

Kennesaw State University

DigitalCommons@Kennesaw State University

Bachelor of Architecture Theses - 5th Year

Department of Architecture

Spring 5-9-2023

A Ludic Generation: Bridging Architecture, Games, and Technology for More Playful Spaces

Jade Lefebvre

Follow this and additional works at: https://digitalcommons.kennesaw.edu/barch_etd



Part of the [Other Architecture Commons](#)

Recommended Citation

Lefebvre, Jade, "A Ludic Generation: Bridging Architecture, Games, and Technology for More Playful Spaces" (2023). *Bachelor of Architecture Theses - 5th Year*. 285.
https://digitalcommons.kennesaw.edu/barch_etd/285

This Thesis is brought to you for free and open access by the Department of Architecture at DigitalCommons@Kennesaw State University. It has been accepted for inclusion in Bachelor of Architecture Theses - 5th Year by an authorized administrator of DigitalCommons@Kennesaw State University. For more information, please contact digitalcommons@kennesaw.edu.



SIDE QUESTS

- CAPTURE THE HILL
- DEFEND HQ
- NAVIGATE THROUGH THE CAVES
- EXPLORE THE DOCKS THROUGH PORTAL
- CLIMB TO THE FOREST'S TOPS
- PURCHASE AN ITEM FROM THE MARKET

GAME:
ACTION ADVENTURE & PLATFORMER

MAP
CODEX
MENU
RESOURCES

A LUDIC GENERATION

THE BRIDING OF ARCHITECTURE, GAMES, AND
TECHNOLOGY FOR MORE PLAYFUL SPACES



JADEDED PRODUCTIONS

A LUDIC GENERATION
THE BRIDGING OF ARCHITECTURE, GAMES, AND
TECHNOLOGY FOR MORE PLAYFUL SPACES

APPROVAL OF THESIS RESEARCH
PROJECT BOOK IS PRESENTED TO:

SANG PIL LEE

AND TO THE
FACULTY OF THE DEPARTMENT OF ARCHITECTURE
COLLEGE OF ARCHITECTURE AND CONSTRUCTION MANAGEMENT

BY

JADE SUSAN LEFEBVRE

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

BACHELOR OF ARCHITECTURE

KENNESAW STATE UNIVERSITY
MARIETTA, GEORGIA

MAY 9TH, 2023

ACKNOWLEDGEMENTS

I WOULD LIKE TO THANK MY FRIENDS AND FAMILY WHO HAVE ENCOURAGED AND LOVED ME THROUGH THESE LAST FIVE YEARS. COLE, ALYSSA, ANA, JENNIFER, AND TIM. MY MOTHER CATHERINE AND TWO OLDER BROTHERS, EDWARD AND THEO. WITHOUT ALL YOUR HELP I WOULD NOT BE THE PERSON I AM TODAY.

I WOULD ALSO LIKE TO EXPRESS MY GRATITUDE TO MY THESIS PROFESSOR SANG PIL LEE FOR HIS ADVICE AND ABILITY TO PUT UP WITH MY DOGGED NATURE AND IDEAS.

SPECIAL THANKS TO MY LATE FATHER, ERIC, FOR PASSING ON TO ME A STUBBORN, DETERMINED MINDSET TO NOT BACK DOWN FROM A CHALLENGE AS WELL AS HIS OPTIMISTIC LOVE FOR INNOVATION.

TO EMPHASIZE THE POWER OF INNOVATION, THIS BACKGROUND WAS TAKEN FROM A PROJECT RENDER OR CONCEPT FROM THIS THESIS AND POST PROCESSED IN DRAMATIC FORMAT FOR THE CONCEPT OF THIS BOOK AS A VIDEO GAME. THE MIDJOURNEY AI PROGRAM WAS USED IN A SPECIFIED ART STYLE. PHOTOS ARE LATER UPSCALED IN NIGHTMAREAI/REAL-ESSARAN API.

FINAL REFINED PROMPT:
"USING THIS IMAGE AS A BASE, ADD A GROUP OF PEOPLE CHEERING WHILE WEARING VALORANT INSPIRED CLOTHES. A SINGLE CAUCASIAN FEMALES STANDS IN THE CENTER OF THE GROUP. SHE HAS LONG, BROWN CURLY HAIR, GLASSES, AND EARRINGS. VALORANT VIDEO GAME STYLE ART, WIDE SHOT"

TABLE OF CONTENTS

01 HOME

	1
1.1 ABSTRACT	3
1.2 INTRODUCTION	4
1.3 METHODOLOGY	4
1.4 PSYCHOLOGY	5
1.4.1 CULTURE OF PLAY	5
1.4.2 FLOW OF PLAY	6
1.4.3 TYPES OF FUN	7
1.4.4 HUMAN ARCHETYPES	8
1.5 GAME DESIGN	9
1.5.1 PLAY STIMULUS	10
1.5.2 GAME GENRES	11
1.5.3 PLAYER PROFILES	12
1.6 TECHNOLOGY	13
1.6.1 EXTENDED REALITY	13
1.6.2 APPLICATION	14
1.6.3 PARAMETERS	14

02 CRAFTING

	15
2.1 LEXICONS	17
2.1.1 LUDIC	17
2.1.2 INTERACTIVE	19
2.1.3 EPHEMERAL	21
2.1.4 HUMAN-CENTERED	23
2.1.5 SENSORIUM	25
2.1.6 PATTERN	27
2.2 PRECEDENT TO GAME COMPARISON	29

03 CODEX

	31
3.1 SANDBOX	33
3.2 ACTION ADVENTURE	34
3.3 PUZZLER	35
3.4 REAL TIME STRATEGY	36
3.5 PARTY GAMES	37
3.6 BATTLE ROYALE	38
3.7 HORROR	39
3.8 SURVIVAL	40
3.9 SIMULATOR	41
3.10 PLATFORMER	42
3.11 SHOOTER	43
3.12 ROLE PLAYING GAME	44

04 QUESTS

	45
4.1 TUTORIAL	47
4.2 URBAN PARK	48
4.3 MATRIX MIX	49
4.4 FORMULA FOR A COURSE	50

05 MAP

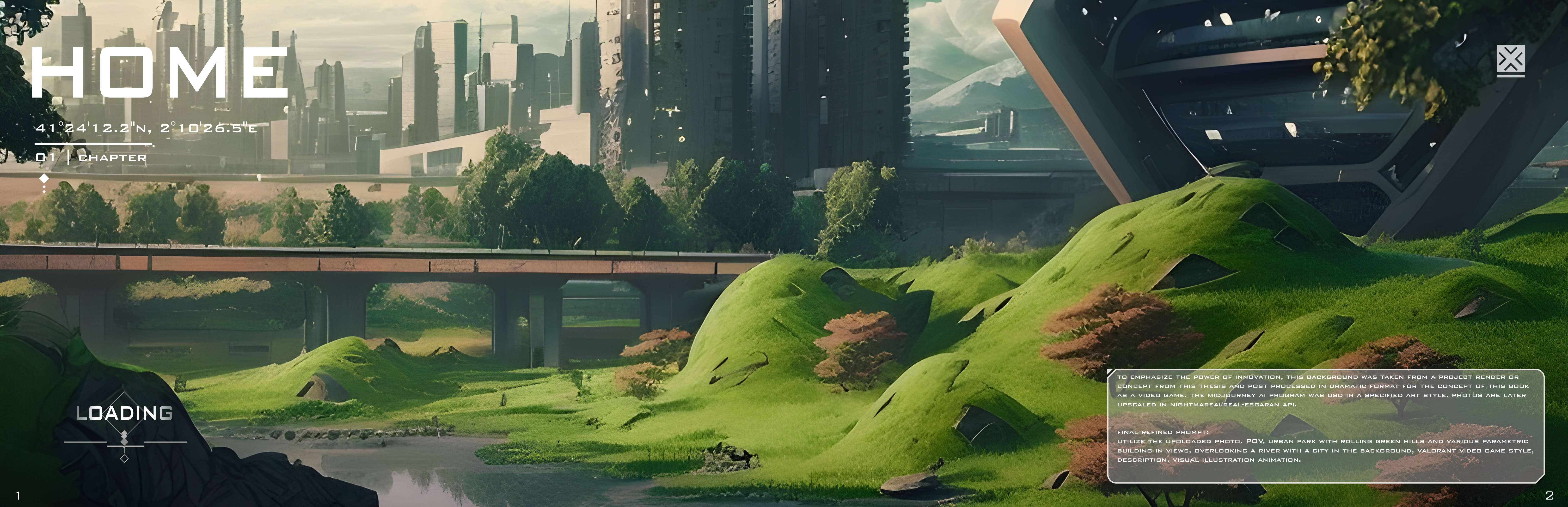
	51
5.1 URBAN MAP	53
5.2 SITE CONTEXT	55
5.2.1 SITE SIGNIFICANCE	55
5.2.2 HISTORICAL MORPHOLOGY	56
5.2.4 SOCIO-SPATIAL PATTERNS	56
5.3 SITE ANALYSIS	57
5.3.1 FIGURE GROUND STUDIES	57
5.3.2 EXISTING SITE CONDITIONS	57

06 COLLECTIONS

	59
6.1 HQ	61
6.2 HILLS	67
6.3 DOCKS	71
6.4 MARKET	75
6.5 FORESTS	79
6.6 CAVES	83
6.7 PORTAL	87

07 SETTINGS

	91
7.1 BIBLIOGRAPHY	91
7.2 FIGURES	93



HOME

41°24'12.2"N, 2°10'26.5"E

01 | CHAPTER



LOADING

TO EMPHASIZE THE POWER OF INNOVATION, THIS BACKGROUND WAS TAKEN FROM A PROJECT RENDER OR CONCEPT FROM THIS THESIS AND POST PROCESSED IN DRAMATIC FORMAT FOR THE CONCEPT OF THIS BOOK AS A VIDEO GAME. THE MIDJOURNEY AI PROGRAM WAS USED IN A SPECIFIED ART STYLE. PHOTOS ARE LATER UPSCALED IN NIGHTMAREAI/REAL-ESGARAN API.

FINAL REFINED PROMPT:
UTILIZE THE UPLOADED PHOTO. POV, URBAN PARK WITH ROLLING GREEN HILLS AND VARIOUS PARAMETRIC BUILDING IN VIEWS, OVERLOOKING A RIVER WITH A CITY IN THE BACKGROUND, VALORANT VIDEO GAME STYLE, DESCRIPTION, VISUAL ILLUSTRATION ANIMATION.



ABSTRACT

IN A WORLD DOMINATED BY MUNDANE ENVIRONMENTS, THIS THESIS PROPOSES A NOVEL APPROACH TO DESIGNING PUBLIC SPACES THAT INTEGRATE GAME DESIGN PRINCIPLES AND EXTENDED REALITY TECHNOLOGY. BY EMBRACING THE INHERENT LUDIC BEHAVIOR FOUND IN HUMAN NATURE AND GAMES, I AIM TO ELEVATE EVERYDAY EXPERIENCES.

THIS RESEARCH DELVES INTO THE CAPABILITIES OF EXTENDED REALITY TECHNOLOGY, PSYCHOLOGY OF PLAY AND ITS CULTURAL AND SOCIETAL BACKGROUND, PSYCHOLOGY OF HUMAN ARCHETYPES, AND GAME DESIGN COMPONENTS AS AN EXTRACTION FOR ARCHITECTURAL TYPOLOGIES.

KEY FINDINGS REVEAL THAT BY ANALYZING GAME COMPONENTS, DESIGN LANGUAGES ARE FORMED AND CAN BE USED TO DEVELOP FEASIBLE ARCHITECTURAL TYPOLOGIES. THE SIGNIFICANCE OF EPHEMERALITY IN ARCHITECTURE IS ALSO REVEALED AS A MIRRORING CONCEPT FOR THE NEED OF FREQUENT UPDATES IN GAMES TO MAINTAIN STIMULATION. THERE MUST ALSO BE AN EMPHASIS ON UNDERSTANDING THAT TYPICAL SPACE USERS MAY HAVE DIFFERENT EMOTIONS AND TENDENCIES COMPARED TO GAME USERS, AND THUS, SPACES MUST BE DESIGNED TO COEXIST HARMONIOUSLY WITH THEIR USERS.

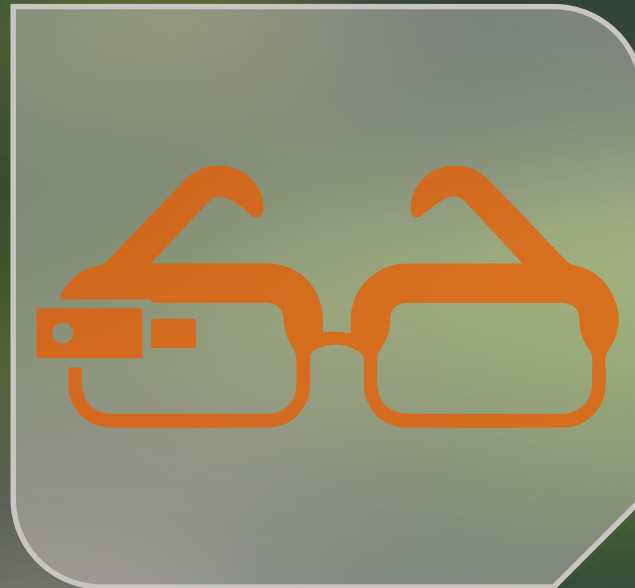
ARCHITECTURE



GAME DESIGN



TECHNOLOGY



PSYCHOLOGY



INTRODUCTION

THE ARCHITECTURE INDUSTRY HAS FACED CERTAIN CHALLENGES IN EMBRACING NEW TECHNOLOGY OVER THE PAST CENTURY. GIVEN THE RAPID PACE OF THE INDUSTRY, ONE WOULD EXPECT ARCHITECTURE TO BE ABLE TO ADAPT TO NOVEL IDEAS. HOWEVER, AN EXAMINATION OF OUR BUILT ENVIRONMENT REVEALS A DISCONNECT BETWEEN ARCHITECTS, DEVELOPERS, AND TENANTS. REGRETTABLY, GREED HAS TAKEN HOLD OF THE INDUSTRY, RESULTING IN AN ENVIRONMENT THAT FAILS TO STIMULATE OR INSPIRE. OUR KNOWLEDGE HAS MADE US CYNICAL, AND OUR CLEVERNESS HAS BECOME HARD AND UNKIND. WE HAVE BECOME TOO PREOCCUPIED WITH THINKING AND HAVE LOST TOUCH WITH OUR EMOTIONS.

A REVIEW OF THE CURRENT STATE OF ARCHITECTURE IN AMERICA UNDERSCORES THE FACT THAT WE ARE LIVING IN HARSH, UNFORGIVING STRUCTURES THAT OFFER NOTHING MORE THAN A BASIC SHELTER. IT IS TIME TO REFLECT UPON THE SITUATION AND TAKE ACTION. IT IS OUR COLLECTIVE RESPONSIBILITY TO IMPROVE OUR SURROUNDINGS, AND WE HAVE THE POWER TO DO SO. WE HAVE CREATED MACHINES THAT CAN PRODUCE REMARKABLE ACHIEVEMENTS, AND WE CAN HARNESS THESE TECHNOLOGICAL ADVANCES TO CREATE HAPPINESS AND ENHANCE OUR LIVES.

VIDEO GAMES OFFER A COMPELLING EXAMPLE OF THE INDOMITABLE HUMAN SPIRIT. DESPITE ENCOUNTERING SETBACKS, GAMERS REFUSE TO END ON A LOSS, PERSISTING UNTIL THEY ACHIEVE A FINAL VICTORY. THIS MINDSET COULD SERVE AS AN INSPIRATION FOR US ALL. IF WE CAN APPLY THIS MENTALITY TO OUR DAILY LIVES, WE CAN CREATE AN INDUSTRY THAT RESISTS BEING PUSHED AROUND AND REFUSES TO BE CONFINED TO OUTDATED PRACTICES. WE CAN EMBRACE NEW TECHNOLOGY AND ADAPT IT TO SERVE THE NEXT GENERATION.

METHODOLOGY

THE METHODOLOGY FOR THIS PROJECT INVOLVES RESEARCHING CAPABILITIES OF EXTENDED REALITY TECHNOLOGY AND ITS PROJECTED FUTURE GROWTH IS THE FIRST STEP IN THIS METHODOLOGY. THIS INCLUDES LOOKING AT THE POTENTIAL APPLICATIONS OF EXTENDED REALITY TECHNOLOGY IN DIFFERENT INDUSTRIES AND HOW IT MAY EVOLVE OVER TIME.

UNDERSTANDING THE PSYCHOLOGY OF HOW HUMANS PLAY AND HOW GAMES IMPACT OUR CULTURE AND SOCIETY IS THE SECOND STEP. THIS INVOLVES STUDYING THE WORK OF MIHALY CSIKSZENTMIHALYI, WHO HAS HIGHLIGHTED THE IMPORTANCE OF PLAY IN LEARNING AND DEVELOPMENT, AS WELL AS HOW GAMES CAN INFLUENCE OUR BEHAVIOR AND BELIEFS.

THE THIRD STEP IS TO EXAMINE THE PSYCHOLOGY OF ARCHETYPES AND HOW THEY INFORM WHO PEOPLE ARE AND WHAT KIND OF GAMES THEY ENJOY. THIS IS BASED ON THE WORK OF CAROL PEARSON AND CARL JUNG, WHO HAVE IDENTIFIED VARIOUS ARCHETYPES THAT CAN BE FOUND IN LITERATURE, MYTHOLOGY, AND EVEN VIDEO GAMES.

NEXT, THE METHODOLOGY DELVES INTO GAME DESIGN PSYCHOLOGY, SPECIFICALLY FOCUSING ON THE TYPES OF GAMES WE SEE TODAY AND HOW THEY CORRELATE TO PLAYER TYPE, WHICH THEN CORRELATE TO THE ARCHETYPE THEY ARE. TRACEY FULLERTON'S WORK HAS BEEN PARTICULARLY HELPFUL IN THIS REGARD.

THE ULTIMATE GOAL IS TO USE THIS KNOWLEDGE TO INFORM THE DESIGN OF SPACES THAT APPLY EXTRACTED TYPOLOGIES FROM GAMES TO ALLOW PEOPLE TO EXPERIENCE THOSE SPACES IN AN ELEVATED LUDIC MANNER. WE WILL ALSO DESIGN SPACES WITH TYPICAL USERS' EMOTIONS AND TENDENCIES IN MIND, ENSURING THAT THEY CAN CO-EXIST WITH GAME USERS WITHOUT TENSION.

PSYCHOLOGY

UNDERSTANDING PSYCHOLOGY IS ESSENTIAL WHEN STUDYING GAME DESIGN BECAUSE IT HELPS IN CREATING ENGAGING EXPERIENCES FOR PLAYERS. BY UNDERSTANDING THE CONCEPT OF FLOW, GAME DESIGNERS CAN CREATE GAMES THAT KEEP PLAYERS ENGAGED AND MOTIVATED. FLOW IS A PRIMAL STATE OF ENGAGEMENT THAT PEOPLE EXPERIENCE NOT ONLY DURING GAMEPLAY BUT ALSO DURING EVERYDAY TASKS. GAME DESIGNERS MUST MAINTAIN FLOW TO ENSURE PLAYERS REMAIN INTERESTED AND IMMersed IN THE GAME. ADDITIONALLY, UNDERSTANDING THE 12 HUMAN ARCHETYPES OUTLINED BY ANALYTICAL PSYCHOLOGY BY CARL JUNG AND CAROL PEARSON CAN HELP GAME DESIGNERS ALIGN GAME TYPES WITH PLAYERS' PERSONALITIES. THIS UNDERSTANDING CAN RESULT IN CREATING GAMES THAT PLAYERS ENJOY AND RELATE TO, LEADING TO A HIGHER CHANCE OF SUCCESS.⁴ GAMES HAVE BEEN USED FOR CENTURIES AS A WAY TO LEARN AND DEVELOP. PLAY IS NOT JUST FOR CHILDREN, BUT ALSO ADULTS, AND IT CAN HELP MAINTAIN PROPER BRAIN FUNCTION. THE CULTURAL AND SOCIETAL SIGNIFICANCE OF GAMES HAS BEEN STUDIED EXTENSIVELY BY RESEARCHERS AND SCHOLARS, REVEALING THE WAYS IN WHICH GAMES HAVE SHAPED HUMAN HISTORY. WITH THIS KNOWLEDGE, GAME DESIGNERS CAN CREATE GAMES THAT ARE CULTURALLY AND SOCIALLY RELEVANT AND HAVE A DEEPER IMPACT ON PLAYERS. OVERALL, UNDERSTANDING PSYCHOLOGY IS CRUCIAL FOR GAME DESIGNERS TO CREATE ENGAGING EXPERIENCES THAT ARE NOT ONLY ENTERTAINING BUT ALSO HAVE A POSITIVE IMPACT ON PLAYERS' COGNITIVE AND SOCIAL DEVELOPMENT.

CULTURE OF PLAY

PLAY IS A FUNDAMENTAL AND UBIQUITOUS HUMAN ACTIVITY THAT HAS SERVED VARIOUS PURPOSES THROUGHOUT HISTORY. IT CAN MANIFEST IN MANY FORMS SUCH AS PHYSICAL ACTIVITIES, GAMES, SPORTS, AND IMAGINATIVE PLAY, AND IT HAS BEEN RECOGNIZED AS AN ESSENTIAL PART OF HUMAN DEVELOPMENT AND SOCIALIZATION. ACROSS DIFFERENT CULTURES, PLAY HAS BEEN VALUED AND CELEBRATED, WITH MANY CULTURES HAVING DEVELOPED ELABORATE SYSTEMS OF GAMES AND TRADITIONS SURROUNDING PLAY THAT REFLECT THEIR BELIEFS AND VALUES.⁷ TODAY, THE STUDY OF THE CULTURAL AND HISTORICAL SIGNIFICANCE OF PLAY IS A GROWING FIELD, PROVIDING VALUABLE INSIGHTS INTO HOW PLAY HAS SHAPED HUMAN HISTORY AND UNDERSTANDING THE CRUCIAL ROLE IT PLAYS IN OUR LIVES.



FIG. 1. DRAWINGS OF ANIMAL FIGURES IN THE LIFE-SIZE REPLICA OF CHAUVET CAVE IN SOUTHERN FRANCE. THE IDEA OF PAINTING IS A TYPE OF PLAY THROUGH ENTERTAINMENT SHOWN IN PREHISTORIC TIMES



FIG. 2. IMAGE CAPTURE OF HOPI DOING A SNAKE DANCE IN CA. 1896. ANOTHER EXAMPLE OF HOW PLAY IS USED TO LEARN HOW TO BE STEALTHY WHILE HUNTING OR FOR WARFARE.

FLOW OF PLAY

MIHALY CSIKSZENTMIHALYI, A HUNGARIAN-AMERICAN PSYCHOLOGIST, IS WIDELY KNOWN FOR HIS WORK ON THE FLOW STATE AND ITS APPLICATIONS IN VARIOUS FIELDS, INCLUDING GAME DESIGN. CSIKSZENTMIHALYI'S RESEARCH HAS SHOWN THAT THE FLOW STATE IS NOT ONLY ENJOYABLE BUT ALSO LINKED TO INCREASED CREATIVITY, PRODUCTIVITY, AND OVERALL WELL-BEING. HE BELIEVES THAT ACHIEVING THE FLOW STATE REQUIRES A BALANCE BETWEEN CHALLENGE AND SKILL, AND THAT GAME DESIGNERS CAN USE THIS KNOWLEDGE TO CREATE GAMES THAT ARE NOT ONLY ENTERTAINING BUT ALSO PROMOTE PERSONAL GROWTH AND DEVELOPMENT.

GAME DESIGNERS CAN INCORPORATE CSIKSZENTMIHALYI'S IDEAS INTO THEIR WORK BY CAREFULLY CRAFTING THE CHALLENGES AND REWARDS IN THEIR GAMES TO ENSURE THAT PLAYERS ARE CONSTANTLY ENGAGED IN THE FLOW STATE.³ THIS MEANS CREATING A SENSE OF PROGRESSION THROUGH THE GAME THAT GRADUALLY INCREASES THE DIFFICULTY OF THE CHALLENGES WHILE ALSO ENSURING THAT THE PLAYER HAS THE SKILLS NECESSARY TO MEET THOSE CHALLENGES. BY ACHIEVING THIS BALANCE, GAME DESIGNERS CAN CREATE GAMES THAT NOT ONLY PROVIDE A SENSE OF ENTERTAINMENT BUT ALSO HELP PLAYERS IMPROVE THEIR SKILLS AND ENJOY A SENSE OF PERSONAL GROWTH AND ACCOMPLISHMENT.

THERE IS ALSO ANOTHER FACTOR THAT PLAYS UPON THE AFFORDANCES OF PLAY. KINETICS. THE PLAY RHYTHM--OR FLOW--IS NOT SIMPLY AN INTERACTION BETWEEN OURSELVES, BUT BETWEEN THE PLAYER AND THE ENVIRONMENT, OBJECT, OR OTHER PLAYER. AS KOOLHAAS EXPRESSED A SIMILAR NOTION OF TEMPO AND MOVEMENT OF A CITY AS THE INFLUENCER OF OUR PLAY.⁴

OVERALL, UNDERSTANDING THE FLOW AND ITS IMPACT ON HUMAN MOTIVATION IS CRUCIAL WHEN IT COMES TO GAME DESIGN. CREATING GAMES THAT FOSTER THIS STATE OF MIND CAN LEAD TO A MORE ENGAGING AND ENJOYABLE EXPERIENCE FOR PLAYERS. GAME DESIGNERS NEED TO ENSURE THAT THE CHALLENGES AND SKILLS OF THE GAME ARE CAREFULLY BALANCED TO CREATE A GAME THAT ALLOWS PLAYERS TO EXPERIENCE THE FLOW.

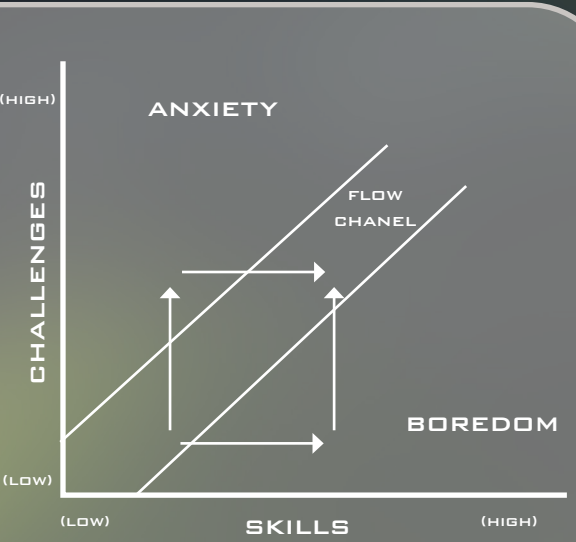


FIG. 3. REMIX OF THEORY OF FLOW, TAKEN FROM MIHALY CSIKSZENTMIHALYI THIS GRAPH SHOWS HOW WE ARE STIMULATED BY PLAY AND HOW WE CAN MAINTAIN A CONSTANT FLOW.

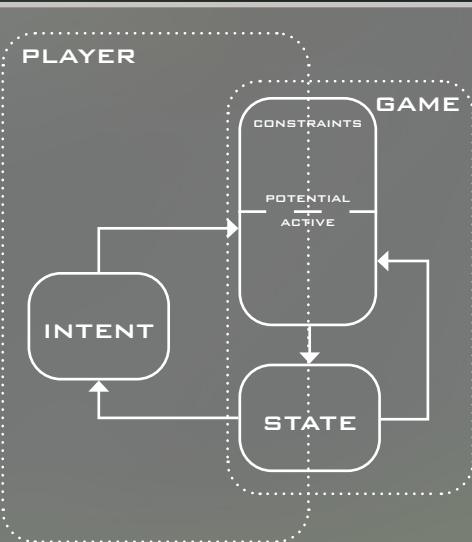


FIG. 4. REMIX OF THE ACTION OF GAMING BY STEPHAN P. WALTZ. THEORY OF ACTION AND POTENTIAL OF A GAME.

	PLAYER A	PLAYER B	SPACE	OBJECT
PLAYER A	PLAYER A << PLAYER A	PLAYER A << PLAYER B	PLAYER A << SPACE	PLAYER A << OBJECT
PLAYER B	PLAYER B << PLAYER A	PLAYER B << PLAYER B	PLAYER B << SPACE	PLAYER B << OBJECT
SPACE	SPACE << PLAYER A	SPACE << PLAYER B	SPACE << SPACE	SPACE << OBJECT
OBJECT	OBJECT << PLAYER A	OBJECT << PLAYER B	OBJECT << SPACE	OBJECT << OBJECT

FIG. 5. TABLE OF PLAY STIMULUS, REMIXED FROM STEPHEN P. WALTZ PLAY STIMULUS. THIS SHOWS THE WAY WE INTERACT WITH PEOPLE, OBJECTS, OR SURROUNDINGS THROUGH MEASURED UNITS OF DIRECTION AND INTENSITY IN THE WAY WE MOVE THROUGH GAMES, PHYSICAL OR MENTALLY.

TYPES OF FUN

NICOLE LAZZARD, A GAME DESIGNER AND RESEARCHER, OUTLINES THE FOUR TYPES OF FUN THAT PEOPLE CAN EXPERIENCE WHILE PLAYING GAMES. THE FIRST TYPE IS HARD FUN, WHICH IS CHARACTERIZED BY A FOCUS ON SKILL MASTERY AND CHALLENGES THAT REQUIRE EFFORT AND PERSISTENCE. THIS TYPE OF FUN OFTEN REQUIRES REPETITION AND PRACTICE TO OVERCOME OBSTACLES AND REACH GOALS. FROM THIS TYPE OF FUN, INDIVIDUALS CAN EXPECT A SENSE OF ACCOMPLISHMENT AND SATISFACTION IN THEIR OWN ABILITIES.

THE SECOND TYPE OF FUN IS EASY FUN, WHICH IS ASSOCIATED WITH IMAGINATION AND EXPLORATION. THIS TYPE OF FUN ALLOWS PLAYERS TO ENGAGE WITH THEIR CREATIVITY AND EXPLORE NEW WORLDS AND EXPERIENCES. EASY FUN CAN PROVIDE A SENSE OF WONDER AND EXCITEMENT, AND IT IS OFTEN CHARACTERIZED BY GAMES WITH LOW BARRIERS TO ENTRY AND A FOCUS ON PLAYER FREEDOM AND CHOICE.

THE THIRD TYPE OF FUN IS PEOPLE FUN, WHICH EMPHASIZES SOCIAL BONDING AND CONNECTION. THIS TYPE OF FUN IS OFTEN ASSOCIATED WITH MULTIPLAYER GAMES AND COOPERATIVE PLAY, AND IT CAN PROVIDE PLAYERS WITH A SENSE OF COMMUNITY AND SHARED EXPERIENCE. FROM PEOPLE FUN, INDIVIDUALS CAN EXPECT TO BUILD RELATIONSHIPS AND STRENGTHEN EXISTING ONES.

THE FOURTH AND FINAL TYPE OF FUN IS SERIOUS FUN, WHICH IS FOCUSED ON MEANING AND VALUE. THIS TYPE OF FUN IS OFTEN ASSOCIATED WITH GAMES THAT HAVE A STRONG NARRATIVE OR EDUCATIONAL ELEMENT, AND IT CAN PROVIDE PLAYERS WITH A SENSE OF PURPOSE AND PERSONAL GROWTH. FROM SERIOUS FUN, INDIVIDUALS CAN EXPECT TO GAIN KNOWLEDGE, INSIGHT, AND A SENSE OF PERSONAL FULFILLMENT.

UNDERSTANDING THESE FOUR TYPES OF FUN IS IMPORTANT BECAUSE IT HIGHLIGHTS THE FACT THAT FUN IS NOT ALWAYS JUST WHAT WE PERCEIVE IT TO BE AT FACE VALUE. FROM EACH TYPE OF FUN, INDIVIDUALS CAN EXPECT A CERTAIN LEVEL OF SKILL MASTERY AND REPETITION, DEPENDING ON THE SITUATION THEY PLACE THEMSELVES IN.

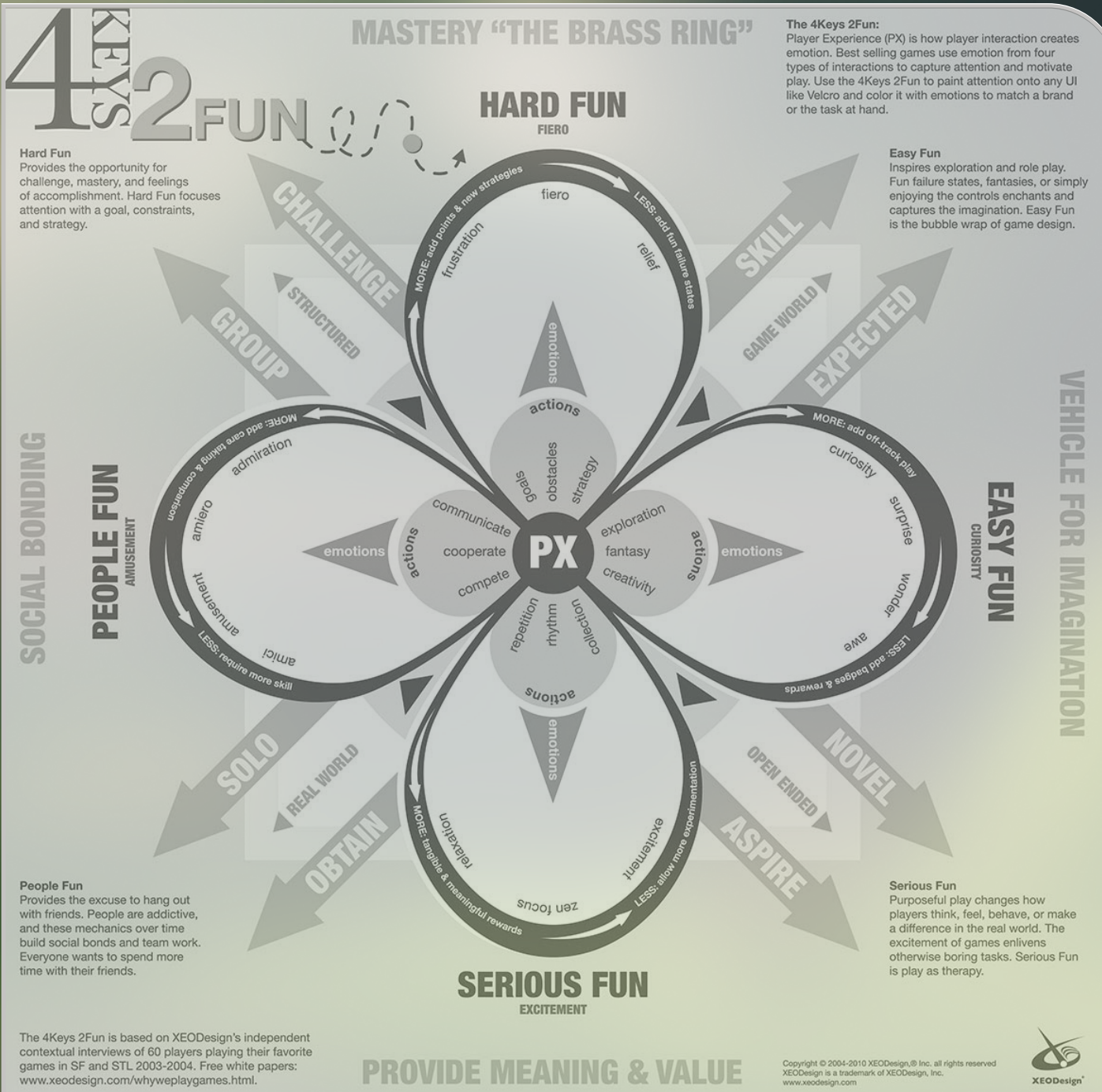


FIG. 6 : FOUR KEYS 2 FUN. EXPLAINS THE VARYING LEVELS OF FUN THAT WE CAN FLUCTUATE THROUGH

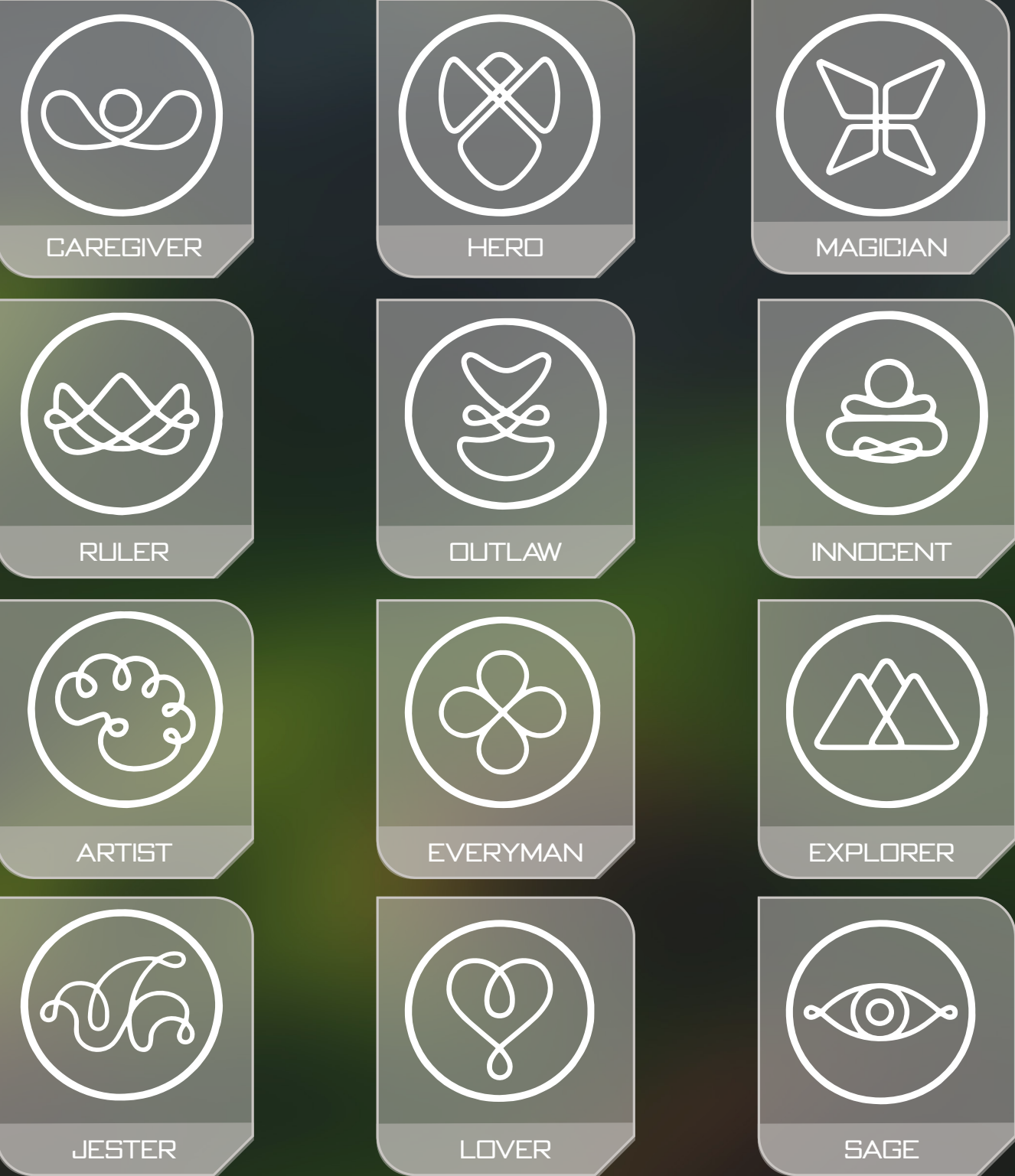
HUMAN ARCHETYPES

HUMAN ARCHETYPES ARE SIGNIFICANT IN GAME DESIGN AND ARCHITECTURE BECAUSE THEY ALLOW DESIGNERS TO CREATE EXPERIENCES THAT RESONATE WITH PLAYERS ON A DEEPER LEVEL. THE CONCEPT OF ARCHETYPES COMES FROM ANALYTICAL PSYCHOLOGY, PIONEERED BY CARL JUNG AND CAROL PEARSON, WHO IDENTIFIED 12 COMMON ARCHETYPES THAT OUTLINE THE KIND OF PEOPLE WE ARE. THESE ARCHETYPES REPRESENT UNIVERSAL PATTERNS OF BEHAVIOR, PERSONALITY TRAITS, AND MOTIVATIONS THAT ARE PRESENT ACROSS ALL CULTURES AND SOCIETIES.¹⁶

IN GAME DESIGN, UNDERSTANDING THESE ARCHETYPES CAN HELP DESIGNERS CREATE CHARACTERS, STORYLINE, AND GAME MECHANICS THAT ALIGN WITH PLAYERS' PERSONALITIES AND MOTIVATIONS. FOR EXAMPLE, A PLAYER WHO IDENTIFIES STRONGLY WITH THE "EXPLORER" ARCHETYPE MAY BE DRAWN TO GAMES THAT OFFER OPEN-WORLD EXPLORATION AND DISCOVERY, WHILE A PLAYER WHO IDENTIFIES WITH THE "ACHIEVER" ARCHETYPE MAY BE MOTIVATED BY GAMES THAT OFFER CLEAR GOALS AND MEASURABLE PROGRESS.¹⁸

SIMILARLY, IN ARCHITECTURE, UNDERSTANDING THE ARCHETYPES CAN INFORM DESIGN CHOICES THAT RESONATE WITH PEOPLE ON A SUBCONSCIOUS LEVEL. FOR INSTANCE, A BUILDING THAT INCORPORATES ELEMENTS OF THE "SAGE" ARCHETYPE, WHICH REPRESENTS WISDOM AND KNOWLEDGE, MAY BE DESIGNED WITH QUIET SPACES FOR CONTEMPLATION AND REFLECTION, WHILE A BUILDING THAT INCORPORATES ELEMENTS OF THE "WARRIOR" ARCHETYPE, WHICH REPRESENTS STRENGTH AND COURAGE, MAY BE DESIGNED WITH BOLD AND DYNAMIC FORMS.

