT TO CREATE A SYSTEM THAT INCENTIVISES THE USE OF OUR TECHNOLOGY OUT IN THE LANDSCAPE. ESSENTIALLY, BRINGING TECHNOLOGY AND LANDSCAPE TOGETHER, RATHER THAN SEPARATE THE TWO.

NARRATIVE

I'LL ADMIT THAT I'VE BEEN ENTHRALLED BY TECHNOLOGY EVER SINCE I GOT MY FIRST NINTENDO GAME-BOY BACK IN FIRST GRADE. SINCE THEN, I'VE ALWAYS HAD TO HAVE THE NEWEST GAMES AND SYSTEMS TO PLAY WITH MY FRIENDS. I EVEN CREDIT MY LOVE FOR BUNGIE'S *HALO* SERIES AS THE INITIAL CATALYST FOR MY INTEREST IN ARCHITECTURE AND LANDSCAPE ARCHITECTURE.

EVER SINCE MY INTRODUCTION WITH ADVANCED TECHNOLOGY, I'VE HAD A NAGGING FEELING ABOUT HOW WE MIGHT BE BECOMING TOO TECHNOLOGY RELIANT. SO, I WANT TO START TO SOLVE THAT ISSUE NOW. I DON'T WANT TO GROW OLD AND SEE THE FUTURE GENERATIONS STAYING INSIDE ALL DAY ON A SCREEN WHEN THEY CAN BE EXPLORING THE WORLD AND LEARNING FROM FIRST HAND EXPERIENCES. BY BRINGING LANDSCAPE AND ADVANCED TECHNOLOGY TOGETHER, I HOPE TO CREATE A WORKING SYSTEM BETWEEN THE TWO, TO CREATE A REASON TO GO OUTSIDE AND EXPLORE THE WORLD.

TYPOLOGY

DEPENDING ON THE LOCATION OF THIS CREATED SYSTEM, IT COULD HAVE MANY DIFFERENT TYPOLOGIES. I BELIEVE THERE ARE A FEW MAJOR TYPOLOGIES THAT THIS PROPOSED SYSTEM WOULD BE CATEGORIZED AS. THEY ARE AS FOLLOWS:

1. URBAN PLANNING
2. PUBLIC SPACES
3. CIRCULATION

PROJECT ELEMENTS

THIS SYSTEM WILL UTILIZE SOME OF THE LATEST TECHNOLOGY TO PROMOTE OUTDOOR EXPLORATION. TECHNOLOGIES SUCH AS **AUGMENTED REALITY** AND **GEO-REFERENCING** ARE THE MAJOR PROJECT ELEMENTS THAT WILL ENCOURAGE PEOPLE TO BRING THEIR TECHNOLOGY TO PARKS AND DOWNTOWN AREAS.

AUGMENTED REALITY AND GEO-REFERENCING ARE OBVIOUSLY NOT STAND-ALONE ELEMENTS THAT WILL CONVINCE PEOPLE TO LEAVE THEIR HOUSES, THEY NEED TO BE IMPLEMENTED INTO ELEMENTS SUCH AS **PARKS, LANDSCAPES,** AND **DOWNTOWN ENVIRONMENTS.**

USERS AND CLIENTS

CLIENT: THE PRIMARY CLIENT FOR THIS DESIGN WILL BE THE CITY OF MINNEAPOLIS AS THE MAJORITY OF THE SYSTEM WILL BE IMPLEMENTED INTO DOWNTOWN MINNEAPOLIS AND WILL RUN FROM THE SOUTHWEST CORNER OF THE CITY TO THE NORTH AND EAST ENDS OF THE CITY.

USERS: THE PRIMARY USERS WILL BE THE RESIDENTS OF DOWNTOWN MINNEAPOLIS, WHETHER THEY BE PERMANENT RESIDENTS, COMMUTERS, OR VISITORS USING DOWNTOWN HOTELS.

THE SECONDARY USERS WILL BE RESIDENTS, COMMUTERS, OR VISITORS OF THE COMMUNITIES OF UPTOWN, NORTH LOOP, AND ANY OTHER COMMUNITIES IN THE GENERAL VICINITY OF THE PROPOSED LANDSCAPE.

PROJECT EMPHASIS

TECHNOLOGY IS COMMONPLACE IN TODAY'S SOCIETY. YOU WON'T BE ABLE TO GO ANYWHERE WITHOUT SEEING SOMEONE ON THEIR PHONE OR SOME TYPE OF MOBILE DEVICE. TECHNOLOGY HAS STARTED TO PLAY SUCH A LARGE ROLE IN OUR SOCIETY, SO MUCH SO THAT PEOPLE ARE BEGINNING TO RETREAT AND STAY WITHIN THEIR HOMES FOR THE MAJORITY OF THE DAY. I FEEL LIKE THIS COULD BECOME A MAJOR ISSUE IN THE FUTURE.

