

S I G H T

S O U N D

T A S T E

S M E L L

M E M O R Y

T O U C H





|SENSE—A—TECTURE|

AN—EXPLORATION—INTO—
ARCHITECTURAL—SENSORY—
EXPERIENCE—AND—
ENVIRONMENTAL—LEARNING

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

BY
| CHRISTOPHER J. WHITE |

IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR
THE DEGREE OF MASTER OF
ARCHITECTURE

Nalin L. Swadlow
PRIMARY THESIS ADVISOR

Meenakshi
THESIS COMMITTEE CHAIR

| MAY, 2018 | FARGO, NORTH DAKOTA |



| THESIS ARCHIVAL NOTE |

OUR WORLD IS BUILT UP OF INDIVIDUAL PARTS. EACH PART IS UNIQUE IN ITSELF BUT, IT IS THE PROCESS OF BRINGING THEM TOGETHER THAT MAKES UP OUR EXPERIENCE. WE USE OUR SENSES: SIGHT, SOUND, TOUCH, TASTE, AND SMELL, TO INTERPRET THE WORLD AROUND US. EACH ONE, HAS ITS OWN IMPACT ON OUR PERCEPTION OF EXPERIENCE BUT IN THE ABSENCE, WE LOSE A PART OF WHAT IT IS LIKE TO PERCEIVE THE WORLD.

EACH PLACE OFFERS A MULTI-SENSORY EXPERIENCE, BUT EACH EXPERIENCE IS ONLY ENHANCED BY THE INPUT OF STIMULI. THE PROCESS OF "EXTERNAL STIMULI PRODUCES INTRINSIC EXPERIENCE" IS NOT ONLY AN ELEMENT OF HUMAN EXPERIENCE BUT IS MY DRIVING FORCE IN DESIGN. BY CREATING A BUILDING THAT IS RESPONSIVE TO EXTERNAL INPUTS, I DEVELOPED A FLEXIBLE SENSORY ENVIRONMENT THAT CREATES A DYNAMIC SENSORY EXPERIENCE.

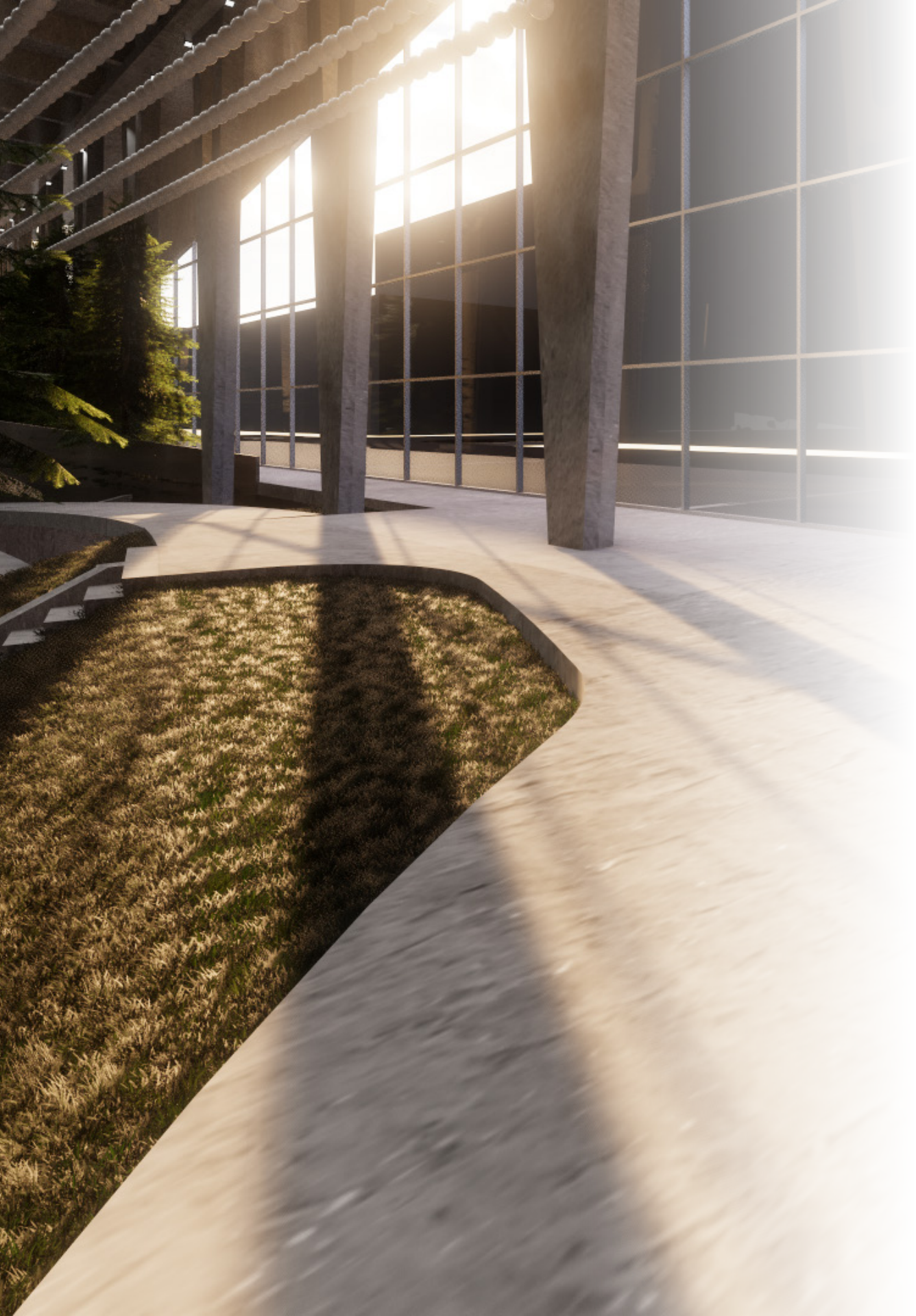


TO EVERYTHING THAT HAS PUT
ME WHERE I AM TODAY. THANK
YOU.

—CHRISTOPHER WHITE

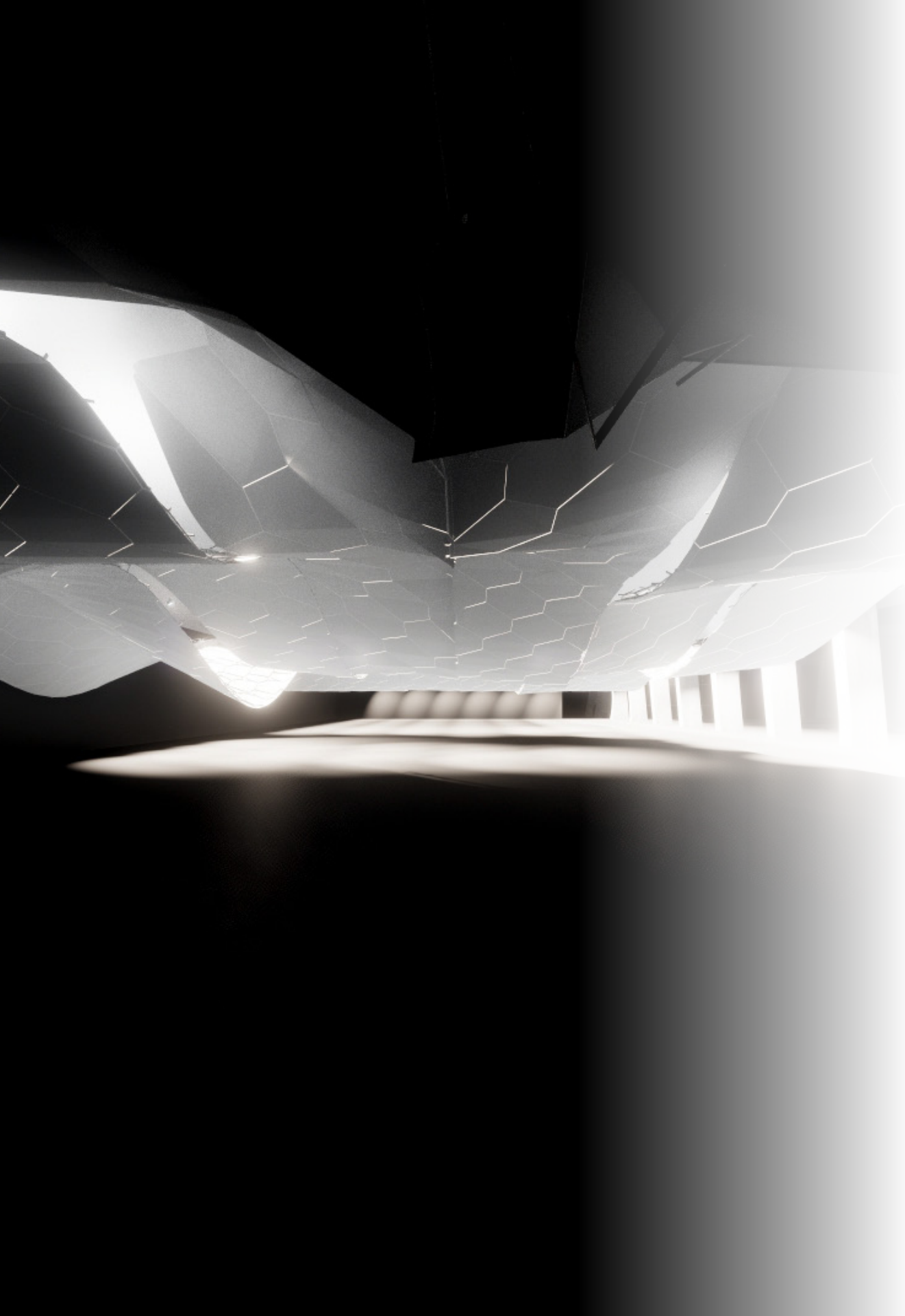


SENSE—A—TECTURE



| TABLE OF CONTENTS |

| | | | |
|--------------------|-----|-------------------|----|
| SIGNATURE PAGE | III | A PROCESS | 77 |
| ARCHIVAL NOTE | V | CLIENT | 79 |
| ACKNOWLEDGMENT | VII | PROPOSAL | 80 |
| TABLES OF CONTENTS | XI | TYPOLOGY | 80 |
| | | FLEXIBILITY | 82 |
| ABSTRACT | 3 | WALL | 84 |
| | | CEILING | 86 |
| INTRODUCTION | 5 | SKIN AND LIGHT | 88 |
| SIGHT | 7 | WIND AND SOUND | 90 |
| SOUND | 17 | | |
| TASTE | 21 | EXPERIENCE | 93 |
| SMELL | 27 | FINAL APPLICATION | 94 |
| MEMORY | 31 | | |
| TOUCH | 37 | CITATION | |
| | | | |
| CONCLUSION | 42 | | |
| | | | |
| SENSOGRAPHY | 47 | | |
| | | | |
| SITE | 53 | | |
| REGION | 54 | | |
| | | | |
| SITE ANALYSIS | 61 | | |
| CLIMATE | 62 | | |
| SITE CONTEXT | 66 | | |
| SITE | 68 | | |



| S E N S E – A – T E C T U R E |

OUR WORLD IS BUILT UP OF INDIVIDUAL PARTS. EACH PART IS UNIQUE BY ITSELF, BUT IT IS THE PROCESS OF BRINGING THEM TOGETHER THAT MAKES UP OUR EXPERIENCE AS A WHOLE. THERE IS MORE TO A FOREST THAN THE TEXTURE OF BARK. WE USE OUR SENSES: SIGHT, SOUND, TOUCH, TASTE, AND SMELL; TO INTERPRET THE WORLD AROUND US. EACH SENSE, HAS ITS OWN TAKE ON OUR PERCEPTION OF EXPERIENCE. WITHOUT ONE, WE LOSE A PART OF WHAT IT IS LIKE TO PERCEIVE THE WORLD. EACH PLACE OFFERS A MULTI-SENSORY EXPERIENCE, BUT EACH EXPERIENCE IS ONLY ENHANCED BY THE INPUT OF DATA.

THIS INPUT OF DATA CAN BE THE DRIVING FORCE IN DESIGN. THE PROCESS OF "EXTERNAL STIMULI PRODUCING INTERNAL CONFLICT" IS NOT ONLY AN ELEMENT OF HUMAN ANATOMY, BUT ALSO THE TOOLS WE USE TO DESIGN A BUILDING. CREATING A BUILDING THAT IS ADAPTIVE TO INPUT CAN DEVELOP A MORE FLEXIBLE ENVIRONMENT.



S I G H T



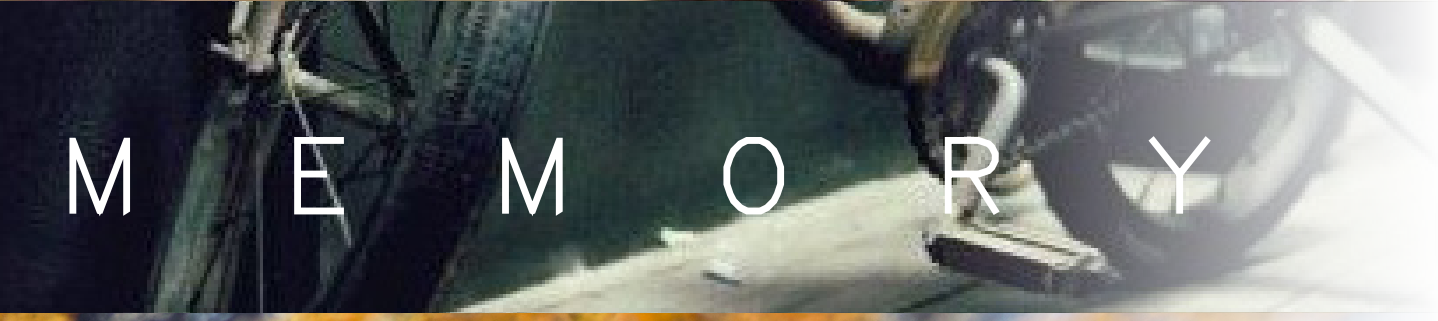
S O U N D



T A S T E



S M E L L



M E M O R Y



T O U C H

| I N T R O D U C T I O N |

OUR WORLD IS ONE OF MANY SENSES. FOCUSING ON ONE SENSE MEANS THAT YOU ARE ONLY EXPERIENCING A PERCENTILE OF THE EXPERIENCE THAT COULD BE DESCRIBED AS REALITY. IN LISA HESCHONG'S BOOK THERMAL DELIGHTS IN ARCHITECTURE SHE DESCRIBES SENSATION AND OUR EXPERIENCE OF THE WORLD RELATED TO THE THERMAL ASPECTS OF A BUILDING. "ONE OF THE MAGICAL THINGS ABOUT OUR SENSES IS THAT THEY DO NOT FUNCTION IN ISOLATION. EACH SENSE CONTRIBUTES TO THE FULLER COMPREHENSION OF OTHER SENSORY INFORMATION" (HESCHONG, 1979). HESCHONG CONTINUES TO SAY THAT IT IS HER BELIEF THAT WE MAY NOT BE ABLE TO FULLY UNDERSTAND A SENSORY EXPERIENCE WITHOUT HAVING IT COLLABORATED OR BACKED BY ANOTHER SENSATION.