OVERALL, UNDERSTANDING THE HUMAN ARCHETYPES IS A VALUABLE TOOL FOR DESIGNERS IN BOTH GAME DESIGN AND ARCHITECTURE, ALLOWING THEM TO CREATE EXPERIENCES THAT CONNECT WITH PEOPLE ON A DEEPER LEVEL AND ENGAGE THEM IN MEANINGFUL AND FULFILLING WAYS.



GAME DESIGN

UNDERSTANDING GAME DESIGN IS SIGNIFICANT IN THIS THESIS BECAUSE IT PROVIDES A FRAMEWORK FOR ANALYZING AND CATEGORIZING GAMES BASED ON THEIR UNDERLYING MECHANICS, THEMES, AND PLAYER EXPERIENCES. THE FOUR C’S - CREATIVITY, CRITICAL THINKING, CHAOS, AND CALMNESS - SERVE AS A USEFUL TOOL FOR BREAKING DOWN THE ELEMENTS THAT MAKE UP EACH GAME GENRE. THIS UNDERSTANDING ALLOWS FOR A DEEPER EXPLORATION OF HOW GAMES STIMULATE PLAYERS THROUGH DIFFERENT TYPES OF CHALLENGES AND REWARDS.

ANOTHER IMPORTANT ASPECT OF GAME DESIGN IS THE RATE OF CHANGE. ⁴ AS PLAYERS BECOME MORE SKILLED, GAME DESIGNERS NEED TO INTRODUCE NEW CHALLENGES AND ENTITIES TO MAINTAIN PLAYER ENGAGEMENT. UNDERSTANDING HOW TO PACE THESE CHANGES IS ESSENTIAL TO ENSURING THAT PLAYERS REMAIN MOTIVATED TO CONTINUE PLAYING THE GAME.

ADDITIONALLY, DIFFERENT GAME GENRES CAN ELICIT DIFFERENT TYPES OF STIMULI, WHETHER IT BE SOCIAL BONDING, IMAGINATION, MASTERY, OR A SENSE OF MEANING AND VALUE. RECOGNIZING THESE STIMULI CAN HELP GAME DESIGNERS TO CREATE GAMES THAT CATER TO SPECIFIC PLAYER DESIRES AND PROVIDE UNIQUE EXPERIENCES.



FIG. 7. IMAGE OF TRACEY FULLERTON, UCF PROFESSOR OF GAME DESIGN. NOTABLE SCHOLAR IN GAME DESIGN.

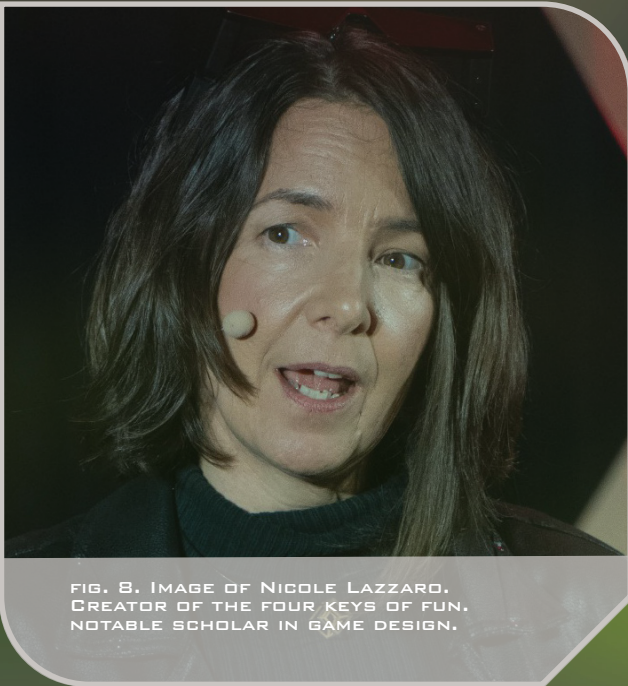


FIG. 8. IMAGE OF NICOLE LAZZARO, CREATOR OF THE FOUR KEYS OF FUN. NOTABLE SCHOLAR IN GAME DESIGN.



FIG. 9. IMAGE OF JESSE SHELL, CREATOR OF THE FOUR KEYS OF FUN. NOTABLE SCHOLAR IN GAME DESIGN.

PLAY STIMULUS

FRITZ’S ELEVEN STIMULI FOR PLAY ARE ESSENTIAL IN CREATING ENGAGING AND SUCCESSFUL GAME EXPERIENCES. THE STIMULI INCLUDE CONTESTING, RISK-TAKING, AMUSING, PURSUING VERTIGO, MEDITATING, COLLECTING, ROLE-PLAYING, SAVORING, CREATING, AND PROBLEM-SOLVING. THESE SOURCES OF STIMULUS CAN BE FOUND IN VARIOUS PLAY CONSTRUCTS, INCLUDING FELLOW PLAYERS, OBJECTS, OR SPACES, AND CAN BE COMBINED IN VARYING INTENSITIES TO CREATE UNIQUE PLAY EXPERIENCES.

CONTESTING INVOLVES COMPETITIVE GAMES SUCH AS SOCCER OR FIRST-PERSON SHOOTER GAMES. RISK-TAKING STIMULI EMBODY COURAGE OR ADVENTURE, WHILE AMUSING PLAY SITUATIONS CATER TO THE PLAYER’S HUMOR AND PROVIDE ENTERTAINMENT WITH THE HELP OF COMEDY ELEMENTS. PURSUING VERTIGO, ON THE OTHER HAND, INVOLVES ACTIVITIES THAT PROVIDE A THRILLING EXPERIENCE, SUCH AS RIDING A ROLLER COASTER. ⁴

MEDITATING PLAY SITUATIONS INCORPORATE BIOFEEDBACK SENSORS AND MEDITATION EXERCISES, MEASURING PLAYER-GENERATED PSYCHO-PHYSIOLOGICAL OUTPUT, AND TRAINING RELAXATION. COLLECTING STIMULUS CENTERS ON COMPLETING AND/OR SYSTEMATIZING A COLLECTION, WHILE ROLE-PLAYING INVOLVES MIMICKING OR ASSUMING DIFFERENT ROLES. SAVORING, ON THE OTHER HAND, MEANS AESTHETIC AND SENSUAL EXPERIENCES TRIGGERED BY ATMOSPHERES, SUCH AS GAZING AT LANDSCAPES OR PERFORMANCE SITUATIONS.

CREATING STIMULUS INVOLVES THE POSSIBILITY OF “TRANSCENDING ONESELF,” ⁵ WHERE PLAYERS CAN GENERATE, CONSTRUCT, AND DESIGN. LASTLY, PROBLEM-SOLVING PLAY SITUATIONS CONTAIN A PUZZLE, MENTAL CHALLENGE, OR SOMETHING TO UNRAVEL.

UNDERSTANDING THE DIFFERENT PLAY STIMULI IS CRUCIAL IN CREATING SUCCESSFUL GAME EXPERIENCES AND INFORMING REAL-WORLD DESIGN DECISIONS. BY UTILIZING THESE STIMULI IN VARYING INTENSITIES, GAME DEVELOPERS CAN CREATE UNIQUE AND ENGAGING PLAY EXPERIENCES THAT CATER TO THE PLAYER’S DESIRES AND MOTIVATIONS.

PLAY STIMULUS	EXEMPLARY TYPE OF KINESIS	PLAY PLEASURE SPACE
CONTESTING	ANY MOVMENT AIMING TO OUTMATCH. E.G. HITTING OR RACING	CONTEST SPACE
RISK-TAKING	MOVEMENTS WITH LIMITED PREDICTABILITY	RISKING TAKING SPACE
CHANCE	MOVEMENT IS ONLY TO SOME EXTENT CONTROLLED BY PARTICIPANT; INSTEAD, PLAY-MOVEMENT IS IMPOSED	CHANCE SPACE
ROLE-PLAYING	MAKE BELIEVE MOVMENTS WITH ASSUMED SELF EXECUTED, AGAINST A BACKGROUND, BEFORE THE BACKGROUND OF AN ORDINARY SELF.	ROLE-PLAYNG SPACE
AMUSING	LAUGHING	AMUSEMENT SPACE
MEDITATING	VIRTUAL MOVEMENTS OF FOCUSING MIND AND BODY.	MEDIATION SPACE
COLLECTING	POINT TO POINT MOVEMENT	COLLECTION SPACE
PURSUING VERTIGO	SPINNING OR SLOPING	VERTIGO SPACE
SAVORING	MOVING THE EYEBALLS; BEING MOVED	SAVORING SPACE
CREATING	MOVEMENTS NEEDED FOR ORGINATING	CREATION SPACE
PROBLEM-SOLVING	MOVEMENTS THAT BREAK SOMETHING DOWN INTO SMALLER PORBLEMS; BRAINSTORMING MOVEMENTS, SIMPLIFICATION MOVEMENTS	SOLVING SPACE
ADVENTURING	EXPLORING AND BOUNDARY SEEKING	ADVENTURE SPACE
ACHIEVING	LEVELING UP	ACHIEVEMENT SPACE
DIRECTING	STEERING AND CONTROLLING	DIRECTION SPACE
STORYTELLING	CONVEYING EVENTS ORALLY, OR OTHERWISE	STORY SPACE

FIG. 10. TABLE OF PLAY STIMULUS, REMIXED FROM STEPHEN P. WALTZ PLAY STIMULUS. HELP DELINEATE THE TYPE OF PLAY STIMULUS AND HOW IT WILL AFFECT PEOPLE MENTALLY AND PHYSICALLY.

GAME GENRES

UNDERSTANDING WHY PEOPLE ENJOY DIFFERENT TYPES OF GAMES CAN BE HELPFUL IN REAL-WORLD DESIGN BY HELPING GAME DEVELOPERS TAILOR THEIR GAMES TO DIFFERENT AUDIENCES. FOR EXAMPLE, IF A GAME IS DESIGNED TO APPEAL TO FANS OF ACTION-ADVENTURE GAMES, IT MAY INCLUDE ELEMENTS OF COMBAT AND PUZZLE-SOLVING.¹¹ SIMILARLY, IF A GAME IS DESIGNED TO APPEAL TO FANS OF PARTY GAMES, IT MAY PRIORITIZE MULTIPLAYER GAMEPLAY AND SOCIAL FEATURES. BY UNDERSTANDING WHAT DRIVES PLAYERS TO ENJOY DIFFERENT TYPES OF GAMES, DEVELOPERS CAN CREATE MORE ENGAGING AND SUCCESSFUL GAMES.

BELOW IS A LIST OF THE 12 VIDEO GAME TYPES:

- ACTION/ADVENTURE - EXCITING COMBAT, EXPLORATION, PUZZLE-SOLVING.
- ROLE-PLAYING GAMES (RPGs) - IMMERSIVE STORYTELLING, CHARACTER DEVELOPMENT.
- FIRST-PERSON/THIRD-PERSON SHOOTERS - THRILL OF COMBAT, STRATEGY.
- STRATEGY - RESOURCE MANAGEMENT, STRATEGIC THINKING.
- SIMULATION - SIMULATING REAL-WORLD ACTIVITIES.
- SANDBOX - FREEDOM TO EXPLORE AND CREATE.
- PLATFORMER - PRECISION AND TIMING IN NAVIGATING OBSTACLES.
- PUZZLE - CHALLENGE OF SOLVING COMPLEX PROBLEMS.
- PARTY - MULTIPLAYER GAMEPLAY, SOCIAL FEATURESBATTLE ROYALE - THRILL OF COMPETING AGAINST MANY OPPONENTS AT ONCE.
- HORROR - THRILL OF BEING SCARED, CHALLENGE OF OVERCOMING FEAR.
- SURVIVAL - CHALLENGE OF RESOURCE MANAGEMENT AND OVERCOMING OBSTACLES.

 <div>SANDBOX</div>	 <div>SURVIVAL</div>	 <div>SHOOTER</div>
 <div>ACTION ADVENTURE</div>	 <div>BATTLE ROYALE</div>	 <div>HORROR</div>
 <div>PARTY GAMES</div>	 <div>PLATFORMER</div>	 <div>PUZZLER</div>
 <div>ROLE PLAYING</div>	 <div>SIMULATOR</div>	 <div>REAL TIME STRATEGY</div>

PLAYER PROFILES

PLAYER TYPES REFER TO CATEGORIZATIONS OF PLAYERS BASED ON THEIR PERSONALITY TRAITS, MOTIVATIONS, AND BEHAVIORS IN GAMES. UNDERSTANDING PLAYER TYPES IS SIGNIFICANT TO THE THESIS ON PLAY STIMULUS BECAUSE DIFFERENT TYPES OF PLAYERS ARE MOTIVATED BY DIFFERENT STIMULI. BY IDENTIFYING PLAYER TYPES, GAME DESIGNERS CAN TAILOR THEIR GAMES TO SPECIFIC AUDIENCES AND PROVIDE MORE ENGAGING GAME EXPERIENCES. FOR EXAMPLE, A GAME DESIGNER MAY IDENTIFY A GROUP OF PLAYERS WHO ARE MOTIVATED BY PROBLEM-SOLVING AND CREATE A GAME THAT CHALLENGES PLAYERS TO SOLVE COMPLEX PUZZLES. ALTERNATIVELY, A DESIGNER MAY IDENTIFY PLAYERS WHO ARE MOTIVATED BY COMPETITION AND CREATE A GAME THAT EMPHASIZES COMPETITIVE GAME PLAY. BY CATERING TO DIFFERENT PLAYER TYPES, GAME DESIGNERS CAN CREATE GAMES THAT ARE MORE APPEALING AND ENJOYABLE TO A WIDER RANGE OF AUDIENCES, ULTIMATELY LEADING TO MORE SUCCESSFUL GAMES.

UNDERSTANDING PLAYER TYPES CAN BE RELEVANT TO MAKING ARCHITECTURAL DECISIONS BECAUSE IT CAN INFORM THE DESIGN OF SPACES AND BUILDINGS TO BETTER ACCOMMODATE THE NEEDS AND PREFERENCES OF DIFFERENT PLAYER TYPES. FOR EXAMPLE, IF A BUILDING IS DESIGNED TO CATER TO PLAYERS WHO PREFER SOCIALIZING AND EXPLORING, IT MIGHT HAVE LARGE COMMON AREAS AND INTERESTING ARCHITECTURAL FEATURES TO ENCOURAGE SOCIAL INTERACTION AND EXPLORATION. ALTERNATIVELY, IF THE BUILDING IS DESIGNED FOR PLAYERS WHO PREFER SOLO GAME PLAY AND IMMERSION, IT MIGHT HAVE PRIVATE ROOMS AND QUIET AREAS WITH MINIMAL DISTRACTIONS.

BY TAKING PLAYER TYPES INTO CONSIDERATION, ARCHITECTS CAN CREATE SPACES THAT NOT ONLY FUNCTION WELL BUT ALSO PROVIDE A BETTER EXPERIENCE FOR USERS, WHETHER IT'S FOR PLAYING GAMES, ENGAGING IN OTHER LEISURE ACTIVITIES, OR SIMPLY LIVING AND WORKING. THIS CAN ALSO LEAD TO INCREASED USER SATISFACTION AND ENGAGEMENT, WHICH CAN HAVE A POSITIVE IMPACT ON THE OVERALL SUCCESS AND REPUTATION OF THE BUILDING OR SPACE.

 <div>COMPETITOR</div>	 <div>EXPLORER</div>	 <div>COLLECTOR</div>
 <div>ACHIEVER</div>	 <div>JOKER</div>	 <div>ARTIST</div>
 <div>DIRECTOR</div>	 <div>STORY TELLER</div>	 <div>PERFORMER</div>
 <div>CRAFTSMAN</div>	 <div>SUPPORT</div>	 <div>BANDIT</div>

TECHNOLOGY


TECHNOLOGY PLAYS A SIGNIFICANT ROLE IN THIS THESIS ON PLAY AND ARCHITECTURE AS IT HAS THE POTENTIAL TO ENHANCE AND TRANSFORM THE EXPERIENCE OF PLAY IN THE BUILT ENVIRONMENT. DIGITAL TECHNOLOGIES, SUCH AS VIRTUAL AND AUGMENTED REALITY, CAN CREATE IMMERSIVE AND INTERACTIVE PLAY EXPERIENCES THAT BLUR THE LINES BETWEEN PHYSICAL AND VIRTUAL SPACES. THIS CAN ALLOW FOR NEW TYPES OF PLAY, SUCH AS EXPLORATION OF VIRTUAL WORLDS OR INTERACTION WITH DIGITAL OBJECTS WITHIN PHYSICAL SPACES.¹⁹

ADDITIONALLY, TECHNOLOGY CAN BE USED TO COLLECT DATA ON HOW PEOPLE INTERACT WITH SPACES AND GAMES, PROVIDING VALUABLE INSIGHTS INTO HOW TO DESIGN MORE ENGAGING AND SUCCESSFUL PLAY EXPERIENCES. FURTHERMORE, ADVANCES IN MATERIAL SCIENCE AND DIGITAL FABRICATION TECHNOLOGIES HAVE THE POTENTIAL TO CREATE NEW TYPES OF PLAYFUL STRUCTURES AND OBJECTS THAT CAN ADAPT TO THE NEEDS OF DIFFERENT PLAYERS AND PLAY STYLES. OVERALL, TECHNOLOGY HAS THE POTENTIAL TO REVOLUTIONIZE THE WAY WE THINK ABOUT AND DESIGN FOR PLAY IN THE BUILT ENVIRONMENT, MAKING IT AN IMPORTANT CONSIDERATION FOR THIS THESIS.

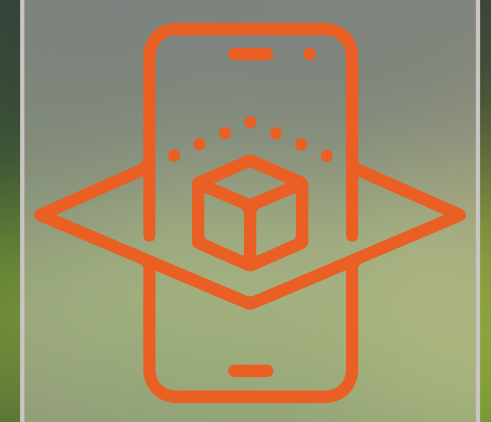
EXTENDED REALITY

EXTENDED REALITY (XR) IS A TERM THAT REFERS TO ALL IMMERSIVE TECHNOLOGIES, INCLUDING VIRTUAL REALITY (VR), AUGMENTED REALITY (AR), AND MIXED REALITY (MR). XR TECHNOLOGY IS DESIGNED TO ENHANCE THE USER'S EXPERIENCE BY PROVIDING A SEAMLESS BLEND OF THE PHYSICAL AND VIRTUAL WORLD.


VIRTUAL REALITY IS AN IMMERSIVE DIGITAL EXPERIENCE THAT IS COMPLETELY ARTIFICIAL AND OFTEN REQUIRES A HEADSET OR OTHER SPECIALIZED EQUIPMENT TO EXPERIENCE. AUGMENTED REALITY, ON THE OTHER HAND, OVERLAYS DIGITAL INFORMATION ONTO THE REAL WORLD, ALLOWING USERS TO INTERACT WITH BOTH THE PHYSICAL AND VIRTUAL ENVIRONMENT. MIXED REALITY IS A COMBINATION OF BOTH VR AND AR, WHERE DIGITAL OBJECTS AND INFORMATION ARE INTEGRATED INTO THE REAL WORLD, PROVIDING A MORE IMMERSIVE EXPERIENCE.



[VR] VIRTUAL REALITY



[AR] AUGMENTED REALITY



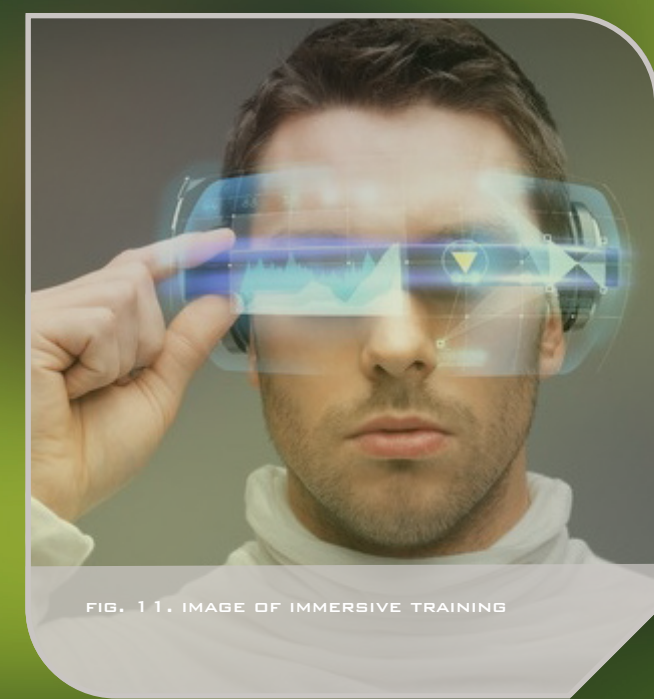
[MR] MIXED REALITY

APPLICATIONS

THE PROPOSED APPLICATIONS OF XR TECHNOLOGY IN THIS THESIS ARE TO ENHANCE THE EXPERIENCE OF PLAY AND EXPLORATION IN BUILT ENVIRONMENTS. THE USE OF XR TECHNOLOGY, SUCH AS AUGMENTED REALITY (AR) AND VIRTUAL REALITY (VR), CAN CREATE IMMERSIVE AND INTERACTIVE PLAY SPACES THAT ENCOURAGE EXPLORATION AND DISCOVERY. FOR EXAMPLE, AR CAN BE USED TO OVERLAY INFORMATION ABOUT THE BUILT ENVIRONMENT, SUCH AS HISTORICAL OR CULTURAL INFORMATION, ONTO THE PHYSICAL SPACE, MAKING IT MORE ENGAGING AND INFORMATIVE FOR PLAYERS. VR, ON THE OTHER HAND, CAN PROVIDE PLAYERS WITH A FULLY IMMERSIVE AND INTERACTIVE EXPERIENCE OF A VIRTUAL SPACE, ALLOWING THEM TO EXPLORE AND INTERACT WITH ARCHITECTURAL DESIGNS IN A MORE MEANINGFUL AND INTUITIVE WAY.

PARAMETERS

WEARABLE PARAMETERS FOR XR TECHNOLOGY IN THIS THESIS COULD INCLUDE BIOMETRIC SENSORS, EYE-TRACKING SENSORS, HAPTIC FEEDBACK DEVICES, MOTION CAPTURE SENSORS, AND ENVIRONMENTAL SENSORS. BIOMETRIC SENSORS TRACK PHYSIOLOGICAL RESPONSES OF PLAYERS, WHILE EYE-TRACKING SENSORS GATHER DATA ON PLAYER BEHAVIOR AND ENGAGEMENT. HAPTIC FEEDBACK DEVICES PROVIDE TACTILE FEEDBACK FOR GREATER IMMERSION, AND MOTION CAPTURE SENSORS TRACK NATURALISTIC MOVEMENTS FOR AVATARS. ENVIRONMENTAL SENSORS TRACK EXTERNAL FACTORS, ADJUSTING THE VIRTUAL ENVIRONMENT FOR COMFORT AND REALISM. THESE PARAMETERS CAN BE USED TO CREATE MORE PERSONALIZED, IMMERSIVE, AND REALISTIC PLAY EXPERIENCES, ULTIMATELY IMPROVING THE OVERALL DESIGN OF XR ENVIRONMENTS.



CRAFTING

48°8'22.2"S, 2°36'23.5"W

03 | CHAPTER



LOADING

TO EMPHASIZE THE POWER OF INNOVATION, THIS BACKGROUND WAS TAKEN FROM A PROJECT RENDER OR CONCEPT FROM THIS THESIS AND POST PROCESSED IN DRAMATIC FORMAT FOR THE CONCEPT OF THIS BOOK AS A VIDEO GAME. THE MIDJOURNEY AI PROGRAM WAS USED IN A SPECIFIED ART STYLE. PHOTOS ARE LATER UPSCALED IN NIGHTMAREAI/REAL-ESGARAN API.

FINAL REFINED PROMPT:
RETAIN THE IMAGE, BUT REMIX IT INTO A VALORANT VIDEO GAME ART STYLE. INCLUDE FORMULA ONE CARS. INCLUDE PEOPLE LOOKING DOWN FROM THE TOP RAILINGS. INCLUDE PEOPLE DOWN AT THE BOTTOM. INCLUDE A WOMAN WITH A GOOGLE HELEMT READY TO DRIVE AN AUGMENTED REALITY GAME.



LUDIC

USAGE IN ARCHITECTURE

THE CONCEPT OF LUDIC ARCHITECTURE AS ONLY SPROUTED RECENTLY WITH THE EXPLOSION OF TECHNOLOGY ESPECIALLY IN THE GAME DESIGN FIELD. IT MUST BE MADE CLEAR THAT WHEN I DISCUSS ‘LUDIC’ ARCHITECTURE, I MEAN ARCHITECTURE THAT INVOKES SPONTANEOUS PLAY AS A BEHAVIOR FOR LEARNING AND WORKING NOT AS JUST DESCRIBING ‘PLAYFUL FORM’ AS MANY WOULD ARGUE. IN STEPHEN WALZ BOOK TOWARDS A LUDIC ARCHITECTURE HE MENTIONS THE “KINETIC DIMENSION” WHERE IF DESIGNERS ARE ATTEMPTING TO CREATE APPROPRIATE ARCHITECTURE THE MUST LOOK AT THE NOTIONS OF “MOVEMENT AND RHYTHM.” HE CONSTANTLY REFERS TO HENRI LEFEBVRE – A MARXIST AND SITUATIONIST PHILOSOPHER WHO PROPOSED THAT “THERE ARE DIFFERENT LEVELS OF SPACE, RANGING FROM CRUDE, NATURAL, ‘ABSTRACT SPACE’ TO ‘SOCIAL SPACE)’ (WALZ 2010).

ONE KEY WORD THAT STICKS OUT IS “LEVELS OF SPACE” AS IF LEFEBVRE WERE ALREADY SETTING UP A NOTION OF GAME AND PLAY THAT WE NOTICE IN OUR VIDEO GAMES OR REGULAR BOARD GAMES. AS IF IT WERE A HIERARCHY OF SKILL THAT ONE MUST LEARN BEFORE THEY CAN MASTER OR ATTEMPT TO MASTER AND MAINTAIN A REGULAR “STATE OF FLOW” AS DESCRIBED BY MIHALY CSIKSZENTMIHALYI WHO STATES THAT “HUMANS AND CULTURE ARE INTERTWINED BY PLAY AND GAMES AS A DRIVING FORCE FOR INNOVATION” (CSIKSZENTMIHALYI 2009). MOVING FURTHER WITH LUDIC ARCHITECTURE WE UNDERSTAND THAT THE MOST SUCCESSFUL LUDIC PROJECTS ARE ALMOST ALWAYS IN THE FORM OF CHILDREN’S PLAYGROUNDS. THERE IS A NOTION THAT SPONTANEOUS PLAYFUL BEHAVIOR IS ONLY NECESSARY FOR CHILDREN WHICH LEAVES OUT ADULTS.

ARCHITECTS SHOULD CONSIDER USING LUDIC BEHAVIOR, OR PLAYFULNESS, IN THEIR DESIGNS BECAUSE IT CAN CREATE MORE ENGAGING AND STIMULATING ENVIRONMENTS. PLAYFULNESS CAN BE INCORPORATED INTO ARCHITECTURAL DESIGN IN A VARIETY OF WAYS, SUCH AS INCORPORATING ELEMENTS THAT ENCOURAGE EXPLORATION AND EXPERIMENTATION, CREATING SPACES THAT ALLOW FOR FLEXIBILITY AND ADAPTABILITY, AND DESIGNING FOR SURPRISE AND NOVELTY. BY INCORPORATING ELEMENTS OF PLAYFULNESS INTO THEIR DESIGNS, ARCHITECTS CAN CREATE BUILT ENVIRONMENTS THAT ARE MORE ENGAGING AND STIMULATING

FOR USERS, AND THAT PROMOTE WELL-BEING AND A SENSE OF CONNECTION TO THE BUILT ENVIRONMENT. ADDITIONALLY, INCORPORATING LUDIC BEHAVIOR INTO ARCHITECTURAL DESIGN CAN HELP FOSTER A SENSE OF COMMUNITY AND PROMOTE SOCIAL INTERACTION AMONG USERS. OVERALL, INCORPORATING LUDIC BEHAVIOR INTO ARCHITECTURAL DESIGN CAN HELP CREATE MORE DYNAMIC AND ENGAGING BUILT ENVIRONMENTS THAT ENHANCE THE USER EXPERIENCE.

USAGE IN THESIS | CRITICISM

THE FACT OF THE MATTER IS THAT LUDIC ARCHITECTURE IS PRIMARILY FOR CHILDREN AS TOOLS FOR DEVELOPMENT, BUT WHY SHOULD THAT STOP AFTER PRIMARY SCHOOL YEARS? ARE ADULTS NOT CAPABLE OF BENEFITING FROM LUDIC ARCHITECTURE IN THEIR EVERYDAY LIVES? I AM NOT TALKING ABOUT PLACING PLAYGROUNDS IN OFFICES, BUT HAVING AN ARCHITECTURE THAT PUSHES THE USER TO BE STIMULATED AND CHALLENGED SIMILAR TO HOW THEY ARE DURING A WORK EVENT BUT WITHOUT THE BORING COMMENTARY. HOW MIGHT ARCHITECTURE CHANGE IF WE APPROACHED IT WITH A LEGITIMATE GOAL TO MAKE PEOPLE PLAY GAMES IN ARCHITECTURE RATHER THAN JUST CALLING IT “PLAYFUL” BY LOOK BUT TO BE PLAYFUL BY FUNCTION. LOOKING AT HOW GAME DESIGNERS CREATE SPACES IS A HEALTHY GUIDE AS THEY ARE SPATIAL AND PSYCHOLOGICAL AWARE OF HOW DIFFERENT TYPES OF ‘GAMERS’ PERCEIVE AND USE SPACES.

THIS THESIS AIMS TO DRAW OUT THE LUDIC BEHAVIOR OF EACH INDIVIDUAL AND CREATE STRUCTURES THAT TAILOR TO THEIR PERSONAL PREFERENCES THROUGH EPHEMERAL DESIGNS WITH THE SUPPLEMENT OF EXTENDED REALITY TECHNOLOGIES. IF PEOPLE WERE EXPOSED TO TRUE PLAYFUL EXPERIENCES, THERE COULD BE A CHANCE THAT A THEY CAN CULTIVATE STIMULATION AND HAPPINESS LEADING TO A HEALTHIER, INDEPENDENT SOCIETY AND INDIVIDUALS.

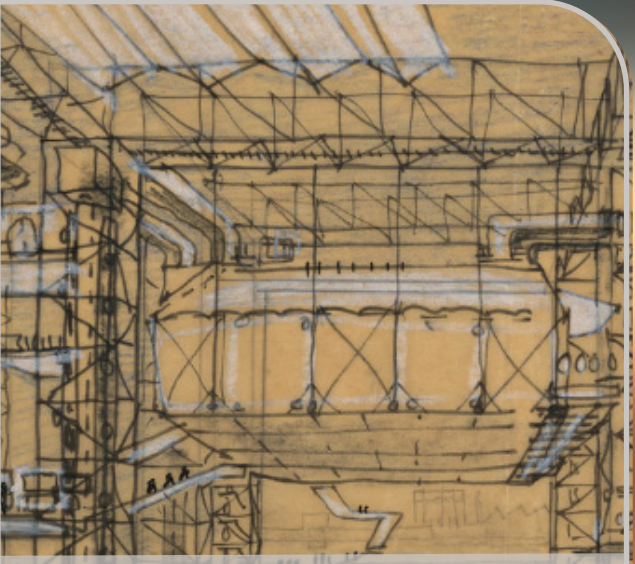


FIG. 14. SKETCH OF FUN PALACE, BY JOAN LITTLEWOOD AND CEDRIC PRICE.

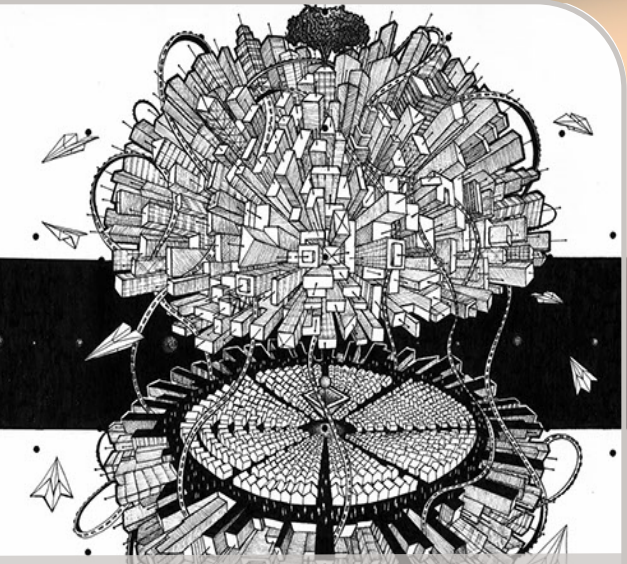


FIG. 15. CONCEPTUAL SKETCH OF REM KOOLHAAS' GENERIC CITY.



FIG. 16. PHOTOGRAPH OF CASA SCOUT



FIG. 17. PHOTOGRAPH OF SERPENTINE GALLERY

JOAN LITTLEWOOD’S ASPIRATION TO CREATE A DYNAMIC AND ACCESSIBLE SPACE FOR PLAY AND LEARNING LED TO CEDRIC PRICE’S FUN PALACE PROJECT. THE CONCEPT WAS CHARACTERIZED BY A MALLEABLE STRUCTURE THAT COULD BE RECONFIGURED BY USERS’ IMAGINATION, ALIGNED WITH LITTLEWOOD’S VISION. ALTHOUGH IT WAS NOT REALIZED, THE PROJECT’S ABSTRACT COMPONENTS, SUCH AS CRANES THAT COULD PLUG INTO DIFFERENT SPACES, WERE INNOVATIVE FOR ITS TIME AND SHOWCASED A LUDIC APPROACH TO DESIGN (MATHEWS 2007).

KOOLHAAS’ GENERIC CITY THEORY USES RHYTHM AND MOVEMENT TO DESIGN URBAN SPACES THAT CAN ACCOMMODATE CHANGE AND SOCIETAL SHIFTS (WALZ 2010). THE THEORY DRAWS SIMILARITIES TO GAME DESIGN, WHICH UPDATES AND CHANGES TO KEEP PLAYERS ENGAGED. A CITY DESIGNED WITH THIS THEORY AND A MELTING POT OF CULTURES CAN HAVE A BRILLIANT IDENTITY AND BE SUSTAINABLE (WALZ 2010).