BY USING THE TECHNOLOGY WE'RE SO DEPENDENT ON AND FUTURE TECHNOLOGIES, I WILL CREATE A SYSTEM THAT NOT ONLY ENCOURAGES PEOPLE TO GO OUTSIDE WITH THEIR TECHNOLOGY, BUT ALSO CREATE HEALTHY CIRCULATION THROUGH A SITE.

THIS PROJECT WILL BE DESIGNED AND PROPOSED FOR THE CITY OF MINNEAPOLIS. IT WON'T BE SOLELY DESIGNED FOR MINNEAPOLIS THOUGH. THE END GOAL IS TO BE ABLE TO SUCCESSFULLY CREATE THIS SYSTEM AND HAVE IT BE UTILIZED IN EVERY MAJOR CITY OR LANDSCAPE. THIS PROJECT MAIN PURPOSE IS TO SET A PRECEDENT FOR FUTURE LANDSCAPES AND URBAN DEVELOPMENTS AND REDEVELOPMENTS TO BETTER UTILIZE THIS TECHNOLOGY SUCCESSFULLY.

BY USING AUGMENTED REALITY AND GEO-REFERENCING, I WILL CREATE A SYSTEM THAT GETS PEOPLE UP AND OUT OF THERE HOMES, WITH THEIR TECHNOLOGY. I BELIEVE THAT A LANDSCAPE THAT SUCCESSFULLY UTILIZES TECHNOLOGY WILL DRAW AND BE MORE POPULAR WITH THE SURROUNDING COMMUNITY.

ALONG WITH CREATING A AESTHETICALLY PLEASING LANDSCAPE TO BE IN, I WILL ALSO NEED TO FIND SOME WAY TO DRAW PEOPLE TO THE SITE. ALONGSIDE THESE ISSUES, I WOULD ALSO LIKE TO HAVE AN EDUCATIONAL ASPECT TO THIS LANDSCAPE SYSTEM.

PROJECT GOALS

OVERALL GOAL

CREATE A PRECEDENT LANDSCAPE SYSTEM, THAT ENCOURAGES CIRCULATION TO AND THROUGH THE SITE, AS WELL AS EDUCATES THE USERS ON THE HISTORICAL BACKGROUND OF THE AREA BY USING AUGMENTED REALITY AND GEO-REFERENCING.

OBJECTIVES TO OBTAIN PROJECT GOAL

1. CREATE AN INTEREST IN THE SITE AND A REASON FOR PEOPLE TO SPEND TIME THERE.

2. IMPLEMENT A SYSTEM UTILIZING AUGMENTED REALITY AND GEO-REFERENCING

3. DESIGNATE CERTAIN AREAS WHERE AUGMENTED REALITY CAN BE USED.

4. CREATE A HEALTHY FLOW OF CIRCULATION WITHIN THE SITE

PROJECT GOALS

CREATE AN INTEREST IN THE SITE AND A REASON FOR PEOPLE TO SPEND TIME THERE

TO SUCCESSFULLY ACCOMPLISH THIS OBJECTIVE, THERE WILL HAVE TO BE SOME KIND OF INCENTIVE FOR THE USERS OF THE SITE TO BE THERE. CREATING AN INTERESTING LANDSCAPE WONT BE ENOUGH TO MAKE PEOPLE COME BACK DAY AFTER DAY. ALONG WITH BEING AESTHETICALLY PLEASING THIS PROJECT HAS TO HAVE A WAY TO MAKE IT WORTH PEOPLE'S TIME TO TRAVEL TO AND THROUGH THE SITE.

IMPLEMENTING A SYSTEM UTILIZING AUGMENTED REALITY AND GEO-REFERENCING.

THESE ARE TWO TECHNOLOGIES THAT CAN REALLY DRAW PEOPLE TO THE SITE. USING GEO-REFERENCING, POINTS OF INTEREST CAN BE "PLACED" WHERE PEOPLE WILL TRAVEL TO. AT THESE POINTS, PEOPLE WILL BE ABLE TO USE THEIR MOBILE DEVICES ALONG WITH A COMPANION APPLICATION TO LISTEN, READ, AND SEE HISTORICAL INFORMATION.

DESIGNATE CERTAIN AREAS WHERE AUGMENTED REALITY CAN BE USED.

AT POINTS OF INTEREST, DESIGNATED USING GEO-REFERENCING TECHNOLOGY, PEOPLE CAN UTILIZE THEIR MOBILE DEVICES ALONG WITH A DOWN LOADABLE COMPANION APP TO ACCESS THE POINTS. ACCESSING THESE POINTS, LOCATED AT SCULPTURES, HISTORICAL LANDMARKS, ETC, WILL ALLOW THE USERS TO READ INFORMATION ON THAT PIECE OF ART OR HISTORICAL OBJECT. THEY WILL ALSO BE ABLE TO LOOK AROUND USING THEIR MOBILE DEVICE TO SEE WHAT THE AREA LOOKED LIKE AT THAT CERTAIN PERIOD OF TIME.

CREATE A HEALTHY FLOW OF CIRCULATION WITHIN THE SITE.