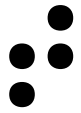
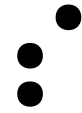
HOWEVER, AN INTERESTING PHENOMENON WOULD SEEM TO HAPPEN WHEN AN INDIVIDUAL LOSES ONE OF THEIR SENSES. SENSATION OR SENSORY INFORMATION WOULD SEEM TO HAVE A FRACTALIC DESIGN TO THEM. WHEN YOU CLOSE YOUR EYES AND FOCUS ON YOUR OTHER SENSES, YOU BEGIN TO HEAR THINGS, SMELL THINGS, AND FEEL THINGS THAT WOULD HAVE OTHERWISE BEEN IGNORED BY YOUR BRAIN. WITH THE ABSENCE OF ONE SENSE, YOUR OTHER SENSE, COME TO THE FOREFRONT OF YOUR CONSCIOUS THOUGHT. GROWING AND GROWING TO WHAT WOULD SEEMS TO BE THE INFINITE.

THIS PHENOMENON HAS NO DISTINCT DEFINITION, BUT IT CAN BE EXPERIENCED BY EVERYONE, AND EVEN MORE SO BY INDIVIDUALS WHO LOSE ONE OF THEIR SENSES.

"PEOPLE ALWAYS ASK IF GOING BLIND GIVES YOU SUPERPOWERS? WHEN IT REALLY DOESN'T. YOU DON'T GET SUPER HEARING WHEN YOU GO BLIND THE SAME WHY YOU DON'T GET SUPER SIGHT WHEN YOU GO DEAF. IN MANY WAYS WHEN YOU LOSE ONE OF THOSE SENSES, YOU ONLY THEN, TRULY BECOME AWARE OF THE SENSATION THAT IS ALREADY ALWAYS AROUND YOU." (DOCKTER, 2017)

SENSORY INFORMATION OF THE WORLD IS ALWAYS AROUND US, BUT IT IS OUR BRAIN THAT CHOOSES WHAT IS IMPORTANT AND WHAT CAN BE FORGOTTEN. OUR BRAIN CHOOSES WHAT IS PRESENTED TO OUR CONSCIOUS MIND. WHEN YOU CLOSE YOUR EYES THE OTHER SENSES DO NOT GET STRONGER. YOU JUST BECOME AWARE THAT THEY HAVE ALWAYS BEEN THERE.

THERE IS A FAMOUS EXPERIMENT THAT IS COMMONLY PRACTICE IN PHYSIOLOGY LECTURES ENTITLED "THE INVISIBLE GORILLA." IN THE EXPERIMENT YOU ARE ASKED TO WATCH A BASKETBALL GAME AND TO COUNT HOW MANY TIMES SOMEONE IN RED PASSES AND CATCHES THE BALL. AFTER THE VIEW IS DONE, THE PARTICIPANTS ARE ASKED IF THERE WAS ANYTHING UNUSUAL ABOUT THE VIDEO. ROUGHLY 50 PERCENT OF THE TIME PEOPLE SAY NO, BUT THE OTHER HALF WERE AWARE OF A MAN IN A GORILLA SUIT WALK ACROSS THE COURT. (YOUNG, 2011) (SPIELMAN, 2014) THIS EXPERIMENT IS BEGINNING TO SHOW THAT WE MISS CERTAIN STIMULI BECAUSE AT THE TIME WE, OR RATHER OUR BRAIN, FEELS THAT IT IS NOT NECESSARY TO UNDERSTAND



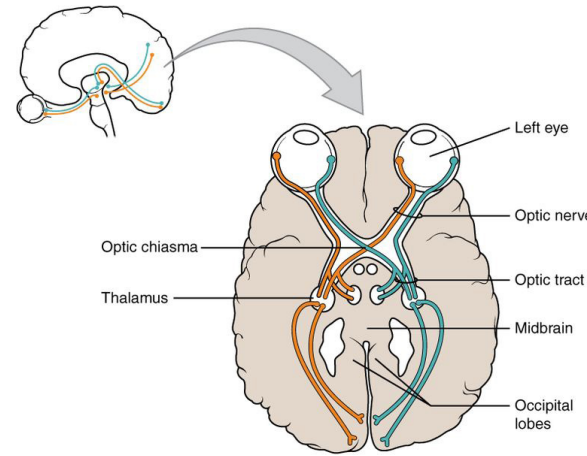
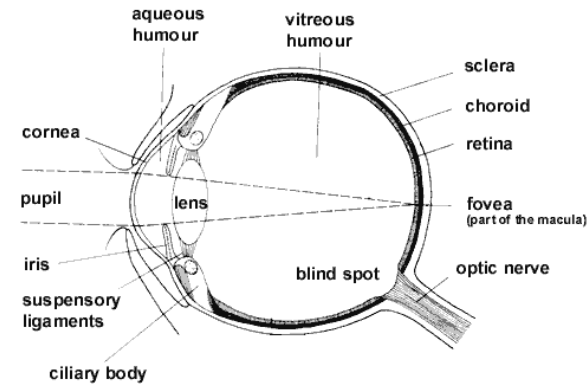
”אני רוצה לראות את השמיים
אני רוצה לראות את השמיים
אני רוצה לראות את השמיים”
— אוריאל זעירא

| S I G H T |

AS A SPECIES WE RELY ON OUR SENSE OF SIGHT FOR MANY THINGS. OUR WORLD IS BUILT TO BE LOOKED AT AND APPRECIATED. IN MANY WAYS, OUR SIGHT OVERPOWERS OUR OTHER SENSES WHEN IT DOES NOT HAVE A PRECEDENCE OVER SIGHT (SPIELMAN, 2014). IT IS NOT UNTIL YOU ARE FUMBLING AROUND IN THE DARK OR ARE TEMPORARILY BLINDED BY A STRONG LIGHT SOURCE THAT YOU BECOME AWARE OF OUR RELIANCE ON OUR ABILITY TO SEE MUNDANE DAY TO DAY TASKS. THIS, HOWEVER, CAN HAVE NO COMPARISON TO AN INDIVIDUAL THAT HAS NO ABILITY TO SEE.

IN THE WORLD, FROM THE DATA THAT HAS BEEN COLLECTED, ROUGHLY 253 MILLION PEOPLE LIVE WITH A SIGHT DISABILITY. 36 MILLION PEOPLE ARE LEGALLY BLIND (WHO, 2017). THIS NUMBER IS ONLY A PART OF THE STORY, MANY PLACES DO NOT HAVE THE MEANS TO DOCUMENT EVERY INDIVIDUAL. THIS NUMBER IS SEEMINGLY DWARFED BY THE ALMOST EIGHT BILLION PEOPLE THAT INHABIT THE PLANET, BUT IT IS STILL A LARGE ENOUGH NUMBER TO NOT IGNORE. WE ARE ALL AT MOST TWO ACCIDENTS AWAY FROM COMPLETE BLINDNESS, AND THERE IS LITTLE THAT WE CAN DO TO CHANGE THAT.

TO BETTER UNDERSTAND WHAT IT MEANS TO SEE I THINK WE MUST LOOK AT THE SCIENCE BEHIND HOW WE SEE. AS SEEN ABOVE, LIGHT COMES THROUGH THE PUPIL PASSING THROUGH THE CORNEA AND LENS OF THE EYE. ON THE OPPOSITE END OF THE EYE IS WHERE THE RETINA IS LOCATED. THIS IS WHERE DIFFERENT LIGHT WAVES ARE



PROCESSED AND ENCODED TO BE TRANSMITTED TO THE BRAIN VIA THAT OPTIC NERVE (RAVEN, 2005). THIS, OF COURSE, IS HOW THE EYE IS BIOLOGICALLY DESIGNED TO WORK. FROM USER EXPERIENCE THIS IS SOMETIMES NOT THE CASE.

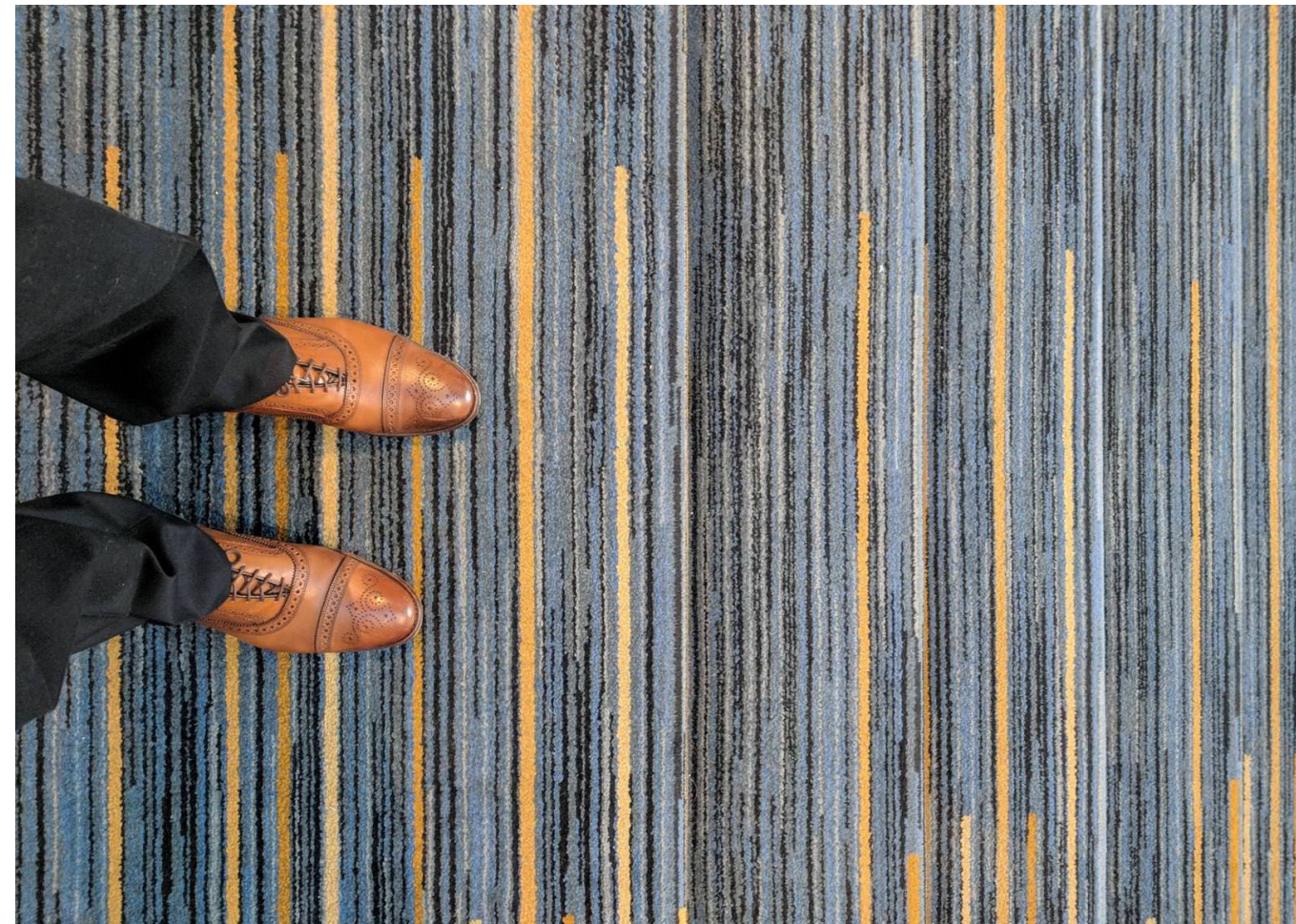
KEN DOCKTER IS A TEACHER AT THE NORTH DAKOTA VISION SERVICES/SCHOOL FOR THE BLIND. HE PRIMARILY WORKS WITH YOUNG STUDENTS WHO ARE LEARNING TO INTERACT AND DO THINGS ON THEIR OWN. THERE IS A LARGE VARIANCE ON DIMINISHED VISION ASPECTS.

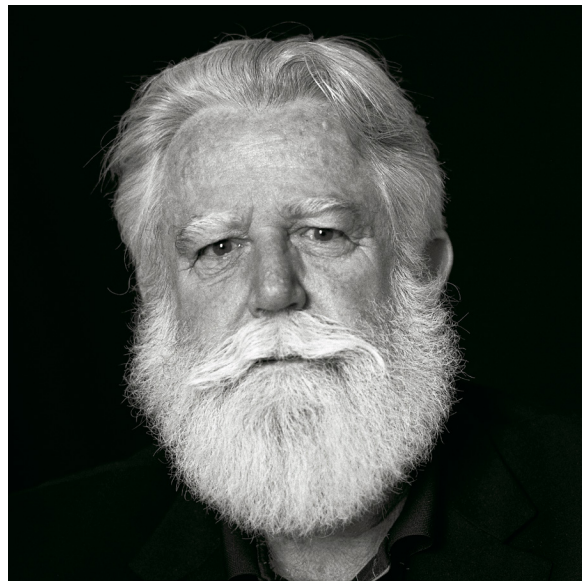
MANY INDIVIDUALS NEED TO WEAR CORRECTIVE LENSES TO HELP THEM SEE, OTHER INDIVIDUALS HAVE PROBLEMS SEEING COLOR VARIANCES AND LASTLY SOME INDIVIDUALS ARE COMPLETELY BLIND. TO WHICH THEY CANNOT SEE AT ALL. (DOCKTER, K 2017) THIS LARGE SPECTRUM MEANS THAT EACH PERSON SEES THE WORLD IN A DIFFERENT WAY THEN YOU OR I DO. SOME NOT EVEN USING THEIR EYES AT ALL.

ONE VISUAL DISABILITY THAT KEN DOCKTER AND I DISCUSSED WAS THE INABILITY TO PROCESS COMPLEX PATTERNS IN TEXTILES. AS SEEN BELOW, EVEN PEOPLE WITH GOOD SIGHT MIGHT FIND IT DIFFICULT TO DETERMINE THAT THIS IS THE CARPETING IN A STAIRWELL. THIS IS JUST ONE EXAMPLE OF DESIGN

CHOICES THAT DESIGNERS MAKE THAT CAN DRAMATICALLY IMPACT HOW SOMEONE INTERACTS WITH THEIR ENVIRONMENT.

WHEN I TRY TO CLOSE MY EYES TO SEE IF I CAN MAKE IT THROUGH MY HOUSE ON MEMORY ALONE, IT IS MUCH DIFFERENT THAN NOT BEING ABLE TO SEE AT ALL. I ALWAYS HAVE THE ABILITY TO OPEN MY EYES TO SEE WHERE I AM. FOR THESE INDIVIDUAL, THAT CANNOT SEE WITH THEIR EYE, THERE IS NO "OPENING YOUR EYES," THERE IS ONLY YOUR REMAINING SENSES TO RELY ON. WHEN YOU LOSE YOUR EYESIGHT, YOU BECOME AWARE OF YOUR SURROUNDINGS IN A WAY THAT YOU CANNOT EVEN IMAGINE. BLIND INDIVIDUALS HAVE ADAPTED TO A WORLD THAT IN MANY WAYS HAS NOT ADAPTED TO THEM.