CASA SCOUT IS AN ENVIRONMENTALLY-FOCUSED HOUSE DESIGNED FOR A GROUP OF SCOUTS WITH AN EMPHASIS ON INCLUSIVITY AND GROUP WORK. THE CENTRAL HUB IS SURROUNDED BY DOUBLE-HEIGHT VOIDS AND YARDS, PROVIDING A COMMON VIEW TO ALL ROOMS. THE DESIGN ENCOURAGES COMMUNICATION AND INTERACTION AMONG AGE GROUPS THROUGH SLIDING PARTITIONS AND DOOR-LIKE PANELS. EACH ROOM HAS OUTWARD WINDOWS AND WOODEN PARTITION OPENINGS FOR CROSS-VENTILATION, DIRECT SUNLIGHT, AND VIEWS OF THE STREET OR GARDEN.(“CASA SCOUT” 2015)

THE 2013 SERPENTINE PAVILION USED A GRID OF WHITE STEEL POLES AND TRANSLUCENT ACRYLIC PANELS TO CREATE A FOREST-LIKE STRUCTURE, COMBINING NATURALISTIC AND GEOMETRIC DESIGN LANGUAGES. THE PAVILION’S TEMPORARY NATURE INVITED VISITORS TO REFLECT ON THE PASSAGE OF TIME, WHILE THE SEMI-TRANSPARENT WALLS ENCOURAGED A CONNECTION TO THE SURROUNDING LANDSCAPE. THE DESIGN CREATED A FLEXIBLE AND MULTI-PURPOSE SOCIAL SPACE THAT ALLOWED VISITORS TO SHAPE THEIR OWN EXPERIENCE.

INTERACTIVE

USAGE IN ARCHITECTURE

THE CONCEPT OF INTERACTIVE ARCHITECTURE FIRST BEGAN TO BLOOM IN THE 20TH CENTURY WITH CEDRIC PRICES “FUN PALACE” WHERE CYBERNETICS AND PHYSICAL INTERACTIONS ARE MENTIONED. (‘MUSEUM’, N.D.). LATER ON THE FIRST ITERATIONS OF INTERACTIVE ARCHITECTURE WERE SIMPLY “STORYBOOK” INSTALLATIONS THAT CAPTURED ROUTINES OF PERSONAL LIVES; THE INNOVATION OF TECHNOLOGY AND “THE MACHINE”. CURRENT INTERACTIVE DESIGN IN ARCHITECTURE REFERS TO BUILDINGS OR TEMPORARY STRUCTURES THAT CONTAIN SENSORS, PROCESSORS, EFFECTORS THAT USERS CAN CONNECT TO AND AFFECT THE BUILDINGS PROGRAM OR PERFORMANCE IN TYPICALLY A PLAYFUL MANNER. MOST ATTEMPTS AT INTERACTIVE ARCHITECTURE IS TO PROVOKE OR ALLOW THE USER TO ‘ESCAPE’ FROM DAILY LIVES. MOST STRUCTURES ARE TEMPORAL AND USED FOR PUBLIC ENGAGEMENT. PLAYFULNESS INTO THEIR DESIGNS, ARCHITECTS CAN CREATE BUILT ENVIRONMENTS THAT ARE MORE ENGAGING AND STIMULATING FOR USERS, AND THAT PROMOTE WELL-BEING AND A SENSE OF CONNECTION TO THE BUILT ENVIRONMENT. ADDITIONALLY, INCORPORATING LUDIC BEHAVIOR INTO ARCHITECTURAL DESIGN CAN HELP FOSTER A SENSE OF COMMUNITY AND PROMOTE SOCIAL INTERACTION AMONG USERS. OVERALL, INCORPORATING LUDIC BEHAVIOR INTO ARCHITECTURAL DESIGN CAN HELP CREATE MORE DYNAMIC AND ENGAGING BUILT ENVIRONMENTS THAT ENHANCE THE USER EXPERIENCE.

USAGE IN THESIS | CRITICISM

CURRENTLY MOST INTERACTIVE ARCHITECTURE, IS A MEANS TO CONNECT PEOPLE IN A PUBLIC URBAN SPACE. THESE SPACE ARE PURELY PUBLIC AND HAVE BECOME MORE A ‘SPECTCLE’ TO INDUCE EMOTION OR THOUGHT (HESPANHOL, ET AL. 2016). LET ME PREFACE BY SAYING THAT IT IS NOT POINTLESS OR UNPRODUCTIVE – QUIET THE OPPOSITE INFACT. I BELIEVE THAT THESE TEMPORAL SPACES ARE JUST THE FIRST ITERATION OF WHAT WE CAN ACHIEVE. CURRENTLY, WE ARE LIMITED BY TECHNOLOGY; HOWEVER, WE KNOW THAT TECHNOLOGY HAS ONLY GROWN AT AN EXPONENTIAL RATE SINCE THE FIRST INDUSTRIAL AGE. I BELIEVE THAT INTERTWINING THE CURRENT TEMPORAL ‘SPECTCLES’ WE EXPERIENCE OUT IN THE

STREETS TO A MORE PERMANENT ‘INFRASTRUCTURE’ CAN CREATE A MORE HUMAN CITY THAT IS PRODUCTIVE AND MEANINGFUL. WHEN LOOKING AT THE CURRENT SPACES WE INTERACT WITH EVERY DAY, THEY ARE TYPICALLY EMOTIONLESS AND PITIFUL. NOW I WILL NOT SAY THAT WORK OR SCHOOL SHOULD ALWAYS BE JOYFUL. LIFE HAPPENS, BUT BY ALLOWING SPACES TO INTERTWINE WITH PEOPLE WE MIGHT FIND THAT PRODUCTIVITY AND SUCCESS WILL INCREASE. AS ANDREW CARNEIGE SAID: “THERE IS LITTLE SUCCESS WHERE THERE IS LITTLE LAUGHTER.” BY INVITING INTEGRATION OF TECHNOLOGY BETWEEN PEOPLE AND THEIR SURROUNDING SPACES THERE IS A LIKELY HOOD OF A MORE HUMAN SOCIETY. INCORPORATING INTERACTIVE DESIGN INTO ARCHITECTURAL PROJECTS CAN CREATE MORE ENGAGING AND DYNAMIC BUILT ENVIRONMENTS. INTERACTIVE DESIGN INVOLVES CREATING SPACES OR PRODUCTS THAT ALLOW USERS TO ACTIVELY ENGAGE WITH AND MANIPULATE THEM IN SOME WAY, OFTEN USING TECHNOLOGY. THIS CAN INCLUDE INCORPORATING INTERACTIVE ELEMENTS INTO THE PHYSICAL DESIGN OF A SPACE, SUCH AS USING TOUCH-SENSITIVE SURFACES OR MOVABLE ELEMENTS, AS WELL AS USING TECHNOLOGY TO ALLOW USERS TO INTERACT WITH A SPACE IN A DIGITAL OR VIRTUAL WAY. BY INCORPORATING INTERACTIVE DESIGN INTO THEIR PROJECTS, ARCHITECTS CAN CREATE BUILT ENVIRONMENTS THAT ARE MORE RESPONSIVE TO USER NEEDS AND PREFERENCES, AND THAT ENHANCE THE USER EXPERIENCE. IN THIS THESIS, THERE WILL LIKELY BE A NEED TO CREATE SYSTEMS OF INTEACTIONS WITH THE HELP OF EXTENDED REALITY TECHNOLOGY TO EMPAHSIS A SENSE OF COMMUNITY AND LUDIC BEHAVIOR.

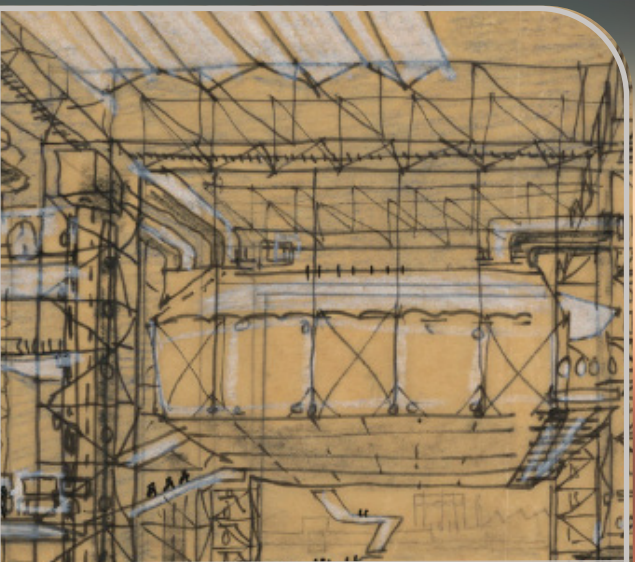


FIG. 14. SKETCH OF FUN PALACE, BY JOAN LITTLEWOOD AND CEDRIC PRICE.

THE FUN PALACE IS A MALLEABLE SPACE FOR A VARIETY OF PROGRAMS, DESCRIBED AS A “LABORATORY OF FUN” AND “A UNIVERSITY OF THE STREETS.” IT FEATURES A NETWORK OF INTERCONNECTED EXPERIENCES OF EDUCATION, STREET PLAY, PERFORMANCES, AND MORE. THE OPEN STEEL STRUCTURE IS SIMILAR TO LOGICAL GATEWAYS ON VIRTUAL DEVICES, AND CONTAINS MODULAR ELEMENTS ASSEMBLED BY AUTOMATED CRANES FOR PERSONALIZED SPACES. (HESPANHOL, ET AL. 2016)



FIG. 18. PHOTOGRAPH OF MEGAPHONE INSTALLATION IN QUEBEC

IN 2013, THE MEGAPHONE INSTALLATION PROVIDED A SOCIAL PLATFORM FOR CITIZENS TO VOICE THEIR OPINIONS ON MONTREAL-RELATED ISSUES. THE PROJECTION ON THE KENNEDY BUILDING WAS 105 X 29 METERS WITH 3,592 BY 1,008 PIXELS. THE PLATFORM BELOW HAD AN ‘OPEN-MIC’ AND URBAN FURNITURE FOR COMMUNITY MEMBERS TO PARTICIPATE. PASSERSBY COULD RECORD A MESSAGE AND BE ADDED TO THE DATABASE OF PROJECTED VISUALS, ALLOWING INDIVIDUALS AND COMMUNITIES TO REAPPROPRIATE PUBLIC SPACES (HESPANHOL, ET AL. 2016).

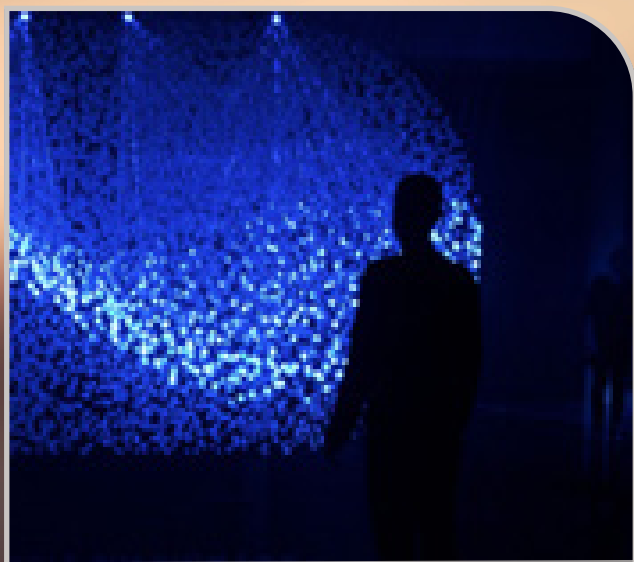


FIG. 19. PHOTO OF AN INSTALLATION IN MILAN, ITALY

THE PROTOTYPE OF A NEW FORM OF DISPLAY. THE INSTALLATION USE ALGORITHMS, LIGHTS, AND SENSORY TECHNOLOGY TO COMPOSE AN ORGANIZED DISPLAY OF WHAT APPEARS TO BE MOLECULES THAT REACT TO PEOPLE ENGAGING WITH THE INSTALLATION. THROUGH POSTURES AND GESTURES THE SENSORS RECOGNIZE THE MOVEMENT AND MOVE ITS LIGHT SENSORS TO REFLECT THE MOVEMENT OF THE USERS. IT IS ESSENTIALLY AN EVER CHANGING SCULPTURE BASED ON DYNAMIC HUMAN MOVEMENT.

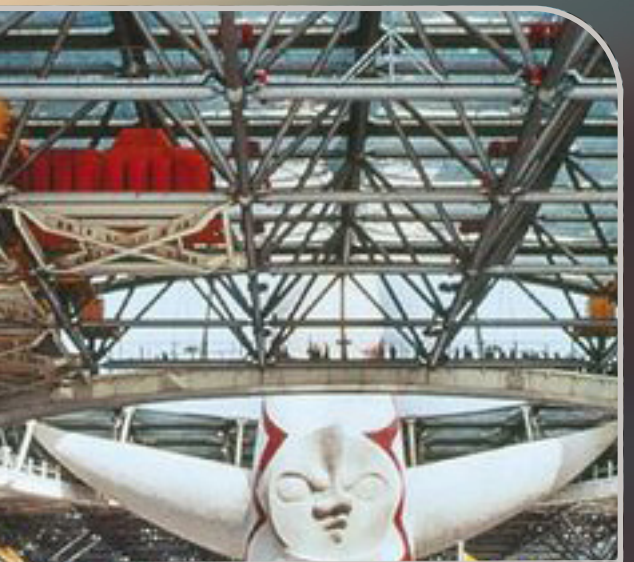


FIG. 20. PHOTO OF FESTIVAL PLAZA IN THE 70S

THE FESTIVAL PLAZA WAS THE CENTRAL FOCUS OF THE 1970 EXPO IN OSAKA, JAPAN, REFLECTING ECONOMIC GROWTH, CULTURAL SHIFT, AND THE COUNTRY’S ASPIRATION FOR TECHNOLOGICAL INNOVATION. IT CONTAINED VARIOUS TECHNOLOGY, INCLUDING ROBOTS WITH MOBILITY AND A CONTROL ROOM FOR LIGHTS, SOUND, AND WATER FLOW. THE EPHEMERAL DESIGN WAS INTENDED TO ADAPT TO PROGRAMMATIC NEEDS, UTILIZING CYBERNETICS FOR FREEDOM AND EDUCATION (URUSHIMA 2006, ISOZAKI).

EPHEMERAL

USAGE IN ARCHITECTURE

IN ARCHITECTURE, THE TERM “EPHEMERAL” REFERS TO SOMETHING THAT IS TEMPORARY OR FLEETING. AN EPHEMERAL ARCHITECTURAL STRUCTURE, FOR EXAMPLE, MIGHT BE A TEMPORARY PAVILION OR INSTALLATION THAT IS ONLY IN PLACE FOR A SHORT PERIOD OF TIME BEFORE BEING DISMANTLED OR REMOVED. THE USE OF EPHEMERAL ARCHITECTURE HAS GROWN IN POPULARITY IN RECENT YEARS, AS ARCHITECTS AND DESIGNERS HAVE SOUGHT TO CREATE MORE DYNAMIC AND INTERACTIVE SPACES THAT RESPOND TO CHANGING NEEDS AND CIRCUMSTANCES. BY DESIGNING STRUCTURES THAT ARE TEMPORARY OR THAT CAN BE EASILY MODIFIED, ARCHITECTS CAN CREATE SPACES THAT ARE MORE ADAPTABLE AND RESPONSIVE TO THE NEEDS OF THE PEOPLE WHO USE THEM. EPHEMERAL ARCHITECTURE CAN ALSO BE A WAY TO CHALLENGE TRADITIONAL NOTIONS OF WHAT A BUILDING SHOULD BE AND HOW IT SHOULD FUNCTION. BY CREATING STRUCTURES THAT ARE TEMPORARY OR THAT EXIST OUTSIDE OF THE USUAL NORMS OF ARCHITECTURE, DESIGNERS CAN EXPLORE NEW IDEAS AND PUSH THE BOUNDARIES OF WHAT IS POSSIBLE.

AND ALLOWING FOR MORE RESPONSIVE AND ADAPTABLE SPACES.

USAGE IN THESIS | CRITICISM

I PROPOSE UTILIZING THE NOTION OF EPHEMERALITY TO THE INTERIOR OF STRUCTURES. THIS CAN COME IN THE FORM OF TEMPORARY OR CHANGEABLE ELEMENTS WITHIN A SPACE, SUCH AS FURNITURE OR DECORATIONS. THIS CAN CREATE A SENSE OF NOVELTY AND EXCITEMENT FOR THE OCCUPANTS, AS WELL AS ALLOWING FOR MORE FLEXIBLE AND RESPONSIVE USE OF THE SPACE. EPHEMERALITY ALSO HAS GREAT SIGNIFICANCE IN GAMES. ONE EXAMPLE OF THIS IS THE UNO HOUSE RULES, WHERE THE RULES OF THE GAME CAN CHANGE BASED ON THE PLAYERS’ PREFERENCES. THIS ALLOWS FOR A MORE DYNAMIC AND ADAPTABLE GAMING EXPERIENCE. IN VIDEO GAMES, UPDATES AND CHANGES TO GAMEPLAY MECHANICS, SUCH AS WEAPON ABILITIES OR MAP LAYOUTS, CAN ALSO CREATE A SENSE OF EPHEMERALITY AND KEEP THE GAME FRESH AND EXCITING FOR PLAYERS. OVERALL, THE USE OF EPHEMERAL ELEMENTS IN ARCHITECTURE AND DESIGN CAN ADD A SENSE OF NOVELTY AND FLEXIBILITY, ENHANCING THE USER EXPERIENCE

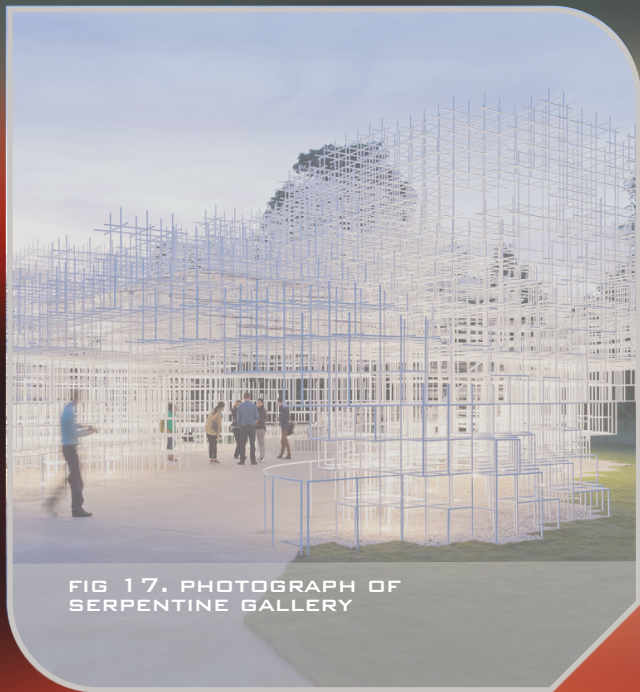


FIG 17. PHOTOGRAPH OF SERPENTINE GALLERY

THE 2013 SERPENTINE PAVILION HAD A NATURE-INSPIRED DESIGN OF A FOREST WITH A GRID OF WHITE STEEL POLES THAT SUPPORTED TRANSLUCENT ACRYLIC PANELS. THE PAVILION’S TEMPORARY NATURE REFLECTS CONTEMPORARY SOCIETY’S THEMES OF TRANSIENCE AND IMPERMANENCE, INVITING VISITORS TO CONSIDER THE FLEETING NATURE OF THEIR OWN EXISTENCE (POP 2015). A CONCEPT OF “FLEETING ARCHITECTURE” WILL BE USED TO CREATE MINI-INSTALLATIONS FOR UNDERSTANDING JOINETRY AND KINETIC ARCHITECTURE IN A LUDIC BEHAVIOR PROGRAM.



FIG. 20. PHOTO OF NAKED HOUSE BY SHIGERU BAN

THE NAKED HOUSE BY SHIGERU BAN IS A MULTI-GENERATIONAL FAMILY HOME NEAR TOKYO, DESIGNED FOR DIFFERENT GENERATIONS TO LIVE AND COMMUNICATE TOGETHER, WITH TRADITIONAL JAPANESE ARCHITECTURE AND DESIGN ELEMENTS. IT CREATES AN ADAPTABLE LIVING SPACE THAT PROMOTES COMMUNICATION AMONG DIFFERENT GENERATIONS.



FIG. 15 CONCEPTUAL SKETCH OF REM KOOLHAAS' GENERIC CITY

KOOLHAAS ARGUES THAT GLOBALIZATION LEADS TO A HOMOGENOUS AND BLAND URBAN LANDSCAPE. THE GENERIC CITY LACKS IDENTITY AND CULTURAL DIFFERENCES, CREATING A SENSE OF INSTABILITY DUE TO ITS EPHEMERAL AND EASILY REPLACEABLE BUILDINGS AND SPACES. EPHEMERALITY CHARACTERIZES THE GENERIC CITY, WHICH RESULTS IN A LACK OF CONTINUITY AND HISTORY (KOOLHAAS, 1995).

HUMAN CENTERED

USAGE IN ARCHITECTURE

HUMAN-CENTERED DESIGN IS A DESIGN APPROACH THAT FOCUSES ON THE NEEDS, DESIRES, AND CAPABILITIES OF HUMAN USERS. IN ARCHITECTURE, HUMAN-CENTERED DESIGN IS CONCERNED WITH CREATING BUILDINGS AND SPACES THAT ARE COMFORTABLE, FUNCTIONAL, AND ENJOYABLE FOR THE PEOPLE WHO USE THEM. THE DESIGN INVOLVES A COLLABORATIVE AND ITERATIVE PROCESS, IN WHICH DESIGNERS WORK CLOSELY WITH USERS TO UNDERSTAND THEIR NEEDS AND PREFERENCES. THIS PROCESS OFTEN INVOLVES GATHERING FEEDBACK FROM USERS, CONDUCTING USER RESEARCH, AND PROTOTYPING AND TESTING DIFFERENT DESIGN SOLUTIONS. THE GOAL OF HUMAN-CENTERED DESIGN IN ARCHITECTURE IS TO CREATE BUILDINGS AND SPACES THAT ARE RESPONSIVE TO THE NEEDS AND DESIRES OF THE PEOPLE WHO USE THEM. THIS MEANS TAKING INTO ACCOUNT FACTORS SUCH AS ACCESSIBILITY, USABILITY, AND USER EXPERIENCE, AS WELL AS THE SOCIAL AND CULTURAL CONTEXT IN WHICH THE BUILDING WILL BE USED. IT BECAME INCREASINGLY IMPORTANT IN ARCHITECTURE, AS DESIGNERS AND USERS ALIKE RECOGNIZE THE VALUE OF CREATING ENVIRONMENTS THAT ARE TAILORED TO THE NEEDS AND PREFERENCES OF THE PEOPLE WHO USE THEM. BY ADOPTING A HUMAN-CENTERED APPROACH, ARCHITECTS CAN CREATE BUILDINGS AND SPACES THAT ARE NOT ONLY FUNCTIONAL AND AESTHETICALLY PLEASING, BUT THAT ALSO SUPPORT THE WELL-BEING AND HAPPINESS OF THEIR USERS.

USAGE IN THESIS | CRITICISM

“REALITY ISN’T ENGINEERED TO MAXIMIZE OUT POTENTIAL. REALITY WASN’T DESIGNED FROM THE BOTTOM UP TO MAKE US HAPPY” (MCGONGIAL 2012) I BELIEVE IN THE IDEA OF COMMUNITY, WHETHER IT MEANS A DESIGN FOR THE COMMUNITY OR A DESIGN BY THE COMMUNITY (PREFERABLY THE LATTER). TOO OFTEN ARE DESIGNS MADE BY THE SINGLE STAKEHOLDERS AND ARCHITECTS VIVID IMAGINATION. WHY? TOO OFTEN IN THE UNITED STATE DO WE SEE STRUCTURES BEING BUILT IN LOCATION WHERE THEY ARE NOT APPROPRIATE. WHY DOES A ‘HOOD’ IN CHICAGO NEED A WATER PARK THAT IS TOO EXPENSIVE AND INACCESSIBLE? WHY DOES MANHATTAN, NEW YORK NEED ANOTHER 12 CULTURAL ART CENTERS? THE

ISSUE WITH AMERICA IS THAT PLACES ARE NOT ACCESSIBLE AND NOT APPROPRIATE FOR THE CULTURE, CIRCULATION, AND ECONOMY. I WOULD LIKE TO EXPLORE THE IDEA OF COMMUNITY AND INDIVIDUAL DRIVEN DESIGN IDEAS IN PARRALLEL WITH EXTENDED REALITY TECHNOLOGY AND GAME DESIGN. THE THEORY IS NOT “WHICH WAY I OUGHT TO GO”, BUT “DEPENDS ON WHERE YOU WANT TO GET TO” (MCGONGIAL 2012)

THE INTENTION IS NOT TO RE-INVENT THE WHEEL, BUT PROPOSE A DIFFERENT WAY OF USING THE TOOLS-ALTHOUGHT CURRENTLY LIMITED IN THE INTEGRATION OF ARCHITECTURE ESPECIALLY WITH THE NEW GENERATION. ADDITIONALLY, HUMAN-CENTERED DESIGN CAN HELP ARCHITECTS CREATE SPACES THAT ARE MORE SUSTAINABLE AND RESILIENT, BY CONSIDERING THE LONG-TERM IMPACT OF THEIR DESIGNS ON THE ENVIRONMENT AND THE COMMUNITY. BY INVOLVING USERS IN THE DESIGN PROCESS, ARCHITECTS CAN GAIN A BETTER UNDERSTANDING OF THEIR NEEDS AND PREFERENCES AND CREATE SPACES THAT ARE MORE RESPONSIVE TO THOSE NEEDS. THIS CAN HELP CREATE BUILT ENVIRONMENTS THAT ARE MORE SUSTAINABLE, ADAPTABLE, AND RESILIENT OVER TIME.

OVERALL, FOCUSING ON HUMAN-CENTERED DESIGN ALLOWS ARCHITECTS TO CREATE BUILT ENVIRONMENTS THAT ARE TAILORED TO THE NEEDS AND PREFERENCES OF THE PEOPLE WHO WILL USE THEM, AND THAT ENHANCE THE WELL-BEING AND QUALITY OF LIFE OF THOSE USERS. BY CONSIDERING THE USER EXPERIENCE AT EVERY STAGE OF THE DESIGN PROCESS, ARCHITECTS CAN CREATE SPACES THAT ARE FUNCTIONAL, ACCESSIBLE, AND SUSTAINABLE, AND THAT ENHANCE THE WELL-BEING AND QUALITY OF LIFE OF THEIR USERS.

THE GOAL OF THIS THESIS IS TO CREATE SPACES WHERE PEOPLE CAN ACCESS IT FREELY AND DAILY AND HELP FOSTER A SENSE OF COMMUNITY. A SENSE OF INDIVIDUALITY. A SENSE OF TRUE DEMOCRACY. IT SHOULD BE A PLACE WHERE AUTHORITARIAN ENTITIES CANNOT INTERFERE AND MANAGE OTHERS LIVES.



FIG. 22, LA BORDA COMMUNITY HOUSING THAT LETS PEOPLE CHOOSE WHAT THEY WANTED PART OF THE COMMUNITY.

LA BORDA HOUSING IS A COOPERATIVE DEVELOPMENT DRIVEN BY COMMUNITY INVOLVEMENT IN RECOVERING AN INDUSTRIAL NEIGHBORHOOD. IT PRIORITIZES REDEFINING COLLECTIVE HOUSING, SUSTAINABILITY, AND USER PARTICIPATION. EACH USER DESIGNED THEIR INDIVIDUAL SPACE, WHILE COLLECTIVE DECISIONS WERE MADE FOR UTILITY SPACES AND ENERGY-EFFICIENT FEATURES. (ADAPTED FROM: ARCADÉS, J. R. (2018). LA BORDA HOUSING COOPERATIVE: BUILDING ON THE COMMONS IN BARCELONA. THE JOURNAL OF PUBLIC SPACE, 3(4), 57-68.)



FIG. 22, VILLA VERDE IN LATIN AMERICA

VILLA VERDE IS A HOUSING PROJECT BY ARAUCO FOREST COMPANY THAT ENABLES EMPLOYEES AND CONTRACTORS TO OWN HOMES. THE PROJECT STARTS WITH HALF HOUSES, WHICH CAN BE INCREMENTALLY EXPANDED BY THE OWNERS. THE HOUSING UNITS ARE DIVIDED INTO TWO TYPES, A AND B, WITH TYPE A BEING ROW HOUSING AND TYPE B BEING MORE COMPLETE-LOOKING. THIS PROJECT EMPHASIZES THE ROLE OF ARCHITECTURAL DESIGN IN PROMOTING HOME OWNERSHIP AND FULFILLING LIVING CONDITIONS IN SOCIAL HOUSING.



FIG 16. PHOTOGRAPH OF CASA SCOUT

CASA SCOUT IS A PLAYFUL AND INCLUSIVE HOUSE DESIGNED FOR A GROUP OF SCOUTS, FEATURING A CENTRAL HUB WITH DOUBLE-HEIGHT YARDS AND VOIDS TO PROVIDE A SENSE OF EXPANSION TO ALL THE ROOMS. THE SCOUTS ARE ORGANIZED BY AGE GROUP AND WORK ON SLABS THAT ENCOURAGE INTERACTION AND COMMUNICATION. THE HOUSE HAS LARGE OUTWARD WINDOWS, WOODEN PARTITION OPENINGS, AND A SKYLIGHT TO PROVIDE BRIGHT ILLUMINATION AND CROSS VENTILATION. (“CASA SCOUT” 2015)



FIG. 23, UTILIZATION OF FAST CARS WHEN NOT PAYNG ATTENTION

THE BARN IS A WOODEN DOME DESIGNED AS A COMMUNITY GATHERING SPACE AND URBAN ACTIVATION PROJECT, INTENDED TO CREATE A LANDMARK AND BRING PEOPLE TOGETHER. IT IS SPLIT INTO TWO PODS THAT FOSTER A MULTI-FUNCTIONAL COMMUNITY GATHERING SPACE WITH AN 80-FOOT-LONG CANOPY THAT PROVIDES OUTDOOR SEATING. THE ALL-WOOD DESIGN USES SIMPLE, ACCESSIBLE BUILDING MATERIALS. (“THE BARN” N.D.)

SENSORIUM

USAGE IN ARCHITECTURE

TRADITIONALLY, ARCHITECTS HAVE ALWAYS DEPENDED ON EYE SIGHT AS DOMINATE SENSE IN DESIGN. UPON BASIC REFLECTION IT IS QUITE OBVIOUS THAT MUCH OF THE BUILDINGS AND ARCHITECTURE WE INTERACT WITH DAILY HAS ONLY BEEN DESIGNED FOR THE EYE OF THE BEHOLDER (SPENCE 2013).

AS A VISUALLY DOMINAT SPECIES, HUMANS HAVE A TENDANCY TO ONLY DECIPHER AND INTERACT WITH A SPACE VISUALLY. IN FACT, LE CORBUSIER HAS HAD AN UNAPOLOGETICALLY OUTLOOK ON THIS AS HE WRITES: “I EXIST IN LIFE ONLY IF I CAN SEE,” AND CONTINUES TO WRITE: “ONE NEEDS TO SEE CLEARLY IN ORDER TO UNDERSTAND” (PALLASMAA 1996). NOW WHETHER OR NOT HE MEANS THIS IN THE LITERAL SENSE – ALTHOUGHT PROBABLY SO. IT SEEMS AS IF SIGHT ‘SHOULD’ BE THE ONLY SENSE THAT MATTERS TO DESIGNERS.

AFTER THE ‘GOLDEN YEARS’ OF LE CORBUSIER, MORE ARCHITECTS BEGAN TO DESIGN WITH SOUND IN MIND. THEY TOOK IT ONE STEP FURTHER; HOWEVER, NOW WE HAVE SEEN A LEAP FORWARD WHERE THE OTHER SENSES HAVE BEGAN TO HELP DICTATE DESIGN. FROM TEXTURE TO SMELLS, ARCHITECTURE HAS STARTED IS PARADIGM SHIFT WITHIN DESIGN DECISIONS WITH THE HELP OF OUR SENSE.

THE STUDY OF HUMAN SENSES IS DONE BY OBSERVING CURRENT ENVIROMENTS AND ATMOSPHERES AND HOW IT AFFECTS THEIR BEHAVIORS. THROUGH DIFFERENT MATERIALS, FORMS, LAYOUTS, AND ATYPICAL ELEMENTS – ELEMENTS NOT COMMONLY SEEN AS INTEGRATIVE - SUCH AS PLANTS, WATER, EARTH HAVE BEEN USED TO ELEVATE OUR SENSES AND DIVERSFY INTERACTIONS WITHIN STRUCTURES FROM PLAY PLACES TO WORK BUILDINGS

USAGE IN THESIS | CRITICISM

INCORPORATING SENSORY ELEMENTS INTO ARCHITECTURAL DESIGN CAN HELP CREATE A MORE IMMERSIVE AND ENGAGING EXPERIENCE FOR PEOPLE WHO USE THE SPACE. FOR EXAMPLE, USING A VARIETY OF MATERIALS WITH DIFFERENT TEXTURES, SUCH AS SMOOTH STONE, ROUGH WOOD, AND SOFT FABRICS, CAN ADD TACTILE INTEREST TO A SPACE AND HELP PEOPLE FEEL MORE CONNECTED TO THEIR SURROUNDINGS. SIMILARLY, INCORPORATING PLANTS, WATER FEATURES, AND OTHER NATURAL ELEMENTS CAN HELP CREATE A SENSE OF CONNECTION TO THE OUTDOORS AND PROMOTE A SENSE OF WELL-BEING.

IN ADDITION TO CREATING A MORE IMMERSIVE EXPERIENCE, INCORPORATING SENSORY ELEMENTS CAN ALSO MAKE A SPACE MORE FUNCTIONAL AND ACCESSIBLE. FOR EXAMPLE, USING SOUND TO PROVIDE FEEDBACK AND INFORMATION CAN HELP PEOPLE NAVIGATE A SPACE MORE EASILY, SUCH AS BY USING AUDIBLE CUES TO INDICATE THE LOCATION OF EXITS OR OTHER IMPORTANT FEATURES. SIMILARLY, INCORPORATING SENSORY ELEMENTS CAN HELP MAKE A SPACE MORE ACCESSIBLE FOR PEOPLE WITH DISABILITIES, SUCH AS USING TEXTURES AND CONTRASTING COLORS TO HELP PEOPLE WITH VISUAL IMPAIRMENTS NAVIGATE A SPACE MORE EASILY.

OVERALL, INCORPORATING SENSORY ELEMENTS INTO ARCHITECTURAL DESIGN CAN HELP CREATE SPACES THAT ARE MORE ENGAGING, FUNCTIONAL, AND ACCESSIBLE FOR ALL USERS. BY CONSIDERING THE SENSORY EXPERIENCE OF A SPACE, ARCHITECTS CAN CREATE ENVIRONMENTS THAT ARE NOT ONLY AESTHETICALLY PLEASING, BUT ALSO PROMOTE WELL-BEING AND ENHANCE THE USER EXPERIENCE.



FIG 24. BLUE BUILDING

THE BLUR BUILDING USES DENSE FOG CREATED BY 35,000 HIGH-PRESSURE NOZZLES TO CREATE A VISUAL AND AUDITORY BLUR EFFECT. THE INSTALLATION AIMS TO DISORIENT VISITORS AND MAKE THEM RELY ON THEIR OTHER SENSES. THE “BRAINCOAT,” A SMART RAINCOAT DESIGNED TO GAUGE THE PHYSICAL ENVIRONMENT AND REFLECT VISITORS’ INDIVIDUAL PROFILES, WAS ALSO CONCEPTUALIZED BUT NEVER FULLY DEVELOPED.

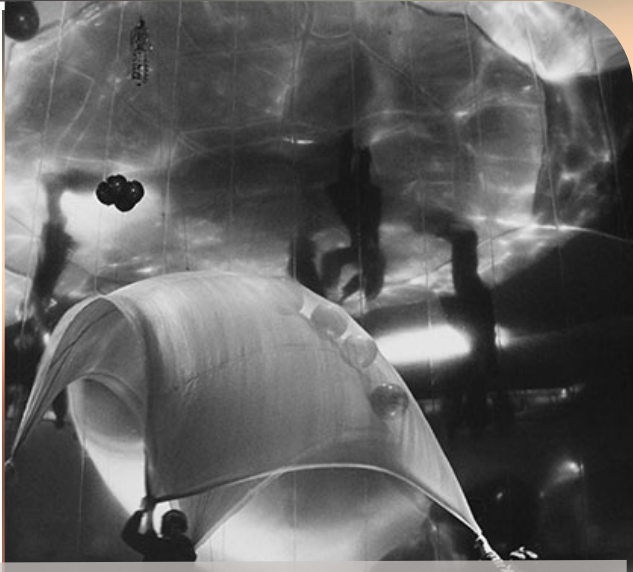


FIG. 25. PEPSI PAVILION USED FOR THE EXPERIMENTAL IMMERSIVE DESIGN FOR THE OSKA FESTIVAL.

THE PEPSI PAVILLION WAS AN EXPERIMENTAL DOME CREATED FOR EXPO '70' IN OSAKA, PROVIDING IMMERSIVE THREE-DIMENSIONAL EXPERIENCES THROUGH MIRROR REFLECTIONS AND SPATIALIZED MUSIC. VISITORS HAD LIBERTY TO SHAPE THEIR OWN REALITY FROM THE MATERIALS AND STRUCTURES SET IN MOTION BY THE CREATION, EXPLORING SYSTEMS OF FEEDBACK BETWEEN AESTHETIC AND TECHNICAL CHOICES. THE DOME’S ACOUSTICS WERE ALSO HIGHLY REGARDED. DESPITE ITS SUCCESS, IT’S UNCLEAR WHY THERE HAVE BEEN NO SIGNIFICANT REPLICATIONS OR INNOVATIONS. (PACKER 2022)

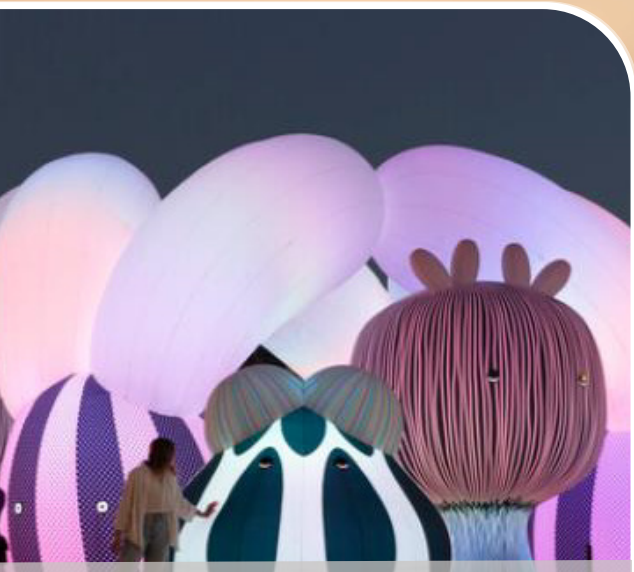


FIG 27. AIRSHIP FORTRESS IN SYDNEY AUSTRILIA.