BY DESIGNATING MULTIPLE POINTS OF INTEREST WITHIN THE SITE, THE FLOW OF CIRCULATION SHOULD BE DEFINED BY THE LOCATION OF THESE POINTS. PEOPLE WILL MOVE FROM POINT TO POINT, USING THE SHORTEST ROUTE OR IN THE MOST EFFICIENT WAY AVAILABLE TO THEM. BY CREATING POINTS IN A STRAIGHT LINE, PEOPLE WILL BE INCLINED TO FOLLOW THE POINTS IN THAT DIRECTION. CREATING POINTS AROUND THE OUTSIDE OF THE SITE, WILL CREATE CIRCULATION AROUND THE BORDER OF THE SITE. COMBINE THESE TWO, AND CIRCULATION WILL FLOW AROUND AND THROUGH THE SITE.

POKEMON GO

GENERAL INFORMATION

POKEMON GO WAS RELEASED JULY 6TH, 2016. IT IS A MOBILE GAME, BASED ON NINTENDO AND GAME FREAK'S HIT SERIES POKEMON INITIALLY RELEASED IN AMERICA IN 1998. POKEMON GO UTILIZES YOUR PHONES GPS FEATURE TO RECOGNIZE WHERE YOU ARE LOCATED IN THE "GAME" WORLD. COINCIDING WITH THE GPS FEATURE, THE GAME USES GEO-REFERENCING AND AUGMENTED REALITY. POINTS OF INTEREST IN THE REAL WORLD ARE MARKED AS "POKE-STOPS" AND "POKEMON GYMS" IN GAME. BY ENTERING INTO CLOSE PROXIMITY TO THESE POINTS, PLAYERS ARE ABLE TO INTERACT WITH THE POINT IN GAME. INTERACTING WITH THESE POINTS ALLOWS THE PLAYER TO ACQUIRE IN GAME ITEMS NEEDED AND USEFUL IN CATCHING POKEMON, OR ALLOWS THEM TO BATTLE THEIR POKEMON IN THE GYM. ACCESSING THE POKE-STOPS ALSO ALLOWS THE PLAYER TO READ SMALL BITS OF INFORMATION ON THE LOCATION OF THE POKE-STOPS.

WHILE CATCHING POKEMON, POKEMON GO ALLOWS THE PLAYER TO USE VIRTUAL REALITY TO FIND THE POKEMON. AFTER ENTERING THE CATCHING PHASE OF THE GAME, THE PLAYER LOOKS AROUND PHYSICALLY TO FIND THE POKEMON IN THE GAME. THIS ALLOWS THE PLAYER TO START THROWING POKE-BALLS IN AN ATTEMPT TO CATCH THE POKEMON.

THIS GAME IS THE BASE I AM WORKING OFF WITH MY PROJECT. THE GAME, ALTHOUGH NOT A LANDSCAPE, IS AN EXCELLENT CASE STUDY IN MY OPINION. IT WAS A NATIONAL SENSATION UPON RELEASE. MILLIONS OF PEOPLE, FROM ALL AGES, IMMEDIATELY LEFT THEIR HOMES IN SEARCH OF POKEMON TO CATCH. THE GAME NOT ONLY ENCOURAGED PEOPLE TO GO OUTSIDE TO FIND POKEMON, THEY SUCCESSFULLY MADE PEOPLE TRAVEL, TO FIND THE POKEMON THEY WANTED, AND TO REACH POKE-STOPS FOR THE ESSENTIAL ITEMS.

POKEMON GO

INCENTIVES TO PLAY (TRAVEL) EVERY DAY

POKEMON GO SUCCESSFULLY BRINGS PLAYERS BACK DAY IN AND DAY OUT. THIS IS ATTRIBUTED TO DAILY CHALLENGES IN THE GAME AND A WEEKLY REWARD FOR ACCESSING A POKE-STOP FOR 7 DAYS STRAIGHT AS WELL AS CATCHING A POKEMON FOR 7 DAYS STRAIGHT AS WELL.

IMPLEMENTING SOME SORT OF CHALLENGE AND REWARD SYSTEM INTO MY SYSTEM COULD PROVIDE A SUCCESSFUL WAY TO ENTICE PEOPLE INTO EXPLORING OR TRAVELING THE SITE DAILY.

USE OF AUGMENTED REALITY AND GEO-REFERENCING

THE GAME HAS SUCCESSFULLY USED THESE TWO TECHNOLOGIES AND IS A GOOD EXAMPLE TO WORK OFF OF. AS STATED IN THE GOALS, I WOULD LIKE TO CREATE AN AUGMENTED REALITY WHEN ACCESSING THE POINTS, MUCH LIKE SEARCHING FOR THE POKEMON TO CAPTURE. GEO-REFERENCING WOULD ALLOW ME TO PLACE THE POINTS ON SCULPTURES AND HISTORICAL LOCATIONS MUCH LIKE POKEMON GO DOES.