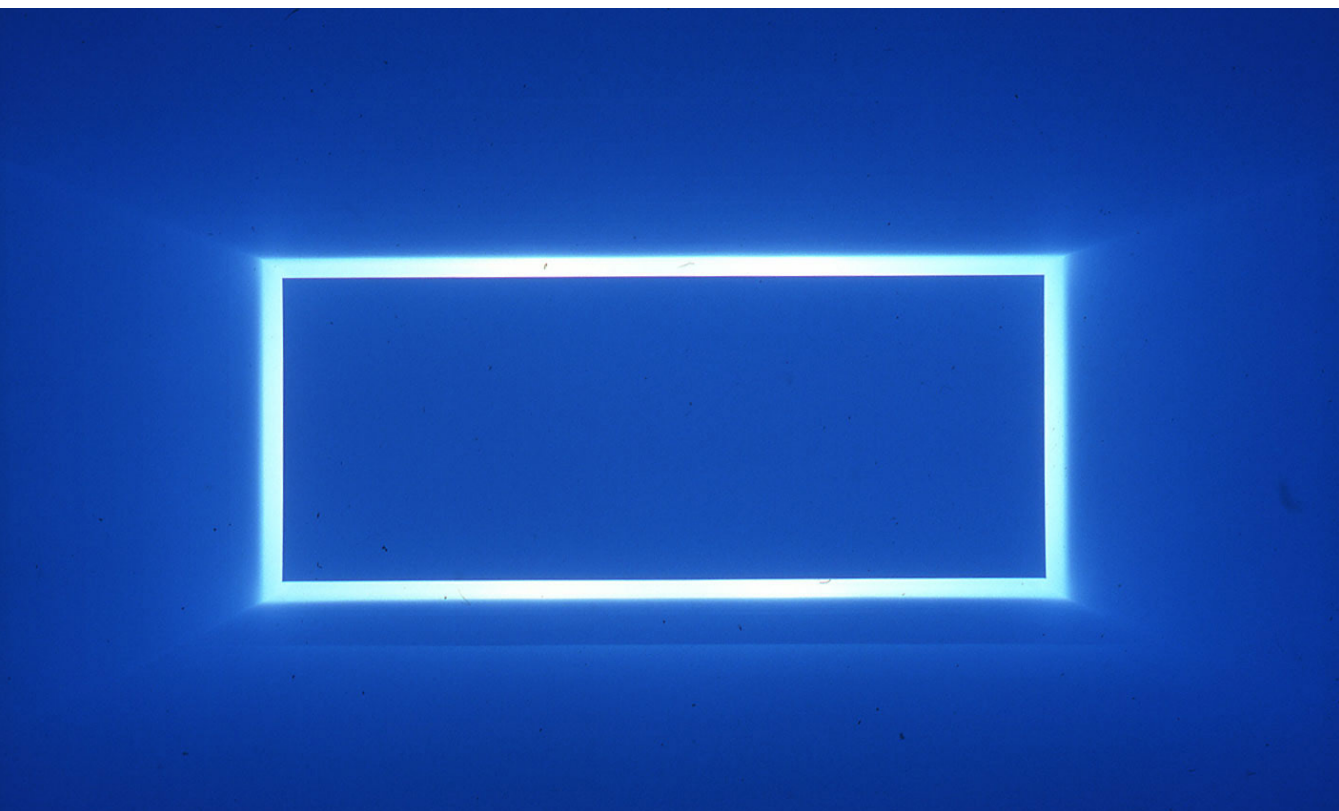




THE WORK OF JAMES TURRELL IS A FASCINATING PIECE OF ARTWORK. AS PICTURED, TURRELL IS A SURREALIST LIGHTING ARTIST SPANS FROM SIMPLE INTERIOR PIECES TO LIGHTING AN ENTIRE BUILDING. TURRELL WAS BORN IN LOS ANGELES CALIFORNIA AND RECEIVED HIS EDUCATION IN THE FIELDS OF PSYCHOLOGY FROM POMONA COLLEGE AND HIS MA IN ART FROM CLAREMONT GRADUATE SCHOOL.

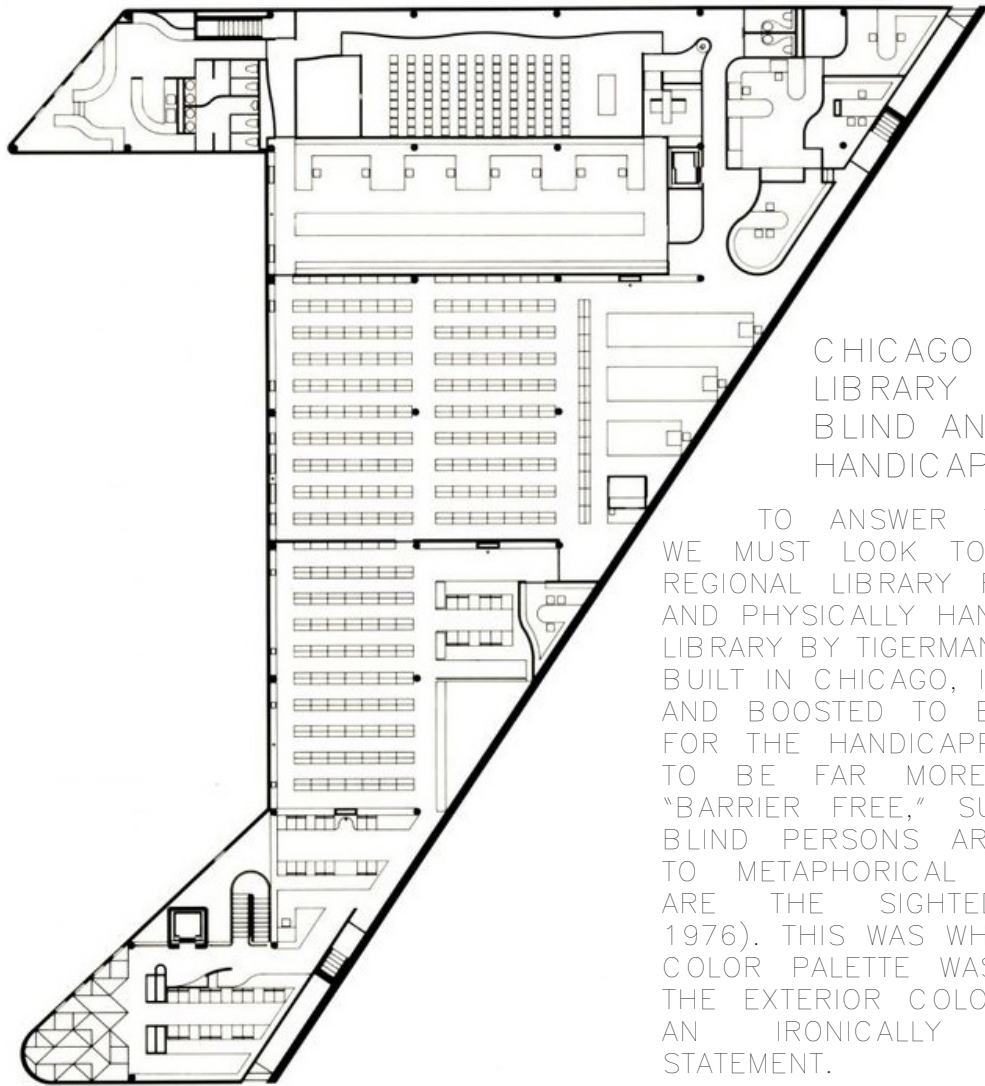
TURRELL USES DIFFERENT COLORS OF LIGHT AND FORMATION TO CREATE ABSTRACT CONCEPTS IN LIGHTING AND VISUALS DISPLAYS. A THOUGHT COMES TO MIND HOWEVER WHEN LOOKING AT TURRELL'S WORK. HOW COULD YOU APPRECIATE HIS WORK IF YOU COULD NOT SEE IT? THIS APPLIES NOT ONLY TO SOMEONE WHO CANNOT SEE, BUT ALSO TO AN INDIVIDUAL THAT IS COLORBLIND. TURRELL'S WORK IT WOULD SEEM IS ONLY ABLE TO BE APPRECIATED IF YOU HAVE THE ABILITY TO SEE IT.

"I SELL BLUE SKY
AND COLORED AIR."
—JAMES TURRELL



ANOTHER FASCINATING ELEMENTS OF TURRELL'S WORK IS HIS USE OF THE ENVIRONMENT TO SHAPE AND FOCUS THE VIEWERS EXPERIENCE. BRINGING TO LIGHT ELEMENTS OF THE WORLD THAT YOU WOULD NOT REALLY EVER PAY ATTENTION TO. AS SEEN IN ABOVE, TURRELL USES THE ROOF PLAN AS BOTH A REFLECTIVE SURFACE, REFLECTING COLORED LIGHT BACK TO THE VIEWER BELOW, AND AS A FRAMING ELEMENT FOR THE SKY. ONE ELEMENT IS SIMULTANEOUSLY DOING TWO THINGS.

THE SAME COULD BE SAID ABOUT PHOTOGRAPHY. PHOTOGRAPHY, UNLIKE PAINTING AND OTHER ARTISTIC MEDIUMS, IS EXTREMELY TWO DIMENSIONAL. WITH A PAINTING, AFTER IT DRIES, YOU CAN FEEL THE BRUSH STROKES AND LINE MOVEMENTS. WITH SCULPTURAL WORK YOU CAN FEEL THE FORMS AND MOVEMENT OF THE PIECE. THAT IS IF YOU ARE ALLOWED TO TOUCH. YOU KNOW NOTHING OF COLOR, BUT YOU CAN ACCOUNT FOR THE TEXTURES AND FORMS. THIS IS WHERE I FEEL THAT TURRELL'S WORK MAY HAVE A CONNECTION WITH THE UNSIGHTED. COULD THEY BE ABLE TO FEEL THE WARMTH OF THE LIGHT, OR IS HIS WORK ONLY FOR THE SIGHTED?



CHICAGO REGIONAL LIBRARY FOR THE BLIND AND PHYSICALLY HANDICAPPED

TO ANSWER THIS QUESTION, WE MUST LOOK TO THE CHICAGO REGIONAL LIBRARY FOR THE BLIND AND PHYSICALLY HANDICAPPED. THIS LIBRARY BY TIGERMAN MCCURRY WAS BUILT IN CHICAGO, ILLINOIS IN 1976 AND BOOSTED TO BE "A BUILDING FOR THE HANDICAPPED THAT TRIES TO BE FAR MORE THAN SIMPLY "BARRIER FREE," SUGGESTING THAT BLIND PERSONS ARE AS ENTITLED TO METAPHORICAL SYMBOLISM AS ARE THE SIGHTED" (MCCURRY, 1976). THIS WAS WHY A VERY BOLD COLOR PALETTE WAS CHOSEN FOR THE EXTERIOR COLORS. TO CREATE AN IRONICALLY METAPHORICAL STATEMENT.

IN THE MAIN CIRCULATION AREAS, MCCURRY UTILIZED CURVES AND SOFT CORNERS TO PREVENT INJURY FOR ANYONE MAKING THEIR WAY THROUGH THE BUILDING FOR THE FIRST TIME. ALL MAJOR'S ELEMENTS, SUCH AS TABLES, DESK, ETC, ARE ANCHORED DOWN SO THAT THEIR LOCATION AND RELATIONSHIP TO ONE ANOTHER CAN BE EASIER TO REMEMBER. BY HAVING THIS SYSTEM, IT MEANS THAT THERE IS LESS FLEXIBILITY WITH THE SPACE, BUT IT CREATES A SENSE OF PERMANENCE THAT ALLOWS FOR THE INHABITANTS TO BETTER UNDERSTAND AND INTERACT WITH THE SPACE.



ANOTHER INTERESTING DESIGN ELEMENT WAS THE USE OF WINDOWS. WINDOWS ARE ACTUALLY A KEY FEATURE FOUND THROUGHOUT SEEING IMPAIRED DESIGN. NOT FOR THE VIEW, BUT FOR THE WARMTH OF THE SUN. BY CONTROLLING HOW MUCH LIGHT IS LET INTO A GIVEN AREA, YOU CAN CONTROL THE TEMPERATURE OF THAT AREA. TIGERMAN IMPLEMENTED A VARIANT WINDOW SIZE ALONG THE SOUTH EAST WALL TO ALLOW FOR THIS SOLAR GAIN. THIS VARIANCE IN WINDOW SIZE DESIGNATED AREAS OF GROUP GATHERING OR COLLECTION SPACES. EASILY IDENTIFIABLE BY THE SPACE BEING WARMER THAN THE SURROUNDING AREA. FEATURES LIKE THIS AND THE USE OF BRIGHT PERIMETRY COLORS ARE ALL METAPHORICAL INVERSIONS LAID OUT THROUGHOUT THE BUILDINGS.

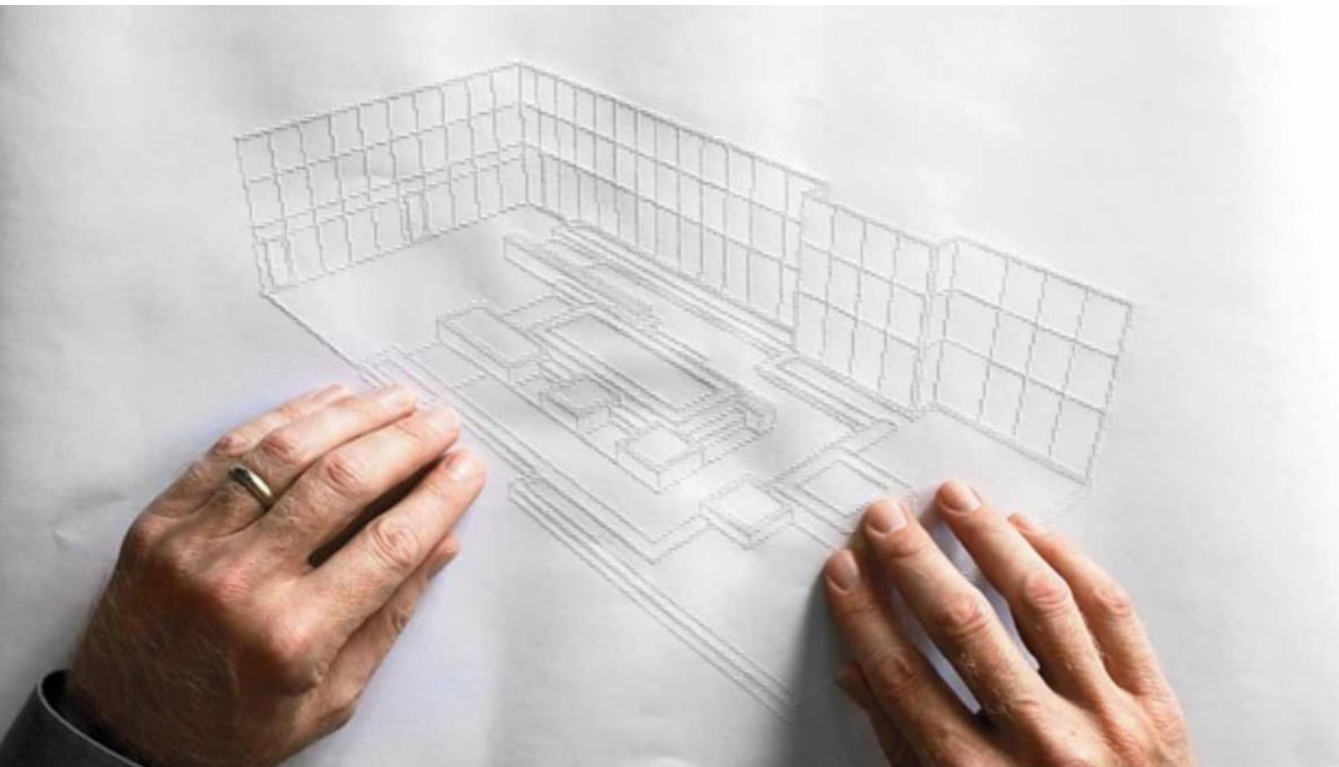




IN A 2013 TED TALK, HE SPOKE ABOUT HIS EXPERIENCE BEFORE AND AFTER BEING ABLE TO SEE. DOWNEY FEELS THAT IN MANY WAYS GOING BLIND WAS THE BIGGEST EYE OPENER HE HAS EVER RECEIVED IN HIS LIFE. HE WAS ABLE TO HEAR AND FEEL THE CITY AROUND HIM IN WAYS THAT HE NEVER WAS ABLE TO DO BEFORE. HE BECAME AWARE OF THE WORLD THAT WAS ALWAYS AROUND HIM, BUT HE WAS TOO BLIND TO SEE.