THE AIRSHIP ORCHESTRA IN MELBOURNE IS A COLLECTION OF 16 INFLATABLE SCULPTURES WITH MOTION SENSORS THAT PRODUCE REAL-TIME NOTES WHEN INTERACTED WITH. THIS PROJECT AIMS TO EVOKE CHILDHOOD NOSTALGIA THROUGH VISUAL AND AUDITORY STIMULATION. THE IMMERSIVE EXPERIENCE CREATES A PLAYFUL ATMOSPHERE THAT TRANSPORTS VISITORS TO ANOTHER TIME (ENESS 2020). THE PROJECT SHOWCASES HOW CHILDHOOD SENSES RESURFACE AND AFFECT ADULTS.



FIG 28. TEMPORARY PAVLLION IN MELBOURNE AUSTRILIA. PLYS ON THE SENTENCE.

THE TEMPORARY PAVILION IS AN EXPERIMENT THAT PROVOKES UNCERTAIN CONDITIONS THAT PLAY ON THE SENSES THROUGH COLOR SHIFTS, SHIFTING QUALITIES, AND ACOUSTICS. IT AIMS TO STIMULATE THE PASSING OF A WHOLE DAY IN THREE MINUTES, UTILIZING DEMATERIALIZATION TO CREATE AN IMMERSIVE EXPERIENCE THAT SPOOKS THE SENSES AND PROMPTS REACTIONS.

PATTERN

PATTERN

USAGE IN ARCHITECTURE

TPATTERNS ARE OFTEN ASSOCIATED WITH COMPLEX, DIGITAL TESSELLATIONS OR ORGANIC STRUCTURES, BUT THE NON-DIGITAL PROCESS OF PATTERN LANGUAGE WAS INTRODUCED BY CHRISTOPHER ALEXANDER IN HIS 1977 BOOK. “A PATTERN LANGUAGE”. IN HIS BOOK, ALEXANDER CREATES 250 ‘PATTERNS’ THAT BECOME SOLUTIONS TO DESIGN PROBLEMS ENCOUNTERED. IN ITS ESSENCE, IT IS A SERIES OF PARAMTERS THAT DESCRIBES SOLUTIONS TO THE MOST SIMPLE PROBLEMS WITHOUT EVERY RECREATING THE SAME SPACE TWICE (ALEXANDER 1968). IN ARCHITECTURE, PATTERN LANGUAGE IS OFTEN USED AS A WAY TO INTEGRATE MULTIPLE DESIGN ELEMENTS INTO A COHESIVE WHOLE. BY CONSIDERING THE RELATIONSHIPS BETWEEN DIFFERENT PATTERNS AND THEIR ROLE IN THE OVERALL DESIGN, ARCHITECTS CAN CREATE BUILT ENVIRONMENTS THAT ARE FUNCTIONAL, HARMONIOUS, AND AESTHETICALLY PLEASING. FOR EXAMPLE, AN ARCHITECT MIGHT USE PATTERNS RELATED TO CIRCULATION, LIGHTING, AND ACOUSTICS TO CREATE A SPACE THAT IS EASY TO NAVIGATE, WELL-LIT, AND QUIET.

ADDITIONALLY, PATTERN LANGUAGE CAN HELP ARCHITECTS CREATE DESIGNS THAT ARE ADAPTABLE AND RESPONSIVE TO THE NEEDS OF USERS. BY CONSIDERING THE RELATIONSHIPS BETWEEN DIFFERENT PATTERNS AND THEIR ROLE IN THE OVERALL DESIGN, ARCHITECTS CAN CREATE SPACES THAT ARE FLEXIBLE AND ADAPTABLE TO CHANGING NEEDS AND PREFERENCES. FOR EXAMPLE, AN ARCHITECT MIGHT USE PATTERNS RELATED TO MODULARITY AND ADAPTABILITY TO CREATE A SPACE THAT CAN BE EASILY RECONFIGURED TO ACCOMMODATE DIFFERENT ACTIVITIES OR USER GROUPS.

OVERALL, PATTERN LANGUAGE IS A DESIGN APPROACH THAT EMPHASIZES THE INTEGRATION OF MULTIPLE DESIGN ELEMENTS INTO A COHESIVE WHOLE. BY CONSIDERING THE RELATIONSHIPS BETWEEN DIFFERENT PATTERNS AND THEIR ROLE IN THE OVERALL DESIGN, ARCHITECTS CAN CREATE BUILT ENVIRONMENTS THAT ARE FUNCTIONAL, HARMONIOUS, AND ADAPTABLE TO THE NEEDS OF USERS. OVERALL, THE GOAL OF A PATTERN LANGUAGE IS TO PROVIDE A SYSTEMATIC AND COMPREHENSIVE APPROACH TO ARCHITECTURAL DESIGN THAT TAKES INTO ACCOUNT THE VARIOUS ELEMENTS THAT MAKE UP A BUILT ENVIRONMENT, INCLUDING WAYFINDING, BEHAVIORAL PATTERNS, AND OTHER IMPORTANT FACTORS. BY USING THIS APPROACH, DESIGNERS CAN CREATE BUILDINGS AND SPACES

THAT ARE EASY TO NAVIGATE, COMFORTABLE TO BE IN, AND WELL-SUITED TO THE ACTIVITIES THAT WILL TAKE PLACE WITHIN THEM.

USAGE IN THESIS | CRITICISM

THE GOAL OF A UTILZING PATTERN LANGUAGE IS TO BE MORE THOUGHTFUL IN DESIGN; UNFORTUNETLY, BEING THOUGHTFUL TAKES A LONG TIME. THIS FAST PACED SOCIETY DOES NOT LIKE TO TAKE TIME BECAUSE THAT COSTS MONEY, YET WHAT WOULD THE WORLD OF ARCHITECTURE LOOK LIKE IF WE TOOK MORE TIME TO BE THOUGHTFUL? WHAT KIND OF SOCIETY WOULD RESULT FROM THIS?

WHILE THE USE OF DIGITAL TECHNOLOGIES TO GENERATE VARIOUS SHAPES AND PATTERNS IN ARCHITECTURE CAN BE BENEFICIAL, THE IDEA OF EXTRACTING LANGUAGES AND PATTERNS FROM ELEMENTS OF A GAME AND CREATING A SET OF PATTERN PARAMETERS WHERE NO SOLUTION IS EVER RECREATED THE SAME WAY IS ALSO FASCINATING. THIS APPROACH ALLOWS FOR A UNIQUE BLEND OF ARCHITECTURE, GAME DESIGN, AND EXTENDED REALITY. THROUGH THE USE OF PATTERN LANGUAGE, THIS APPROACH CAN HELP MAKE PHYSICAL DESIGN DECISIONS IN THESE AREAS. ULTIMATELY, THE GOAL IS TO CREATE MY OWN PATTERN LANGUAGE IN THE CROSS SECTION OF GAME DESIGN AND ARCHITECTURE.

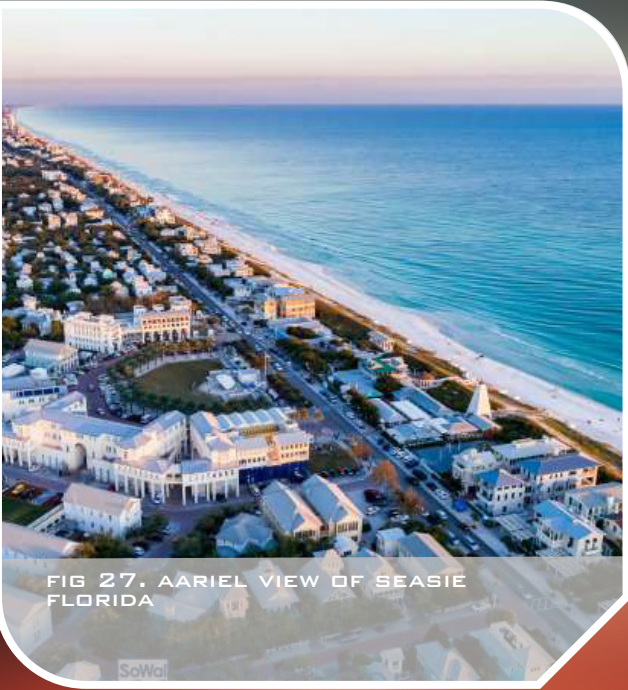


FIG 27. AARIEL VIEW OF SEASIE FLORIDA

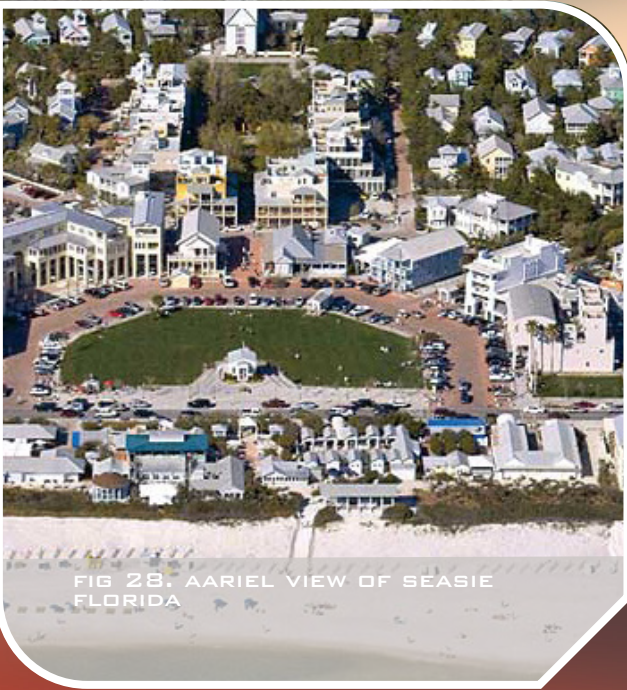
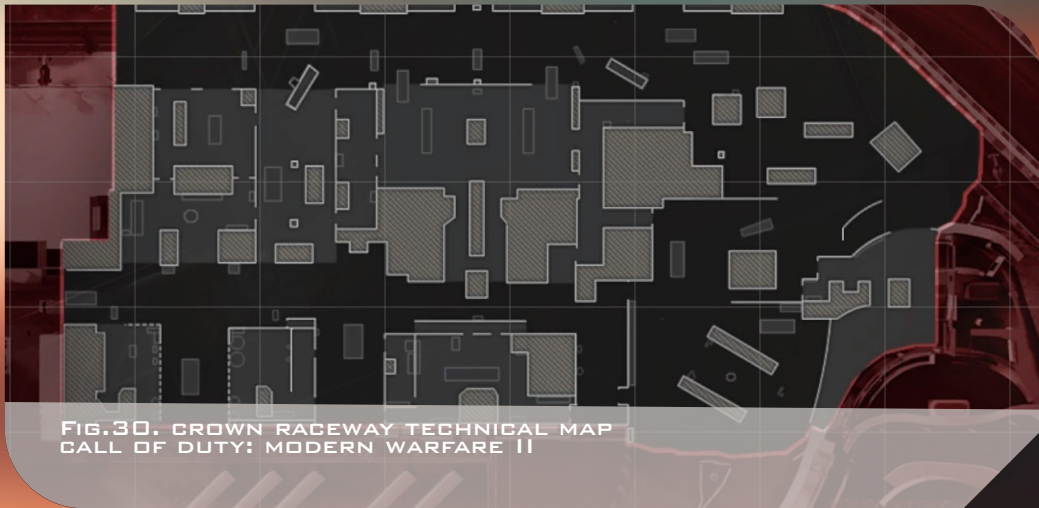
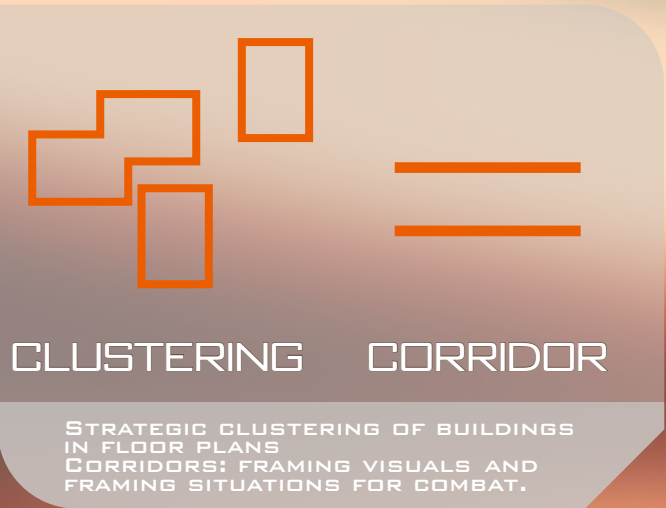
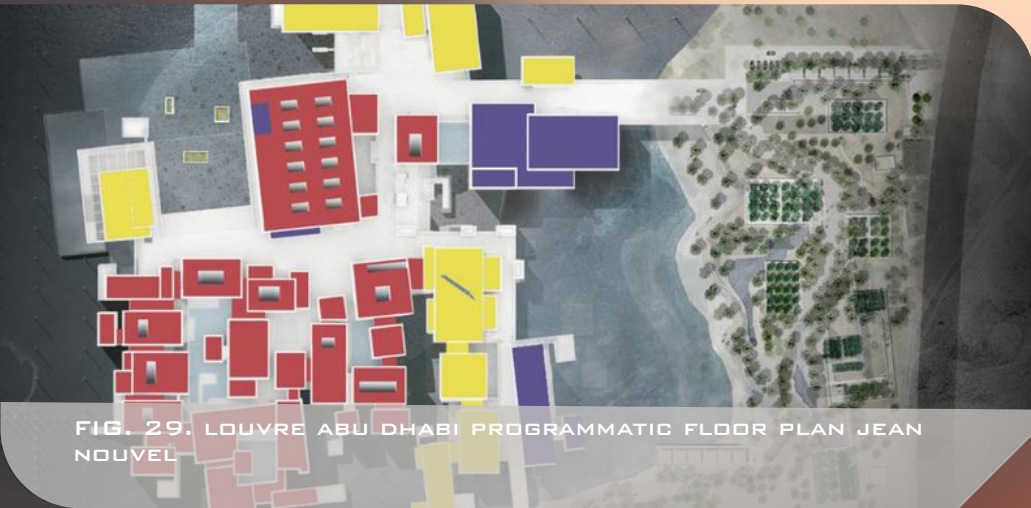


FIG 28. AARIEL VIEW OF SEASIE FLORIDA

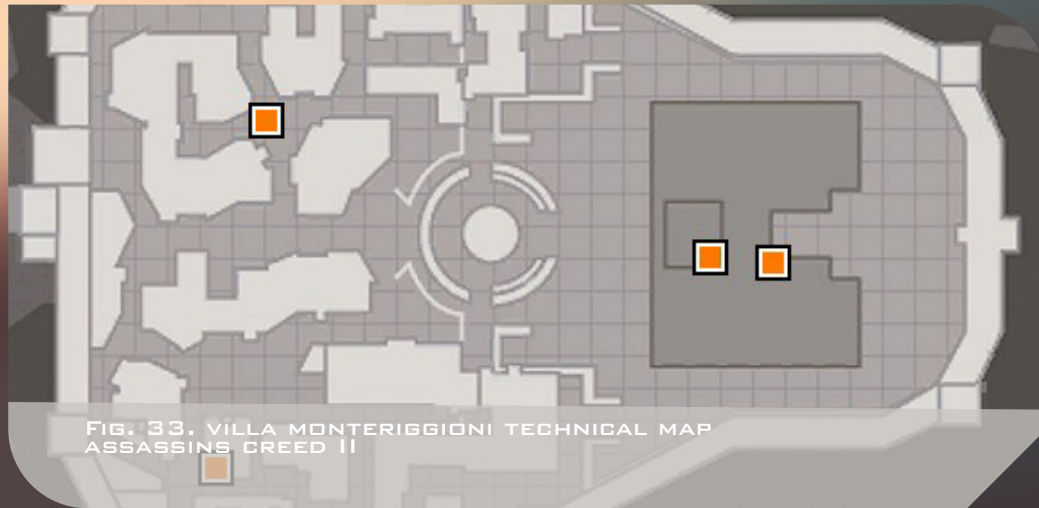
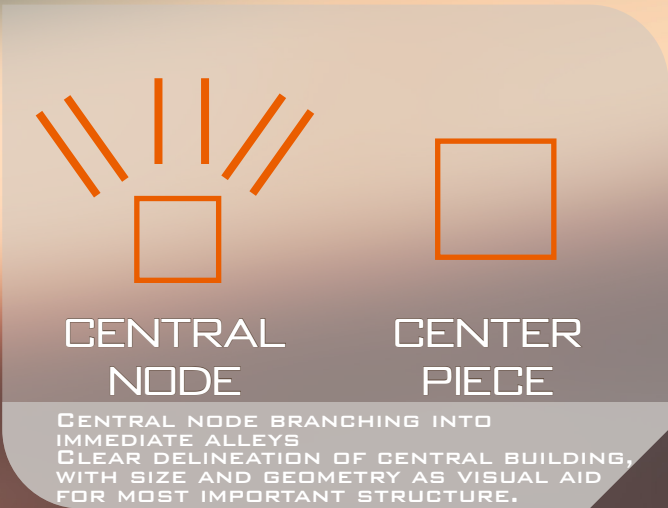
SEASIDE, FLORIDA IS A PLANNED COMMUNITY DESIGNED WITH CHRISTOPHER ALEXANDER’S PATTERN LANGUAGE. THE COMMUNITY IS ORGANIZED AROUND SMALL STREETS AND PEDESTRIAN PATHS WITH HOUSES ARRANGED TO ENCOURAGE SOCIAL INTERACTION. THE LANGUAGE IS BASED ON FUNDAMENTAL PRINCIPLES GOVERNING HOW PEOPLE INTERACT WITH THEIR ENVIRONMENTS, EXPRESSED THROUGH SPECIFIC, REPEATABLE SOLUTIONS TO DESIGN PROBLEMS. FOR SEASIDE, THIS INCLUDED PATTERNS SUCH AS ENSURING EVERY ROOM HAS ENOUGH NATURAL LIGHT, USING WINDOWS TO CONNECT INSIDE AND OUTSIDE, AND USING OUTDOOR SPACES FOR

SOCIAL INTERACTION. BY APPLYING THESE PATTERNS, SEASIDE HAS BECOME A MODEL FOR SUSTAINABLE AND LIVABLE DEVELOPMENT, DESPITE PREVIOUS ATTEMPTS TO CREATE A UTOPIAN COMMUNITY WITH MIXED OUTCOMES. THE COMMUNITY HAS BEEN FEATURED IN NUMEROUS BOOKS AND ARTICLES ON ARCHITECTURE AND URBAN DESIGN.

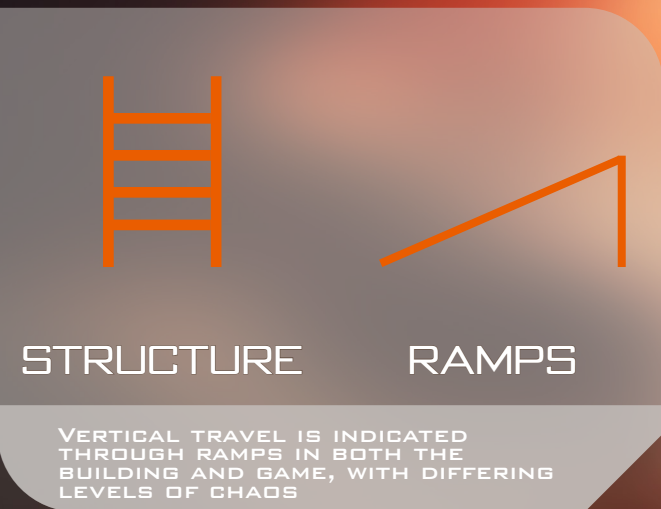
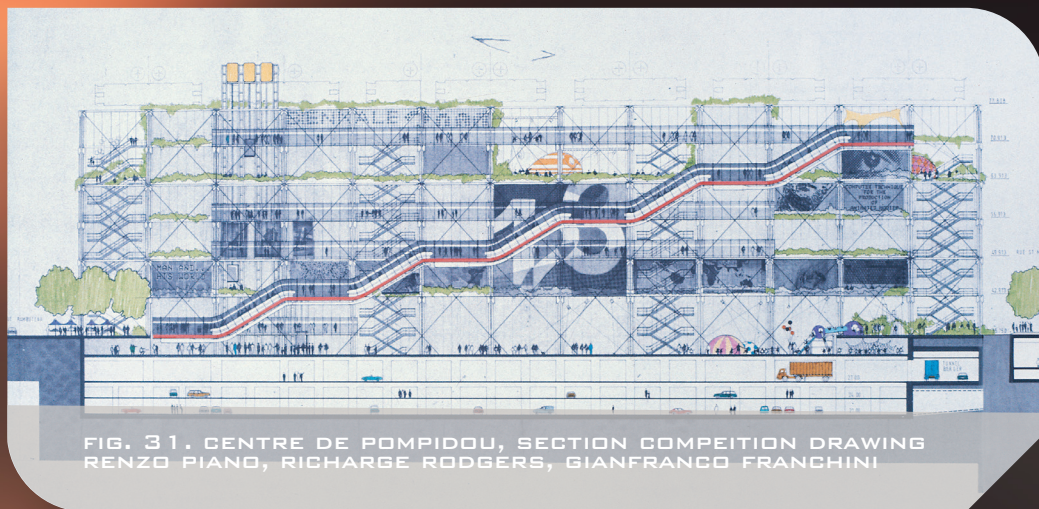
PRECEDENT SET 1



PRECEDENT SET 2



PRECEDENT SET 3



CODEx

UNDEFINED COORDINATES

02 | CHAPTER



LOADING



TO EMPHASIZE THE POWER OF INNOVATION, THIS BACKGROUND WAS TAKEN FROM A PROJECT RENDER OR CONCEPT FROM THIS THESIS AND POST PROCESSED IN DRAMATIC FORMAT FOR THE CONCEPT OF THIS BOOK AS A VIDEO GAME. THE MIDJOURNEY AI PROGRAM WAS USED IN A SPECIFIED ART STYLE. PHOTOS ARE LATER UPSCALED IN NIGHTMAREA/REAL-ESGARAN API.

FINAL REFINED PROMPT:
USING THIS IMAGE AS A BASE UTILIZE THE ART STYLE AND LANDSCAPE TO CREATE A WIDE SHOT OF PARAMETRIC BUILDINGS IN THE LANDSCAPE WHERE VARIOUS PEOPLE PHYSICALLY INTERACT WITH THEIR SURROUNDINGS.

SANDBOX

SANDBOX VIDEO GAMES ARE OPEN-WORLD GAMES WHERE PLAYERS CAN FREELY EXPLORE AND INTERACT WITH THE VIRTUAL ENVIRONMENT. THEY TYPICALLY OFFER A LARGE, IMMERSIVE WORLD FOR PLAYERS TO DISCOVER AND OFTEN PROVIDE TOOLS FOR CREATIVE EXPRESSION OR CUSTOMIZATION. PLAYERS CAN OFTEN CHOOSE THEIR OWN GOALS AND PLAYSTYLE, AND THE GAME'S STORYLINE MAY BE NON-LINEAR OR OPTIONAL. EXAMPLES OF POPULAR SANDBOX GAMES INCLUDE MINECRAFT, ROBLOX, AND TERRARIA.



MINECRAFT

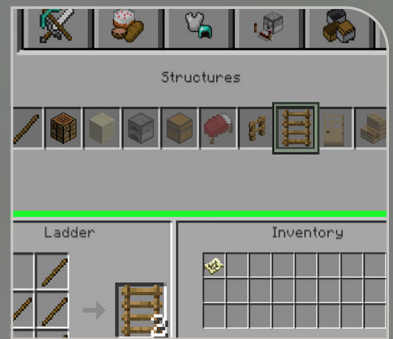
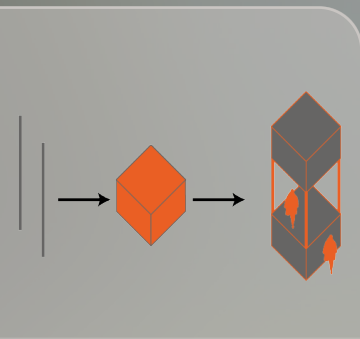
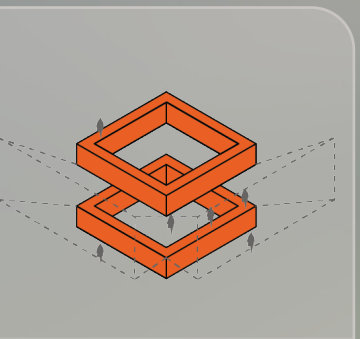

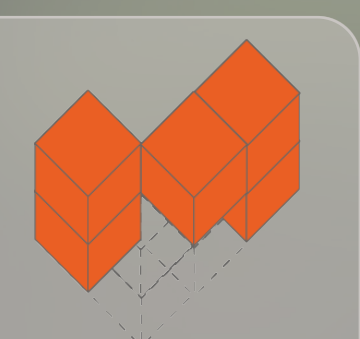
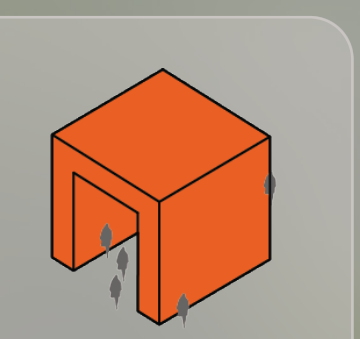

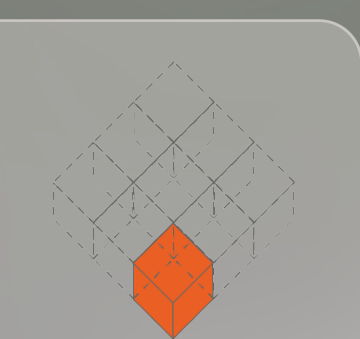
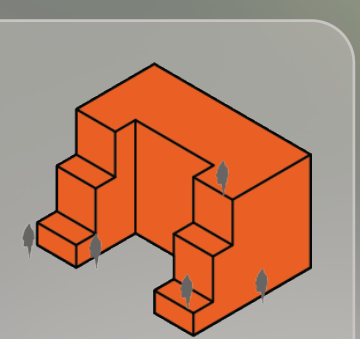
OVERALL RATING: ARTIST ARCHETYPE

CREATIVITY

CHAOS

CALMNESS

CRITICAL THINKING

GAME COMPONENT	DESIGN LANGUAGE	ARCHITECTURAL TYPOLOGY
 <div>CRAFTING</div>	 <div>SEQUENCE OF OBJECT</div>	 <div>VISTAS</div>
 <div>MINING</div>	 <div>VOIDS & SOLIDS</div>	 <div>ARCADES</div>
 <div>BUILDING</div>	 <div>GRIDDED MODULATION</div>	 <div>TERRACING</div>

ACTION ADVENTURE

ACTION-ADVENTURE GAMES MIX ACTION, ADVENTURE, EXPLORATION, PUZZLE-SOLVING, AND COMBAT. PLAYERS TAKE ON THE ROLE OF A PROTAGONIST WHO COMPLETES CHALLENGES, DEFEATS ENEMIES, AND PROGRESSES THROUGH LEVELS TO REACH THEIR GOAL. EXAMPLES INCLUDE LEGEND OF ZELDA, UNCHARTED, AND TOMB RAIDER.



ASSASSINS CREED II


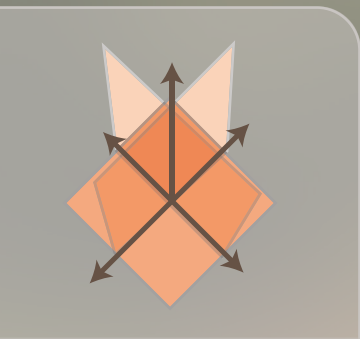
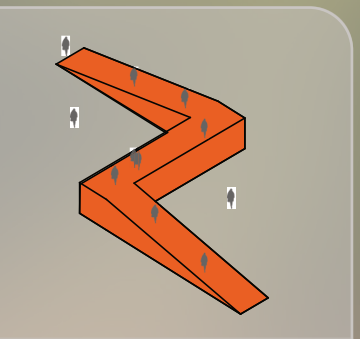

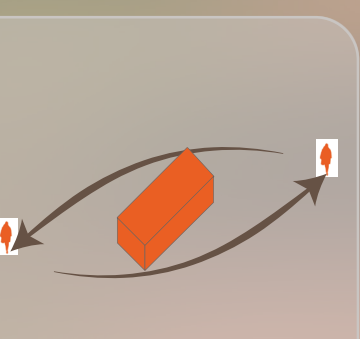
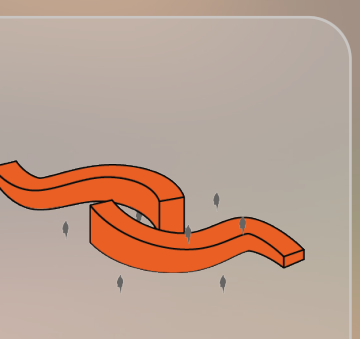
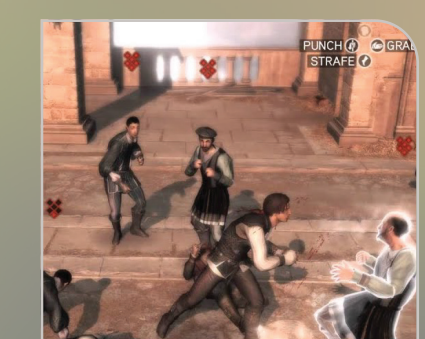
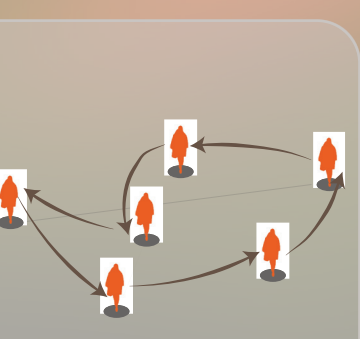
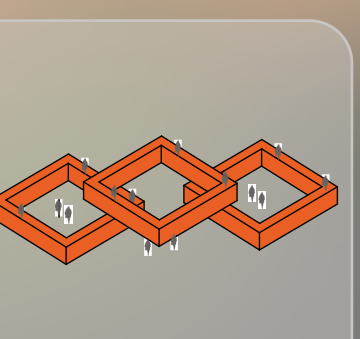
OVERALL RATING: INNOCENT ARCHETYPE

CREATIVITY

CHAOS

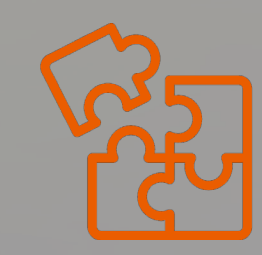
CALMNESS

CRITICAL THINKING

GAME COMPONENT	DESIGN LANGUAGE	ARCHITECTURAL TYPOLOGY
 <div>PARKOUR</div>	 <div>MULTI-AXIS CIRCULATION</div>	 <div>LANDSCAPED ROOFS</div>
 <div>HISTORICAL CORRELATION</div>	 <div>MOVEMENT AS NARRATIVE</div>	 <div>INTERTWINED</div>
 <div>COMBAT</div>	 <div>MOVEMENT AS A NETWORK</div>	 <div>MULTI-ARENA</div>

PUZZLER

PUZZLER GAMES REQUIRE SOLVING PUZZLES AND BRAIN TEASERS USING LOGIC, PATTERN RECOGNITION, AND PROBLEM-SOLVING SKILLS. PLAYERS OVERCOME OBSTACLES BY MANIPULATING OBJECTS OR FINDING SOLUTIONS. DIFFICULTY RANGES FROM EASY TO CHALLENGING. EXAMPLES INCLUDE TETRIS, CANDY CRUSH, AND PORTAL.



PORTAL 2

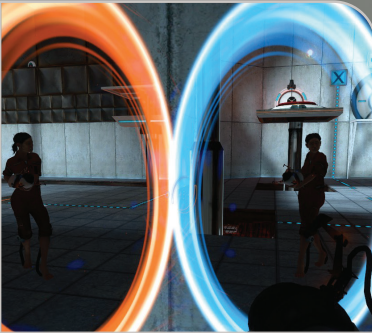
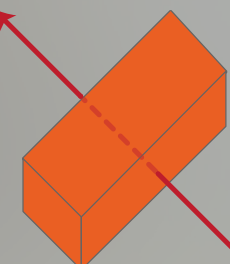
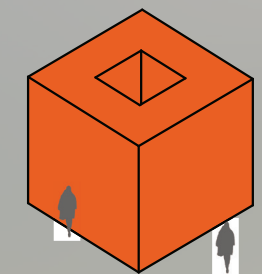

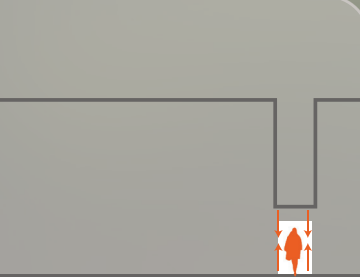
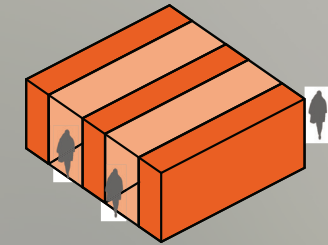

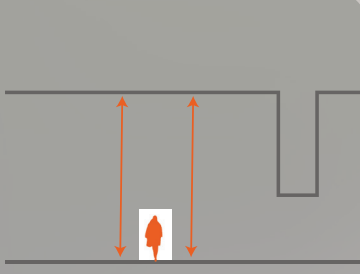
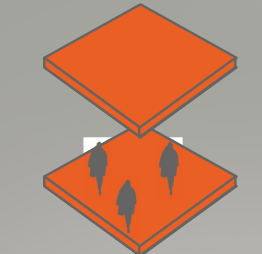
OVERALL RATING: MAGICIAN ARCHETYPE

CREATIVITY

CHAOS

CALMNESS

CRITICAL THINKING

GAME COMPONENT	DESIGN LANGUAGE	ARCHITECTURAL TYPOLOGY
 <div>TRANSPORATON</div>	 <div>MOVMENT THROUGH SOLIDS</div>	 <div>ATRIUM</div>
 <div>ESCAPE CORRIDORS</div>	 <div>COMPRESSION IN SPACE</div>	 <div>TRANISTIONAL</div>
 <div>TESTING CHAMBERS</div>	 <div>EXPANSION IN SPACE</div>	 <div>HIGH CEILING</div>

REAL TIME STRATEGY

REAL-TIME STRATEGY GAMES (RTS) ARE A GENRE OF VIDEO GAMES WHERE PLAYERS MUST MANAGE RESOURCES, BUILD STRUCTURES, AND DEPLOY UNITS TO DEFEAT ENEMIES IN REAL-TIME BATTLES. PLAYERS TYPICALLY CONTROL A FACTION OR ARMY AND MUST MAKE STRATEGIC DECISIONS ABOUT HOW TO ALLOCATE RESOURCES AND MANAGE TROOPS. RTS GAMES OFTEN REQUIRE FAST REFLEXES AND QUICK DECISION-MAKING SKILLS. EXAMPLES OF POPULAR RTS GAMES INCLUDE STARCRAFT, AGE OF EMPIRES, AND CIVILIZATION 5.



CIVILIZATIONS 5

OVERALL RATING: RULER ARCHETYPE

CREATIVITY

CHAOS

CALMNESS

CRITICAL THINKING

GAME COMPONENT	DESIGN LANGUAGE	ARCHITECTURAL TYPOLOGY
 <div>RESOURCE LOCATION</div>	 <div>GEOMETRIC MODULATION</div>	 <div>MODULAR</div>
 <div>LIMITED MOVEMENT</div>	 <div>TIMES AS A BOUNDARY</div>	 <div>ZONES</div>
 <div>DOMINTION</div>	 <div>BOUNDARY AS A CLUSTER</div>	 <div>CLUSTERED</div>

PARTY GAMES

PARTY GAMES ARE A GENRE OF VIDEO GAMES THAT ARE DESIGNED FOR SOCIAL PLAY WITH FRIENDS OR FAMILY. THEY TYPICALLY INVOLVE MULTIPLAYER MODES WHERE PLAYERS COMPETE AGAINST EACH OTHER IN MINI-GAMES OR CHALLENGES. THE GAME PLAY IS OFTEN SIMPLE AND ACCESSIBLE, MAKING IT EASY FOR PLAYERS OF ALL SKILL LEVELS TO PARTICIPATE. PARTY GAMES MAY ALSO INCLUDE ELEMENTS OF HUMOR OR RANDOMNESS TO ADD TO THE FUN. EXAMPLES INCLUDE MARIO PARTY, JACKBOX PARTY PACK, AND AMONG US.



AMONG US

OVERALL RATING: JOKER ARCHETYPE

CREATIVITY

CHAOS

CALMNESS

CRITICAL THINKING

GAME COMPONENT

DESIGN LANGUAGE

ARCHITECTURAL TYPOLOGY

VENT TRAVEL

MOVEMENT IN ANTICIPATION

ZONING

LIGHTS & CAMERA

LIGHTS & VISTAS AS BOUNDARIES

VISTAS

VOTING

PUBLIC ARENA

ARENA

BATTLE ROYALE

BATTLE ROYALE IS A GENRE OF VIDEO GAMES WHERE PLAYERS FIGHT AGAINST EACH OTHER UNTIL ONLY ONE PLAYER OR TEAM REMAINS. THE GAME TYPICALLY BEGINS WITH A LARGE NUMBER OF PLAYERS WHO ARE DROPPED INTO A SHRINKING PLAY AREA AND MUST SCAVENGE FOR WEAPONS AND RESOURCES. PLAYERS MUST ELIMINATE THEIR OPPONENTS WHILE AVOIDING BEING ELIMINATED THEMSELVES. THE LAST PLAYER OR TEAM STANDING WINS THE GAME. EXAMPLES OF POPULAR BATTLE ROYALE GAMES INCLUDE FORTNITE, WARZONE, AND APEX LEGENDS.