ENCOURAGING CIRCULATION

POKEMON GO ENCOURAGES WALKING AND TRAVEL BETWEEN POKE-STOPS BY INCLUDING A "COOL-DOWN" TIMER BEFORE BEING ABLE TO ACCESS THE SPOT FOR ITEMS AGAIN. IN COOPERATION OF THE IDEA OF DAILY AND WEEKLY CHALLENGES, I COULD INDUCE CIRCULATION BY HAVING PEOPLE ACCESS A CERTAIN AMOUNT OF POINTS DAILY SO THEY HAVE TO WALK FROM POINT TO POINT TO COMPLETE THE CHALLENGE.

THEORETICAL PREMISE

The Social Sciences

The Social Sciences willl play a majority role in my premise and idea. The whole goal of designing an outdoor area utilizing augmented and virtual reality is to premote social interactions. Virtual and augmented reality have historically been used most by video games. Video games by nature are not very social when in comes to person to person interaction. I would like to change that an encourage people to play virtual reality games together, side by side instead of alone in each participants room.

Studying what causes people to interact with one another, whether they are strangers or not is also important. This project also has to promote interaction from people who are simply travelling through the site, not visiting for a purpose. Giving site visitors multiple things to stop, inspect, and talk about will hopefully promote more interaction between people.

Another social aspect to be implemented is gatherings. A designated gathering area, capable of holding various different should be implemented and is essential to give multiple groups of people a chance to gather together outside, rather in the traditional indoor space.

Anxiety, Advocacy, and Deja Vu

By: Katya Tylevich

Introduction

     In this review, I will be going through Katya Tylevich's Anxiety, Advocacy, and Deja Vu. I will be talking about how using Virtual Reality and Mixed Reality (AR) can help designers and clients bridge the gap between themselves, how this technology can be used to determine what people care about, and how it can create a sense of caring in an individual for a site.

     I believe that Virtual and Augmented Reality are indispensable tools for Landscape and Architect designers, so much so, that it should start being common in every firm. I also believe that this technology can be pushed even further with cooperation between the public and the designers.

Deja Vu

     To begin with I would like to talk about the uses Virtual and Augmented Reality has in firm spaces. Tylevich talked to John Graff about how Virtual Reality could be used to show clients the spaces designed for them. I feel like a major problem in design is the ability to show the work accurately. We rely on hand drawn and computer renderings. While this may be passable, I feel like these mediums are further away from showing the actual spaces than VR or AR is. "That's a stark difference from the emotional let-down that might hit a client when reality stacks up against sexy property photos", Tylevich comments when Graff goes into detail on showing a client through virtual reality gives them a better understanding of the space as they are figuratively in it. When people have experienced and explored a space in VR, when they finally walk through the doors in the completed project, they feel at home, familiar with it already. This creates a sense of caring that hand and computer drawings can not

Anxiety, Advocacy, and Deja Vu

quite give to the clients.

Graff even goes so far as to state "It's the 21st century, this technology is there, and it really works, I would be doing my clients a disservice if I didn't include it in the package." I can not help but agree with Graff here. This technology is not something from a sci-fi movie or some future development. It is here and it is now. If we as designers are not utilizing it, I feel like we are doing a disservice to our clients as well as ourselves. Yes, we have 3D rendering software that simulates us being inside the building or landscape, but we are only viewing it through our screens. Although it may seem proficient enough, we do not get the sense of actually being there as our visual sense is still picking up what is happening in our surroundings. The same could be said about our hearing. By utilizing a VR headset we can block out surrounding visual stimuli and help focus on what is happening in the design. This could help give us the sense of claustrophobia if a space is to small. With headphones we can simulate sound, giving us feedback on how a space may block out nearby traffic.

Another thing VR can do is help bridge the communication gap between designers and clients. One of the biggest problems in design is the designer having to translate what the client is saying they need or want, into something physical that meets the clients specifications. VR helps bridge this disconnect. Tylevich explains how Architects are sometimes compared to psychologists as they have to get to know clients as well as their needs. Then, on top of that, they have to design using sometimes only feelings, emotions, taste, etc., given off by the clients. Tylevich believes "These technologies can (sometimes literally) bring people closer to a single vision…"

Advocation for VR/AR

Tylevich had the opportunity to talk to two SWA Landscape

Anxiety, Advocacy, and Deja Vu

Architects, Anya Domlesky and Emily Schlickman. Both these individuals are advocates for various VR and AR technologies. They have tested out the capabilities and limits of our current VR and AR technologies as they believe talk about the technology is "celebratory and not critical" more often than not. They went over with Tylevich, the differences between three VR and AR technologies. Virtual Reality is a designed and modelled space in which the client or user may move. The best examples of this is video games and headsets. The next one was Mixed Reality (or AR) which is 3D Models or animations are overlaid onto existing conditions. Pokemon GO is the biggest example of this kind of technology. The final point they bring up is 360 Video. This is simply a video format where the camera captures a sphere.