CHRISTOPHER DOWNEY IS AN ARCHITECT DOING WHAT SOME THOUGHT TO BE AN IMPOSSIBLE TASK. BACK IN 2008 A COMPLICATION FROM REMOVING A BRAIN TUMOR, DOWNEY'S SIGHT BEGAN TO FAIL FINALLY LEAVING HIM COMPLETELY BLIND. FOR MANY, THIS WOULD BE THE END OF ANY CAREER, BUT DOWNEY DECIDED THAT WAS NOT GOING TO BE AN OPTION FOR HIM.

ONE OF THE MOST INSPIRING THINGS ABOUT DOWNEY'S EXPERIENCE IS THAT HE RETURNED TO WORK ONLY A MONTH AFTER LOSING HIS SIGHT. DOWNEY USES HIS ABILITY OF TOUCH TO READ FLOOR PLANS, DETAILS, AND RENDERING IN THE SAME WAY WE WOULD WITH OUR EYES. HE NOW HAS A BETTER UNDERSTANDING OF THE OTHER SENSORY ASPECTS OF DESIGN RATHER THAN JUST FOCUSING ON AESTHETICS.



LIVING IN SAN FRANCISCO, DOWNEY FOUNDED ARCHITECTURE FOR THE BLIND, A CONSULTANT FIRM, THAT HAS WORKED ON LOCAL, NATIONAL, AND INTERNATIONAL PROJECTS. MOST NOTABLY DOWNEY WAS A CONSULTANT FOR PELLI CLARKE PELLI ARCHITECT ON THE TRANSBAY TRANSIT CENTER IN SAN FRANCISCO CALIFORNIA. IT IS DOWNEY'S HOPE AS A CONSULTANT TO "DRAW UPON MY EXPERIENCE AS AN ARCHITECT TO HELP DESIGN TEAMS AND CLIENT ORGANIZATIONS TO CREATE ENRICHING ENVIRONMENTS FOR THE VISUALLY IMPAIRED AND, NOT COINCIDENTALLY, THE SIGHTED AS WELL." DOWNEY IS A FIRM BELIEVER THAT OUR CITIES SHOULD BE DESIGNED WITH THE BLIND AS THE IDEAL INHABITANTS.

SIGHT IN SOME WAYS IS OUR MOST RELIED UPON SENSES. WE HAVE BECOME SUCH A VISIONALLY ORIENTED CULTURE THAT WE SOMETIMES FORGET ABOUT OUR FIVE OTHER SENSES. OUR SIGHT REALLY ONLY ALLOWS US TO SEE WHAT IS ON THE SURFACE.



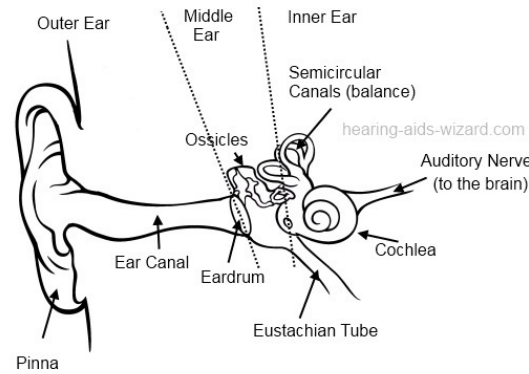
SOUND

"HEARING IS A FORM OF TOUCH. YOU FEEL IT THROUGH YOUR BODY, AND SOMETIMES IT ALMOST HITS YOUR FACE." —EVELYN GLENNIE

| S O U N D |

FRISSON IS A FRENCH TERM WHICH MEANS "AESTHETIC CHILLS". (WEBSTER, 2017) WE MAY BETTER UNDERSTAND IT AS THE SENSATION OF CHILLS THAT YOU RECEIVE WHEN YOU ARE LISTENING TO MUSIC. RESEARCH SHOWS THAT ONLY ABOUT 50 PERCENT OF THE POPULATION GET THOSE GOOSEBUMPS WHEN THEY ARE LISTENING TO A SONG THAT THEY ARE ESPECIALLY FOND OF. THIS SENSATION IS BELIEVED TO BE TIED TO OUR PRIMAL INSTINCTS OF ANTICIPATION OF A PREDATORY ATTACK. (CARI ROMM, 2016) WHEN YOU ARE LISTENING TO A SONG, YOU BECOME AWARE OF BUILDUP OF MOMENT FROM THE SONG, AND YOU ARE ANTICIPATING ITS FUNDAMENTAL RELEASE.

THERE ARE SO MANY SOUNDS AROUND US IT IS VERY OVERWHELMING TO FOCUS ON THEM ALL. IN MANY WAYS THAT IS PROBABLY WHY THE "NOISE CANCELING HEADPHONE" BUSINESS IS SO POPULAR. PEOPLE LIKE HEARING THINGS BUT ONLY WHAT THEY WANT TO HEAR, SILENCING OUT THE REST.



SOUND PLAYS AN IMPORTANT ROLE IN OUR DAY TO DAY LIVES AND MANY OF US COULD NOT IMAGINE A WORLD WITHOUT SOUND. OVER 4 MILLION INDIVIDUALS LIVE WITH HEARING LOSS IN THE UNITED STATES ALONE. IT IS VERY TYPICAL FOR HEARING TO DECREASE AS WE AGE SO AROUND 45% OF THOSE INDIVIDUALS ARE IN 55 YEARS OF AGE OR OLDER. (GALLAUDET RESEARCH INSTITUTE, 2014) AS SEEN ABOVE, SOUND WAVES ENTER OUR EAR THROUGH THE EAR CANAL IMPACTING THE EARDRUM. THE SOUND WAVES ARE TRANSLATED INTO IMPULSE THAT GET SENT TO THE BRAIN VIA THE AUDITORY NERVE. (RAVEN, 2005) MUCH LIKE VISION, THIS SENSORY INSTRUMENT CAN VARY BETWEEN INDIVIDUALS AND CAN DECREASE OVER TIME.

SYNESTHESIA IS A NEUROLOGICAL CONDITION WHERE COGNITIVE PATHWAYS OF SENSORY STIMULUS CROSS AND YOUR VIEW OF THE WORLD REALLY BEGINS TO CHANGE. THOSE WITH SYNESTHESIA HAVE BEEN DESCRIBED TO BE ABLE TO HEAR COLOR, SEE SOUNDS, AND A BROAD LEVEL OF SENSORY MIXING.



EVELYN GLENNIE IS A PERCUSSIONIST AND COMPOSER THAT HAS BEEN LEGALLY DEAF SINCE THE AGE OF 12. THIS HOWEVER DOES NOT INHIBIT HER FROM PERFORMING. "HEARING IS A FORM OF TOUCH. YOU FEEL IT THROUGH YOUR BODY, AND SOMETIMES IT ALMOST HITS YOUR FACE." GLENNIE HAS TAUGHT HERSELF TO USE DIFFERENT PARTS OF HER BODY TO HEAR. GLENNIE PERFORMS ONSTAGE WITH SEVERAL DIFFERENT BANDS AND SHE HAS PRODUCED SEVERAL ALBUMS OF HER MUSIC. SHE WAS EVEN FEATURED IN THE 2012 SUMMER OLYMPICS OPENING, WHERE SHE LEADS A THOUSAND DRUMMER ENSEMBLE.

IN A 2003 TED TALK, EVELYN DESCRIBES HER EARLY TEENS WHEN HER HEARING BEGAN TO DIMINISH. "BEFORE MY TEEN YEARS, I WAS LOSING MY HEARING PRETTY QUICKLY, AND I WAS GETTING VERY, VERY ANGRY. I WAS BEGINNING TO BECOME AN ANGRY PERSON BECAUSE OF THAT." AFTER EVELYN LOST HER HEARING COMPLETELY, SHE THEN TRANSFERRED THAT ANGER INTO HER PASSION FOR MUSIC.

WHEN I STARTED TO LEARN PERCUSSION MY TEACH SAID "WELL HOW ARE WE GOING TO DO THIS? YOU KNOW MUSIC IS ABOUT LICENSING." TO WHICH I RESPONDED WITH YES I AGREE WITH THAT, SO WHAT'S THE PROBLEMS? "WELL HOW ARE YOU GOING TO HEAR THAT" WELL HOW DO YOU HEAR IT? "WELL I THINK I HEAR IT THOUGH HERE (POINTING TO AND REFERRING TO HIS EARS)" WELL I THINK I DO TO, BUT I ALSO HEAR IT THOUGH MY HANDS, THROUGH MY LEGS AND THROUGH MY BODY.

EVELYN KNEW THAT SHE WOULD NEVER HEAR WITH HER EARS AGAIN. BUT SHE FOUND THAT SHE DID NOT HAVE TO USE HER EARS TO HEAR THE WORLD AROUND HER.





T A S T E

LIVE TO EAT, DON'T WASTE YOUR
LIFE NOT EATING WHAT YOU WANT.

| T A S T E |

OUR SENSE OF TASTE VARIES GREATLY BETWEEN INDIVIDUALS. SOMEONE MAY FIND CURRY TO BE AN OVERBEARING SPICY FOOD AND MOST OF THE TIME, THERE ARE THE SAME PEOPLE THAT THINK KETCHUP IS SPICY. DIFFERENT FLAVORS AND TASTE AFFECT EVERYONE DIFFERENTLY. AGEUSIA IS A CONDITION IN WHICH SOMEONE CANNOT TASTE ANYTHING AT ALL, HOWEVER, TRUE TASTE LOSS IS VERY RARE. (WEBSTERS 2017) TASTE CAN NOT ONLY CHANGE OVER TIME BUT CAN DIMINISH AS WE AGE, A CONDITION CALLED HYPOGEUSIA. (RAVEN, 2005) THE THINGS THAT YOU ONCE FOUND FLAVORFUL MAY NOW BE BLAND AND UNAPPETIZING.

TASTE IS ONE OF OUR SENSES THAT WE DO NOT USUALLY ASSOCIATE WITH THE BUILT ENVIRONMENT. THERE IS ALWAYS LICK-ABLE WALLPAPER FOR NURSERY WALLS BUT IT IS NORMALLY A GOOD BET TO AVOID PUTTING PIECES OF A BUILDING IN YOUR MOUTH. UNLESS OF COURSE YOU ARE CARLOS HUBER. HUBER, A PERFUMER WHO HAS WORKED WITH SEVERAL BRANDS LIKE EL PALACIO DE HIERRO, CIRE TRUDON, AND J.CREW, DRAWS FROM THE SMELLS AROUND HIM. (ARQUISTE, 2017) HIS BRAND, ARQUISTE, TAKES AROMAS FROM HISTORICAL LOCATIONS COMBINED THE SCENTS OF FLOWERS, SPICES, WOODS, GRASSES, ETC. TO PRODUCE A FRAGRANT THAT DESCRIBES THAT LOCATION. (FOYLE, 2012)



2012 WORLD MONUMENTS FUND DINNER, NEW YORK, NY

AT THE 2012 WORLD MONUMENTS FUND DINNER HELD IN NEW YORK, HUBER, WITH THE HELP OF CHEF ROBERTO SANTIBAÑEZ, PLANNED OUT DISHES THAT COMBINED THE INGREDIENTS FOUND INSIDE HIS PERFUMES TO ENCAPSULATE THE SENSES OF PLACE THROUGH TASTE. "HUBER HAD REDISCOVERED A RECIPE BOOK FROM THE ROYAL CONVENT OF JESUS MARIA IN MEXICO CITY, IN WHICH WAS THE FORMULA FOR CÓCOA INFUSED WITH AN ASSORTMENT OF SPICES. IT WAS DATED NOVEMBER, 1695." (FOYLE, 2012) SANTIBAÑEZ WHO IS THE CHEF-OWNER OF FONDA RESTAURANTS AND LA BOTANERIA IN MANHATTAN AND BROOKLYN.



HE IS ALSO THE PRESIDENT OF THE TRULY MEXICAN CONSULTING IN NEW YORK CITY AND STRIVES TO BRING TRULY AUTHENTIC MEXICAN CUISINE TO THE WORLD. (SIMPLE FEAST, 2017) "THE FRAGRANCE "ANIMA DULCIS" FEATURED THOSE SAME INGREDIENTS WE WERE NOW EATING IN A THICK BROWN FRAGRANT MOLE: CHILLI, VANILLA, CINNAMON AND CHOCOLATE, PAIRED WITH PINK DUCK." (FOYLE, 2012) BY USING THE INGREDIENTS FOUND IN HUBER'S PERFUME OF PLACE, IT WAS THEIR HOPE THAT THE ACCENTS OF PLACE COULD BE TRANSLATED INTO FLAVOR OF THE MEALS.



"THE LAST MATERIAL DISH REMINDED ME OF MY STAY IN THE MONASTERY OF LA TOURETTE, LE CORBUSIER'S LAST BUILDING NEAR LYON. ITS GREY CORRIDORS HELD A PERVADING EARTHY ODOUR WITH A SLIGHT SHARPNESS. I NEVER IMAGINED THAT CONCRETE SMELLS, BUT IT CERTAINLY DOES, EVEN AFTER 40 YEARS, AS WILL ANY BUILDING LIME USED IN CASTLES OR CATHEDRALS A MILLENNIUM OLD."

— FOYLE, 2012

Taste of Home

SO THEORETICALLY YOU CAN MAKE A BUILDING TASTE THE WAY IT SMELLS AND VICE VERSA. THE IDEA THAT COMES TO MIND ABOUT THIS IS WHAT DOES IT MEAN FROM A DESIGN STANDPOINT. CAN THE TASTE OF A PLACE INFLUENCE YOUR DESIGN? THIS IDEA IS INTERESTING TO THINK. COULD THE TASTE OF MCDONALD'S HAVE A SPECIFIC INFLUENCE ON THE DESIGN OF THE BUILD? IDEA SUCH AS THEREFORE THE SENSES ARE A VERY IMPRESSIVE TOPIC TO FOCUS IN ON IN AN ARCHITECTURAL FIELD. AN ENTIRE THESIS COULD BE CONSTRUCTED AROUND THIS IDEA.

UNFORTUNATELY, I DID NOT DO THIS. IN EVALUATIONS OF THE SENSES, EACH ONE HAS THE ABILITY TO EXPLODE INTO A MORE COMPLEX AND THESIS FILLING IDEA. AS FOR MY EVALUATION I JUST WANT TO UNDERSTAND HOW THE IDEA OF TASTE CAN BE IMPLANTED INTO THE DESIGN OF A BUILDING RATHER THAN THE OTHER WAY AROUND.

THE IDEA MAY AT FIRST SOUND IDIOTIC. HOW CAN THE SCENT OF A BUILDING TRANSLATE INTO FOOD? BOTH SMELL AND TASTE ARE CHEMICAL REACTION BASED ON OUR ENVIRONMENT. MOLECULES IN THE AIR ARE THE SAME AS MOLECULES FOUND ON THE SURFACE OF OBJECTS. (RAVEN, P 2005) THIS IN TURN MEANS THAT TASTE AND SMELL ARE VERY MUCH RELATED TO ONE ANOTHER THEN AT FIRST GLANCE.