APEX

OVERALL RATING: SAGE ARCHETYPE

CREATIVITY

CHAOS

CALMNESS

CRITICAL THINKING

GAME COMPONENT

DESIGN LANGUAGE

ARCHITECTURAL TYPOLOGY

RESOURCE LOCATION

DENSITY RELATION

CLUSTERED

BUILDING TYPES

MODULARITY

TERRACING

INTERIOR V EXTERIOR

MOVEMENT THROUGH SOLIDS & VOIDS

LANDSCAPING ROOFS

HORROR

HORROR GAMES AIM TO CREATE FEAR, TENSION, AND SUSPENSE IN THE PLAYER WITH A DARK AND EERIE ATMOSPHERE, JUMP SCARES, AND HORROR ELEMENTS. PLAYERS MUST NAVIGATE THROUGH A DANGEROUS ENVIRONMENT WHILE TRYING TO SURVIVE AND UNCOVER THE STORY. MORE OFTEN THAN NOT, THE CHARACTER IS OFTEN NAVIGATING THESE ELEMENTS FOR THE BENEFIT OF ANOTHER CHARACTER, SUCH AS SICK LOVED ONES. EXAMPLES INCLUDE RESIDENT EVIL, SILENT HILL, AND OUTLAST.

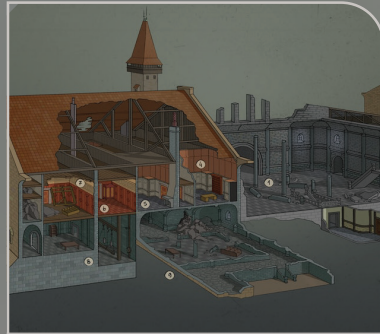


AMENESIA II: REBIRTH

OVERALL RATING: CAREGIVER ARCHETYPE

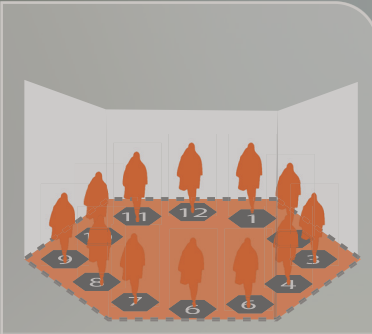


GAME COMPONENT



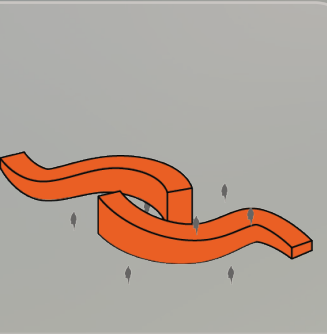
DUNGEONS

DESIGN LANGUAGE



TIME AS SPACE

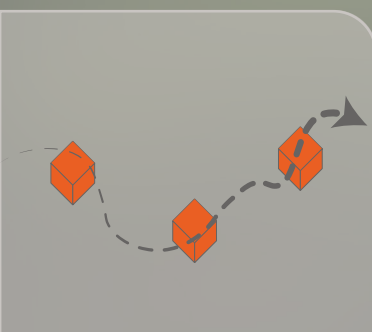
ARCHITECTURAL TYPOLOGY



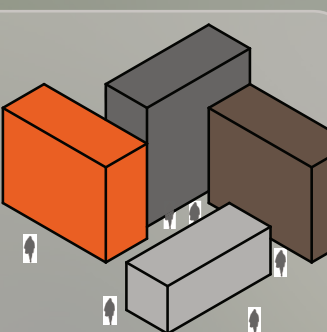
SPACE FLOWING



PUZZLES



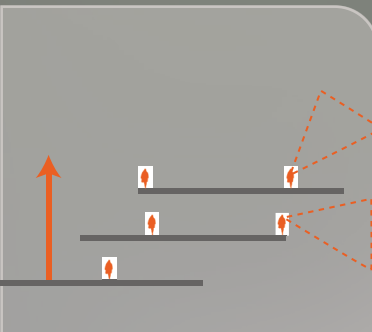
SEQUENCE OF POINTS



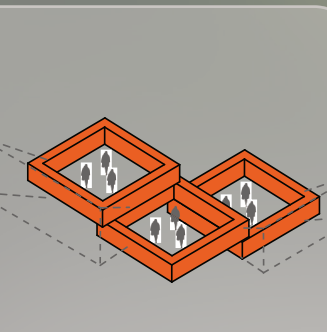
ZONE



VISUAL SANITY



SENSATION AS A VISTA



TERRACING VISTAS

SURVIVAL

SURVIVAL GAMES REQUIRE PLAYERS TO MANAGE RESOURCES, CRAFT TOOLS AND SHELTER, AND AVOID OR DEFEAT THREATS IN A HOSTILE ENVIRONMENT. THE OBJECTIVE IS TO STAY ALIVE AS LONG AS POSSIBLE. ON A PSYCHOLOGICAL LEVEL IT REPRESENTS THE IDEA OF THE EVERYDAY PERSON SURVIVING LIFE AS WE JOURNEY THROUGH. EXAMPLES INCLUDE MINECRAFT, RUST, AND DON'T STARVE



DAYS GONE

OVERALL RATING: EVERYMAN ARCHETYPE

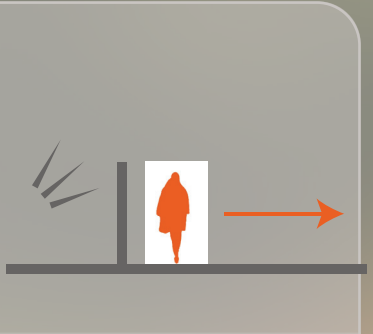


GAME COMPONENT



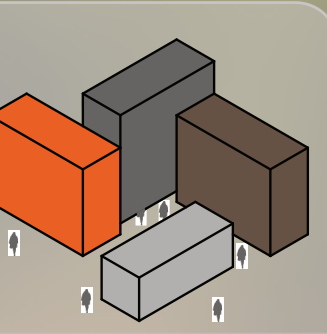
ZOMBIES

DESIGN LANGUAGE



MOVEMENT IN SENSATION

ARCHITECTURAL TYPOLOGY



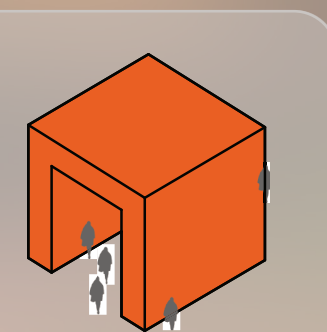
ZONE



RESOURCES



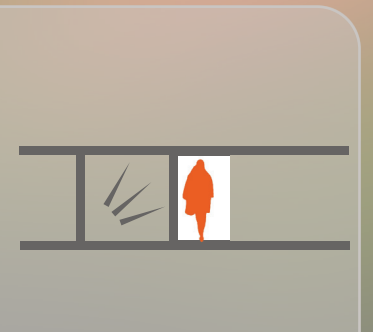
CYCLE AS A BOUNDARY



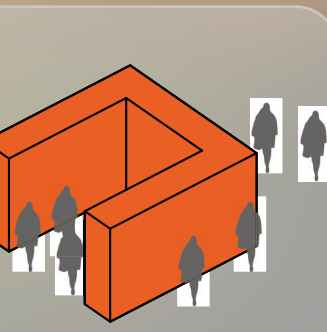
ARCADES



TENSION



SENSATION AS A BOUNDARY



CORNERS

SIMULATOR

SIMULATOR GAMES SIMULATE REAL-LIFE SPORTS OR REAL LIFE ACTIVITIES WITH GAME PLAY THAT MIMICS THE RULES AND MECHANICS OF THE SPORT. PLAYERS CAN CHOOSE TO PLAY AS A REAL-LIFE ATHLETE OR INDIVIDUAL. MORE OFTEN THAN NOT, PEOPLE WHO ENJOY THIS TYPE OF GAME OFTEN PUT ON A ROMANTIC PERFORMANCE WHEN PLAYING. THEIR EGO PUTS THEM AS LOVERS OF THE GAME. EXAMPLES INCLUDE FIFA, NBA 2K, AND MADDEN NFL.



MADDEN 2023

OVERALL RATING: LOVER ARCHETYPE

CREATIVITY

CHAOS

CALMNESS

CRITICAL THINKING

GAME COMPONENT

DESIGN LANGUAGE

ARCHITECTURAL TYPOLOGY



SORTING SIMULATION



NETWORK OF INSTANCES



CLUSTER



FIELD



FIELD OF PATHS



CORRIDOR



RULES OF GAME



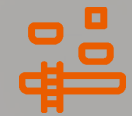
SEQUENCES AS BOUNDARIES



ARENA

PLATFORMER

PLATFORMER GAMES ARE A GENRE OF VIDEO GAMES WHERE PLAYERS CONTROL A CHARACTER WHO JUMPS AND RUNS THROUGH A SERIES OF OBSTACLES AND ENEMIES IN A SIDE-SCROLLING ENVIRONMENT. PLATFORMER GAMES OFTEN REQUIRE PRECISE TIMING AND SKILLFUL MANEUVERING TO PROGRESS THROUGH LEVELS, AND PLAYERS MAY COLLECT POWER-UPS OR BONUSES ALONG THE WAY. PLATFORMER GAMES CAN BE EITHER 2D OR 3D, AND EXAMPLES OF POPULAR PLATFORMER INCLUDE SUPER MARIO BROS, SONIC THE HEDGEHOG, AND DONKEY KONG.



SUPER MARIO 64

OVERALL RATING: HERO ARCHETYPE

CREATIVITY

CHAOS

CALMNESS

CRITICAL THINKING

GAME COMPONENT

DESIGN LANGUAGE

ARCHITECTURAL TYPOLOGY



BOSS FIGHTS



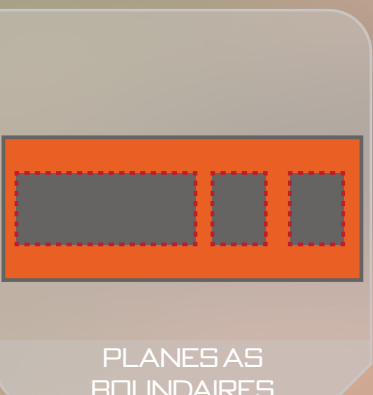
ARENA IN EPISODES



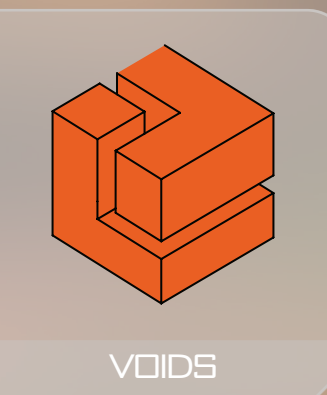
ARENA



MOVMENT LIMITATIONS



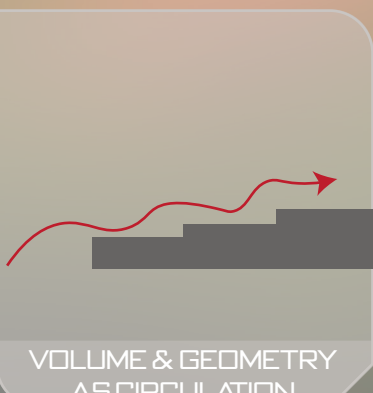
PLANES AS BOUNDAIRES



VOIDS



PLATFORM



VOLUME & GEOMETRY AS CIRCULATION



TERRACING

SHOOTER

FIRST-PERSON SHOOTER (FPS) GAMES INVOLVE COMBAT THROUGH THE EYES OF THE PROTAGONIST. PLAYERS SHOOT ENEMIES WHILE AVOIDING BEING HIT, OFTEN IN MILITARY OR SCI-FI SETTINGS. THEY OFTEN HAVE A MULTIPLAYER MODE. EXAMPLES INCLUDE CALL OF DUTY, HALO, AND DOOM.



RAINBOW SIX SIEGE

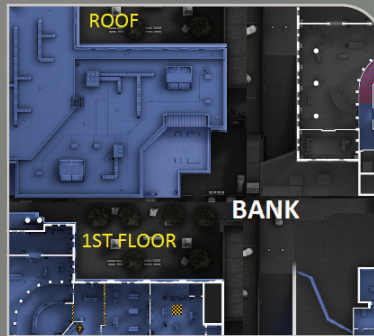
OVERALL RATING: OUTLAW ARCHETYPE



GAME COMPONENT



GAME OBJECTIVE

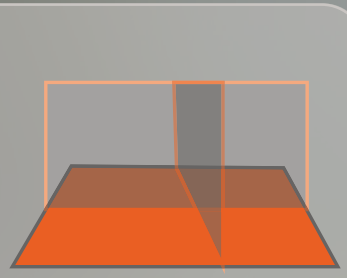


SCHEMATICS

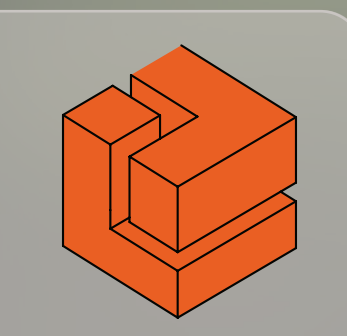


MAP INTERACTION

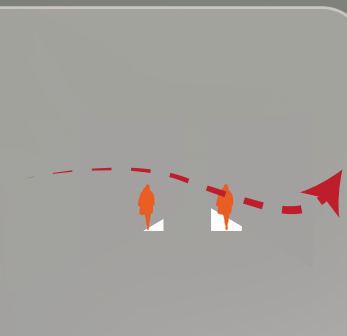
DESIGN LANGUAGE



FIELD OF INTERSECTION

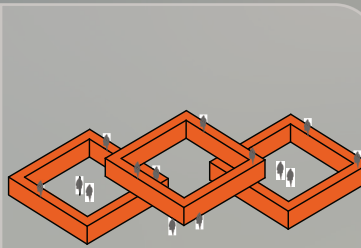


VOID AS A BOUNDARY

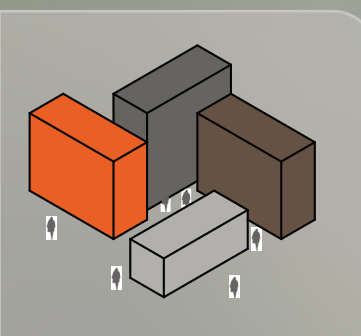


PLANES AS INTERACTIONS

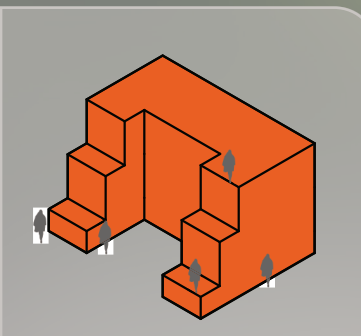
ARCHITECTURAL TYPOLOGY



MULTI-ARENA



ZONES



TERRACING

ROLEPLAYING GAME

ROLE-PLAYING GAMES (RPGS) ALLOW PLAYERS TO ASSUME THE ROLES OF CHARACTERS IN A FICTIONAL WORLD, DEVELOP THEM THROUGH QUESTS, EXPERIENCE, AND SKILLS, AND TYPICALLY INVOLVE A COMPLEX STORYLINE WITH MULTIPLE PATHS AND CHOICES. EXAMPLES INCLUDE STAR WARS: KNIGHTS OF THE OLD REPUBLIC, THE ELDER SCROLLS, AND ELDEN RING.



SKYRIM

OVERALL RATING: EXPLORER ARCHETYPE



GAME COMPONENT



DUNGEONS

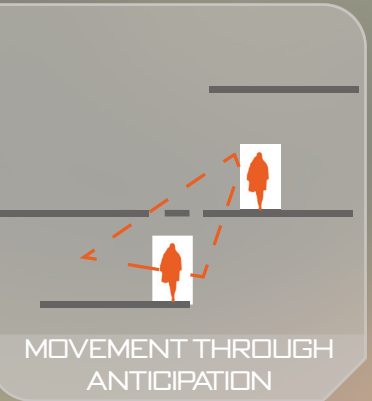


FORTS

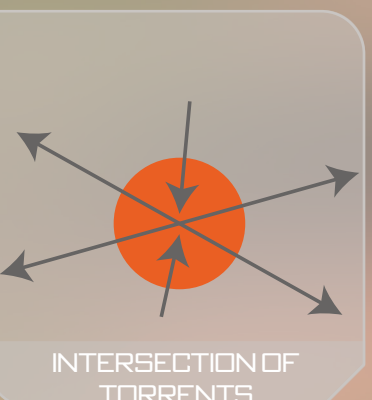


HOMES

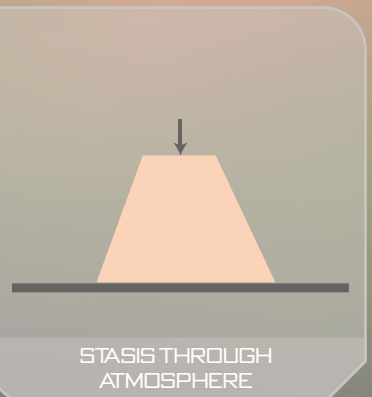
DESIGN LANGUAGE



MOVEMENT THROUGH ANTICIPATION

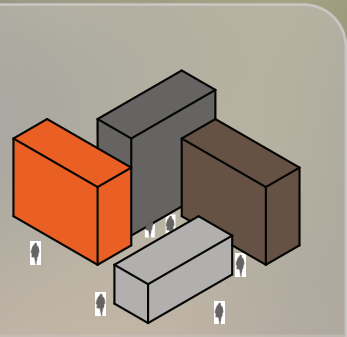


INTERSECTION OF TORRENTS

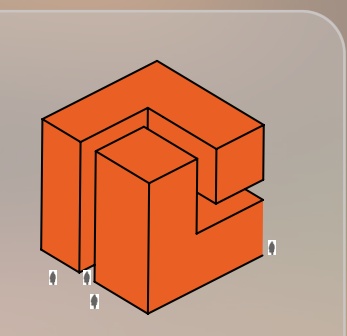


STASIS THROUGH ATMOSPHERE

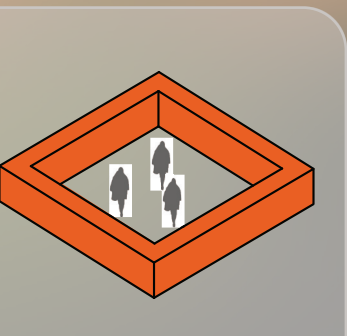
ARCHITECTURAL TYPOLOGY



ZONES, EXPANSION, COMPRESSION



VOIDED CORRIDOR



ARENA



QUESTS

18°2'9.2"S, 18°21'23.5"W

04 | CHAPTER



LOADING



TO EMPHASIZE THE POWER OF INNOVATION, THIS BACKGROUND WAS TAKEN FROM A PROJECT RENDER OR CONCEPT FROM THIS THESIS AND POST PROCESSED IN DRAMATIC FORMAT FOR THE CONCEPT OF THIS BOOK AS A VIDEO GAME. THE MIDJOURNEY AI PROGRAM WAS USED IN A SPECIFIED ART STYLE. PHOTOS ARE LATER UPSCALED IN NIGHTMAREA/REAL-ESGARAN API.

FINAL REFINED PROMPT:
RETAIN EVERYTHING FROM THIS IMAGE, BUT PLACE THE WATER AT THE BOTTOM WITH PEOPLE SWIMMING OR KAYAKING. MAKE THE PLATFORMS MUCH MORE DRAMATIC. INCLUDE A SKYLINE IN THE BACKGROUND.

TUTORIAL

IN A WORLD DOMINATED BY MUNDANE ENVIRONMENTS, THIS THESIS PROPOSES A NOVEL APPROACH TO DESIGNING PUBLIC SPACES THAT INTEGRATE GAME DESIGN PRINCIPLES AND EXTENDED REALITY TECHNOLOGY. BY EMBRACING THE INHERENT LUDIC BEHAVIOR FOUND IN HUMAN NATURE AND GAMES, I AIM TO ELEVATE EVERYDAY EXPERIENCES.

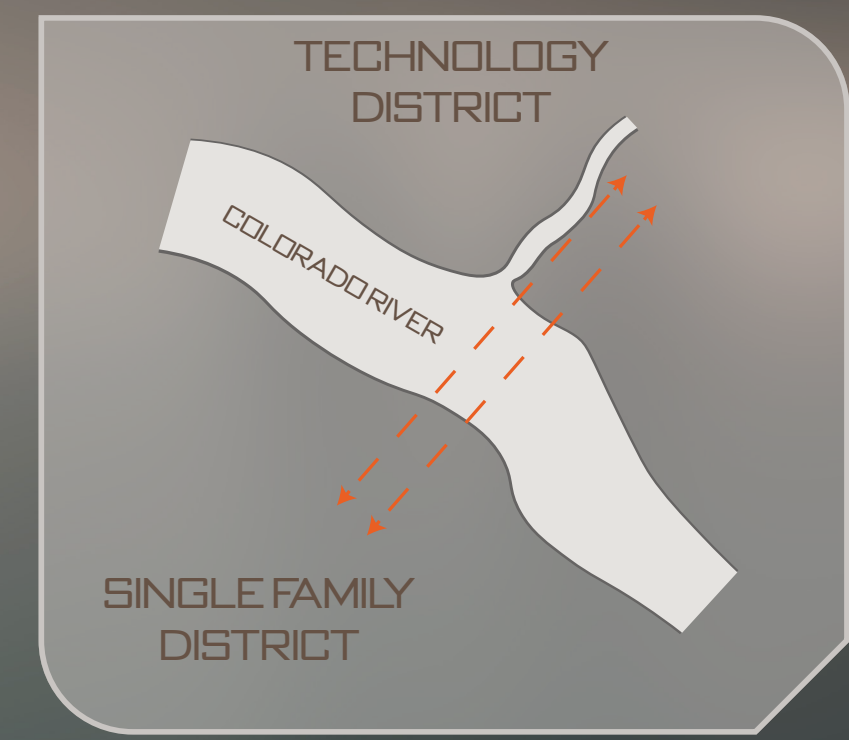
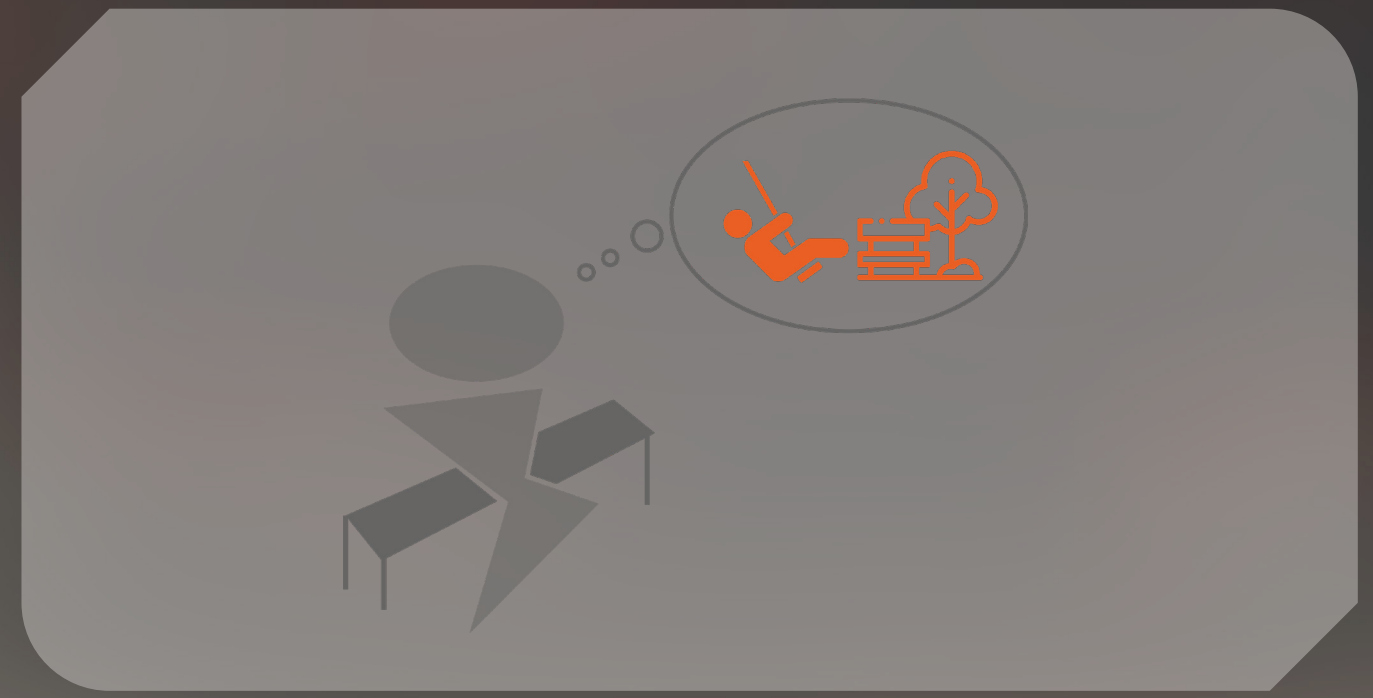
THIS RESEARCH DELVES INTO THE CAPABILITIES OF EXTENDED REALITY TECHNOLOGY, PSYCHOLOGY OF PLAY AND ITS CULTURAL AND SOCIETAL BACKGROUND, PSYCHOLOGY OF HUMAN ARCHETYPES, AND GAME DESIGN COMPONENTS AS AN EXTRACTION FOR ARCHITECTURAL TYPOLOGIES.

KEY FINDINGS REVEAL THAT BY ANALYZING GAME COMPONENTS, DESIGN LANGUAGES ARE FORMED AND CAN BE USED TO DEVELOP FEASIBLE ARCHITECTURAL TYPOLOGIES. THE SIGNIFICANCE OF EPHEMERALITY IN ARCHITECTURE IS ALSO REVEALED AS A MIRRORING CONCEPT FOR THE NEED OF FREQUENT UPDATES IN GAMES TO MAINTAIN STIMULATION. THERE MUST ALSO BE AN EMPHASIS ON UNDERSTANDING THAT TYPICAL SPACE USERS MAY HAVE DIFFERENT EMOTIONS AND TENDENCIES COMPARED TO GAME USERS, AND THUS, SPACES MUST BE DESIGNED TO COEXIST HARMONIOUSLY WITH THEIR USERS.



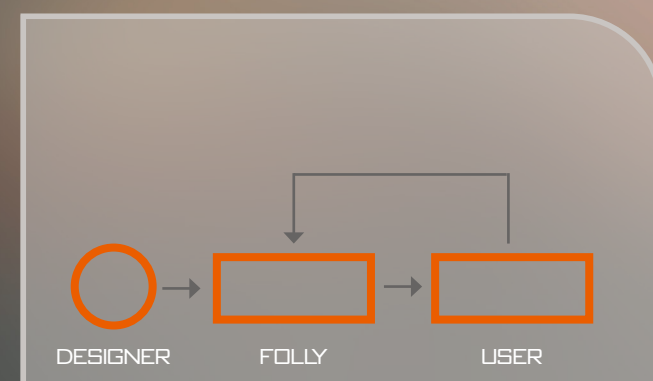
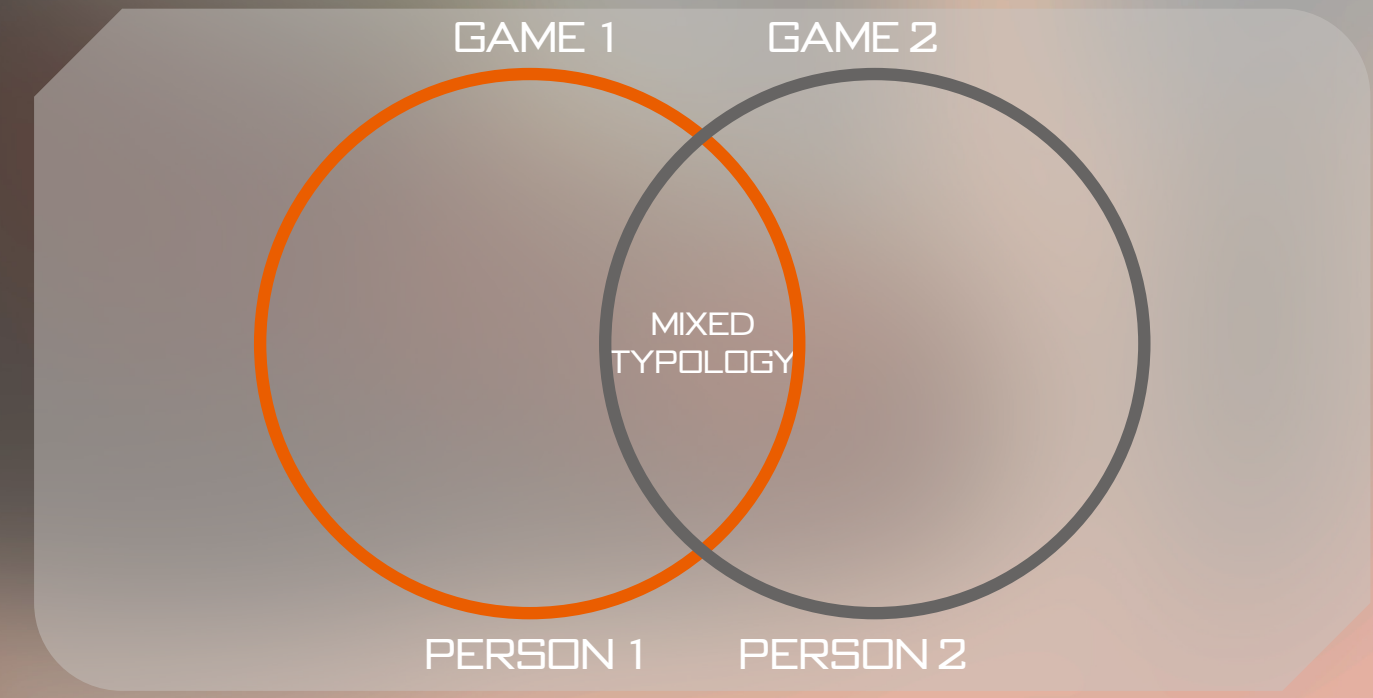
URBAN PARK

THE PROPOSED PROJECT INVOLVES CREATING AN EXPANSIVE URBAN PARK IN DOWNTOWN AUSTIN, TEXAS, WITH THE AIM OF ESTABLISHING A NEW BOUNDARY THAT ENCOMPASSES MULTIPLE NODES AND LANDMARKS. THE PARK'S SUBSTANTIAL SIZE IS INTENDED TO ENSURE THAT IT REMAINS A PROMINENT FEATURE OF THE CITY'S LANDSCAPE. THE SITE'S NATURAL DIVISION BY A RIVER PRESENTS AN OPPORTUNITY TO BRIDGE COMMUNITIES AND SERVE AS A PORTAL TO THE TECHNOLOGY WORLD. THE DEVELOPMENT WILL UTILIZE APPROXIMATELY 40 ACRES OF VACANT PARKING LOTS AND DEMOLISHED BUILDINGS, AND WHILE IT MAY BE CHALLENGING TO GROW VEGETATION, EVERY GREAT PROJECT BEGINS WITH A SINGLE IDEA.



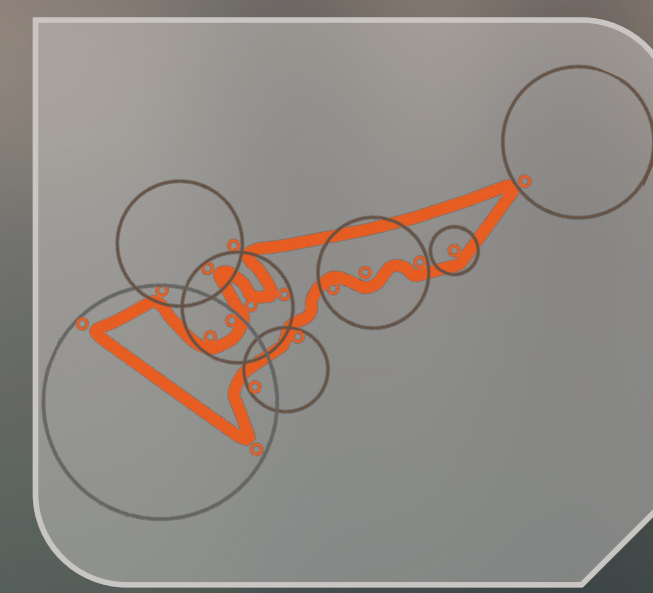
MATRIX MIX

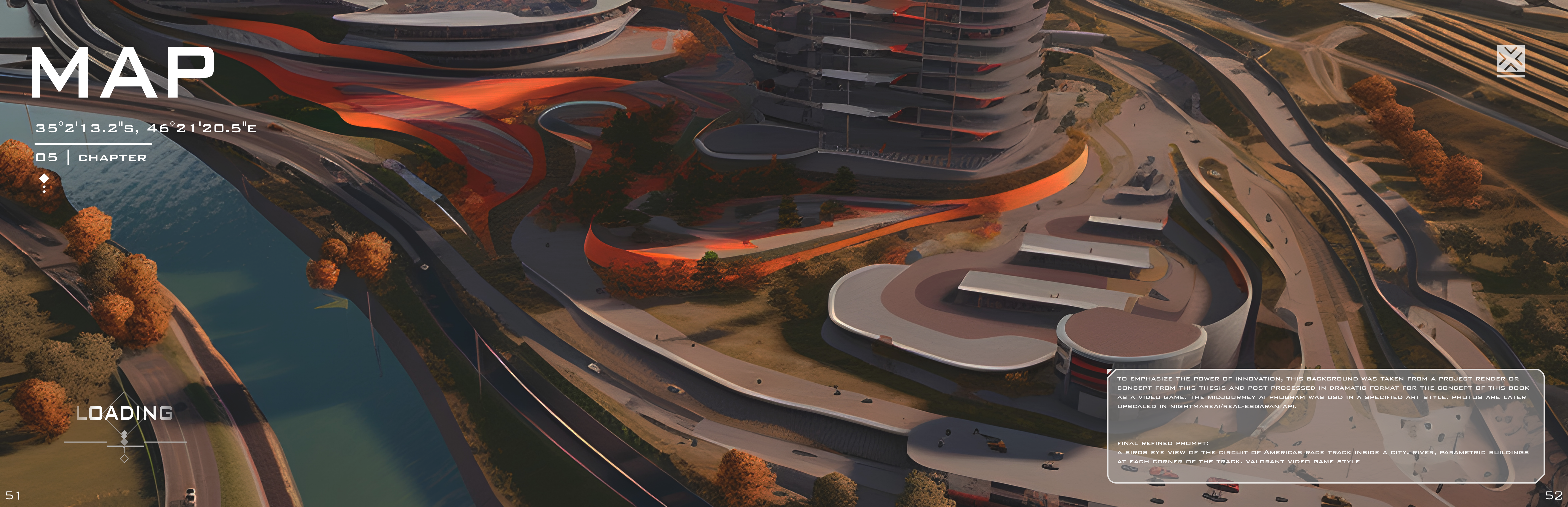
THE OBJECTIVE OF THIS THESIS IS TO DEMONSTRATE THAT GAME DESIGN LANGUAGES AND TYPOLOGIES CAN BE EXTRACTED AND INTEGRATED INTO OUR DAILY LIVES IN A MORE FEASIBLE WAY THAN COMMONLY PERCEIVED. THE RESULTING MATRICES ARE INTENDED TO SHOWCASE THE POTENTIAL FOR GREATER INTEGRATION OF GAMES IN OUR DAILY LIVES. BY ESTABLISHING A POSITIVE FEEDBACK LOOP BETWEEN DESIGNER AND USER, THE FOLLY DESIGN PROCESS CAN BECOME A CONTINUOUS CYCLE OF INNOVATION. THE SUCCESSFUL DESIGN OF FOLLIES IS DEPENDENT ON AN UNDERSTANDING OF GAME ARCHETYPES AND PLAYER TYPES, ALLOWING FOR A MORE INFORMED AND DATA-DRIVEN APPROACH TO DESIGN. THIS EXPERIMENT REPRESENTS A LUDIC GENERATION, HIGHLIGHTING THE POSSIBILITIES THAT CAN ARISE THROUGH THE MIGRATION AND INTEGRATION OF GAME DESIGN PRINCIPLES.



FORMULA FOR COURSE

THE PROPOSAL INVOLVES UTILIZING THE CIRCUIT OF THE AMERICAS TRACK AND SHRINKING IT BY THREE UNITS TO FIT COMFORTABLY ON THE SITE. THE SIGNIFICANCE OF CORNERS IN FORMULA ONE RACING CAN BE UTILIZED AS AN OPPORTUNITY FOR UNIQUE FOLLY DESIGNS, CREATING A WEB OF INTERWOVEN STRUCTURES. BEYOND SIMULATING RACES ON RACE DAY, THE REDESIGNED TRACK REPRESENTS A CULTURAL NETWORK THAT UNITES DIVERSE COMMUNITIES. BY UTILIZING THIS SPACE IN SUCH A WAY, A SHARED EXPERIENCE IS CREATED FOR ALL INDIVIDUALS WHO VISIT, HIGHLIGHTING THE IMPORTANCE OF COMMUNITY, DIVERSITY, AND INCLUSION IN THE DESIGN.





MAP

35°2'13.2"S, 46°21'20.5"E

05 | CHAPTER



LOADING

TO EMPHASIZE THE POWER OF INNOVATION, THIS BACKGROUND WAS TAKEN FROM A PROJECT RENDER OR CONCEPT FROM THIS THESIS AND POST PROCESSED IN DRAMATIC FORMAT FOR THE CONCEPT OF THIS BOOK AS A VIDEO GAME. THE MIDJOURNEY AI PROGRAM WAS USED IN A SPECIFIED ART STYLE. PHOTOS ARE LATER UPSCALED IN NIGHTMAREA/REAL-ESGARAN API.