Through their research Domlesky and Schlickman have found that there are some problematic aspects related to VR and AR versus 360 Video. They say that "Organic material is hard to model convincingly, because geometries are complex and take a lot of processing power." This is obviously a issue that VR and AR will face. To completely create a virtual representation of something, the textures have to be convincing. As having high quality graphics is needed to do this, the operating system has to have high processing speed and power. This is limiting to VR and AR as the device that would best be able to support high quality graphics is desktop computers. This limits VR and AR as the user would have to have the headset connected to the computer. Where I think VR and AR could excel is the area of mobility. Using a phones or tablets let you travel to the site where a proposed design is to be built and there you can experience the progression to the entrance. Obviously, phones and tablets do not have the power of computers and this is where the issue lies.

Instead these two believe that 360 Video is better, at least for design purposes at this point. You could use the 360 Video to take images

Anxiety, Advocacy, and Deja Vu

of a site and then implement this into VR. In a way, it creates a better environment as images can better capture textures without the needed processing power to display them. The drawback I see with using 360 Video, is that you would not be able to move from the fixed point the images were taken from, like you would be able to move with VR and AR.

Finally, Tylevich was able to meet and talk with the director of M Moser Architects, Chris Swartout. Swartout has had experience in the VR world since 1999. He has found that immersive technology can help clients and users care about a design. Not only that, he has found that VR has helped discover what people care about in the design. A study was conducted where he had 200 people wear the VR headsets and walk around the space he designed. The company then used information on what these people looked at and were drawn to, to determine what should be implemented or changed with the design.

Conclusion

Although VR and AR might be limited in some ways, they are still great tools to work with. We as designers should keep in mind that this technology could be available to us and that we should utilize it to design to our fullest potential.

Take-Aways

I should utilize VR and AR to the best of my ability to design my project. I also would like to take VR and AR further than just the design portion. I want to physically implement uses for it into my design.

Anxiety, Advocacy, and Deja Vu

Conclusion

Although VR and AR might be limited in some ways, they are still great tools to work with. We as designers should keep in mind that this technology could be available to us and that we should utilize it to design to our fullest potential.

Take-Aways

I should utilize VR and AR to the best of my ability to design my project. I also would like to take VR and AR further than just the design portion. I want to physically implement uses for it into my design.

Summary

Priorities

The priorities in this research was established by the needs this site is looking to fulfill. The site needs to create a need to travel and stay on site, as well as make the experience of being outdoors enjoyable. Secondarily, the site needs to create ways to promote person to person interactions.

The research to be done will consist of finding ways to draw people to the site and then keep the visitors entertained there. Research also must be done on how the human race interacts, what causes these interactions and what causes the best personal interactions between one another.

PROJECT JUSTIFICATION

Importance

Over the years, I have continually become further and further enthralled with video games. The worlds, adventures, and creatures the developers of these games have woven into existance are on par with the stories written in my favorite books. As i have gotten more into gaming, the less I have found myself traveling outdoors for any reason. Unless it is for a sports game or to practice said sport, I really do not go outside. This is something I worry about sometimes, but just do not do anything about. I think this trend I have experinced can be found world wide. That needs to change.

This is something I have not had practice with, throughout my studio classes at North Dakota State University. I am going into this looking at it as a way to break out of my comfort zone and challenge myself in my final year in college. This project will add another dimension to my Landscape Architecture skillbase. it will do this by expanding on the basic landscape design, I will not be simply designing a landscape but a virtual system to be implemented into this landscape to supplement it.

As landscape and architecture advance, so does technology. Society has also become dependent on technology. I think it is important to start designing with technology in mind and how it could be used in landscapes to promote visitors, circulation, etc.

Economically, I believe we sometimes design and build landscpaes that become dormant and under visited in a few years after they are built. If we spend money on landscapes that are not being used, I deem that a waste of money, time, and labor. Unless we can determine a solution to this issue, we will continue wasting these resources on landscpae that will fail. In a way, I believe that this project could help define a system to constantly draw people to the site, so that it never grows dormant and under used.

To fund a project like this I feel like the majority of them would come from the city that wants to try and implement the system I am designing. The next largest amount would come from donations. I think that these sources are justified as the city would be benefitting the most from a project like this, so they should be providing the largest amount. Donations are based on each individuals willingness to provide support. This is justified because the people who want to see a project like this in reality will donate, while those who do not care as much do not have to donate.

As for the return for the investment of the project, they will be more intangible than tangible or monetary. I believe that this project will primarily give back to the investors by increasing thier quality of life. Secondary returns would include monetary returns. Group spaces and social areas could be rented out or reserved to interested parties, thus creating a form of sustainable income for the site.

My project, in theory, would not have any post-occupany plans as I want to develope a system that will keep the site relevant and used for many years after it is established. If I had to define a post-occpancy use for the site, I would say it could be repurposed for urban living or a sports complex for the nearby college.

Environmental impacts for this project would be minimal, as the designated site is already an existing park. If any environment impact is observed, it would be from construction of the redesign and removal of any existing trees and or wildlife. It is my hope that these impacts can be kept as minimal as possible. Keeping the environmental impact to a minimum and reusing an existing park for this project justifies this project, in my opinion.