S M E L L

"ONCE, PEOPLE TOOK SMELL
SERIOUSLY." —JONATHAN FOYLE

| S M E L L |

AS WE HAVE SEEN, OUR BODY WILL IGNORE SOMETHING THAT DOES NOT HAVE OUR ATTENTION TO AT THE TIME. THIS SAME ASPIRATION CAN HAPPEN WITH OUR DIFFERENT SENSES AS THEY COME INTO PLAY WHEN THEY ARE NEEDED. THE MEMORIES OF WORKING LATE NIGHTS IN STUDIO, FOCUSED SO HARD ON YOUR WORK THAT YOU ARE ONLY DRAWN OUT BY SOMEONE MICROWAVING TAKEOUT REMINDING YOU THAT FOOD IS A NORMAL HUMAN CRAVING THAT IS NEEDED. THE INTERESTING FACT IS THAT THE ENTIRE TIME YOU ARE WORKING, THERE ARE SMELLS AROUND YOU. THE SMELL OF YOUR WORN-OUT SWEATSHIRT HANGING ON THE BACK OF YOUR CHAIR. THE SMELL OF THE MARKERS AND GRAPHITE THAT LINE YOUR SKETCHBOOKS. EVEN THINGS LIKE THE STUDIO SPACE ITSELF SMELLS OF ALL THE DIFFERENT INHABITANTS THAT SPEND FAR TOO MUCH OR FAR ENOUGH TIME THERE. THOSE SMELLS ARE ALWAYS THERE, BUT IT IS YOUR BRAIN THAT IGNORES THE SENSORY INPUT TO PERFORM THE TASK AT HAND. (SPIELMAN, 2014)

IN RUTH NEWMAN AN ARTICLE "WHY SMELL IS THE NEW FRONTIER IN BUILDING DESIGN" SHE CONVEYS HER BELIEF THAT SMELL HAS BECOME A FOREFRONT WHEN IT COMES TO DESIGNING A SPACE. "SMELL TRIGGERS SOME OF THE MOST POWERFUL EMOTIONAL RESPONSES AND CAN CAUSE SOME OF OUR MOST VISCERAL RESPONSES." (NEWMAN, 2015) MUCH LIKE THE SMELL OF TAKEOUT OR MARKERS, SMELL HAS BEEN PROVEN TO BE AN EFFECTIVE MOTIVATOR IN BUILDINGS. PLACES LIKE SUPERMARKETS HAVE BEEN USING FRESH BAKED BREADS AND TREATS TO ENTICE SHOPPERS TO BUY MORE. MORE RECENTLY CLOTHING STORES LIKE AMERICAN EAGLE AND HOLLISTER USE THE SCENTS OF THEIR COLOGNES AND PERFUMES THROUGHOUT THE STORE. THIS NOT ONLY CREATES BRAND IDENTIFICATION, BUT ALSO ENCOURAGES PEOPLE TO EXPLORE MORE.

THIS SMELL-LOGY HAS EVEN BEGUN TO MAKE ITS WAY INTO THE WORKING FIELD. IT HAS BEEN SHOWN THAT CERTAIN SCENTS LIKE CINNAMON, MINT, LEMON, ORANGE AND ROSEMARY HAVE BEEN ABLE TO INCREASE PRODUCTIVITY OF WORKERS IN AN OFFICE ENVIRONMENT. (NEWMAN, 2015)

SMELL AS WELL AS TASTE ARE REGIONALLY CONSTRUCTED. THE THINGS THAT WE FIND PLEASANT HERE IN THE NORTH ARE DIFFERENT THAN THOSE FOUND IN THE SOUTH. SMELL AND TASTE ARE ALSO CULTURALLY CONSTRUCTED. THINGS THAT WE FIND PLEASANT IN THE UNITED STATES MAY BE UNPLEASANT IN THE CONGO OR IN THE HIMALAYAS. OUR CULTURE DEFINES MANY ASPECTS OF OUR LIKES OR DISLIKES, EVERYTHING FROM FOOD TO PERFUMES TO SEXUAL APPEAL.



OUR SENSES ALSO AFFECT OUR BODIES AND MOOD IN DIFFERENT WAYS. SMELL IN MANY WAYS IS OUR STRONGEST SENSATION WHEN IT COMES TO MEMORY RECALL. SMELL HAS A UNIQUE TIE TO OUR MEMORY MORE THAN ANY OTHER SENSATION DOES. WE ALL HAVE THAT SMELL THAT WHEN YOU FIND IT IN YOUR DAY TO DAY LIFE. NO MATTER WHAT IT IS YOU ARE DOING YOU CAN'T HELP BUT REMEMBER THE SMELL OF GRANDMA'S HOUSE. SOME OF OUR STRONGER SENSE TEND TO TAKE A BACK BURNER TO OTHERS.



M E M O R Y

"LEARN TO RIDE A BICYCLE.
YOU WILL NOT REGRET IT,
IF YOU LIVE." —MARK TWAIN

| M E M O R Y |

AS WE HAVE SEEN, SMELL IS ONE OF OUR SENSES THAT HAS A HUGE CONNECTION WITH MEMORY. NO MATTER HOW MUCH TIME AS PASSED THERE ARE STILL CERTAIN SMELLS THAT INSTANTLY TRANSPORT US INTO THE PAST, INTO SOME OF OUR OLDEST MEMORIES. IN MANY WAYS THIS BRINGS UP THE IDEA THAT MEMORY CAN BE DESCRIBED AS A SENSORY ABILITY. SENSORY INFORMATION IS DESCRIBED AS EXTERNAL STIMULI THAT ENACTS AN INTERNAL RESULT. (WEBSTERS, 2017) MEMORY WOULD BE AN INTERNAL STIMULUS THAT CAN ENACTS BOTH AN INTERNAL AND EXTERNAL RESULT. FOR A MAJORITY OF US, IF WE TRIED IMAGINING WINTER AND HOW BRUTALLY COLD IT CAN BE IT IS VERY POSSIBLE TO GIVE OUR BODY A CHILL OR SHIVER.

LISA HESCHONG SPEAKS OF MEMORY "IN ENGLISH, 'I SEE' MEANS 'I UNDERSTAND.' BUT VISION IS ALSO RATHER STATIC. ALTHOUGH WE SEE MOTION, WE TEND TO REMEMBER VISUALLY ONLY A FIXED IMAGE. HEARING ON THE OTHER HAND, SEEMS TO BE STRONGLY ASSOCIATED WITH A SENSE OF TIME. A SONG OR A MELODY TO BE REMEMBERED MUST BE REMEMBERED IN TIME." MEMORY IS WHAT GIVES US OUR SENSE OF TIME AND PROGRESSION THROUGH SPACE. WITHOUT MEMORY WE WOULD ALWAYS EXPERIENCE THINGS FOR THE FIRST TIME AND HAVE NO CONCEPT OF TIME OR MOVEMENT.



MEMORY COULD ARGUABLY BE ONE OF OUR STRONGEST SENSATIONS. WITHOUT IT WE WOULD HAVE NO WAY TO INTERPRET THE WORLD AROUND US. EVERYTHING WE DID OR EXPERIENCED WOULD ALWAYS BE FOR THE FIRST TIME. WE ONLY KNOW WHAT SOMETHING IS CALLED BECAUSE OUR EYES SHOW OUR BRAIN SOMETHING AND OUR BRAIN RECALLS THE ITEM'S NAME. (SPIELMAN, 2014) CONSEQUENTLY, WE HEAR SOMETHING, AND WE REMEMBER THAT THAT IS A TRAIN HORN OR THAT CATCHY SONG EVERYONE WAS SINGING BACK IN MIDDLE SCHOOL. WITHOUT MEMORY WE WOULD CONSTANTLY BE EXPERIENCING THINGS FOR THE FIRST TIME. MEMORY GIVES US A CONCEPT OF TIME AND HOW THINGS CAN BE RELATED TO THINGS THAT HAVE HAPPENED IN THE PAST. THOSE EVENTS COULD THEN BE TRANSLATED TO A MINUSCULE ABILITY TO PREDICT THE FUTURE.



IN THE EPISODE THEY DISCUSS THE USE OF THE MEMORY RECALL DEVICE. THIS DEVICE USES AN INTERFACE CHIP TO VIEW THE MEMORIES AS THE WITNESS SEES THEM IN THEIR HEAD. THIS HOWEVER IS STILL LIMITED TO THE CAPABILITY OF THE EYE WITNESS TO REMEMBER THE EVENT ACCURATELY. ORGANIC MEMORY IS VERY FAULTY, AS IT TURNS OUT. WE ARE NOT LIKE COMPUTERS THAT CAN REMEMBER AND RECALL INFORMATION INSTANTLY. IN FACT, AS WE REMEMBER EVENTS THE PROCESS OF RECALLING IT EVIDENTLY CHANGES THE MEMORY. THIS MEANS THAT OVER TIME YOU CAN CHANGE THE EVENTS OF A MEMORY BY SIMPLY REMEMBERING IT IN A DIFFERENT WAY.

TO HELP THE WITNESS REMEMBER THE EVENT, THE AQUESTINARARY USES EXTERNAL STIMULUS TO HELP THE WITNESS RECALL THE MEMORIES. IN THIS CASE, THERE WAS A LOCAL BREWERY NEARBY, SO SHE USES THE SMELL OF THE BEER THEY MAKE BECAUSE IT IS NOTICEABLE IN THAT AREA. SMELL, AS WE HAVE SEEN, TIES VERY CLOSELY TO MEMORY AND IS OUR OLDEST PRIMEVAL SENSE. BY USING THE SMELL OF THE BEER, IT ALLOWED FOR THE WITNESSES TO BETTER REMEMBER THE EVENT.



ANOTHER SENSORY QUE SHE USES IS A SONG THAT WAS PLAYING IN A CAR STEREO. THE SONG, "ANYONE WHO KNOWS WHAT LOVE IS" BY IRMA THOMAS HAS BEEN FEATURED IN THE SHOW BEFORE AND SEEMS TO HAVE A CONNECTION TO THE CHARACTERS. BY LISTENING TO THE SONG WHILE THEY ARE RECALLING ALLOWS THEM TO RECALL IT MORE ACCURATELY SINCE IT IS BEING CONNECTED TO ANOTHER SENSATION.

BLACK MIRROR IS A WORK OF FICTION, BUT IN MANY WAYS THEY ARE TRYING TO PREDICT HOW OUR USE OF TECHNOLOGY IS AFFECTING OUR DAY TO DAY LIFE AND HOW THAT EFFECT CAN BE TAKEN TO THE EXTREME. IT IS VERY POSSIBLE THAT TECHNIQUES LIKE THIS MAY BE USED TO HELP YOU REMEMBER EVENTS FROM YOUR PAST. THIS IS APPARENT IN THAT YOU CAN USE IT NOW DURING MEMORY RECALL. THE SMELL OF SOMETHING CAN RECALL MEMORY FROM LONG AGO THAT YOU HAVE NEVER THOUGHT ABOUT.



MEMORY IS A KEY PART OF OUR ABILITY TO SENSE THE WORLD AROUND US. WITHOUT IT, WE WOULD ALWAYS BE EXPERIENCING THINGS FOR THE FIRST TIME. MEMORY GIVES US OUR SENSE OF TIME AND MOVEMENT, TWO THINGS THAT WE WOULD BE LOST WITHOUT. MEMORY MAY BE A FUNDAMENTAL SENSE THAT IS RELIANT ON THE OTHER SENSES TO EXIST BUT IS THE BASES THAT MAKES THE OTHER SENSES POSSIBLE.





T O U C H

"IN ORDER TO LEARN TO SEE
THREE DIMENSIONALLY, ONE
MUST TOUCH ROTATE, AND WALK
AROUND THINGS." —LISA HESCHONG

| T O U C H |

TOUCH, IF YOU HAVEN'T NOTICED, HAS BEEN LEFT LAST FOR A REASON. TOUCH IS ONE OF THOSE SENSES THAT IN MANY WAYS TRANSCENDED THE OTHER SENSES. AS WE HAVE SEEN, BLIND INDIVIDUALS USE TOUCH TO FIND OBJECTS AND SEE A ROOM. CONSEQUENTLY, DEAF INDIVIDUALS USE TOUCH TO FEEL SOUNDS THROUGH SOUND WAVES. TOUCH IS ONE OF THE HARDEST SENSES TO LOSE BECAUSE OF HOW IT IS STRUCTURED. OUR SENSE OF TOUCH IS A KEY EVOLUTIONARY TRAIT THAT IS VITAL TO OUR SURVIVAL. THERE ARE 20 DIFFERENT TYPES OF SENSORY NEURONS WHICH TELLS US EVERYTHING FROM WHEN THINGS ARE TOO HOT OR TOO COLD, AS WELL AS PAIN AND PRESSURE AND PLEASURE (RAVEN, 2005).

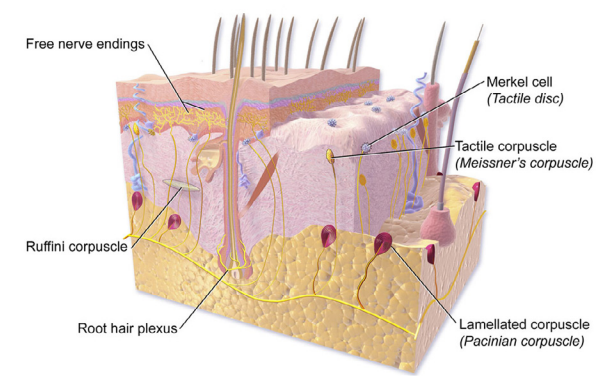
THE HUMAN BODY CONTAINS AROUND 100 BILLION NERVE CELLS IN THE BRAIN AND THROUGHOUT THE BODY. THAT NUMBER IS EVEN ARGUED UPON BECAUSE IT IS ACTUALLY UNCLEAR ON HOW MANY NEURONS ARE IN THE BRAIN. PERIPHERAL NERVES ARE THE NERVES THAT CAN BE FOUND THROUGHOUT OUR LIMBS, SKIN, AND ORGANS WHICH CONNECT TO THE CENTRAL NERVOUS SYSTEM AND RELAY INFORMATION BACK TO THE BRAIN. (ALEXANDROU, 2017) ONE OF THE AMAZING THINGS ABOUT OUR PERIPHERAL NERVE CELLS IS THAT THEY HAVE THE ABILITY TO REGROW AND REPAIR THEMSELVES. IN A 2010 STUDY IT WAS FOUND THAT PERIPHERAL NERVES, AFTER DAMAGE LIKE AN AMPUTATION, HAVE THE ABILITY TO REGROW AND SOME NEUROLOGICAL FUNCTION CAN BE ACHIEVED. (CELL PRESS, 2010)



IT IS THIS PROCESS OF REPAIR THAT MAKES OUR ABILITY TO TOUCH AND FEEL ONE OF OUR STRONGEST SENSORY INPUTS. IT IS VERY RARE FOR SOMEONE TO LOSE THEIR ABILITY TO FEEL. THIS IS ALSO DUE TO THAT FACT THAT OUR SKIN DOES MORE THAN JUST TOUCH THINGS. OUR SKIN ALLOWS US TO FEEL TEMPERATURE VARIENCIES AS WELL AS PRESSURE AND TEXTURE. THIS MULTITUDE OF SENSES THAT COME FROM ONE SENSE MEANS THAT IT IS VERY HARD TO LOSE THAT SENSE.