FINAL REFINED PROMPT:
A BIRDS EYE VIEW OF THE CIRCUIT OF AMERICAS RACE TRACK INSIDE A CITY, RIVER, PARAMETRIC BUILDINGS AT EACH CORNER OF THE TRACK, VALORANT VIDEO GAME STYLE

URBAN THEMATIC MAP



LEGENDS

SANDBOX

ACTION ADVENTURE

PUZZLER

REAL TIME STRATEGY

PARTY GAMES

BATTLE ROYALE

HORROR

SURVIVAL

SIMULATOR

PLATFORMER

SHOOTER

ROLE PLAYING GAME

EXISTING ROADS & PATHS

EXISTING BUILDINGS

COLORADO RIVER

TRACK

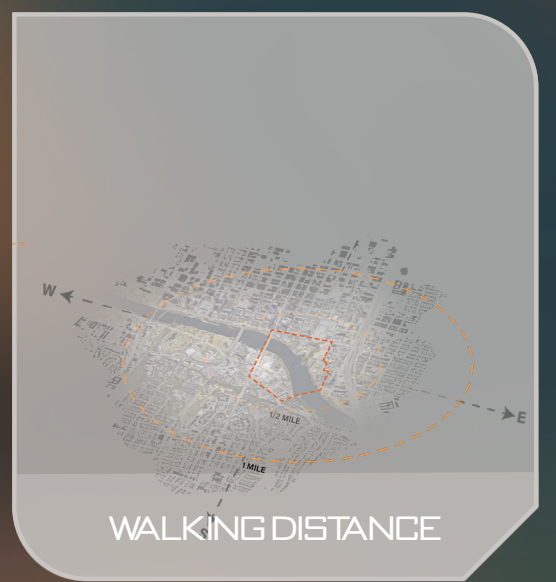
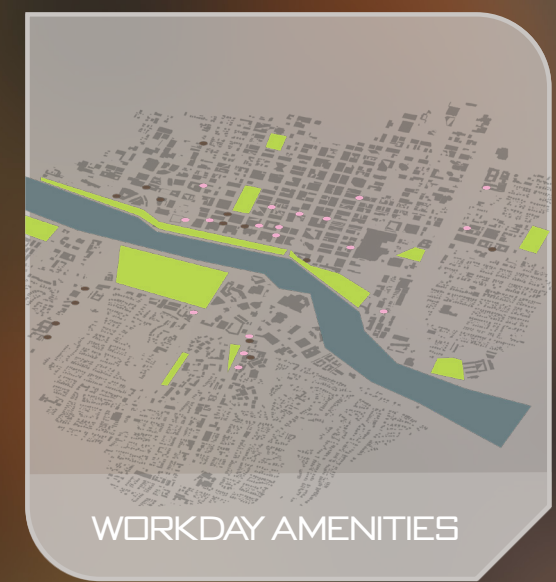
SITE CONTEXT

IN A WORLD DOMINATED BY MUNDANE ENVIRONMENTS, THIS THESIS PROPOSES A NOVEL APPROACH TO DESIGNING PUBLIC SPACES THAT INTEGRATE GAME DESIGN PRINCIPLES AND EXTENDED REALITY TECHNOLOGY. BY EMBRACING THE INHERENT LUDIC BEHAVIOR FOUND IN HUMAN NATURE AND GAMES, I AIM TO ELEVATE EVERYDAY EXPERIENCES.

THIS RESEARCH DELVES INTO THE CAPABILITIES OF EXTENDED REALITY TECHNOLOGY, PSYCHOLOGY OF PLAY AND ITS CULTURAL AND SOCIETAL BACKGROUND, PSYCHOLOGY OF HUMAN ARCHETYPES, AND GAME DESIGN COMPONENTS AS AN EXTRACTION FOR ARCHITECTURAL TYPOLOGIES.

KEY FINDINGS REVEAL THAT BY ANALYZING GAME COMPONENTS, DESIGN LANGUAGES ARE FORMED AND CAN BE USED TO DEVELOP FEASIBLE ARCHITECTURAL TYPOLOGIES. THE SIGNIFICANCE OF EPHEMERALITY IN ARCHITECTURE IS ALSO REVEALED AS A MIRRORING CONCEPT FOR THE NEED OF FREQUENT UPDATES IN GAMES TO MAINTAIN STIMULATION. THERE MUST ALSO BE AN EMPHASIS ON UNDERSTANDING THAT TYPICAL SPACE USERS MAY HAVE DIFFERENT EMOTIONS AND TENDENCIES COMPARED TO GAME USERS, AND THUS, SPACES MUST BE DESIGNED TO COEXIST HARMONIOUSLY WITH THEIR USERS.

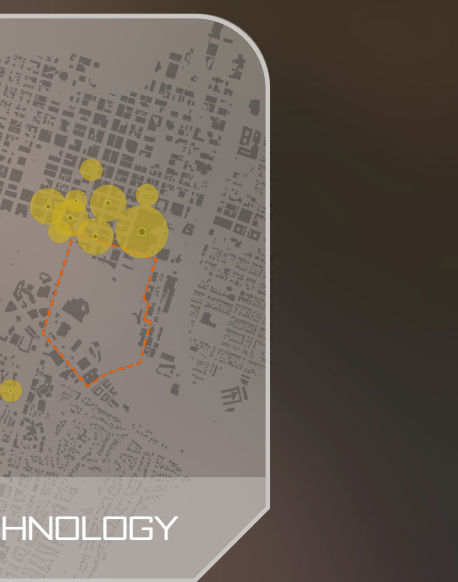
SITE SIGNIFICANCE



BLOCK MORPHOLOGY



SOCIO SPATIAL PATTERNS



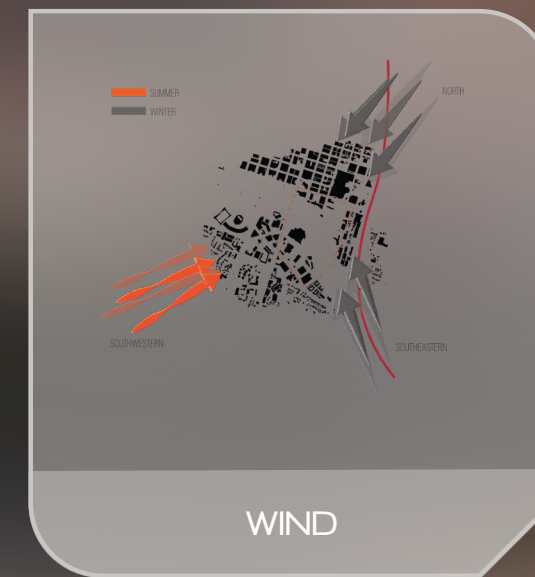
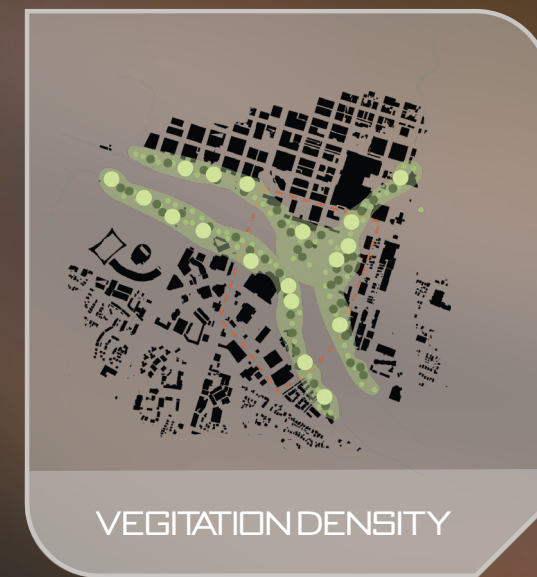
SITE ANALYSIS

IN A WORLD DOMINATED BY MUNDANE ENVIRONMENTS, THIS THESIS PROPOSES A NOVEL APPROACH TO DESIGNING PUBLIC SPACES THAT INTEGRATE GAME DESIGN PRINCIPLES AND EXTENDED REALITY TECHNOLOGY. BY EMBRACING THE INHERENT LUDIC BEHAVIOR FOUND IN HUMAN NATURE AND GAMES, I AIM TO ELEVATE EVERYDAY EXPERIENCES.

THIS RESEARCH DELVES INTO THE CAPABILITIES OF EXTENDED REALITY TECHNOLOGY, PSYCHOLOGY OF PLAY AND ITS CULTURAL AND SOCIETAL BACKGROUND, PSYCHOLOGY OF HUMAN ARCHETYPES, AND GAME DESIGN COMPONENTS AS AN EXTRACTION FOR ARCHITECTURAL TYPOLOGIES.

KEY FINDINGS REVEAL THAT BY ANALYZING GAME COMPONENTS, DESIGN LANGUAGES ARE FORMED AND CAN BE USED TO DEVELOP FEASIBLE ARCHITECTURAL TYPOLOGIES. THE SIGNIFICANCE OF EPHEMERALITY IN ARCHITECTURE IS ALSO REVEALED AS A MIRRORING CONCEPT FOR THE NEED OF FREQUENT UPDATES IN GAMES TO MAINTAIN STIMULATION. THERE MUST ALSO BE AN EMPHASIS ON UNDERSTANDING THAT TYPICAL SPACE USERS MAY HAVE DIFFERENT EMOTIONS AND TENDENCIES COMPARED TO GAME USERS, AND THUS, SPACES MUST BE DESIGNED TO COEXIST HARMONIOUSLY WITH THEIR USERS.

FIGURE GROUND



COLLECTIONS

VARIOUS COORDINATES

06 | CHAPTER

LOADING



TO EMPHASIZE THE POWER OF INNOVATION, THIS BACKGROUND WAS TAKEN FROM A PROJECT RENDER OR CONCEPT FROM THIS THESIS AND POST PROCESSED IN DRAMATIC FORMAT FOR THE CONCEPT OF THIS BOOK AS A VIDEO GAME. THE MIDJOURNEY AI PROGRAM WAS USED IN A SPECIFIED ART STYLE. PHOTOS ARE LATER UPSCALED IN NIGHTMAREA/REAL-ESGARAN API.

FINAL REFINED PROMPT:
LOW ANGLE SHOT. INTERIOR VIEW OF AN UNDERGROUND PARKING LOT WITH SKYLIGHTS. PEOPLE ARE RUNNING AROUND IN THE LOT. CARS ARE PARKED. IN THE STYLE OF VALORANT VIDEO GAME.

THE HQ IS A UNIQUE DESTINATION THAT PROVIDES VISITORS WITH TWO DISTINCT EXPERIENCES: A DETAILED MUSEUM THAT EXPLORES THE HISTORY AND CULTURE OF FORMULA ONE RACING AND A FULLY IMMERSIVE GAME MAP THAT COMBINES THE PHYSICAL BEAUTY OF THE BUILDING WITH EXTENDED REALITY TECHNOLOGY, CREATING A ONE-OF-A-KIND FIRST-PERSON SHOOTER GAMING EXPERIENCE.

THE MUSEUM IS A MUST-SEE DESTINATION FOR RACING ENTHUSIASTS AND FAMILIES ALIKE. IT FEATURES A RANGE OF INTERACTIVE EXHIBITS, INCLUDING VINTAGE RACE CARS, RARE MEMORABILIA, AND MULTIMEDIA DISPLAYS THAT OFFER A WEALTH OF INFORMATION ABOUT THE SPORT. GUIDED TOURS AND EDUCATIONAL PROGRAMS ARE ALSO AVAILABLE, PROVIDING VISITORS OF ALL AGES WITH A COMPREHENSIVE UNDERSTANDING OF FORMULA ONE RACING.

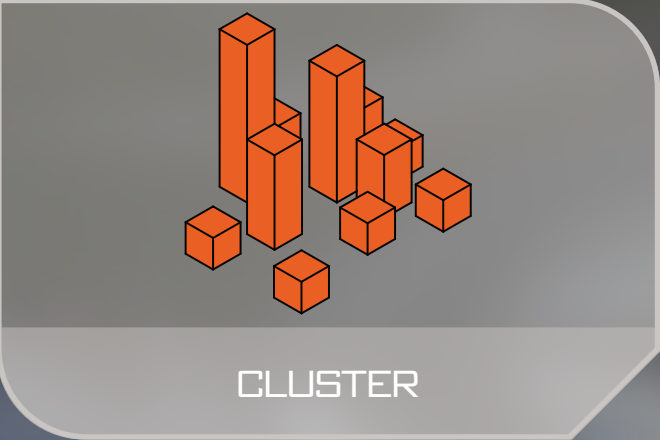
THE HQ, IS ALSO VIRTUAL GAME MAP THAT SEAMLESSLY BLENDS THE PHYSICAL BEAUTY OF THE BUILDING WITH EXTENDED REALITY TECHNOLOGY, OFFERING AN UNPARALLELED GAMING EXPERIENCE. THE GLASSES YOU HAVE ENABLES YOU TO MOVE AROUND THE GAME MAP AS IF YOU WERE REALLY INSIDE IT, INTERACTING WITH ENEMIES AND OBSTACLES IN REAL-TIME.

THE GAME ITSELF IS AN IDEAL BLEND OF SIMULATION AND FIRST-PERSON SHOOTER GAMEPLAY, CHALLENGING PLAYERS TO USE THEIR SHOOTER SKILLS TO OVERCOME A RANGE OF OBSTACLES AND CHALLENGES. THE WINDING CURVES AND TREE-COVERED EXTERIOR OF THE BUILDING PROVIDE THE PERFECT SETTING FOR PLAYERS TO FEND OFF ENEMY ATTACKERS WHO ARE TRYING TO DISRUPT THE GALLERY’S OPERATIONS.

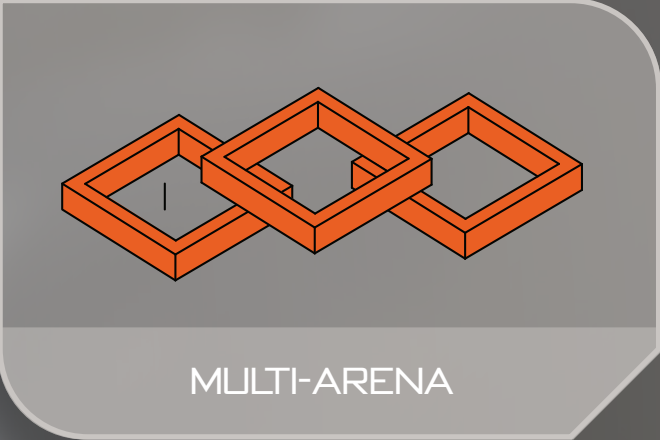
IN ADDITION TO BEING A FANTASTIC GAME, THE GALLERY ALSO SERVES AS A SHOWCASE FOR EXTENDED REALITY TECHNOLOGY, ALLOWING PLAYERS TO EXPERIENCE THE FULL POTENTIAL OF THIS TECH. VISITORS CAN SEE FIRSTHAND HOW EXTENDED REALITY CAN TRANSFORM THE GAMING EXPERIENCE AND THE FORMULA 1 WORLD, TAKING IT TO A WHOLE NEW LEVEL OF IMMERSION AND EXCITEMENT. WHETHER YOU’RE A RACING ENTHUSIAST, A GAMER, OR SIMPLY SOMEONE WHO LOVES CUTTING-EDGE TECHNOLOGY, THIS COLLECTION IS SURE TO PLEASE YOU.



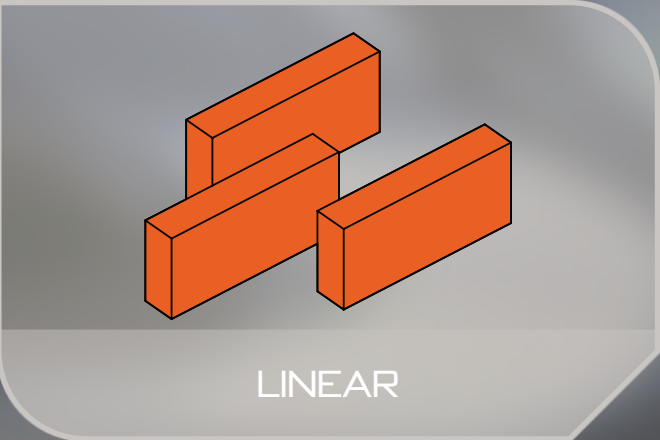
DESIGN LANGUAGE



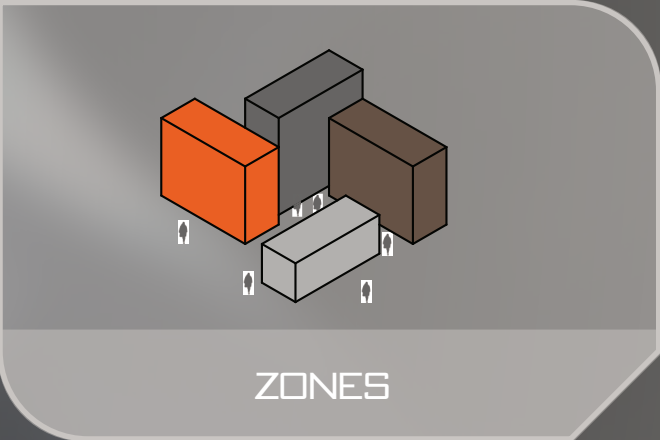
CLUSTER



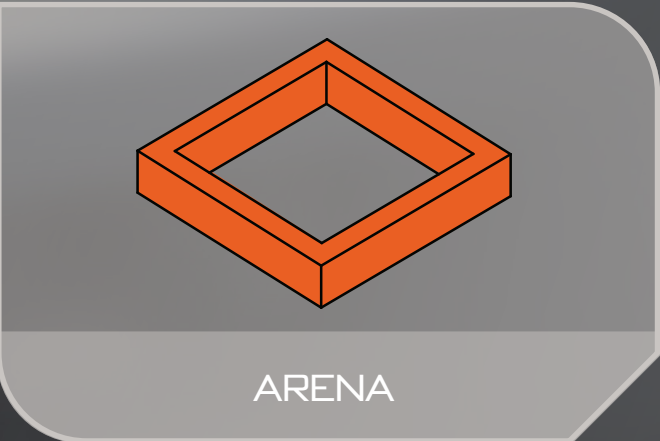
MULTI-ARENA



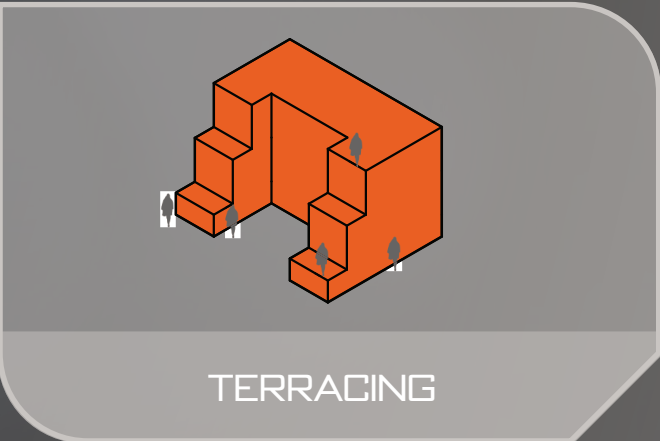
LINEAR



ZONES



ARENA



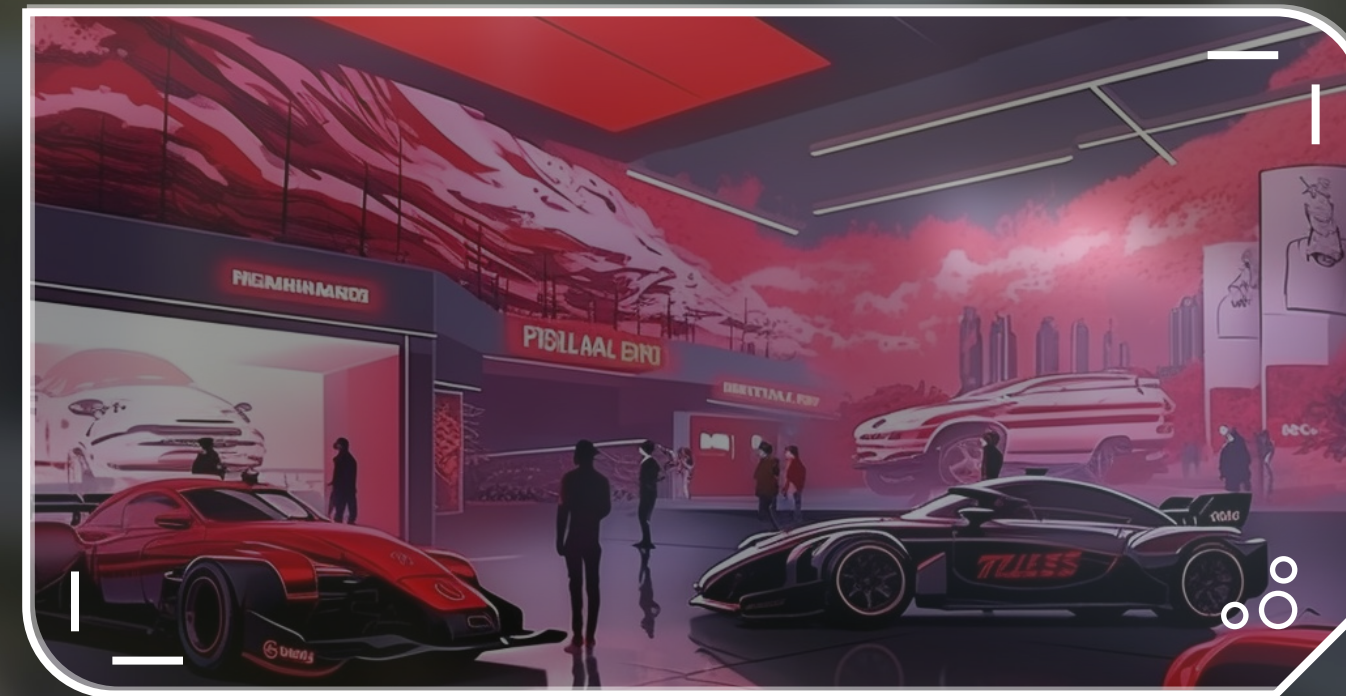
TERRACING

HQ

1ST FLOOR



2ND FLOOR



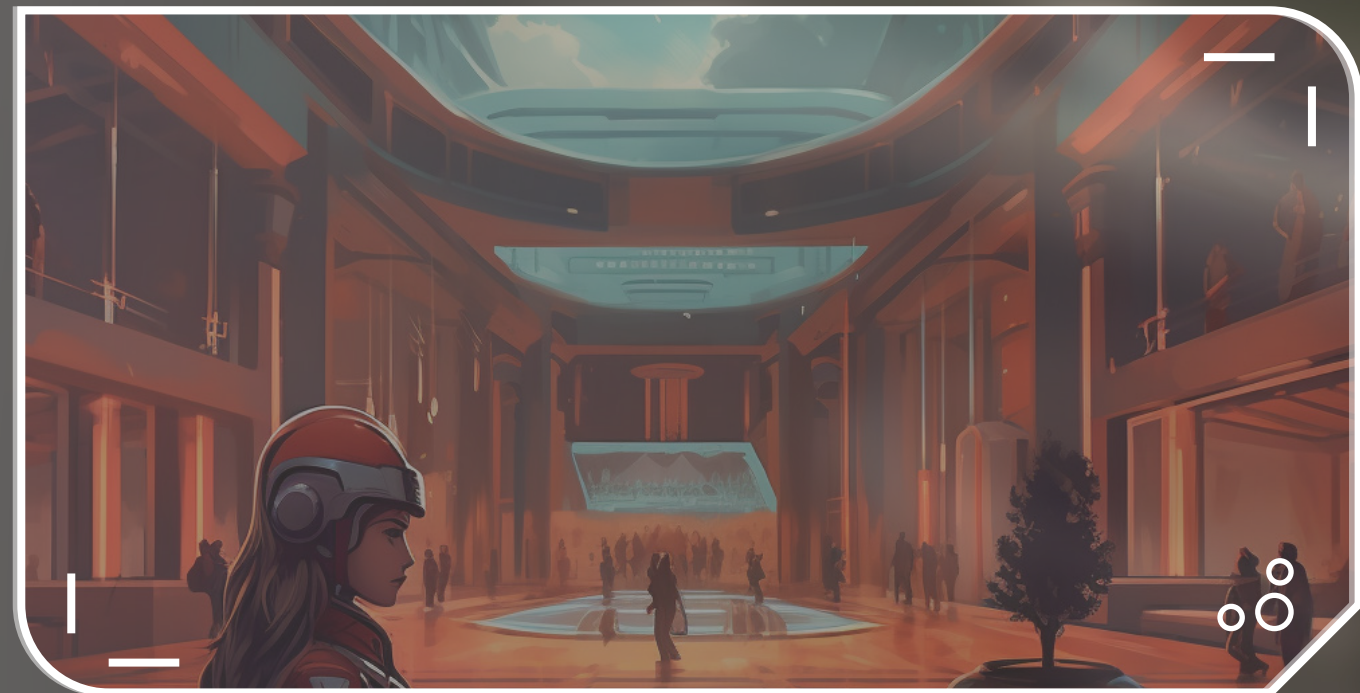
GALLERY



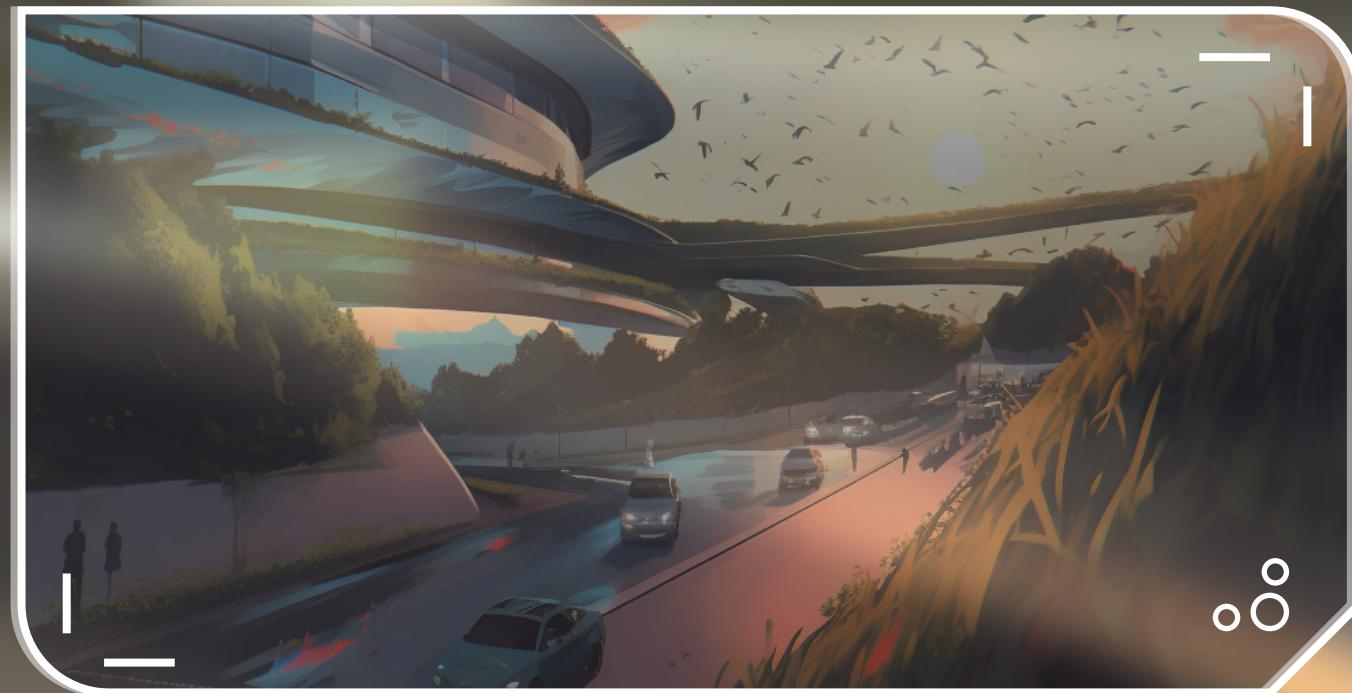
ROOF TOP



HQ



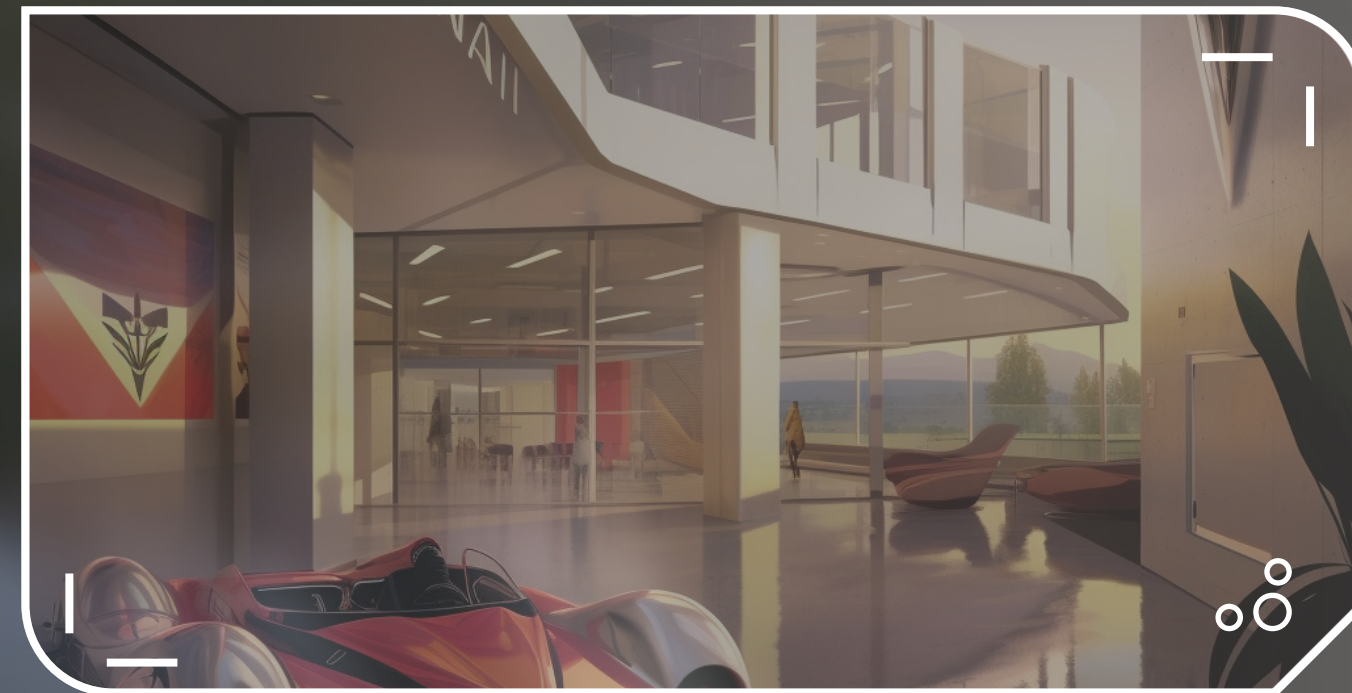
ENTRANCE



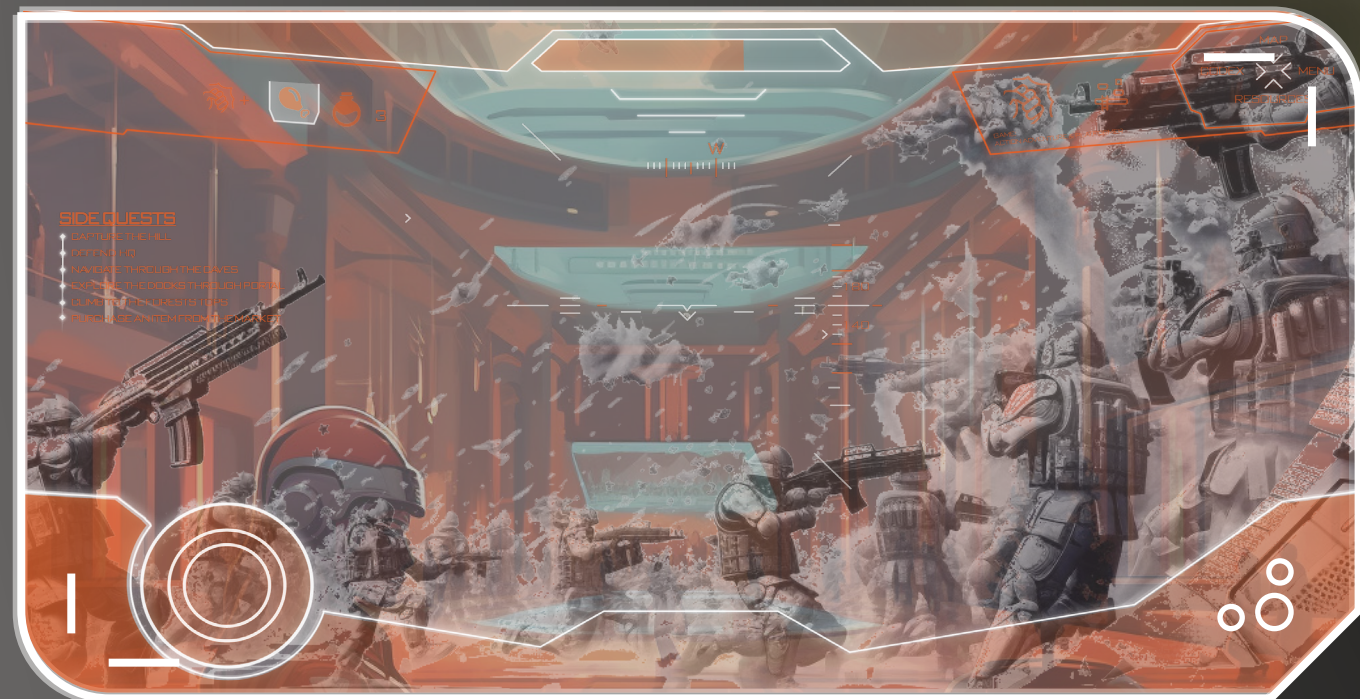
FUTURE GALLERY



RACE TRACK



OFFICE



THE HILL'S ARCHITECTURE IS DESIGNED TO FACILITATE THE GATHERING OF PEOPLE FROM ALL WALKS OF LIFE. ITS SPACIOUS LAYOUT AND COMFORTABLE SEATING AREAS PROVIDE AMPLE SPACE FOR INDIVIDUALS AND GROUPS TO GATHER, WHETHER FOR RELAXATION OR WORK. ITS CENTRAL LOCATION IN THE CITY, EASILY ACCESSIBLE VIA PUBLIC TRANSPORTATION, MAKES IT A HUB OF ACTIVITY, ATTRACTING VISITORS FROM ALL AROUND.

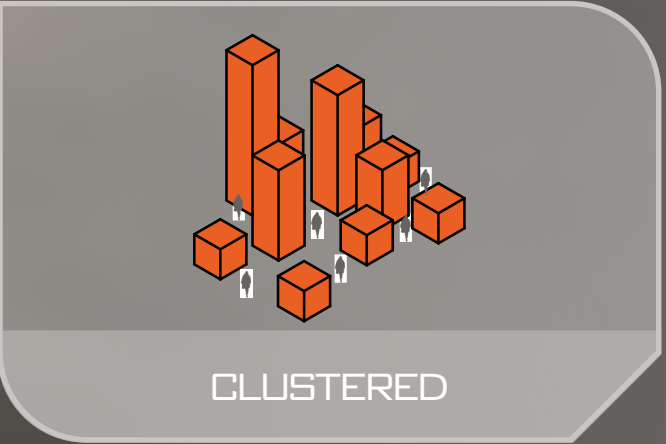
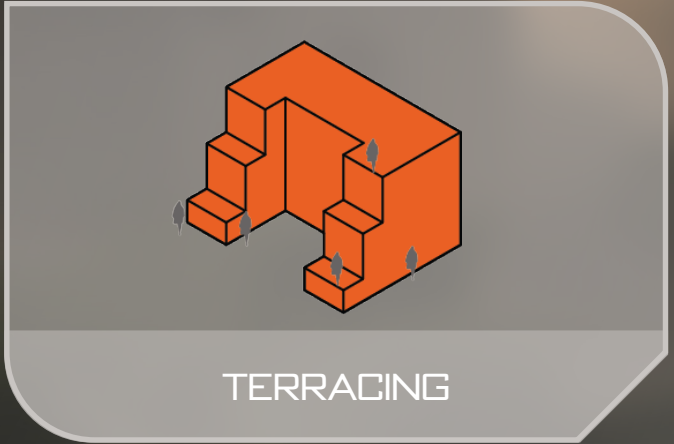
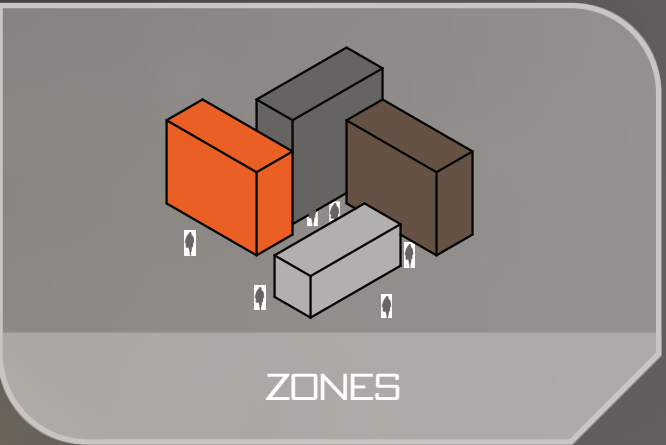
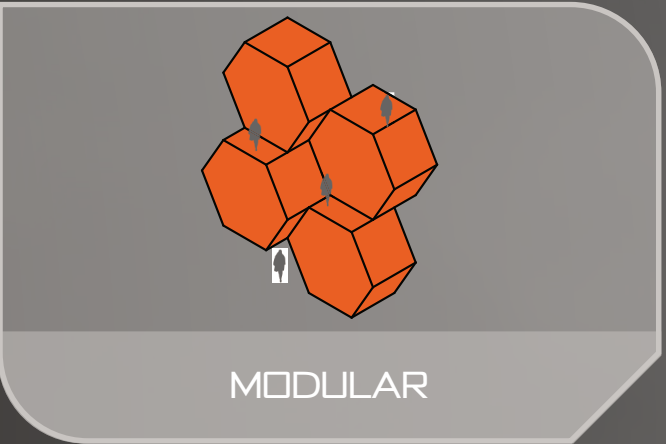
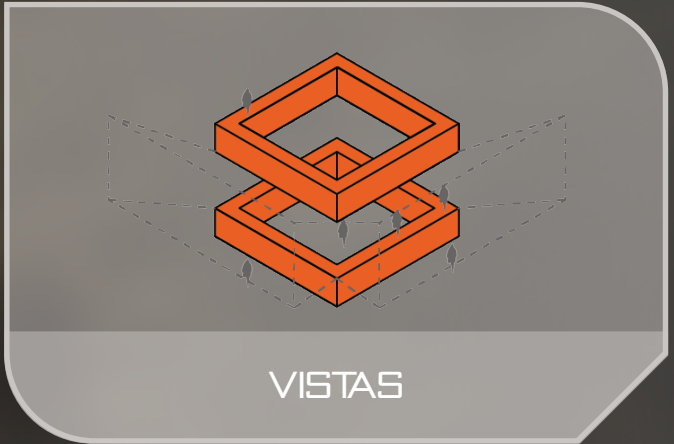
BUT WHAT TRULY SETS THE HILL APART IS ITS INCORPORATION OF TECHNOLOGY. THE AUGMENTED REALITY GAME OF KING OF THE HILL IS A UNIQUE FEATURE, PROVIDING VISITORS WITH AN IMMERSIVE EXPERIENCE THAT COMBINES PHYSICAL ACTIVITY WITH VIRTUAL ELEMENTS. THE GAME IS PLAYED BY PARTICIPANTS WEARING AR GLASSES, WHERE THEY HAVE TO CLIMB THE HILL AND BATTLE FOR THE TOP SPOT, USING VIRTUAL OBJECTS TO DEFEND THEIR POSITION. THIS DYNAMIC GAME IS NOT ONLY ENTERTAINING BUT ALSO PROMOTES PHYSICAL ACTIVITY, TEAMWORK, AND STRATEGIC THINKING.