Virtual and augmented reality are the major technologies this project will be focusing on. To justify their uses, I would like to discuss the success and benefits that the popular game, Pokemon GO, brought to our society. This game blurs the line between literal reality and virtual reality.

PROJECT JUSTIFICATION

People had a reason to go outside with their technology, even if it was simply to play a video game. By creating a virtual system that people had to traverse in reality, Niantic promoted health and wellness as people had to travel around their local neighborhoods and parks to play the game effectively. Augmented reality could be used for educational purposes, whether that may be historical or environmental.

Socially, Loring Park has become under used and somewhat unsafe during the later hours of the day. This is an issue as it is located in close proximity to the campus of the University of St. Thomas. Being deemed unsafe is a deterrent for local students and residents to use the park and is something that has to be looked at. Another local attraction is the Minneapolis Sculpture Gardens. Loring Park is part of a direct route between downtown Minneapolis and the sculpture gardens. It is important to create a safe space in the new design so people would be more willing to use the park as a route to and from the sculpture gardens.

Cultural context, not sure at this point. Will expand on this subject in the close future. I would like to break away from the cultural norm of a park, design something different rather just a space to walk around and through.

The site, Loring Park, has been on the decline according to people I have talked to about it. I feel like that a declining park in need of help or a redesign is a perfect justification for choosing it as my site for this project. Its location is also a great justification. Just minutes from downtown Minneapolis, this site will draw from the suburbs and urban areas of Minneapolis.

I believe this project will contribute to the advancement of Landscape Architecture. I would hope that this project sets a precedent for future landscapes. Make people think about how our society's reliance on technology could be used to make people want to visit the site.

Looking at this project impartially, it really is only optional. It is not

necessarily imperative that we start designing with technology integrated within our design, but to myself, it is important to keep technology in mind. This is more important personally than it is imperative to the profession, but I do not think that should stop me from challenging myself and choosing to do a project of this typology.

I feel like this project typology could be left for anyone in the profession but I would like to be the one to do it because of the personal connections I have to it. Being a gamer and technology enthusiast, I feel like I may be more qualified to design it than some of the older landscape architects as they have not been so reliant on technology as I have for most of their lives. In contrast, future architects would be better qualified than me, as they have been surrounded by technology and have used it their whole lives, even more than I have.

HISTORICAL, PHYSICAL, AND SOCIAL

Social

Socially I believe this project will share similarities to every landscape designed. Landscapes are designed to be populated by people and because of the areas inhabitants, there will inevitably be social interaction.

In relation to current social trends, one can see that the face-to-face interactions have decreased. People now opt to talk to others primarily through text, Facebook Messenger, or video calls such as Skype or Facetime. This project is aiming to promote social interactions between people without depriving them of their technology.

Loring Park is is situated in the South West corner of downtown Minneapolis, within walking distance of the University of St. Thomas and Nicollet Mall. Just on the other side of Highway 94 is the Walker Art Center and the Minneapolis Sculpture Gardens, home of the iconic Spoonbridge and Cherry. Other notable structures in the general vacinity is the Minneapolis Convention Center, the Orpheum Theater, and the Basilica of St. Mary

Historical

Cultural

Culturally, the site will be drawing from the surrounding areas, such as UST and the nearby apartment complexes. Colleges bring many different cultures together as many different people converge on the school from all over the world. UST will most likely be the major cultural factor but the surrounding neighborhoods also have an influence. The median age of residents in the immediate vacinity of the park ranges anywhere from