WE CAN SEE THIS IN CASES LIKE ASHLYN BLOCKER. BLOCKER WAS DIAGNOSED WITH A VERY RARE SYNDROME CALLED CONGENITAL ANALGESIA, OR CONGENITAL INSENSITIVITY TO PAIN (CIP). QUITE SIMPLY, SHE CANNOT FEEL PAIN. BLOCKERS FAMILY AND FRIENDS FOUND THAT THERE WAS SOMETHING STRANGE ABOUT THEIR DAUGHTER WHEN THEY OBSERVED HER VERY OUTGOING NATURE AND NOT IN THE NORMAL WAY. SHE WOULD SEEM TO HAVE NO FEAR OF GETTING HURT, EVEN WHILE DOING THINGS THAT WOULD QUITE EASILY GIVE SOMEONE PAIN.

CIP IS A GENETIC MUTATION THAT CAUSES A DISRUPTS OF THE DEVELOPMENT OF THE SMALL NERVE FIBERS THAT CARRY PAIN, HEAT, AND COLD TO THE BRAIN. DR. FELICIA AXELROD, A PROFESSOR OF PEDIATRICS AND NEUROLOGY AT NEW YORK UNIVERSITY SCHOOL OF MEDICINE SAYS THAT SHE IS UNSURE HOW MANY INDIVIDUALS SUFFER FROM CIP. SHE CURRENTLY ONLY HAS 35 PATIENTS THAT HAVE BEEN DIAGNOSED. JAPAN HAS THE LARGEST PATIENT COUNT WITH 67, A VERY SMALL FACTION OF THE POPULATION.



IT IS INTERESTING TO THINK ABOUT HOW INTERACTIVE OUR ABILITY TO TOUCH IS. IT CAN VARY FROM THINGS LIKE THE TOUCH OF THE SKIN TO THE TEMPERATURE OF THE AIR. WITH THIS LARGE SCALE OF VARIABILITY, ONE IRONIC SIGN COMES TO MIND THE "DO NOT TOUCH" SIGN. EVER SINCE WE STARTED PUTTING THINGS IN MUSEUMS THERE WAS THE NEED FOR A "DO NOT TOUCH" SIGN. THIS NOT ONLY PROTECTS THE OBJECTS ON DISPLAY, BUT IT ALSO PROTECTS PEOPLE FROM HURTING THEMSELVES ON THE OBJECTS. "I DON'T REALLY LIKE MUSEUMS. NOT REALLY MUCH FOR ME TO SEE IN THEM." (FMVSG, 2017)



THE RAIN ROOM –LACMA

THE RAIN ROOM

WHEN IT COMES TO OUR SENSE OF TOUCH IT IS IMPORTANT TO LOOK AT STUDIES THAT WOULD INVOLVE THE EXCLUSION OF OUR ABILITY TO TOUCH. THE RAIN ROOM WAS AN EXHIBITION AT THE THE LOS ANGELES COUNTY MUSEUM OF ART. ORIGINALLY BASED IN A LONDON EXHIBITION, THE RAIN ROOM IS AN IMMERSIVE WORK PRODUCED BY RANDOM INTERNATIONAL, AN ARTIST COLLECTIVE BASED OUT OF ENGLAND. THE ART EXHIBITION IN MANY WAYS SOUNDS EXACTLY AS IT IS SPELLED OUT, A ROOM THAT IT IS RAINING IN. THE UNIQUE ASPECT ABOUT THE RAIN ROOM, HOWEVER, IS THAT IT IS NOT RAINING WHEREVER YOU ARE STANDING. INSTEAD, IT ONLY EVER RAINS AROUND YOU.

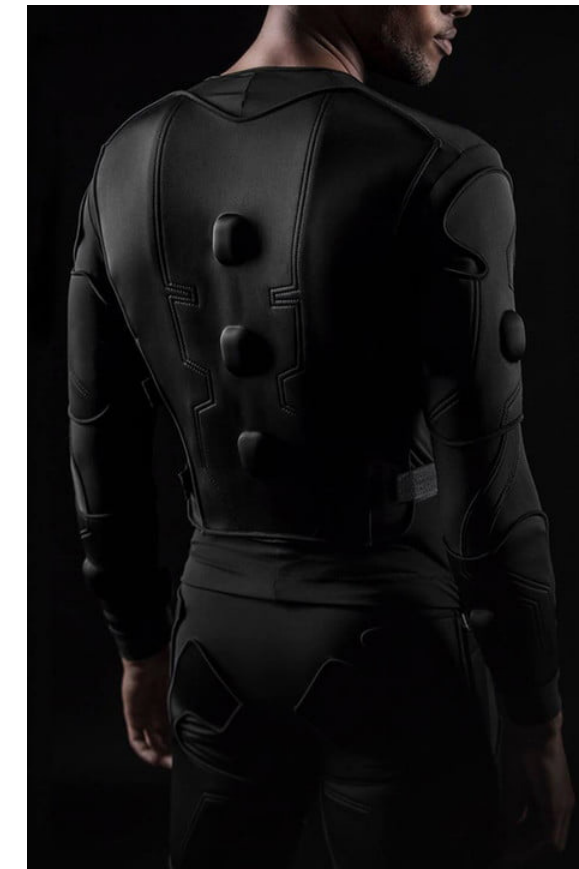
PRESSURE PLATES THAT ARE FOUND IN THE FLOOR ALLOW FOR INDIVIDUALS TO MAKE THEIR WAY THROUGH A CACOPHONOUS INTERIOR DOWNPOUR. THE RAIN ROOM IS A SENSORY EXPERIENCE LIKE NO OTHER BECAUSE WHILE YOU CAN SEE, HEAR, SMELL, TASTE, AND REMEMBER RAIN YOU DO NOT GET THE FULL SENSORY EXPERIENCE OF BEING DRENCHED IN A DOWNPOUR. THERE IS AN INTERESTING SURREAL ASPECT ABOUT BEING IN THE ROOM. SOME EVEN DESCRIBE IT LIKE REMEMBERING A DREAM. YOU CAN SENSE MANY OF THE DIFFERENT ASPECTS ABOUT WHAT IS HAPPENING BUT THERE IS A DISCONNECT FROM YOU REMEMBERING TO HOW YOU FEEL NOW.



TOUCH IS OUR BACK UP SENSE. WE READ SO MUCH OF THE WORLD AROUND US WITH OUR SKIN. EVEN SOME SUBCONSCIOUS STIMULI OF TEMPERATURE CHANGES CAN ALERT YOU TO A MULTITUDE OF SITUATIONS. SOME TESTS HAVE BEEN PERFORMED THAT WOULD SUGGEST THAT WE CAN SENSE WHEN PEOPLE ARE AROUND US BY JUST USING OUR SKIN. THIS OF COURSE IS ONLY BASED OFF OF HOW WELL YOU CAN USE THE TOOLS THAT YOUR BODY HAS THE ABILITY TO OPERATE.

IN MANY WAYS, THIS IS WHY I FEEL THAT VR WILL NEVER BE AS REAL AS BEING THERE. IN VIRTUAL REALITY YOU CAN GO ANYWHERE YOU COULD IMAGINE. BUT THAT IS A FAR CRY FROM ACTUALLY BEING THERE. WHEN YOU GO TO A CATHEDRAL THERE IS SO MUCH MORE THERE THAN JUST WHAT YOU CAN SEE. THERE IS THIS OVERWHELMING PRESSURE YOU RECEIVE FROM THE VOLUME OF SPACE YOU ARE IN.

SOME TECHNOLOGIES ARE WORKING TO TRY AND CHANGE THAT. PRODUCTS LIKE THE TESLA SUIT THAT SIMULATE TOUCH SENSATION AS WELL AS PRESSURE AND MOVEMENT ARE WELL ON THE WAY OF CREATING A BETTER VIRTUAL WORLD. THIS, HOWEVER, IS JUST A VIRTUAL RECREATION OR SURROGATE STIMULATION, IF YOU WILL. I DO NOT THINK THAT IS NECESSARILY A BAD THING.



IN GENERAL ART HAS BEEN A SURROGATE FORM OF REALITY EVEN FROM 30,000 YEARS AGO WHEN THE FIRST CAVE ART WAS BEING PRODUCED. THESE WERE NOT ARTISTIC GENUECES OF THEIR TIME, THIS WAS SIMPLY A HUNTER WHO WANTED TO PORTRAY A STORY THAT WORDS COULD NOT DESCRIBE. MOSTLY BECAUSE THEY HAD NOT BEEN DEVELOPED YET.

THE IDEA OF A SURROGATE REALITY IS ALMOST FAULTY IN ITSELF. WE HAVE LIVED IN OUR OWN CONTROLLED NATURE FOR SO LONG THAT WE HAVE FORGOTTEN THAT IT IS OF OUR OWN MAKING. WE CONSTANTLY CONTROL THE WORLD AROUND US. FROM THE TEMPERATURE OF OUR ROOMS, TO THE SIZE AND STYLE, TO THE MATERIALS OR SCRIBBLINGS WE HANG ON ITS WALLS; OUR ENVIRONMENT IS BUILT AND WE ARE ITS CURATORS.

| C O N C L U S I O N S |

OUR SENSORY INPUTS ARE BUILT THE SAME WAY FROM PERSON TO PERSON BUT HOW WE INTERPRET THAT INPUT IS WHERE OUR UNIQUENESS COME FROM.

"PERHAPS THE HUMAN FASCINATION WITH FIRE STEMS FROM THE TOTALITY OF ITS SENSORY STIMULATION. THE FIRE GIVES A FLICKERING AND GLOWING LIGHT, EVERY MORNING, EVERY CHANGING. IT CRACKLES AND HISSES AND FILLS THE ROOM WITH SMELLS OF SMOKE AND WOOD AND PERHAPS EVEN FOOD. IT PENETRATES US WITH ITS WARMTH. EVERY SENSE IS STIMULATED AND ALL OF THEIR ASSOCIATED MODELS OF PERCEPTION, SUCH AS MEMORY AND AN AWARENESS OF TIME, ARE ALSO BROUGHT INTO PLAY, FOCUSED ON THE ONE EXPERIENCE OF THE FIRE."

WHAT LISA HESCHONG IS STRIVING FOR IS THAT AS A SPECIES WE ARE CONNECTED TO THINGS THAT STIMULATE OUR SENSES. EVEN IF YOU CANNOT SEE A FIRE, YOU CAN FEEL ITS MASSIVE HEAT WITH YOUR SKIN. YOU CAN HEAR ITS SOFT CRACKLE OR ROARING FLAMES AS IT BURNS THE WOOD, OR WHATEVER YOU PUT INTO A FIRE. YOU CAN SMELL AND TASTE THE ASH AND SMOKE. AND MOST IMPORTANTLY OF ALL, YOU CAN REMEMBER THAT FIRE IS HOT AND SHOULD NEVER BE PLAYED WITH UNLESS YOU ARE A PERSON IN WHICH THEIR OCCUPATION IS TO WORK WITH FIRE, AS IN A FIREFIGHTER OR CARNIVAL JUGGLER.

OUR SENSES CONNECT US TOGETHER WHILE ALSO DIVIDING US FROM EXPERIENCE. I DO NOT SEE THE SAME WAY A BLIND PERSON DOES. I DO NOT HEAR THE SAME WAY A DEAF PERSON DOES. THESE ARE FACTS. SO THEN WHY ARE WE DESIGNING OUR WORLD FOR A SENSE OF NORMALITY?

"THE BUILT ENVIRONMENT IS CHARACTERIZED BY COMMON STYLES, OR BY STANDARDS, ETC., IT SEEMS THAT THE ANSWER IS OBVIOUS: BECAUSE DESPITE THEIR INDIVIDUAL DIFFERENCES (EXPERIENCES, PERCEPTIONS, ETC.), PEOPLE ALSO HAVE MUCH IN COMMON WITH EACH OTHER (E. G., LANGUAGE, CULTURE, HABITS). THE BUILT ENVIRONMENT REFLECTS BOTH COMMONALITIES AND INDIVIDUAL DIFFERENCES."
(SRIVASTAVA, 2017)

THIS STATEMENT IS OF COURSE RIGHT FROM A CERTAIN POINT OF VIEW. NORMALITY IS THE MAJORITY. BUT, BECAUSE THAT IS TRUE DOES NOT MEAN THAT IT IS THE RIGHT WAY TO DO SOMETHING. HISTORY IS WRITTEN BY THE WINNERS, AND IN TURN SO IS THE DEFINITION OF GOOD. BY DESIGNING THE WORLD FOR THE MAJORITY, WE ARE LIMITING OUR OWN EXPERIENCE. WHICH SHOULD NEVER BE THE BASES OF DESIGN. IF WE BUILT OUR WORLD WITHOUT LIMITS, WE COULD BUILD A BETTER WORLD.

CHRISTOPHER DOWNEY, STATES THAT THE FUTURE OF CITY AND URBAN DESIGN IS DEPENDENT ON THE BLIND.

"IF YOU DESIGN A CITY WITH THE BLIND IN MIND YOU WILL HAVE A RICH WALKABLE NETWORK OF SIDEWALKS WITH A DENSE ARRAY OF OPTIONS AND CHOICES ALL AVAILABLE AT THE STREET LEVEL. IF YOU DESIGN A CITY WITH THE BLIND IN MIND, SIDEWALKS WILL BE PREDICTABLE AND WILL BE GENEROUS. THE SPACE BETWEEN BUILDINGS WILL BE WELL BALANCED BETWEEN PEOPLE AND CARS. IN FACT, CARS, WHO NEEDS THEM? IF YOU ARE BLIND YOU DON'T DRIVE. THEY DON'T LIKE IT WHEN YOU DRIVE. IF YOU DESIGN A CITY WITH THE BLIND IN MIND, YOU DESIGN A CITY WITH A ROBUST ACCESSIBLE WELL CONNECTED MASS TRANSIT SYSTEM THAT CONNECTS ALL PARTS OF THE CITY AND THE REGION ALL AROUND. SO IN DESIGNING A CITY FOR THE BLIND I HOPE YOU REALIZE THAT IT WOULD ACTUALLY BE A MORE INCLUSIVE A MORE EQUITABLE A MORE JUST CITY FOR ALL."

WE ARE ONLY AS STRONG AS OUR WEAKEST MEMBER. IT IS MY BELIEF THAT CHRISTOPHER DOWNEY IS ACCURATE IN THIS STATEMENT. IF WE BUILT OUR CITIES WITH A "BLIND MAN'S EYE" THAT CITY WOULD BE AN BURSAE OF FORM, SPACE, ORDER AND SENSORY INFORMATION.

IT OF COURSE IS NOT MY INTENT TO REDESIGN OUR CITIES. TO TAKE ON A TASK OF THAT SIZE WOULD BE UNSETTLING AND TIME CONSUMING. IT IS MY BELIEF THAT WE SHOULD DESIGN BETTER EXPERIENCE FOR INDIVIDUALS SO THAT THEIR VIEW OF THE WORLD BECOMES HEIGHTENED RATHER THAN LIMITED. BY MAKING PEOPLE AWARE OF HOW LOUD OR QUITE A BUILDING IS, HOW A CERTAIN PLACE SMELLS, OR EVEN HOW A PLACE TASTES CAN BECOME A STRONG DRIVING FORCE IN DESIGN.