THE HILL'S SANDBOX GAME IS ANOTHER INNOVATIVE FEATURE THAT ALLOWS VISITORS TO UNLEASH THEIR CREATIVITY AND BUILD THEIR OWN VIRTUAL WORLD. WITH THE HELP OF AR TECHNOLOGY, VISITORS CAN CREATE AND DESIGN THEIR OWN LANDSCAPES, BUILDINGS, AND STRUCTURES, AND EVEN INTERACT WITH THEM IN REAL-TIME. THIS FEATURE PROMOTES IMAGINATION AND CREATIVITY, MAKING THE HILL A HUB OF INSPIRATION FOR INDIVIDUALS OF ALL AGES.

IN CONCLUSION, THE HILL IS AN OUTSTANDING ARCHITECTURAL STRUCTURE THAT OFFERS A UNIQUE AND VIBRANT SPACE FOR GATHERING, STUDYING, AND PLAYING. ITS INCORPORATION OF TECHNOLOGY, SUCH AS AR GLASSES AND SANDBOX GAMES, ELEVATES IT FROM A TYPICAL GATHERING SPACE TO AN INTERACTIVE HUB OF ACTIVITY THAT INSPIRES IMAGINATION, CREATIVITY, AND SOCIAL INTERACTION. THE HILL IS A TESTAMENT TO THE POWER OF ARCHITECTURE TO BRING PEOPLE TOGETHER AND FOSTER MEANINGFUL CONNECTIONS

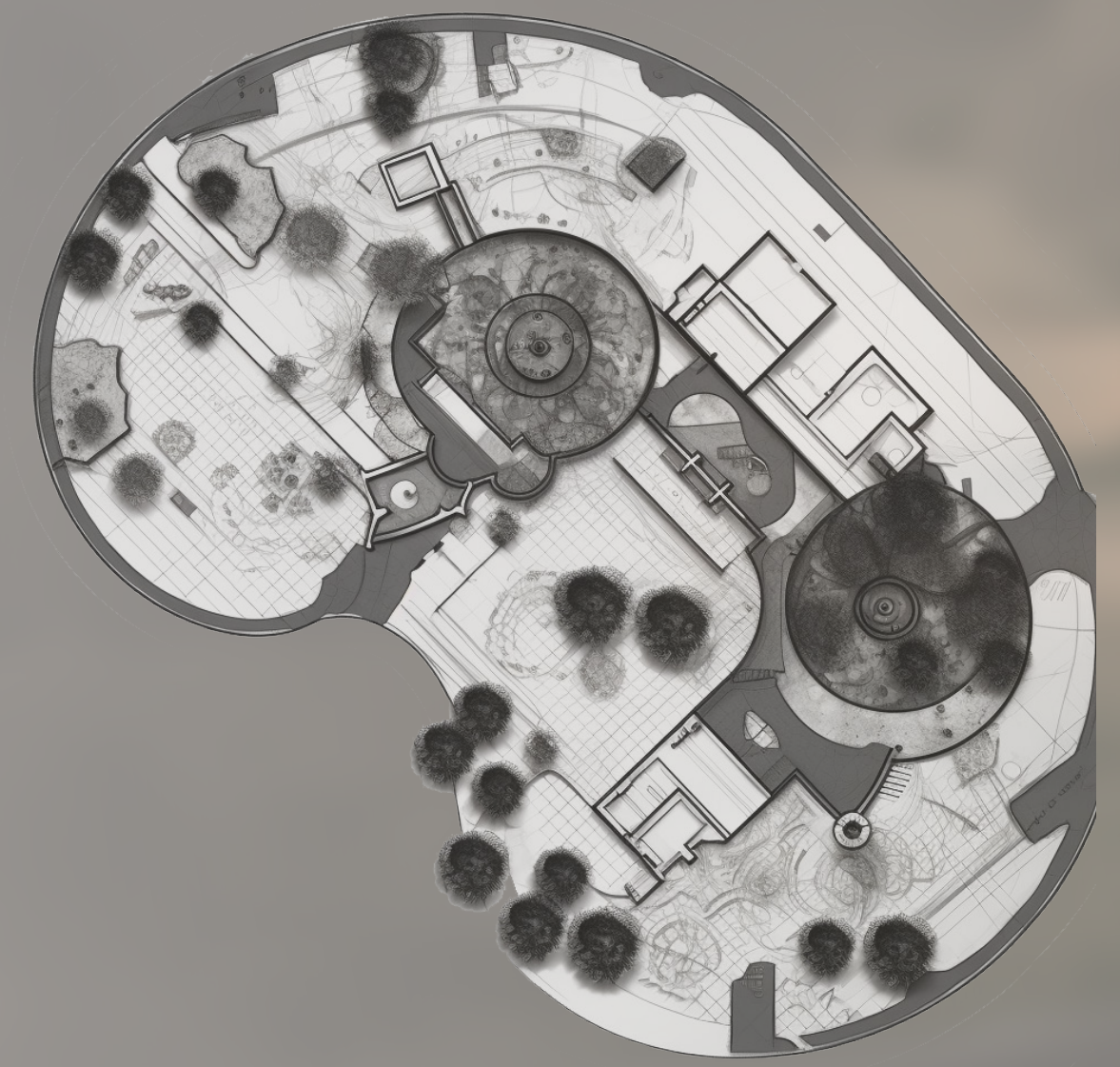


DESIGN LANGUAGE

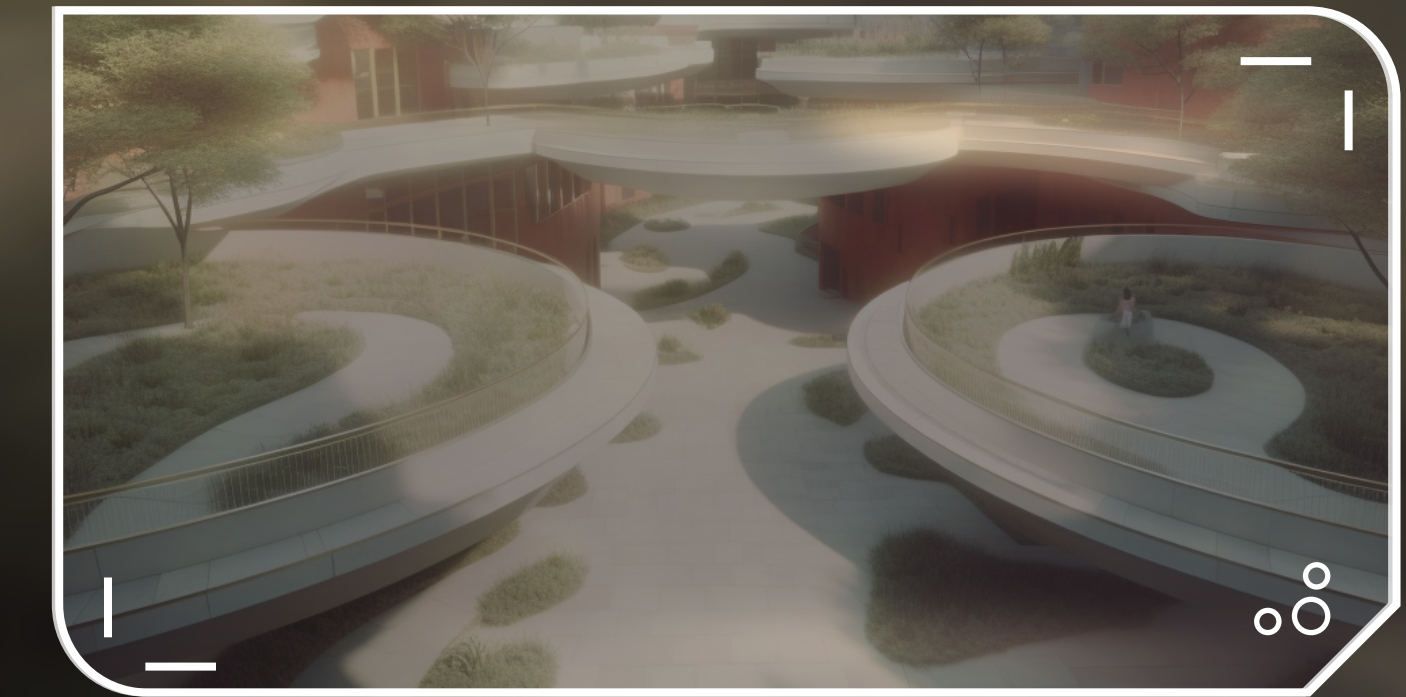
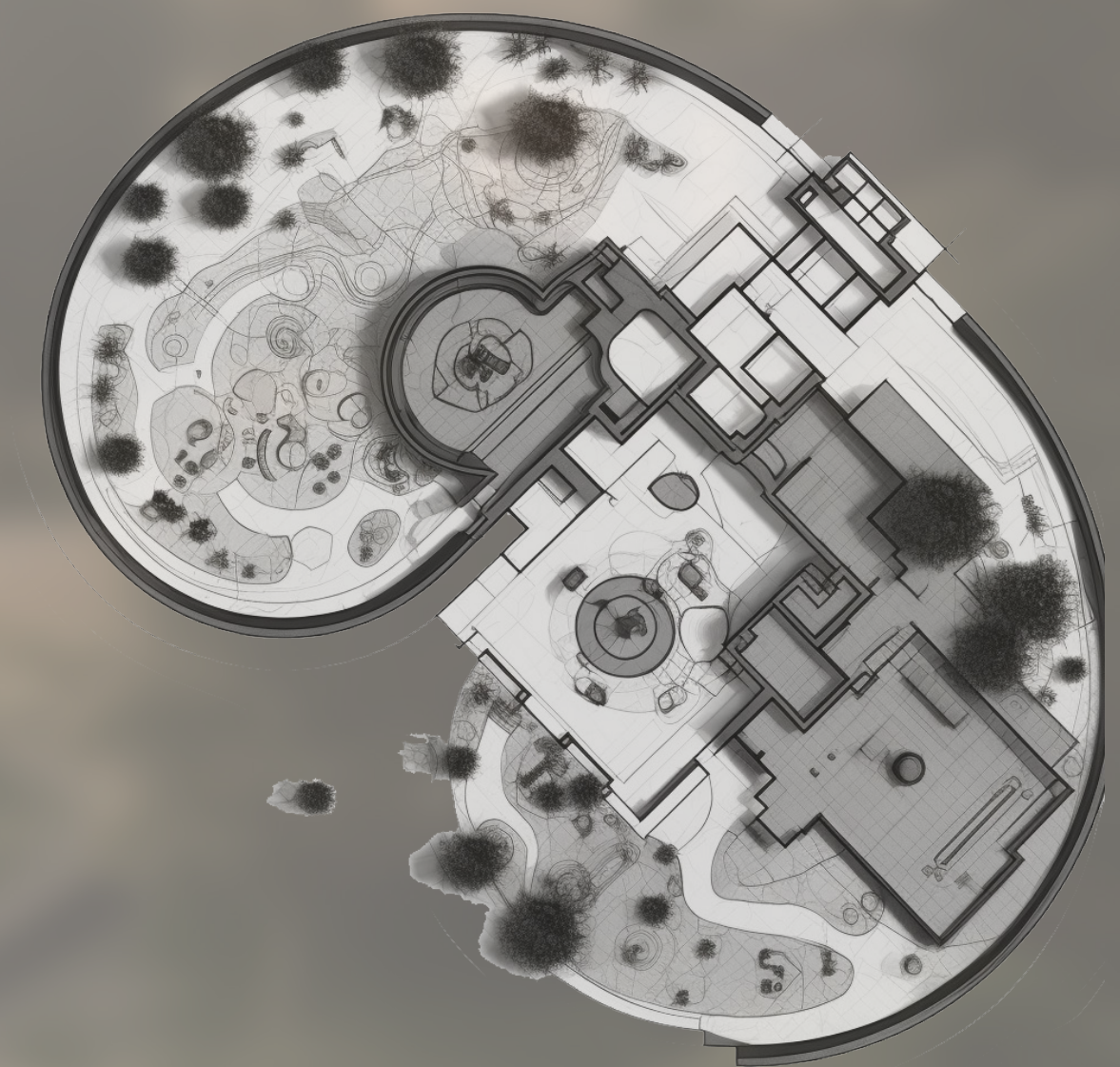


HILLS

1ST FLOOR



2ND FLOOR



EXTERIOR 1



EXTERIOR 2



DOCKS



THE DOCK'S DESIGN IS CENTERED ON FUNCTIONALITY AND AESTHETIC APPEAL. THE BUILDING'S MODERN AND SLEEK EXTERIOR REFLECTS ITS PURPOSE AS A HUB FOR WATER-BASED ACTIVITIES. THE INTERIOR OF THE BUILDING FEATURES AMPLE STORAGE FOR BOATS AND FISHING EQUIPMENT, AS WELL AS A LOUNGE AREA FOR VISITORS TO RELAX AND ENJOY THE VIEW.

THE AUGMENTED REALITY GAME OFFERED BY THE DOCK IS A UNIQUE AND EXCITING FEATURE THAT SETS IT APART FROM OTHER DOCKS. THE GAME INVOLVES PARTICIPANTS WEARING AR GLASSES AND CLIMBING A SET OF CHALLENGING OBSTACLES THAT REQUIRE BOTH PHYSICAL AND MENTAL ABILITY TO OVERCOME. THE GAME ALSO INCORPORATES PUZZLE-SOLVING ELEMENTS, MAKING IT A COMPREHENSIVE EXERCISE FOR THE MIND AND BODY.

IN ADDITION TO THE GAME, THE DOCK OFFERS OTHER HEALTH-CENTRIC ACTIVITIES, SUCH AS YOGA AND MEDITATION CLASSES. THE BUILDING'S EXPANSIVE OUTDOOR AREA PROVIDES THE PERFECT SPACE FOR THESE ACTIVITIES, AS VISITORS CAN ENJOY THE CALMING AND REJUVENATING EFFECTS OF NATURE WHILE ENGAGING IN PHYSICAL EXERCISE.

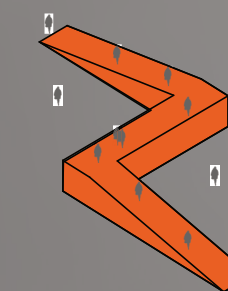
THE BUILDING'S FOCUS ON HEALTH AND WELLNESS IS APPARENT IN EVERY ASPECT OF ITS DESIGN, FROM THE SPACIOUS AND WELL-LIT INTERIOR TO THE OUTDOOR SPACES THAT OFFER VISITORS A CHANCE TO CONNECT WITH NATURE.

THE DOCK IS A UNIQUE AND INNOVATIVE ARCHITECTURAL STRUCTURE THAT OFFERS A FULL RANGE OF HEALTH-CENTRIC ACTIVITIES. FROM FISHING AND BOAT RIDING TO AUGMENTED REALITY GAMES AND YOGA CLASSES, THE DOCK PROVIDES A HOLISTIC APPROACH TO WELLNESS, CATERING TO BOTH PHYSICAL AND MENTAL HEALTH. ITS DESIGN IS FUNCTIONAL YET AESTHETIC, PROVIDING VISITORS WITH A SERENE AND TRANQUIL ENVIRONMENT THAT PROMOTES RELAXATION AND REJUVENATION. THE DOCK IS AN EXCELLENT EXAMPLE OF ARCHITECTURE THAT IS NOT JUST FUNCTIONAL BUT ALSO PROMOTES WELL-BEING AND CONNECTION WITH NATURE.

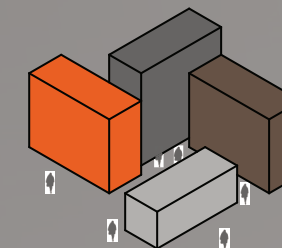


THEMATIC

DESIGN LANGUAGE



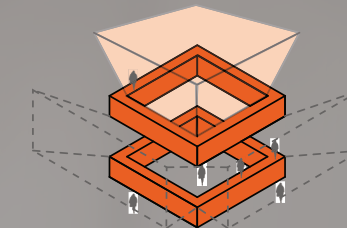
LANDSCAPED ROOFS



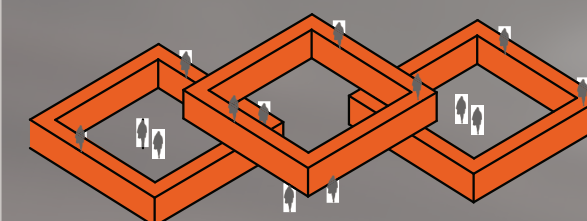
ZONING



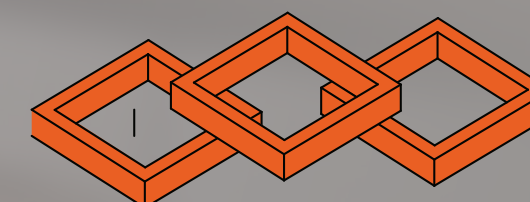
INTERTWINED



VISTAS



MULTI-ARENA



TERRACED AREMA

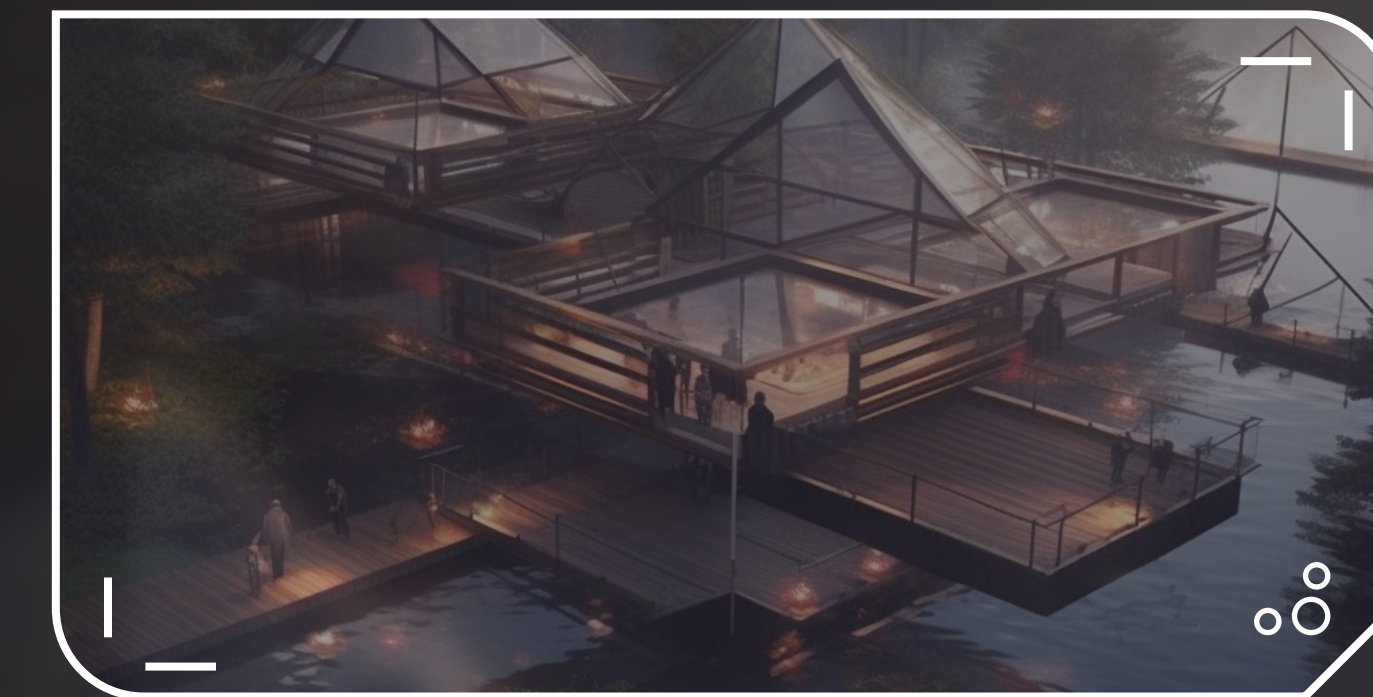
DOCKS

DOCKS

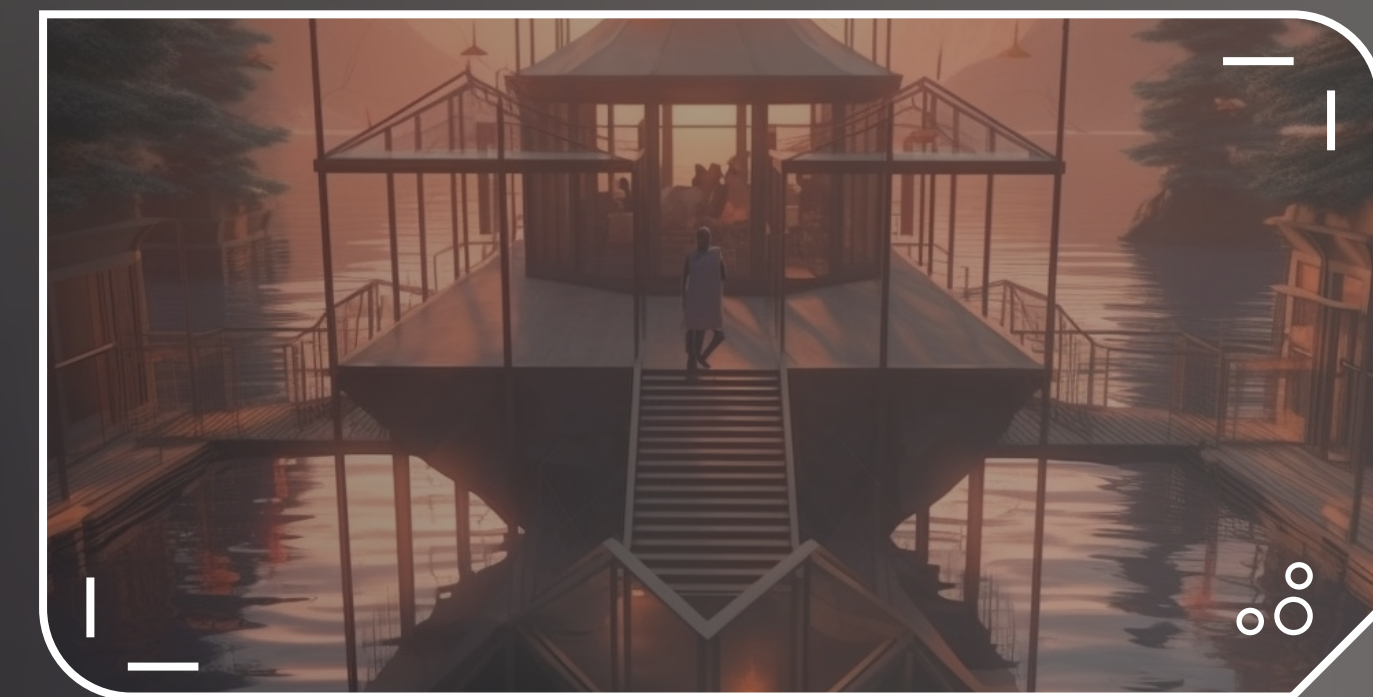
1ST FLOOR



2ND FLOOR



EXTERIOR



FACING



MARKET

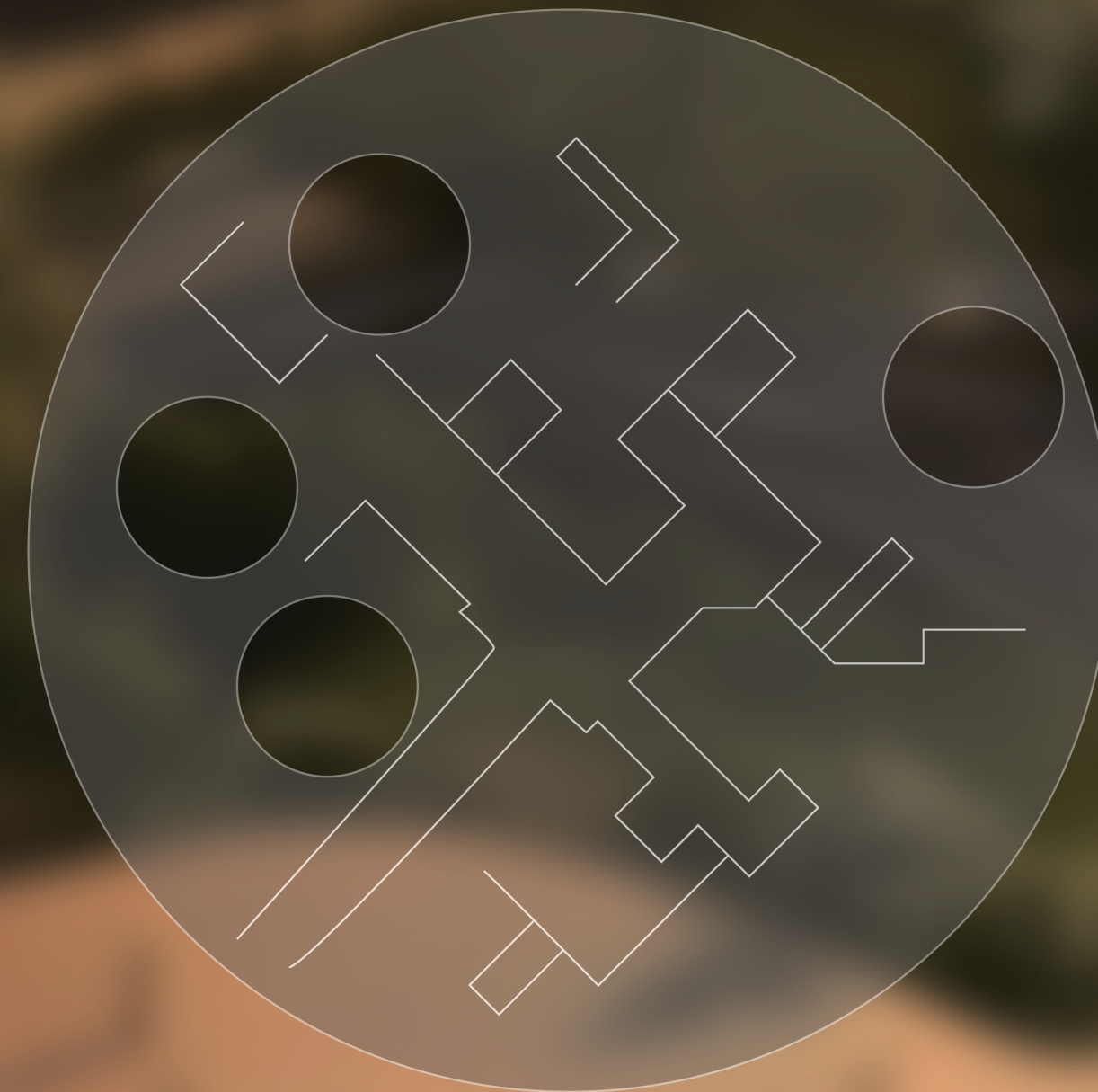


THE MARKET IS A VIBRANT AND BUSTLING ARCHITECTURAL STRUCTURE THAT SERVES AS AN OPEN-AIR FARMERS' MARKET AND A HUB FOR LOCAL COMMERCE. THE MARKET IS LOCATED IN THE HEART OF THE CITY, AND IT OFFERS VISITORS A CHANCE TO BUY FRESH AND LOCALLY-SOURCED PRODUCE AND OTHER GOODS. IN ADDITION TO BEING A GREAT PLACE TO GRAB FRESH FOOD, THE MARKET SERVES AS THE BEGINNING OF THE URBAN PARK, CONNECTING THE TECHNOLOGY DISTRICT TO THE BRIDGE.

THE MARKET'S DESIGN IS UNIQUE AND STRIKING, FEATURING SEVERAL CLOSED-IN KIOSKS THAT PROVIDE VENDORS WITH A PLACE TO SELL THEIR GOODS. THE OPEN-AIR DESIGN OF THE MARKET ALLOWS FOR A LIVELY AND ENERGETIC ATMOSPHERE, WITH VENDORS CALLING OUT TO POTENTIAL CUSTOMERS AND VISITORS MILLING ABOUT, SOAKING UP THE VIBRANT ENERGY OF THE MARKET.

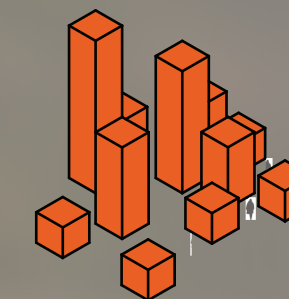
IN ADDITION TO THE FARMERS' MARKET, THE MARKET ALSO FEATURES AN AUGMENTED REALITY GAME THAT TAKES THE FORM OF AN RPG AND BATTLE ROYALE. THIS GAME ALLOWS VISITORS TO EXPLORE THE MARKET IN A NEW AND EXCITING WAY, USING THEIR SMARTPHONES TO NAVIGATE A VIRTUAL WORLD THAT OVERLAYS THE REAL-WORLD ENVIRONMENT. THE GAME ENCOURAGES VISITORS TO EXPLORE EVERY NOOK AND CRANNY OF THE MARKET, UNCOVERING HIDDEN TREASURES AND ENGAGING IN EPIC BATTLES AGAINST OTHER PLAYERS.

THE MARKET IS A UNIQUE AND EXCITING ARCHITECTURAL STRUCTURE THAT SERVES AS A HUB FOR LOCAL COMMERCE AND A GATEWAY TO THE URBAN PARK. ITS OPEN-AIR DESIGN, CLOSED-IN KIOSKS, AND AUGMENTED REALITY GAME PROVIDE VISITORS WITH A MEMORABLE AND ENGAGING EXPERIENCE. THE MARKET IS A TESTAMENT TO THE POWER OF ARCHITECTURE TO CREATE SPACES THAT FOSTER SOCIAL INTERACTION, PROMOTE WELL-BEING, AND ENCOURAGE EXPLORATION AND DISCOVERY.

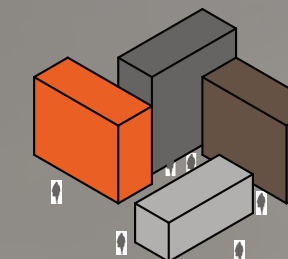


THEMATIC

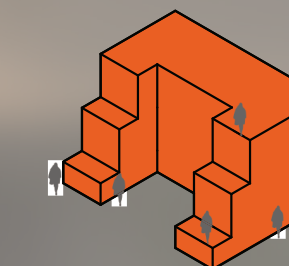
DESIGN LANGUAGE



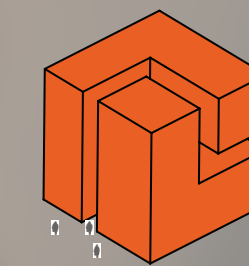
CLUSTERED



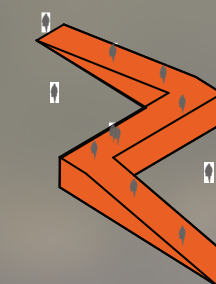
ZONES, EXPANSION, COMPRESSION



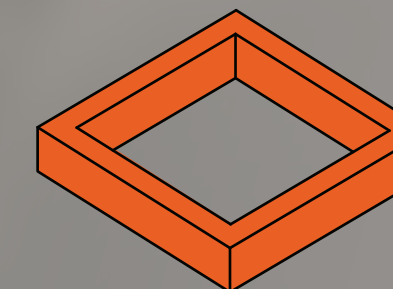
TERRACING



VOIDED CORRIDOR



LANDSCAPING ROOFS



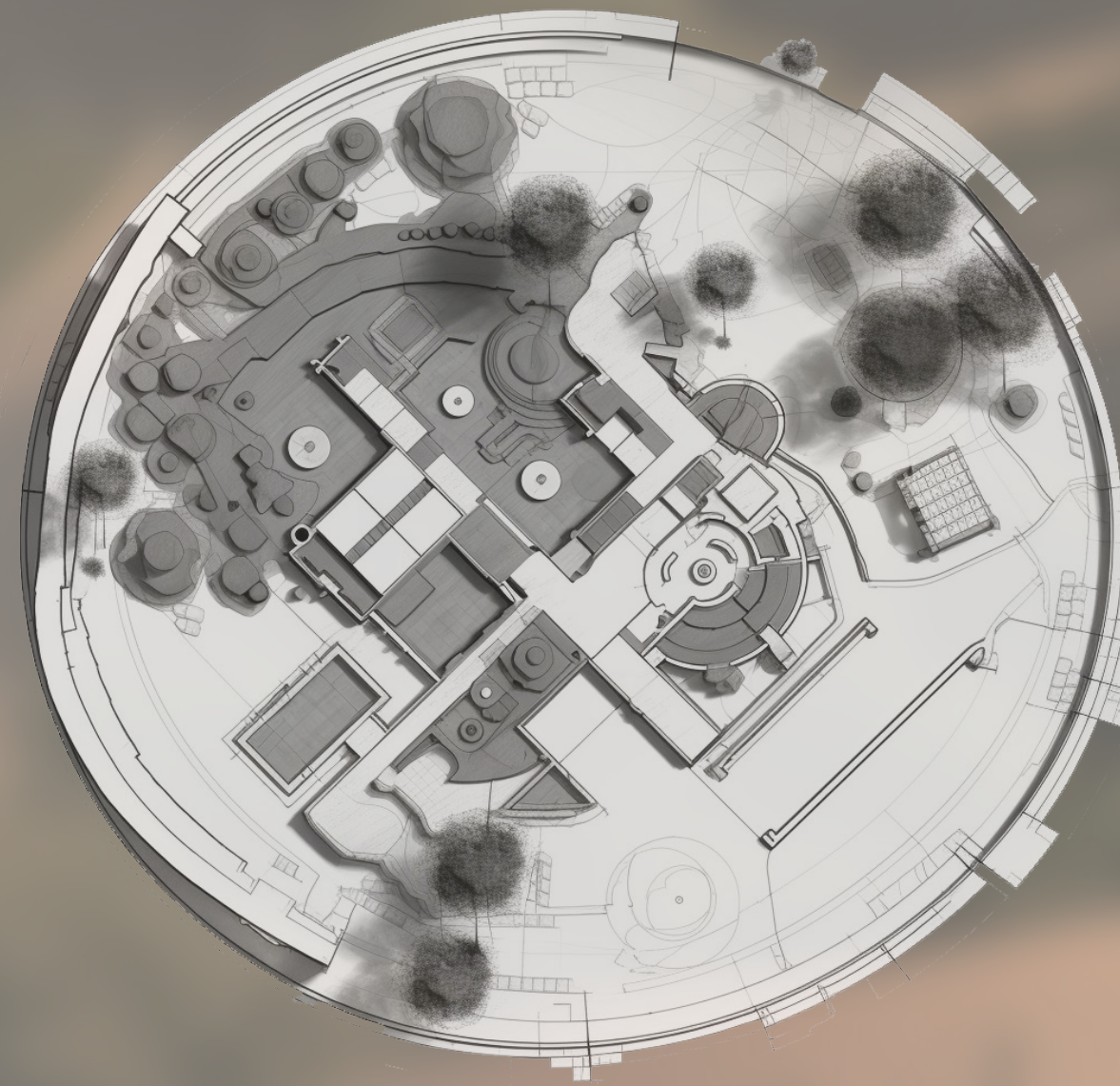
ARENA

MARKET

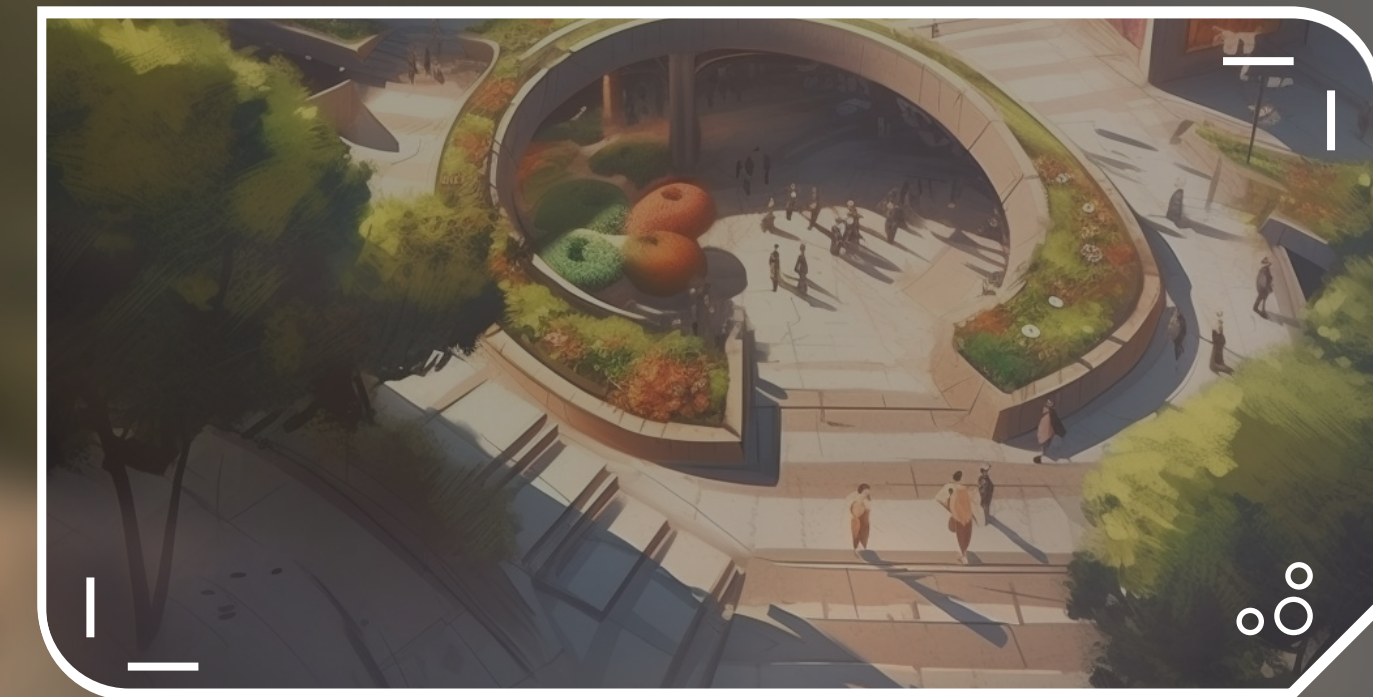
1ST FLOOR



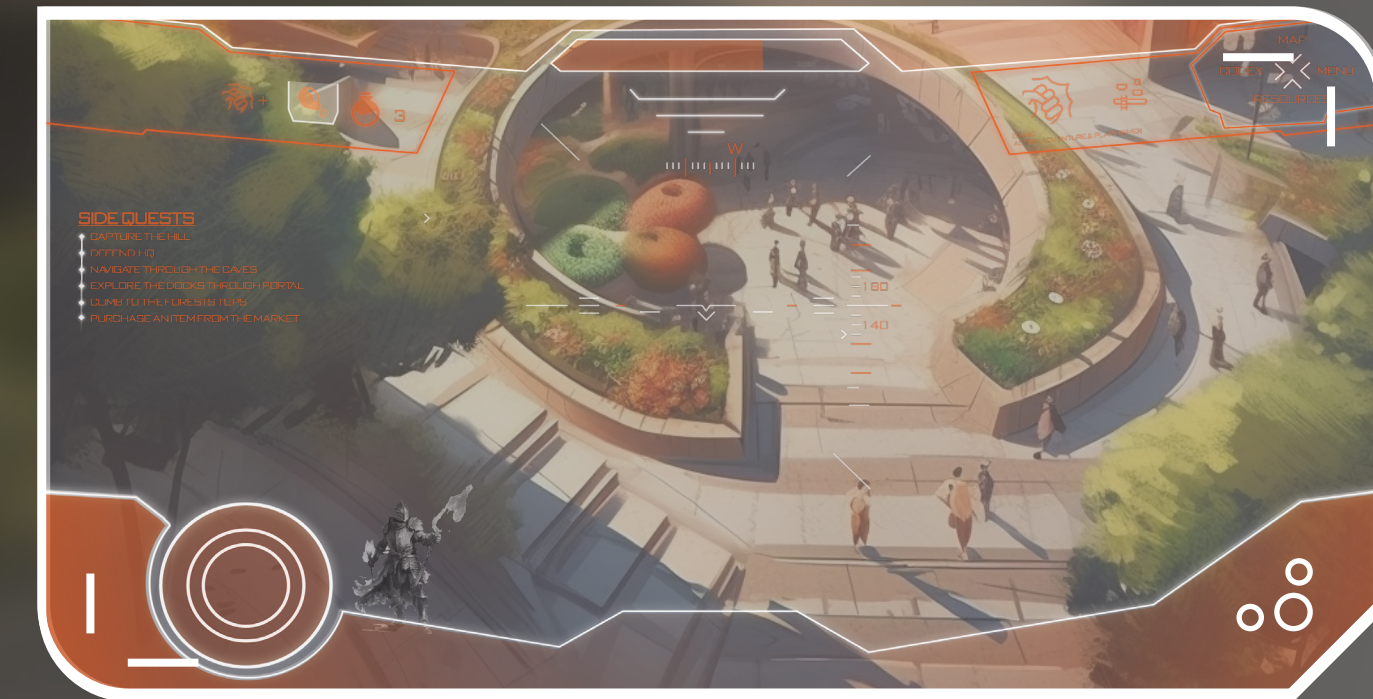
2ND FLOOR



EXTERIOR 1



EXTERIOR 2



FORESTS



THE FORESTS OFFERS A VARIETY OF ACTIVITIES FOR VISITORS, INCLUDING HIKING, CLIMBING, AND OTHER OUTDOOR ACTIVITIES. VISITORS CAN EXPLORE THE STRUCTURE'S VARIOUS TRAILS AND PATHS, TAKING IN THE LUSH GREENERY AND NATURAL BEAUTY OF THE FOREST. THOSE LOOKING FOR A MORE CHALLENGING WORKOUT CAN CLIMB THE STRUCTURE'S TOWERING TREES OR NAVIGATE ITS CHALLENGING OBSTACLE COURSES.