27 to 60. The vast difference in age will most certainly bring in people extremely fmiliar with current technology and people who have very little understanding of technology in our current day and age.
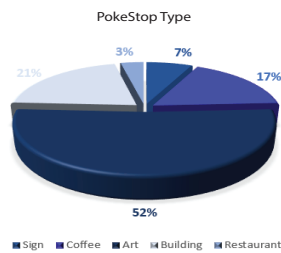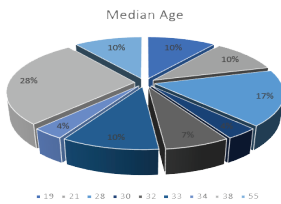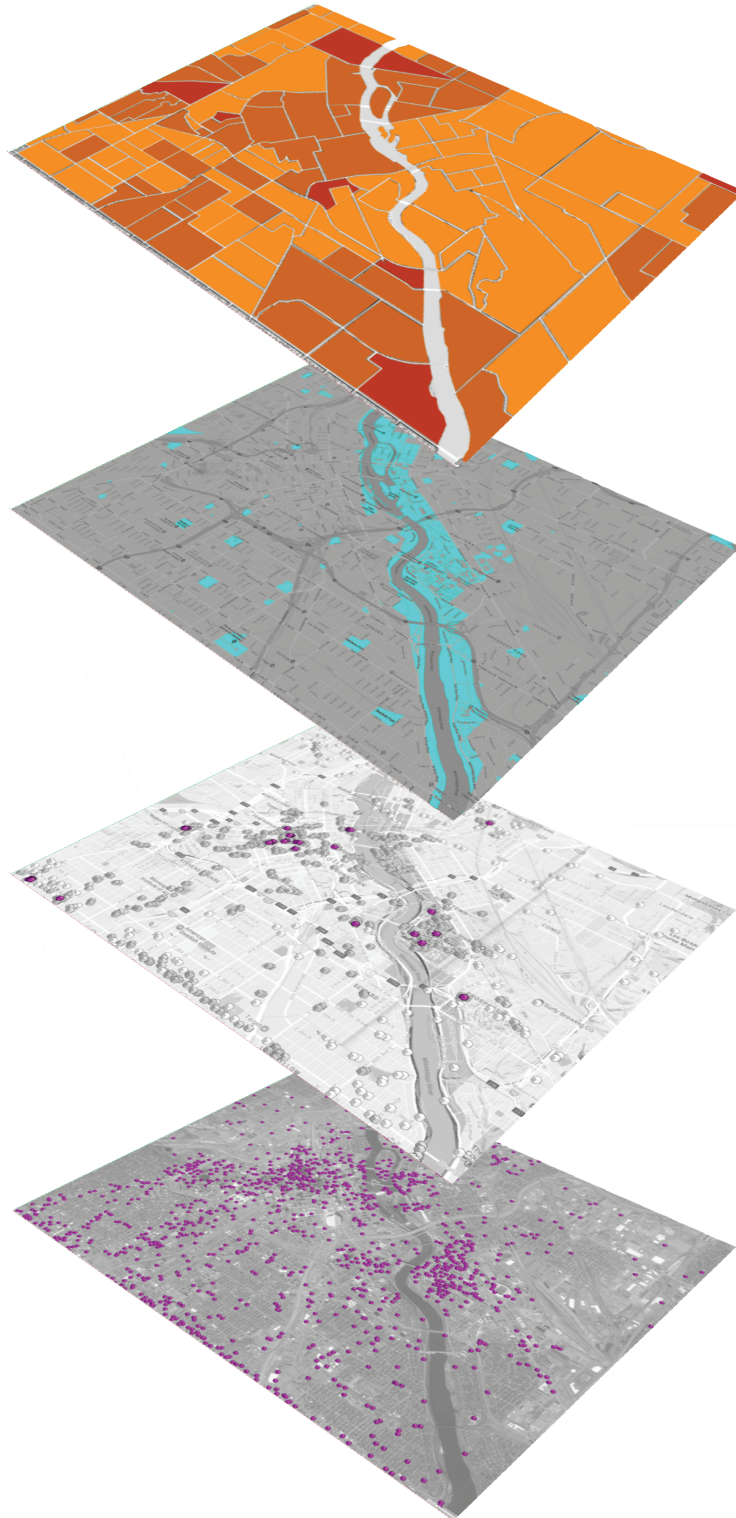
MINNEAPOLIS SITE ANALYSIS

Mapping Pokestops:
Identifying Connection to Underused Public Space

The isographic maps show four things:

    1. Locations of all Pokestops in the Minneapolis area.
    2. Master Pokestops in the Minneapolis area. Master Pokestops are determined by how many other Pokestops can be accessed from standing at said Pokestop. These Pokestops are more popular destinations than others.
    3. Park Systems in Minneapolis
    4. Average Ages throughout Minneapolis

Using the information from these maps will help me determine which areas could benefit from a park supplemented by Pokestops. From there, all that remains is picking a site.

Median Age

19 • 21 • 28 • 30 • 32 • 33 • 34 • 38 • 55

PokeStop Type

■ Sign ■ Coffee ■ Art ▨ Building ■ Restaurant

The two pie charts above go into further detail on the Master Pokestops. It is important to look further into these stops, as they are the most popular stops and adding these into the future site will help draw people to the site as well as keep them at the site.

The median age chart shows the average age of residents situated in the vacinity of each master stop. Using this information helps show that our target age range (18-30 years old) is not in the areas where the majority of the master stops are.

The Pokestop Type chart shows which types of stops are most popular and gives me insight on what possible attractions could be included in my site.

PERFORMANCE CRITERIA

Size of Space

The size of space is yet to be determined. The site will include the majority of Loring Park, but the full extent of the project is unclearn. Loring Park actually extendes from its open corner of land further into the forest of highrise apartments to the North East. Initial ideas do include this area around the apartments as it extends the project site further towards downtown Minneapolis and Nicollet Mall which would generate a destination parkway into the heart of downtown. For now the site is 289 Acres.

Usage

The park would be designed around the use of technology. Primarily it would be a park, but a park that is capable of supporting outdoor gaming, specifically virtual reality gaming. Secondarily, the park will support group gatherings. A designated space, or pavillion, will be designed to support group gatherings. This space will be rented out to create income for the site to support the other amenities on site.

Hours of Operation

The hours of operation for the park will change slightly from its current hours. Instead of 6 AM - Midnight, I would like to close the park earlier, possibly 9 PM or 10 PM to promote safety. The gathering pavilion would be open regular work hours, 9 AM to 5 PM.