TOUCH IS OUR BACK UP SENSE. WE READ SO MUCH OF THE WORLD AROUND US WITH OUR SKIN. EVEN SOME SUBCONSCIOUS STIMULI OF TEMPERATURE CHANGES CAN ALERT YOU TO A MULTITUDE OF SITUATIONS. SOME TESTS HAVE BEEN PERFORMED THAT WOULD SUGGEST THAT WE CAN SENSE WHEN PEOPLE ARE AROUND US BY JUST USING OUR SKIN. THIS OF COURSE IS ONLY BASED OFF OF HOW WELL YOU CAN USE THE TOOLS THAT YOUR BODY HAS THE ABILITY TO OPERATE.

AGAIN, IN MANY WAYS THIS IS WHY I FEEL THAT VR WILL NEVER BE AS REAL AS ACTUALLY BEING THERE. IN VIRTUAL REALITY YOU CAN GO ANYWHERE YOU COULD IMAGINE BUT THAT IS A FAR CRY FROM ACTUALLY BEING THERE. WHEN YOU GO TO A CATHEDRAL THERE IS SO MUCH MORE THAN JUST WHAT YOU CAN SEE. THERE IS AN OVERWHELMING PRESSURE YOU RECEIVE FROM THE VOLUME OF SPACE YOU ARE IN.

SOME TECHNOLOGIES ARE WORKING TO TRY AND CHANGE THAT. PRODUCTS LIKE THE TESLA SUIT THAT SIMULATE TOUCH SENSATION AS WELL AS PRESSURE AND MOVEMENT ARE WELL ON THE WAY OF CREATING A BETTER VIRTUAL WORLD. THIS HOWEVER IS JUST A VIRTUAL RECREATION OR SURROGATE STIMULATION, IF YOU WILL. I DO NOT THINK THAT IS NECESSARILY A BAD THING.

IN GENERAL ART HAS BEEN A SURROGATE FORM OF REALITY EVEN FROM 30,000 YEARS AGO WHEN THE FIRST CAVE ART WAS BEING PRODUCED. THESE WERE NOT ARTISTIC GENUECES OF THEIR TIME THIS WAS SIMPLY A HUNTER WANTED TO PORTRAY A STORY THAT WORDS COULD NOT DESCRIBE. MOSTLY BECAUSE THEY HAD NOT BEEN DEVELOPED YET.

THE IDEA OF A SURROGATE REALITY IS ALMOST FAULTY IN ITSELF. WE HAVE LIVED IN OUR OWN CONTROLLED NATURE FOR SO LONG THAT WE HAVE FORGOTTEN THAT IT IS OF OUR OWN MAKING. WE CONSTANTLY CONTROL THE WORLD AROUND US. FROM THE TEMPERATURE OF OUR ROOMS, TO THE SIZE AND STYLE, TO THE MATERIALS OR SCRIBBLINGS WE HANG ON ITS WALLS; OUR ENVIRONMENT IS BUILT AND WE ARE ITS CURATORS.



SENSOGRAPHY

I MADE THIS.

—THE PERSON
THAT MADE THIS

| S E N S O G R A P H Y |

SENSOGRAPHY

"MOST HUMAN BEINGS HAVE AN ALMOST INFINITE CAPACITY FOR TAKING THINGS FOR GRANTED."

ALDOUS HUXLEY, BRAVE NEW WORLD

SEN·SOG·RA·PHY

THE DECONSTRUCTION OF SENSORY EXPERIENCE.

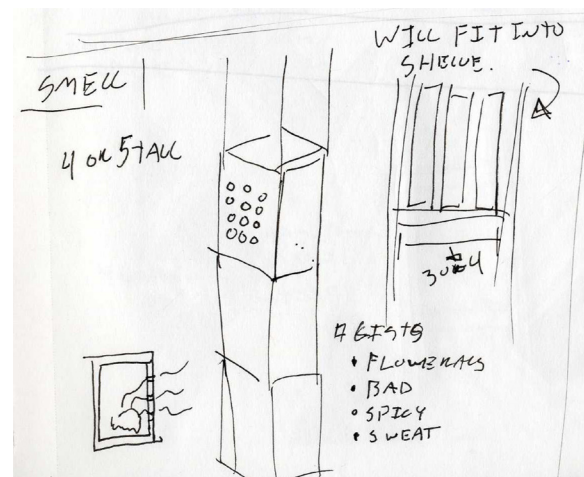
OUR SENSES ARE THE RECEPTORS OF OUR SURROUNDINGS. WE USE THEM SUBCONSCIOUSLY BUT HAVE A CONSCIOUS REACTION TO THE INFORMATION THEY PROVIDE. EVERY INPUT CAN BE BROKEN DOWN TO A SENSE, A SMALLER PART OF A GREATER WHOLE. EACH SENSATION ADDS TO AN EXPERIENCE, ONE WHICH COULD NOT BE PROCESSED OR FULLY UNDERSTOOD WITHOUT EACH PART COMING TOGETHER TO COMPLETE THE SENSATIONAL EXPRESSION.

BEFORE YOU IS A KIT OF PARTS, TASTE, TOUCH, SMELL, SEE, HEAR; PIECES OF SENSATION BROKEN DOWN TO INTERPRET THE INDIVIDUAL PARTS OF MY PERSONAL EXPERIENCE OF SEATTLE, WASHINGTON. THE INFORMATION FROM EACH IS INDIVIDUAL AND LOCALIZED TO THAT SENSE. RECOGNIZED INDIVIDUALLY, ASSEMBLED TO CREATE THE WHOLE EXPERIENCE.

LIFE IS MORE THAN WHAT YOU THINK. LIFE IS WHAT YOU EXPERIENCE.

SMELL

SMELL CAN BOTH PLEASANT AND NOT SO PLEASANT. BY HAVING BOTH YOU REALIZED THIS FACT AND CAN BETTER UNDERSTAND THE ENVIRONMENT AROUND YOU.



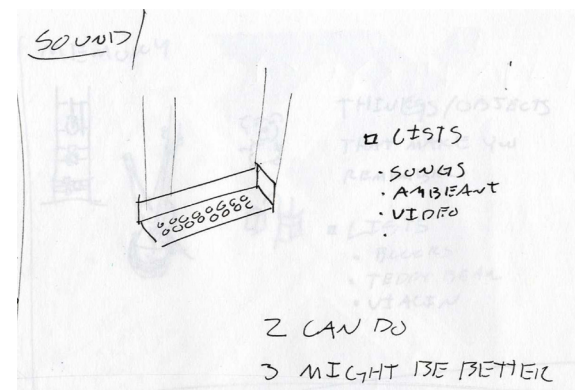
TOUCH

WITH TOUCH BEING THE LARGEST VARIETY OF OUR FIVE SENSES IT NEEDED TO LIMIT ON HOW IT WAS INTRODUCED IN THIS EXHIBITION. FOCUSING ON FIVE OBJECTS MEANT THAT THEY COULD BE INTERACTIVE AND YET CONVEY A LARGER PART OF THE TRIP. GLASS, FUR, MAP, BOOK, AND SALT WATER WERE THE FIVE OBJECTS CHOSEN FOR TO ME THEY STOOD OUT THE MOST THROUGHOUT THE TRIP.



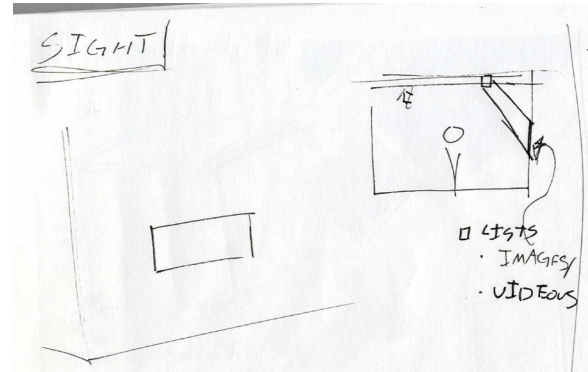
SOUND

WHILE VISITING SEATTLE THERE IS A LOT OF OPPORTUNITIES TO RECORD DIFFERENT AREAS. PIKES MARKET PLACE, THE BAY, STREETS, COMMUNITY SPACE, RESTAURANTS, ECT; WERE LOCATION CHOSER TO CONVEY A VARIETY OF PLACES TO VISIT.



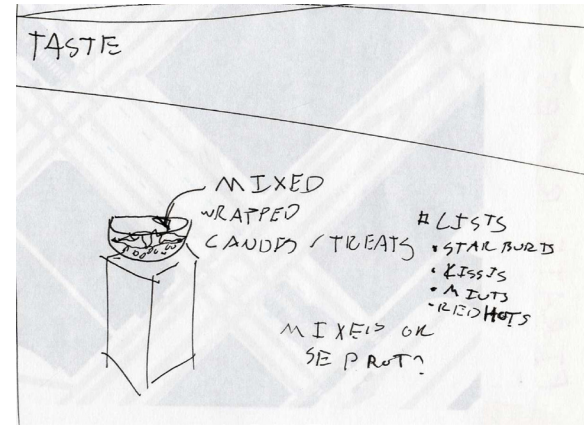
SIGHT

SINCE WE USE SIGHT SO MUCH IT WAS KEY TO NOT FOCUS TOO MUCH ATTENTION IN ITSELF. BY HAVING TWO PROJECTS QUICKLY FLIPPING THROUGH THE 128 IMAGES ALLOWS FOR A QUICK GLANCE BUT NOT ENOUGH TIME TO LINGER.



TASTE

TASTE WAS HARD TO CONVEY SINCE THERE IS PROPER TIMING AND PERISHABLE PROBLEMS TO CONVEY. USING SALMON JERKY AND CHOCOLATES WAS AN EASY WAY TO CONVEY THE IDEA OF TASTE FROM SEATTLE WITHOUT HAVING TO HAVE A CHEF ON HAND.



MEMORY

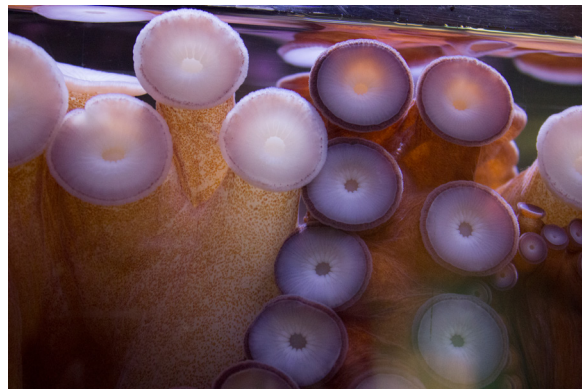
MEMORY FOUND ITSELF THROUGHOUT THE WHOLE EXHIBITION. MANY INDIVIDUALS EITHER HAD STORIES FROM LIVING THERE OR VISITING. THE IDEA OF MEMORY IS NEEDED TO UNDERSTAND AND RELATE EVERYTHING IN THE GALLERY TO EACH OTHER AND THE EXPERIENCE AS A WHOLE.



| C O N C L U S I O N |

THERE IS MUCH TO BE LEARNED FROM THESE EXERCISES. FOCUSING IN ON THE INDIVIDUAL PARTS OF OUR SENSES ALLOWS FOR A BETTER UNDERSTANDING OF WHAT THE WORLD AROUND US IS LIKE. BY SIMPLY FOCUSING ON SIGHT WE LOSE SO MUCH OF WHAT IT IS LIKE TO BE IN A PLACE OR TO EXPERIENCE SOMETHING. OUR EXPERIENCE IS MUCH MORE THAN ANY ONE GIVEN SENSE. WE MUST USE ALL OF OUR SENSES TO BRIDGE THAT GAP ON WHAT EXPERIENCE CAN BE.

THIS EXHIBITION ROUNDED OFF MANY THINGS THAT TRANSLATED WELL TO THESIS BUT ALSO GAVE ME AN END TO MY ARTISTIC EDUCATION WITH THE NDSU VISUAL ARTS DEPARTMENT. THIS END WAS A WAY FOR ME TO EXPRESS A VERY COMPLEX IDEA IN AN ARTISTIC WAY. BY DOING THIS I HAVE GROWN AND AM ABLE TO APPLY SEVERAL OF THE IDEAS INTO SENSE-A-TECTURE.





S I T E

WHERE DID YOU COME
FROM, WHERE DID YOU GO?
WHERE DID YOU COME
FROM, COTTON-EYE JOE?

—REDNEX

| R E G I O N |

NIL SINE NUMINE
("NOTHING WITHOUT THE DEITY")

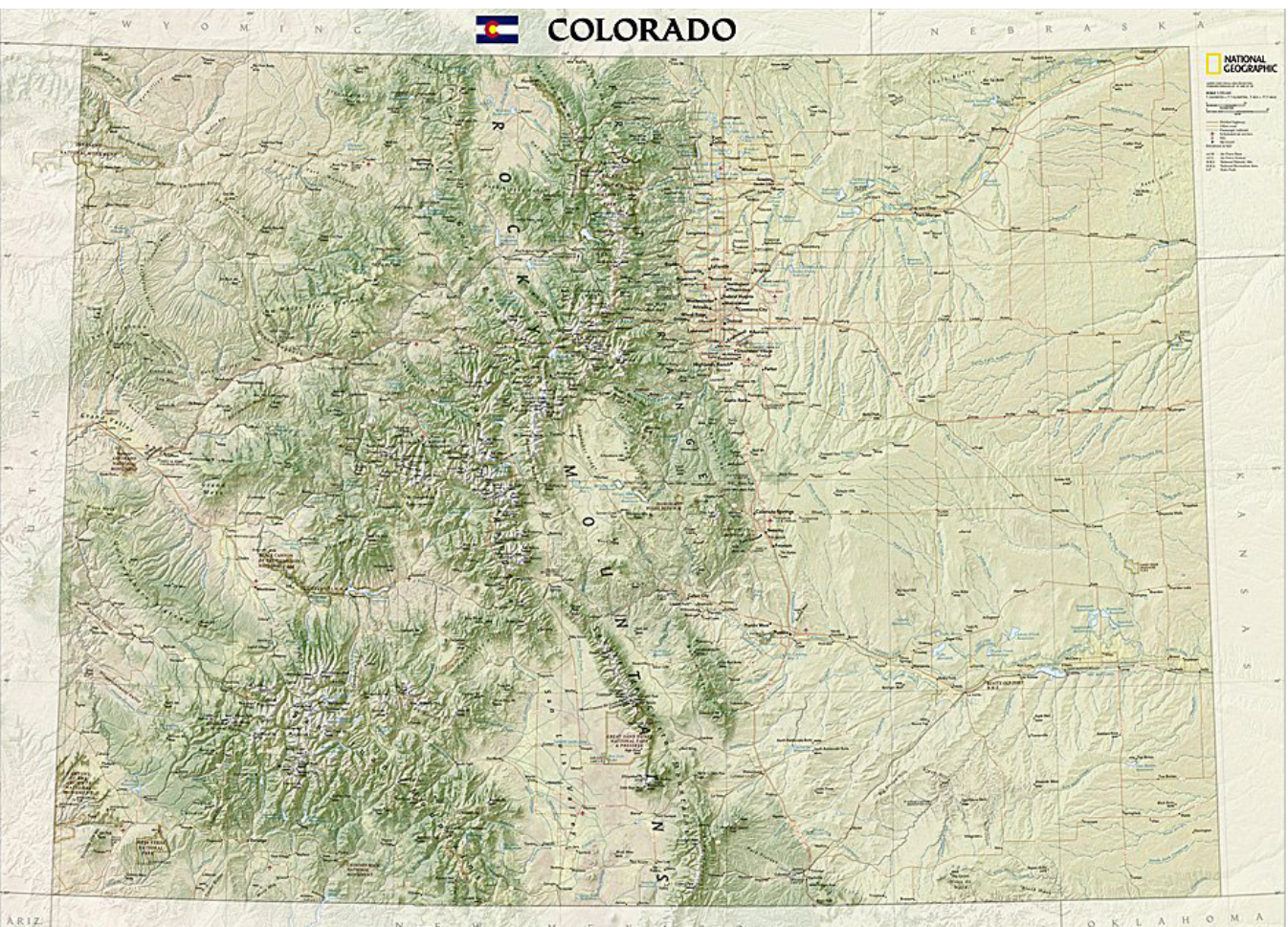
POPULATION
5.541 MILLION (2016)

SIZE
104,094 SQUARE MILES

NICKNAMES
CENTENNIAL STATE; COLORFUL COLORADO

TREE AND FLOWER
COLORADO BLUE SPRUCE AND COLUMBINE

THE HISTORY OF COLORADO IS ONE FULL OF PERSPIRATION, ADVENTURE, LOSS, AND PERSISTENCE. IN THE 1500S, THE SPANISH EXPLORERS OF THE AMERICAS NAMED THE LAND "COLORADO" BECAUSE OF THE RED ROCK COLORS FOUND THROUGHOUT THE LANDSCAPE. LOCATED IN THE ROCKY MOUNTAIN REGION OF THE WESTERN UNITED STATES, COLORADO OFFERS A VARIETY OF LANDSCAPES. THE FRONT RANGE, WHERE THE MOUNTAINS MEET THE CENTRAL PLAINS, DIVIDE THE STATE ALMOST IN HALF WITH THE MOUNTAINS TO THE WEST AND THE PLAINS TO THE EAST.