IN ADDITION TO ITS PHYSICAL ACTIVITIES, THE FORESTS ALSO FEATURES AN AUGMENTED REALITY GAME THAT ALLOWS VISITORS TO EXPLORE THE STRUCTURE IN A NEW AND EXCITING WAY. THE GAME TAKES THE FORM OF A PLATFORMER OR ACTION-ADVENTURE CAMPAIGN, CHALLENGING PLAYERS TO NAVIGATE THE STRUCTURE'S VARIOUS OBSTACLES AND PUZZLES IN ORDER TO REACH THEIR GOALS. THE GAME ADDS A NEW LEVEL OF EXCITEMENT TO THE FORESTS, PROVIDING VISITORS WITH A UNIQUE AND IMMERSIVE EXPERIENCE THAT THEY WON'T SOON FORGET.

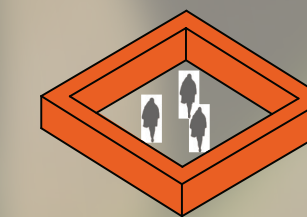
THE FORESTS IS DESIGNED TO BE A SPACE THAT PROMOTES HEALTH AND WELL-BEING, OFFERING VISITORS A CHANCE TO EXERCISE AND RECONNECT WITH NATURE. ITS UNIQUE DESIGN, INCORPORATING BOTH PHYSICAL AND DIGITAL ELEMENTS, CREATES AN EXPERIENCE THAT IS BOTH CHALLENGING AND ENJOYABLE. THE FORESTS IS A TESTAMENT TO THE POWER OF ARCHITECTURE TO CREATE SPACES THAT PROMOTE HEALTHY LIVING AND ENCOURAGE EXPLORATION AND DISCOVERY.

THE FORESTS IS A ONE-OF-A-KIND ARCHITECTURAL STRUCTURE THAT OFFERS VISITORS A CHANCE TO ESCAPE THE HUSTLE AND BUSTLE OF URBAN LIFE AND RECONNECT WITH NATURE. ITS DESIGN, INCORPORATING BOTH PHYSICAL AND DIGITAL ELEMENTS, PROVIDES VISITORS WITH A UNIQUE AND IMMERSIVE EXPERIENCE THAT IS BOTH CHALLENGING AND ENJOYABLE. THE FORESTS IS A TESTAMENT TO THE POWER OF ARCHITECTURE TO CREATE SPACES THAT PROMOTE HEALTH AND WELL-BEING AND ENCOURAGE EXPLORATION AND DISCOVERY.

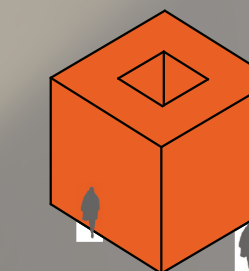


THEMATIC

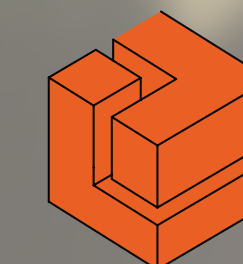
DESIGN LANGUAGE



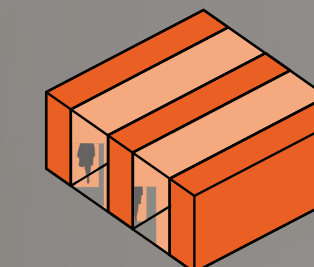
ARENA



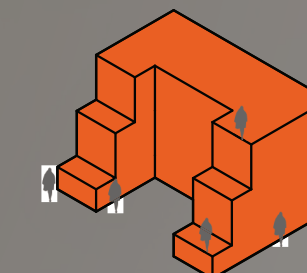
ATRIUM



VOIDS



TRANSITIONAL



TERRACING



HIGH CEILING

FORESTS

1ST FLOOR



2ND FLOOR



BELOW GROUND



ABOVE GROUND



CAVES

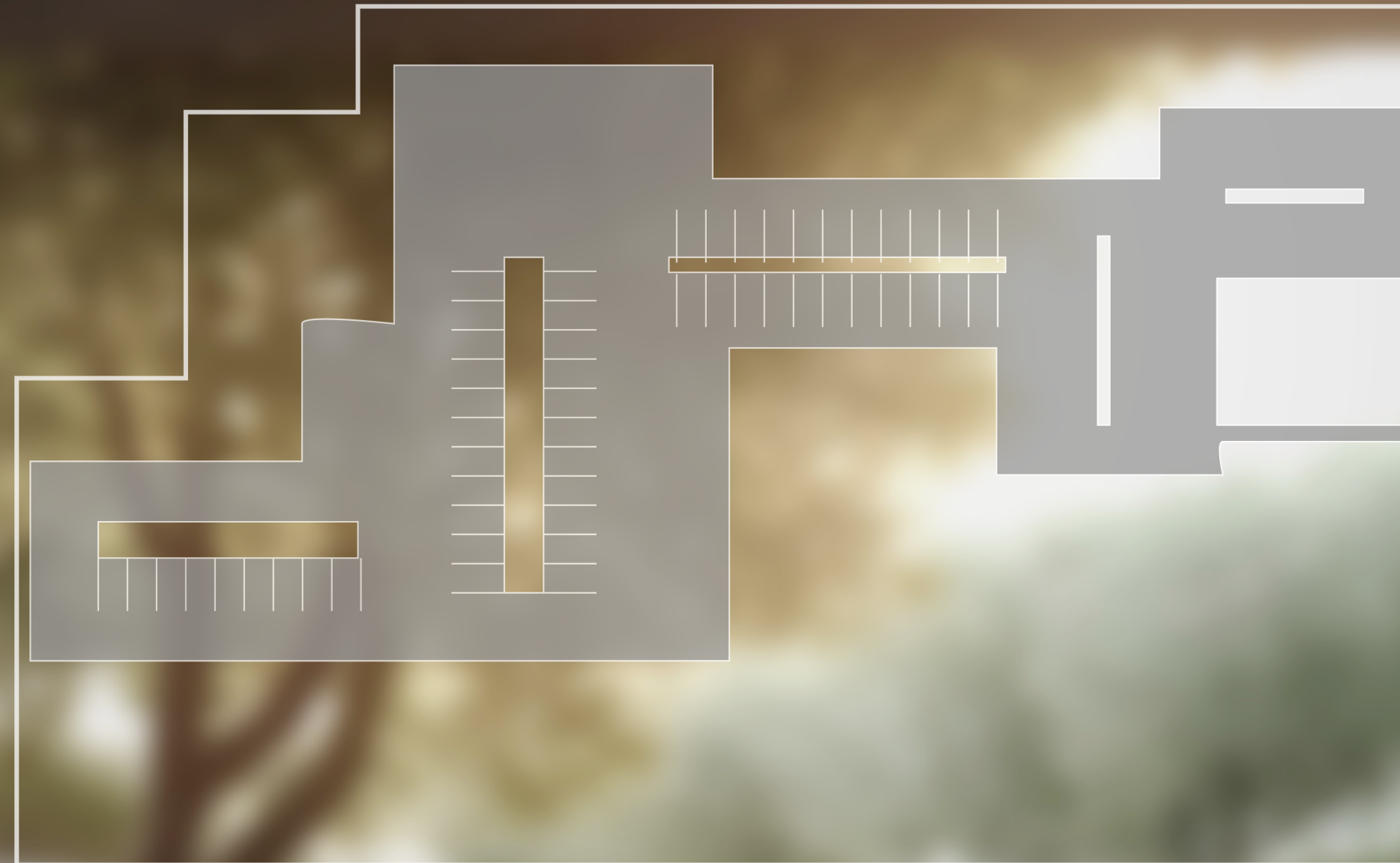


THE CAVE IS NOT ONLY A FUNCTIONAL SPACE FOR PARKING, BUT IT IS ALSO AN ARCHITECTURAL MARVEL THAT SHOWCASES THE BEAUTY OF THE UNDERGROUND WORLD. VISITORS CAN EXPLORE THE CAVE'S WINDING TUNNELS AND SPACIOUS CHAMBERS, TAKING IN THE EERIE BEAUTY OF THE SUBTERRANEAN ENVIRONMENT. THE CAVE OFFERS A UNIQUE AND IMMERSIVE EXPERIENCE FOR VISITORS, TRANSPORTING THEM TO A WORLD THAT IS BOTH BEAUTIFUL AND MYSTERIOUS.

IN ADDITION TO ITS PHYSICAL ATTRACTIONS, THE CAVE ALSO OFFERS AN AUGMENTED REALITY GAME THAT TAKES VISITORS ON A THRILLING AND TERRIFYING JOURNEY. THE GAME IS A HORROR/SURVIVAL EXPERIENCE THAT CHALLENGES PLAYERS TO NAVIGATE THE CAVE'S TREACHEROUS TERRAIN WHILE FACING OBSTACLES AND DANGERS AT EVERY TURN. THE GAME LIMITS THE PLAYER'S SENSES WITH THE DARKNESS AND OMINOUS SLIVERS OF LIGHT THAT PEEK THROUGH, CREATING A SENSE OF CLAUSTROPHOBIA AND FEAR. THE PLAYERS MUST USE THEIR WITS AND QUICK REFLEXES TO SURVIVE THE CAVE'S TERRIFYING CREATURES AND OBSTACLES.

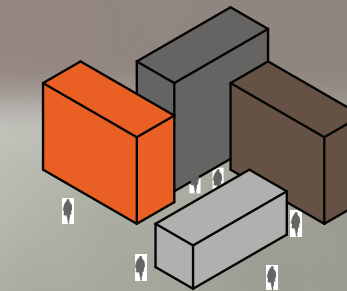
THE CAVE IS A TESTAMENT TO THE POWER OF ARCHITECTURE TO CREATE UNIQUE AND UNFORGETTABLE SPACES THAT TRANSPORT VISITORS TO OTHER WORLDS. ITS DESIGN, INCORPORATING BOTH PHYSICAL AND DIGITAL ELEMENTS, CREATES AN EXPERIENCE THAT IS BOTH THRILLING AND IMMERSIVE. THE CAVE IS A MUST-VISIT FOR THOSE LOOKING FOR AN UNFORGETTABLE ADVENTURE THAT COMBINES ARCHITECTURE, NATURE, AND TECHNOLOGY.

THE CAVE IS A ONE-OF-A-KIND ARCHITECTURAL STRUCTURE THAT OFFERS VISITORS A CHANCE TO EXPLORE THE BEAUTY OF THE UNDERGROUND WORLD. ITS UNIQUE DESIGN, INCORPORATING BOTH PHYSICAL AND DIGITAL ELEMENTS, PROVIDES VISITORS WITH A THRILLING AND IMMERSIVE EXPERIENCE THAT IS BOTH BEAUTIFUL AND TERRIFYING. THE CAVE IS A TESTAMENT TO THE POWER OF ARCHITECTURE TO CREATE SPACES THAT TRANSPORT VISITORS TO OTHER WORLDS AND PROVIDE UNFORGETTABLE EXPERIENCES.



THEMATIC

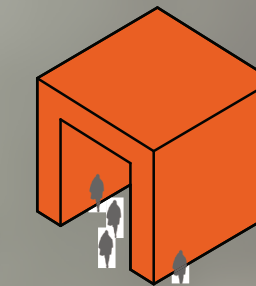
DESIGN LANGUAGE



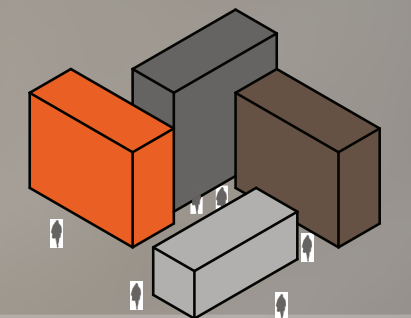
ZONE



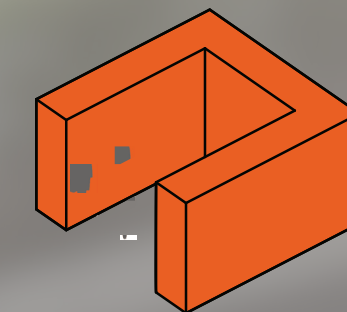
SPACE FLOWING



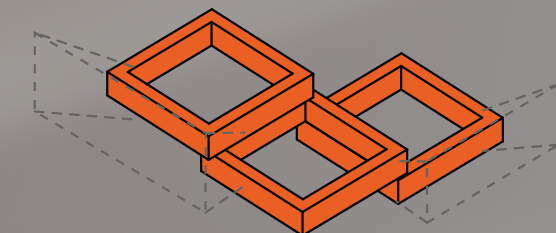
ARCADES



COMPRESSION



CORNERS



TERRACING VISTAS

CAVES

1ST FLOOR



DAY BREAK



DAWN BREAK



DUCK BREAK



PORTAL

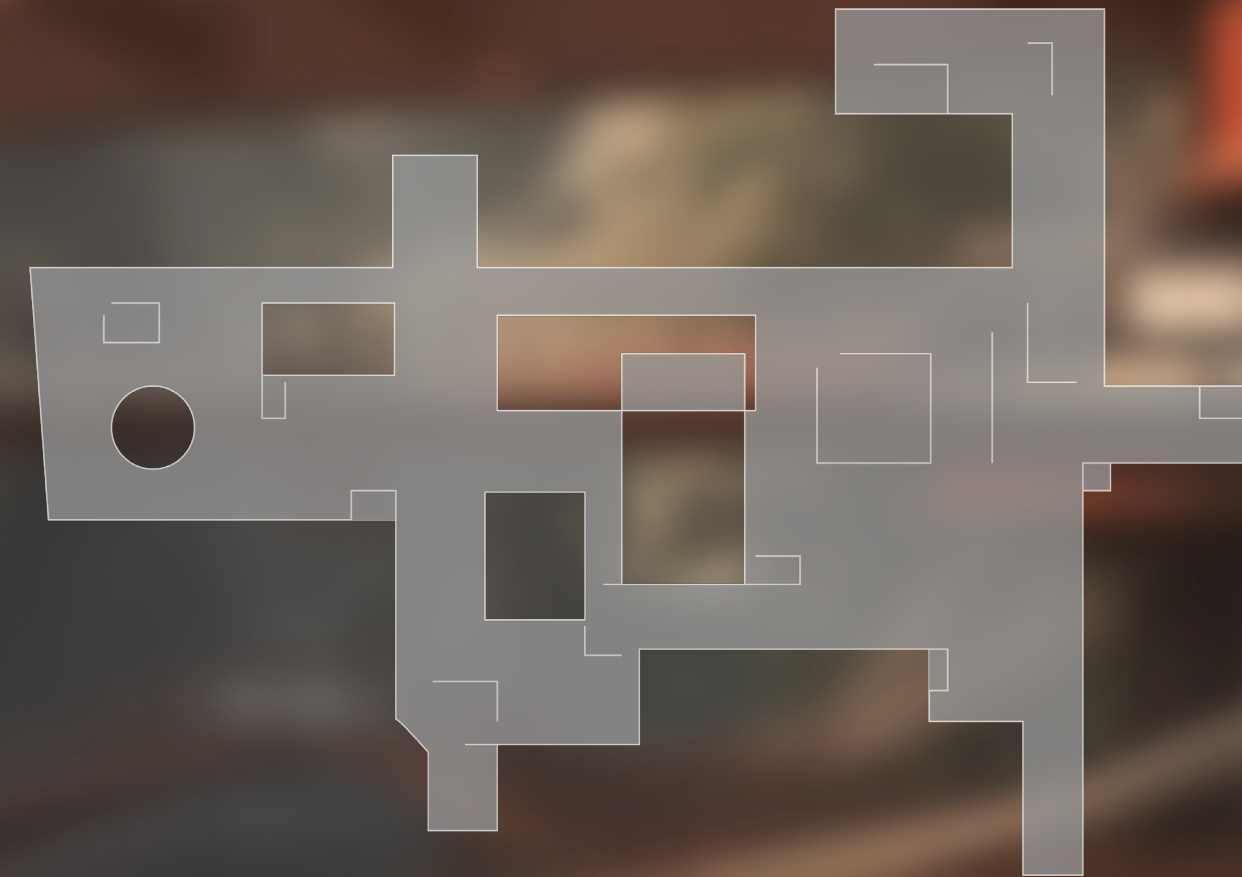


THE PORTAL IS DESIGNED TO PROVIDE VISITORS WITH AN UNFORGETTABLE VIEW OF THE COLORADO RIVER AND THE SURROUNDING LANDSCAPE. THE BRIDGE'S ELEVATED POSITION OFFERS A BIRD'S EYE VIEW OF THE RIVER, THE CITY SKYLINE, AND THE NATURAL BEAUTY OF THE AREA. THIS MAKES THE PORTAL A PERFECT PLACE TO STOP AND TAKE IN THE STUNNING VIEWS OF THE CITY AND THE RIVER BELOW.

IN ADDITION TO ITS BREATHTAKING VIEWS, THE PORTAL ALSO SERVES AS THE VIEWING STANDS FOR THE AUGMENTED REALITY FORMULA 1 RACES ON RACE DAY. THIS IS A THRILLING AND EXCITING EXPERIENCE THAT ALLOWS VISITORS TO WITNESS THE EXCITEMENT AND ADRENALINE OF FORMULA 1 RACING UP CLOSE AND PERSONAL. THE PORTAL'S UNIQUE DESIGN ALLOWS VISITORS TO WATCH THE RACES FROM A BIRD'S EYE VIEW, PROVIDING AN IMMERSIVE AND THRILLING EXPERIENCE THAT IS SURE TO BE UNFORGETTABLE.

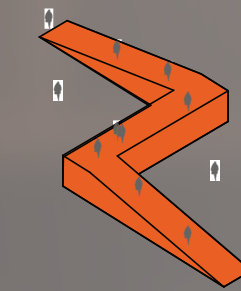
THE PORTAL IS A TESTAMENT TO THE POWER OF ARCHITECTURE TO CREATE SPACES THAT CONNECT PEOPLE AND ENHANCE THEIR EXPERIENCES. ITS INNOVATIVE DESIGN AND TECHNOLOGY PROVIDE VISITORS WITH AN UNFORGETTABLE EXPERIENCE THAT COMBINES STUNNING VIEWS WITH THE EXCITEMENT OF FORMULA 1 RACING.

IN CONCLUSION, THE PORTAL IS A UNIQUE AND INNOVATIVE ARCHITECTURAL STRUCTURE THAT PROVIDES VISITORS WITH A STUNNING VIEW OF THE COLORADO RIVER AND THE SURROUNDING LANDSCAPE. ITS ELEVATED POSITION AND INNOVATIVE DESIGN MAKE IT A PERFECT PLACE TO STOP AND TAKE IN THE NATURAL BEAUTY OF THE AREA, WHILE ITS ROLE AS THE VIEWING STANDS FOR THE AUGMENTED REALITY FORMULA 1 RACES ON RACE DAY PROVIDES VISITORS WITH A THRILLING AND UNFORGETTABLE EXPERIENCE. THE PORTAL IS A TESTAMENT TO THE POWER OF ARCHITECTURE TO CREATE SPACES THAT CONNECT PEOPLE AND ENHANCE THEIR EXPERIENCES.

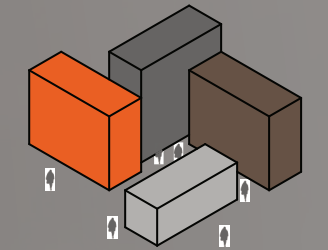


THEMATIC

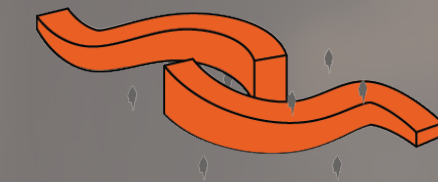
DESIGN LANGUAGE



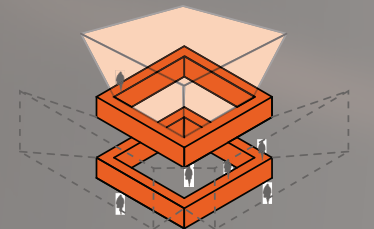
LANDSCAPED ROOFS



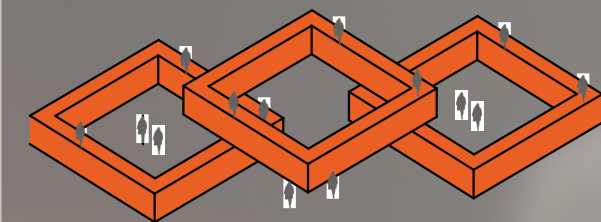
ZONING



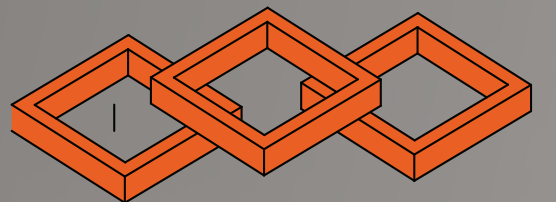
INTERTWINED



VISTAS



MULTI-ARENA



TERRACED AREMA

PORTAL

1ST FLOOR



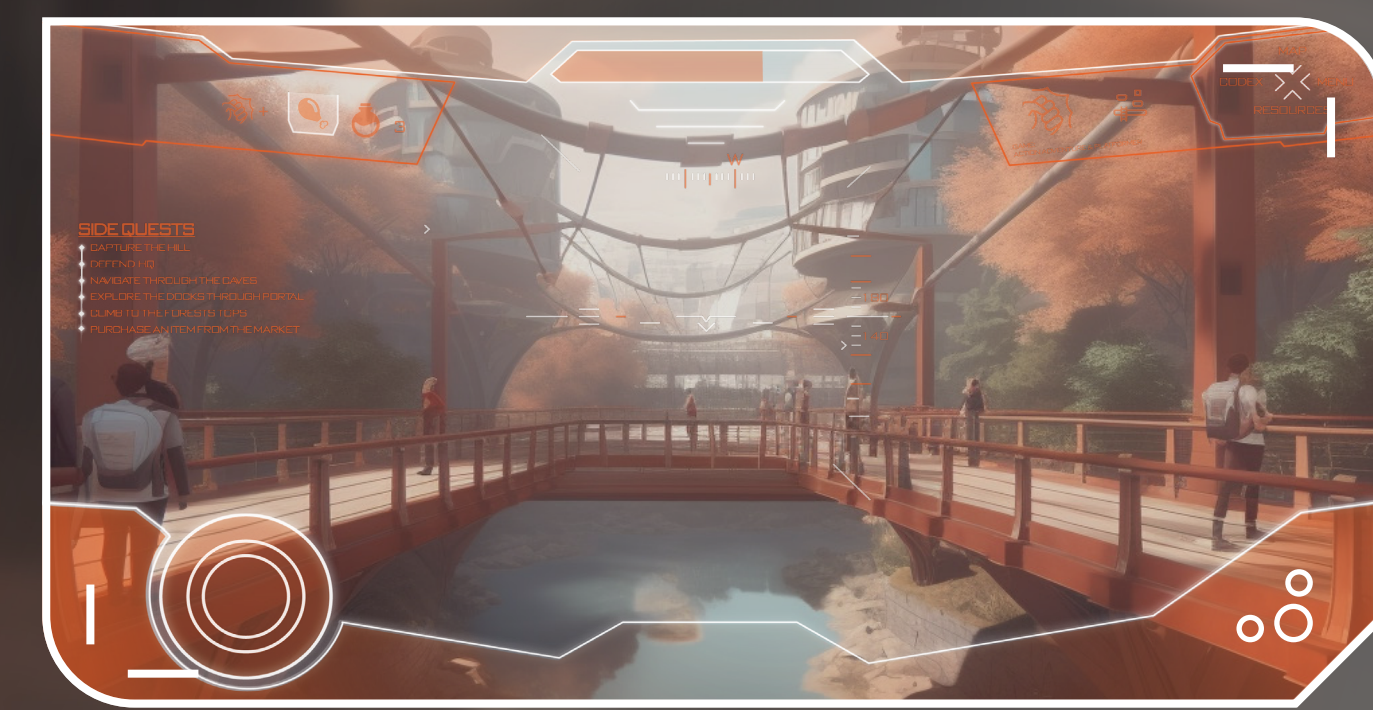
EXTERIOR 1



EXTERIOR 2



FACING



BIBLIOGRAPHY

FIGURES

ARCHITECTURE

¹ALEXANDER, CHRISTOPHER, ET AL. A PATTERN LANGUAGE. NEW YORK, OXFORD UNIVERSITY PRESS, 1 JAN. 1977.

²ALEXANDER, CHRISTOPHER, ET AL. “SYSTEMS GENERATING SYSTEMS.” ARCHITECTURAL DESIGN, VOL. 38, NO. 606, 1968. “PATTERNS” DIGITAL LIBRARY.

³STEENSON, MOLLY WRIGHT. 2017. ARCHITECTURAL INTELLIGENCE : HOW DESIGNERS AND ARCHITECTS CREATED THE DIGITAL LANDSCAPE. CAMBRIDGE: MIT PRESS. ACCESSED OCTOBER 26, 2022. PROQUEST EBOOK CENTRAL.

⁴WALZ, STEFFEN P. 2010. TOWARD A LUDIC ARCHITECTURE : THE SPACE OF PLAY AND GAMES. PITTSBURGH, PA.: ETC PRESS.

⁵RODRIGO PÉREZ DE ARCE. 2018. CITY OF PLAY : AN ARCHITECTURAL AND URBAN HISTORY OF RECREATION AND LEISURE. NEW YORK: BLOOMSBURY VISUAL ARTS.

⁶ANDRI GERBER, AND ULRICH GÖTZ. 2019. ARCHITECTONICS OF GAME SPACES : THE SPATIAL LOGIC OF THE VIRTUAL AND ITS MEANING FOR THE REAL. ARCHITECTURE. BIELEFELD: TRANSCRIPT VERLAG.

GAME DESIGN

⁷AARSETH, ESPEN J, AND GÜNZELSTEPHAN. LUDOTOPIA : SPACES, PLACES AND TERRITORIES IN COMPUTER GAMES. BIELEFELD, TRANSCRIPT VERLAG, 2019.

⁸BOGOST, IAN. 2016. PLAY ANYTHING : THE PLEASURE OF LIMITS, THE USES OF BOREDOM, AND THE SECRET OF GAMES. NEW YORK, NY BASIC BOOKS.

⁹GEORGE SKAFF ELIAS. 2020. CHARACTERISTICS OF GAMES. S.L.: MIT PRESS.

¹⁰HJORTH, LARISSA, AND INGRID RICHARDSON. 2020. AMBIENT PLAY. CAMBRIDGE, MASSACHUSETTS: THE MIT PRESS.

¹¹SALEN, KATIE, AND ERIC ZIMMERMAN. 2003. RULES OF PLAY: GAME DESIGN FUNDAMENTALS. CAMBRIDGE, MASS. THE MIT PRESS.

¹²SHELL, JESSE. (2010) 2018. ART OF GAME DESIGN. TAYLOR & FRANCIS.

PSYCHOLOGY

¹³CSIKSZENTMIHALYI, MIHALY. (1991) 2009. FLOW: THE PSYCHOLOGY OF OPTIMAL EXPERIENCE. HARPERCOLLINS.

¹⁴GIBSON, JAMES J. (1986) 2013. THE ECOLOGICAL APPROACH TO VISUAL PERCEPTION. NEW YORK CITY, NY: PSYCHOLOGY PRESS.

¹⁵JUNG, C G. THE ARCHETYPES AND THE COLLECTIVE UNCONSCIOUS. 1959. PRINCETON, NJ, PRINCETON UNIVERSITY PRESS, 1969.

¹⁶PEARSON, CAROL S. AWAKENING THE HEROES WITHIN: TWELVE ARCHETYPES TO HELP US FIND OURSELVES AND TRANSFORM OUR WORLD. HARPER COLLINS, 31 JULY 2012.

¹⁷JOHAN HUIZINGA. (1944) 1949. HOMO LUDENS: A STUDY OF THE PLAY-ELEMENT IN CULTURE. LONDON, BOSTON, AND HENLEY: LONDON ROUTLEDGE & KEGAN PAUL.

TECHNOLOGY

¹⁸ARIEL, GALIT. 2017. AUGMENTING ALICE : THE FUTURE OF IDENTITY, EXPERIENCE AND REALITY. AMSTERDAM: BIS PUBLISHERS.

¹⁹DO, TIFFANY D. 2021. “DESIGNING VIRTUAL PEDAGOGICAL AGENTS AND MENTORS FOR EXTENDED REALITY.” 2021 IEEE INTERNATIONAL SYMPOSIUM ON MIXED AND AUGMENTED REALITY ADJUNCT (ISMAR-ADJUNCT), MIXED AND AUGMENTED REALITY ADJUNCT (ISMAR-ADJUNCT), 2021 IEEE INTERNATIONAL SYMPOSIUM ON, ISMAR-ADJUNCT, OCTOBER, 476-79. DOI:10.1109/ISMAR-ADJUNCT54149.2021.00112.

²⁰JETTER, HANS-CHRISTIAN, RAIMUND DACHSELT, AND HARALD REITERER. “THEME ISSUE ON DESIGNING COLLABORATIVE INTERACTIVE SPACES.” PERSONAL AND UBIQUITOUS COMPUTING 18, NO. 5 (NOVEMBER 8, 2013): 1135-37.

²¹LEHMAN, MARIA LORENA. 2017. ADAPTIVE SENSORY ENVIRONMENTS: AN INTRODUCTION. ROUTLEDGE.

²²TURCHET, LUCA, ROB HAMILTON, AND ANIL CAMCI. “MUSIC IN EXTENDED REALITIES.” IEEE ACCESS 9 (DECEMBER 17, 2021): 15810-32.

BIBLIOGRAPHY

FIGURES&SOURCES

FIG. 1. CLAUDE PARIS, CHAUVET CAVE.
FIG. 2. JAMES, G. WHARTON, PERFORMING HOPI SNAKE DANCE AT PUEBLO OF ORAIBI, ARIZONA, CA. 1896.
FIG. 3. GRAPH OF THE THEORY OF FLOW, REMIXED FROM MIHALY CCSIKSZENTMIHALYI
FIG. 4. REMIX OF THE ACTION OF GAMING BY STEPHAN P. WALTZ. THEORY OF ACTION AND POTENTIAL OF A GAME.
FIG. 5. TABLE OF PLAY STIMULUS, REMIXED FROM STEPHEN P. WALTZ PLAY STIMULUS.
FIG. 6. NICOLE, LAZZARD, FOUR TYPES OF FUN.
FIG. 7. TRACEY FULLERTON, CAPTURED FROM GAME THINKING.
FIG. 8. NICOLE, LAZZARD, CAPTURED FROM LINKEDIN
FIG. 9. JESSE, SHELL, HEADSHOT TAKEN FROM CARNIEGE MELLON UNIVERSITY
FIG. 10. TABLE OF PLAY STIMULUS, REMIXED FROM STEPHEN P. WALTZ PLAY STIMULUS
FIG. 11. IMAGE OF IMMERSIVE TRAINING. STOCK
FIG. 12. IMAGE OF IMMERSIVE HEALTHCARE. STOCK
FIG. 13. IMAGE OF REHABILITATION. STOCK
FIG. 14. SKETCH OF FUN PALACE, BY JOAN LITTLEWOOD AND CEDRIC PRICE.
FIG. 15 CONCEPTUAL SKETCH OF REM KOOHAAS GENERIC CITY
FIG 16. PHOTOGRAPH OF CASA SCOUT
FIG 17. PHOTOGRAPH OF SERPENTINE GALLERY
FIG. 18. PHOTOGRAPH OFMEGAPHONE INSTALLATION IN QUEBEC
FIG. 19 PHOTO OF AN INSTALLATION IN MILAN, ITALY
FIG. 20. PHOTO OF FESTIVAL PLAZA IN THE 70s
FIG. 21. PHOTO OF NAKED HOUSE BY SHIGERU BAN
FIG. 22. LA BORDA COMMUNITY HOUSEING THAT LETS PEOPLE CHOOSE WHAT THEY WANTED PART OF THE COMMUNITY.
FIG. 22. VILLA VERDE IN LATIN AMERICA
FIG. 23. UUTILZATION OF FAST CARS WHEN NOT PAYNG ATTENTION
FIG. 25. PEPSI PAVILION USED FOR THE EXPERIMENTAL IMMERSIVE DESIGN FOR THE OSKA FESTIVAL.
FIG. 26. BLUE BUILDING
FIG. 27. AIRSHIP FORTRESS IN SYDNEY AUSTRILIA.
FIG. 28. TEMPORARY PAVLLION IN MELBOURNE AUSTRILIA. PLYS ON THE SENTENCE.
FIG. 29. LOUVRE ABU DHABI PROGRAMMATIC FLOOR PLAN JEAN NOUVEL, JEAN NOUVEL ATLIER, 2014
FIG.30. CROWN RACEWAY TECHNICAL MAP CALL OF DUTY: MODERN WARFARE II, ACTIVATION, 2022
FIG. 31. CENTRE DE POMPIDOU, SECTION COMPEITION DRAWING RENZO PIANO, RICHARGE RODGERS, GIANFRANCO FRANCHINI
FIG. 32. SEASIDE FLORIDA, FIGURE GROUND ROBERT DAVIS. DIHIRU, A, THADANI, SEASIDE FLORIDA URBAN PLAN, 2020.
FIG. 33. VILLA MONTERIGGIONI TECHNICAL MAP ASSASSINS CREED II. UBISOFT, ASSASSINS CREED II. 2009