The reason for closing the park early is to prevent crimes from happening in the park. Although there a few crimes that occur in the park currently, there are multiple reported crimes in the immediate vacinity. I feel that the later the park is open, the more likely that the crime will seep

PERFORMANCE CRITERIA

into the park.

Energy Consumption Target

The site's major energy consumption factor will be electricity. Between lighting throughout the site, as well as the WiFi to support the proposed technology, the largest amount of energy going into the site will be electrical. The target of energy consumption is to use the least amount possible, not only to save the most money but to leave the smallest footprint in the environment.

Materials

The major materials needed for the site will be included in the gathering pavilion, pathways, and the virtual gaming area. The pavilion will be of modern design, so it will include metal and glass. The walking paths will diverge from the traditional cement pathways. Instead the pathways will consist of a material yet to be determined. It has to be permeable to allow water to drain through it, to prevent pooling. The virtual gaming area is a open area, allowing the players to move freely without the fear of running into something. A grass area will be surrounded by a area filled with pea gravel or another material to signal when one may be straying away from the center of the open and safe area.

Services

Services included on the site include free WiFi for users within the park. A gathering pavilion for large parties and group outings or activities. A large open area to support virtual reality gaming. Walking paths throughout the site with various points of interest along the way. The

existing body of water on site will be kept, but a fountain will be added to disturb the water to prevent algae from forming on the surface. Over all, multiple PokeStops will be placed strategically to promote the younger generations to travel to the site and stay in the site to play Pokemon GO.

Light Quality

The lighting in the site will come primarily from the night lighting. The lights used to illuminate the site after sunset will be LEDs. LEDs create a bright, yet harsh light. I believe this type of lighting is better to use the phospherous bulbs that give of yellow lighting. Although harsh, LEDs last longer, and are more environmentally friendly.

Psychological Impact

I want people to feel calm and safe throughout the site. The sound of falling water is a great way to easy people and calm them. To make people feel safe and sheltered, I want to line the walking paths with arching trees, following the boulevard and street concept.

In the virtual reality area, I want to energize people and encourage them to actively play their games for longer periods of time. How one would go about doing this, I do not know yet. More research will be needed to determine it. Most likely the colors around this area will help do this.

Colors

Depending on the area the colors used will be very different. These colors are yet to be determined. However, colors from the trees during the fall should be a large array of "hot" colors. I want the site to be a spectical
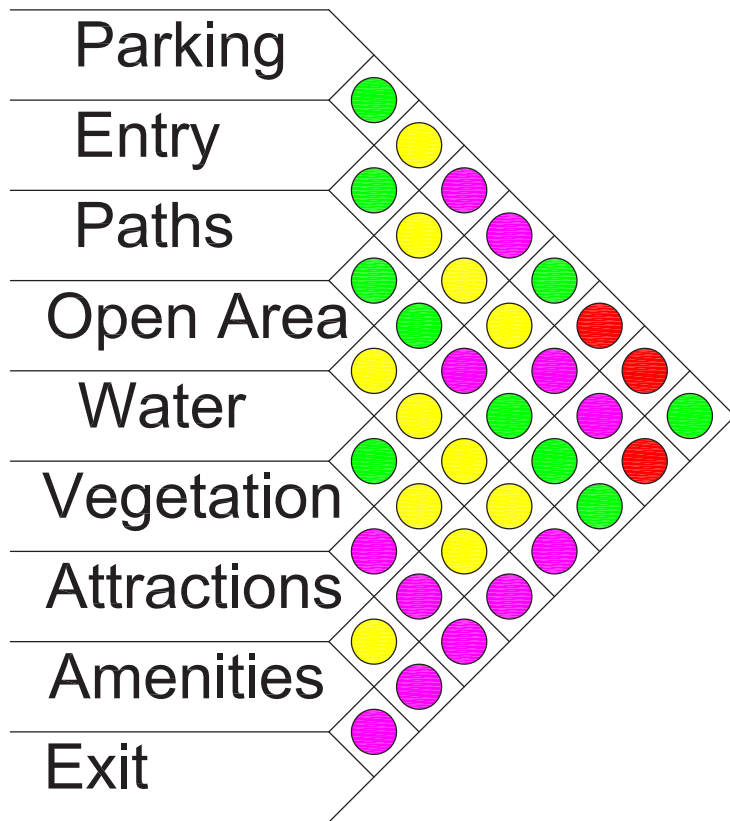
PERFORMANCE CRITERIA

during the Fall. Spruces, Firs, and Pines should also be inlcuded in the plant pallette so that the site is not bland in the Winter.

Budget

The exact budget is unknown at this time.

Space Allocation Table

Parking	
Entry	🟢
Paths	🟡
Open Area	🟢 🟣
Water	🟢 🟡 🟢 🔴
Vegetation	🟡 🟣 🟣 🔴
Attractions	🟢 🟡 🟢 🟣 🟢
Amenities	🟣 🟡 🟢 🟣 🔴 🟢
Exit	🟣 🟡 🟣 🟣

🟢 Adjacent

🟡 Nearby

🟣 Not Adjacent

🔴 Not Related