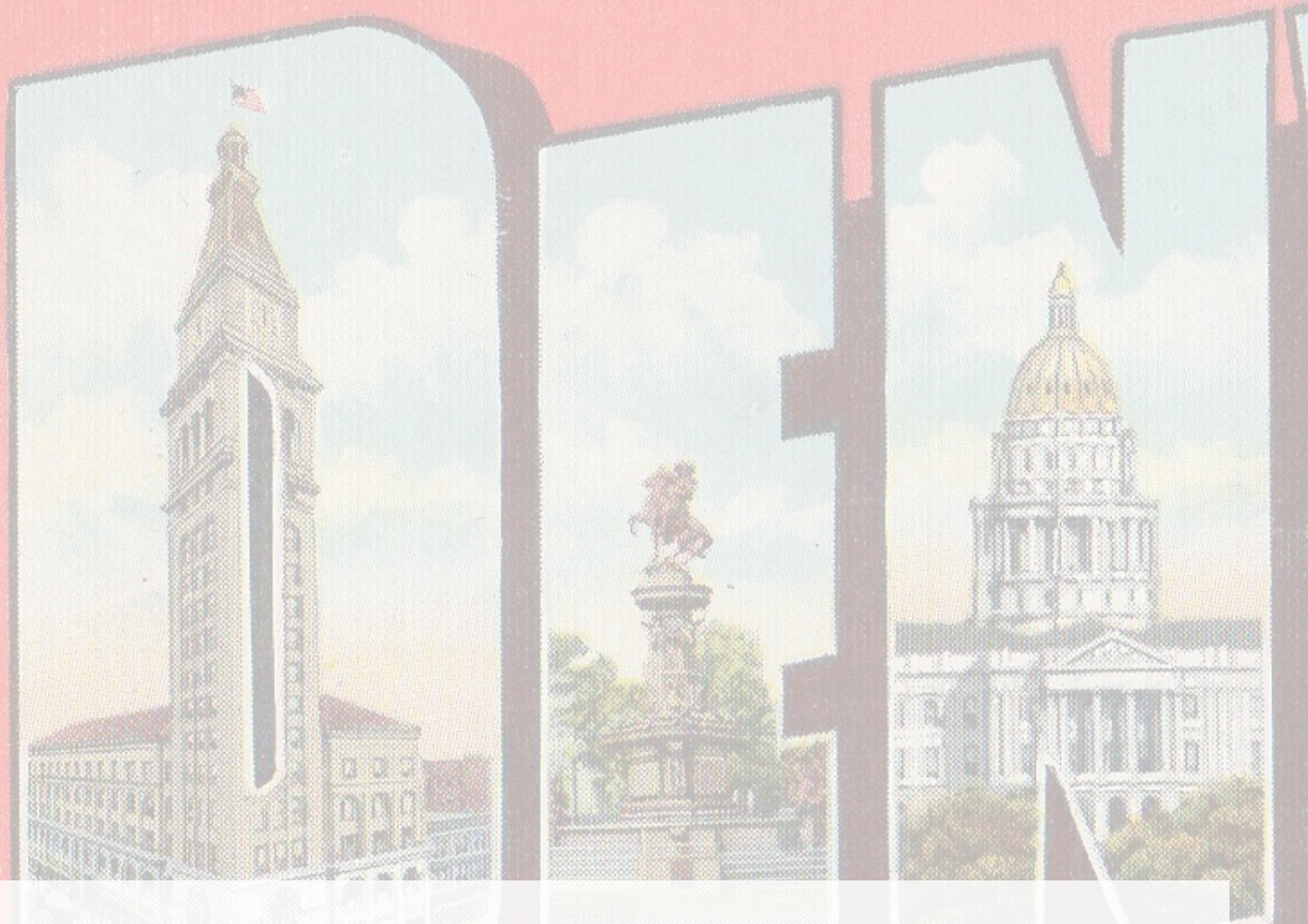


COLORADO JOINED THE UNION IN 1876 BECOMING THE 38TH STATE. IN LAND MASS ALONE IT IS RANGTHED EIGHT ACROSS THE NATION. COLORADO'S MOTTO, NIL SINE NUMINE, COMMONLY TRANSLATES TO "NOTHING WITHOUT PROVIDENCE" OR "NOTHING WITHOUT GOD". THIS HOWEVER IS NOT THE TRANSLATION INTENDED WHEN THE SEAL WAS ADOPTED IN 1861. THE COLORADO DEPARTMENT OF PERSONNEL AND ADMINISTRATION EXPLAINS THIS MISTRANSLATION; "IN THE EARLY MINING DAYS OF THE STATE, THE UNREGENERATE SAID IT MEANT "NOTHING WITHOUT A NEW MINE". IN A STRICT SENSE, ONE CANNOT POSSIBLY GET "GOD" FROM "NUMINE", GOD BEING A PURELY ANGLO-SAXON WORD. THE WORD "NUMINE" MEANS ANY DIVINITY, GOD OR GODDESS." (CDPA, 2005) IN MANY WORDS THE MOTTO CHOSEN FOR THE STATE IS INTENDED TO BE TRANSLATED AS "NOTHING WITHOUT THE DEITY" REFERRING, IN MANY WAYS, TO THE MINES THAT COLORADO HAS PROSPERED ON.

THE COLORADO STATE FLAG IS WIDELY ACCEPTED AS ONE OF THE MOST RECOGNIZABLE OF ALL THE STATE FLAGS. (STATE ARCHIVES, 2017) THE ORIGINAL FLAG, WAS IN USE FROM 1907 UNTIL 1911. IN 1911, ANDREW CARLISLE JOHNSON DESIGNED THE NOW ICONIC FLAG BUT GAVE NO SPECIFICATION FOR THE SIZE FOR THE C. THE FLAG HAS DISTINCT CHARACTERISTICS NOT FOUND IN ANY OTHER STATE FLAG. THE RED C IS MEANT TO REPRESENT THE RED ROCK COLOR OF THE ROCKY MOUNTAINS IN THE AREA. THE GOLD DISC IN SIDE OF THE C IS TO REPRESENT THE GOLD AND SILVER MINES THAT CAN BE FOUND THROUGHOUT THE STATE. IN FEBRUARY OF 1929 THE GENERAL ASSEMBLY AGREED TO SPECIFIED SIZING FOR BOTH THE C AND THE GOLD DISC ON THE INSIDE. (STATE ARCHIVES, 2017)



GREETING YOU FROM



COLORADO OFFERS A WIDER VARIETY OF ACTIVITIES AND EXPERIENCE. ONE OF THE FOREMOST IS NATURAL LANDSCAPE. COLORADO HAS FORTY-TWO ACTIVE STATE PARKS SPREAD ACROSS THE STATE. THE FIRST ONE OPENING IN THE 1950'S AND THE LATEST OPENING JUST THIS YEAR. COLORADO TAKES PRIDE IN ITS NATURAL LAND RESOURCES. THERE ARE ALSO SEVERAL FEDERAL NATIONAL PARKS INCLUDING THE GREAT SAND DUNES, MASA VERDE AND ROCKY MOUNTAIN NATIONAL PARK.

ANOTHER NATURAL AMENITY THAT COLORADO HAS TO OFFER IS RED ROCKS AMPHITHEATER. RED ROCKS IS AN OPEN-AIR AMPHITHEATER THIS IS A NATURAL GEOLOGICAL FORMATION WITH NO DUPLICATION. ONE OF 1941, RED ROCKS HAS OFFERED HUNDREDS OF THOUSANDS OF CONCERTS AND EVENTS OVER THE YEARS. SITTING AT AN ELEVATION OF 6450 FT THERE IS REALLY NO PLACE ON EARTH THAT OFFERS AN EXPERIENCE THAT MOTHER NATURE HAS NATURALLY FORMED AT RED ROCKS. (RED ROCKS, 2017)



ROCKY MOUNTAIN NATIONAL PARK



RED ROCKS AMPHITHEATER

THE HISTORY OF DENVER

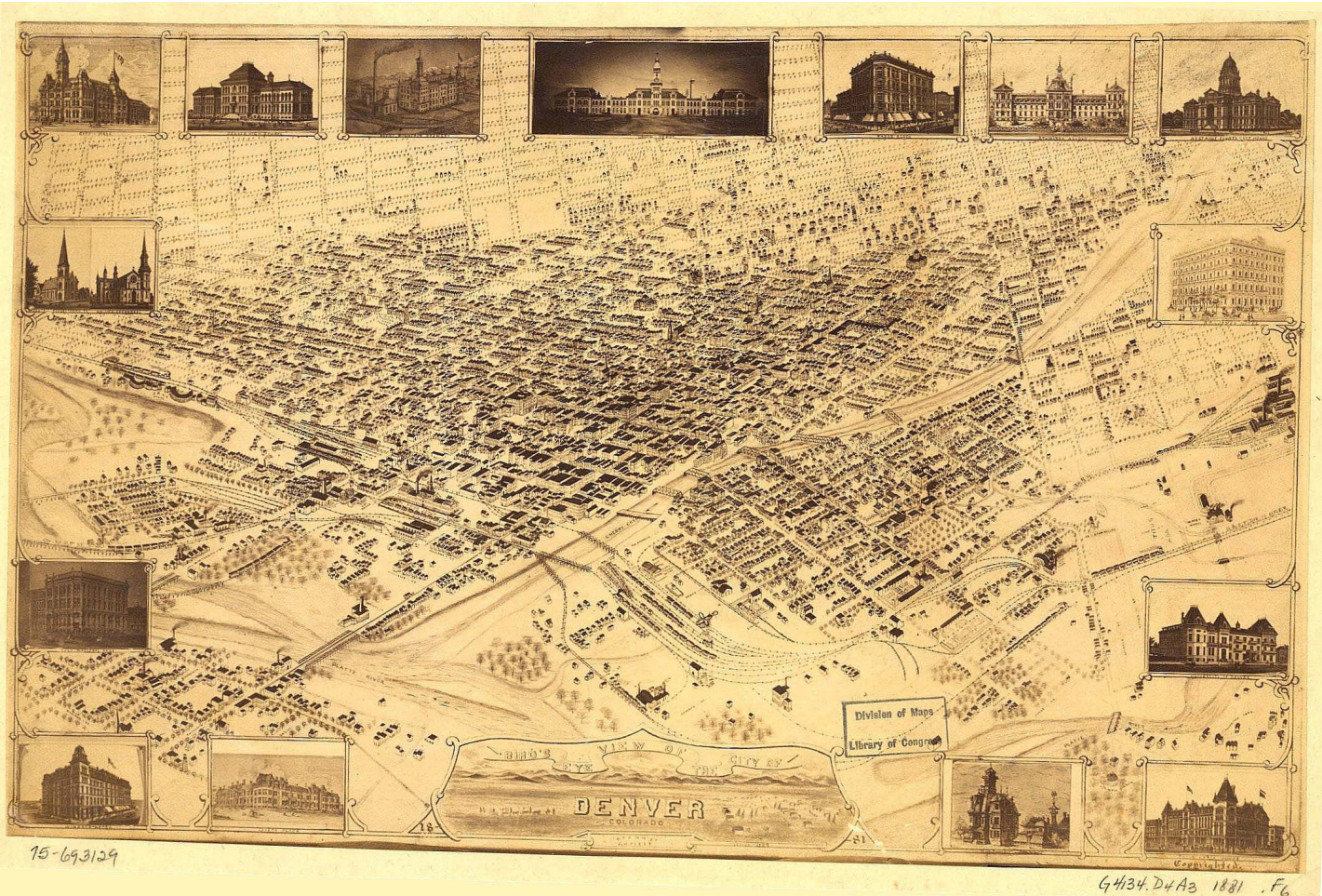
THE CITY OF DENVER IS DESCRIBED BY TRAVEL WRITER ROSE KINGSLEY AS "IT WAS AS IF THE ANGELS WERE CARRYING A CITY TO A PROPER PLACE AND ACCIDENTALLY DROPPED IT HERE." (DENVER.ORG, 2017) DENVER, MOST NOTABLY KNOWN AS THE MILE HIGH CITY, GOT ITS START IN THE SUMMER OF 1858 AS A SMALL GROUP OF GEORGIA PROSPECTORS MADE THEIR WAY ACROSS THE THEN CALLED COLORADO TERRITORY. AS THEY MADE IT TO THE BASE OF THE ROCKY MOUNTAINS THEY FOUND SOMETHING MUCH SIMILAR TO WHAT WAS FOUND IN CALIFORNIA ONLY A FEW YEARS EARLIER; GOLD. THE GOLD IN THE SOUTH PLATTE RIVER WAS VERY-FAR AND IN-BETWEEN BUT IT WAS NOT

LONG UNTIL TENTS, TEEPEES, AND CRUDE LOG CABINS BEGIN TO DOT THE BANKS OF THE RIVER JUST FROM THE IDEA OF GOLD.

DENVER GREW OUT OF THE DEDICATION OF ITS OWN INHABITANTS. CITIZENS BROUGHT THEMSELVES TOGETHER TO NOT ONLY SURVIVE BUT TO ALLOW THE CITY TO THRIVE. TOM NOEL, A HISTORIAN AND FORMER CHAIR OF THE DENVER LANDMARK PRESERVATION COMMISSION TALKS SOLELY ON THE DEDICATION OF THE FIRST PIONEERS AND PROSPECTORS. "DENVER WAS NOT A SURE THING – IT EASILY COULD HAVE DIED JUST LIKE SO MANY CITIES IN COLORADO." (DENVER.ORG, 2017) IN COLORADO ALONE, THERE ARE MORE GHOST TOWNS THAN ACTUAL TOWNS, 500 IN TOTAL, ACROSS THE STATE. (DENVER.ORG, 2017)



DENVER CERCA 1898



75-693129

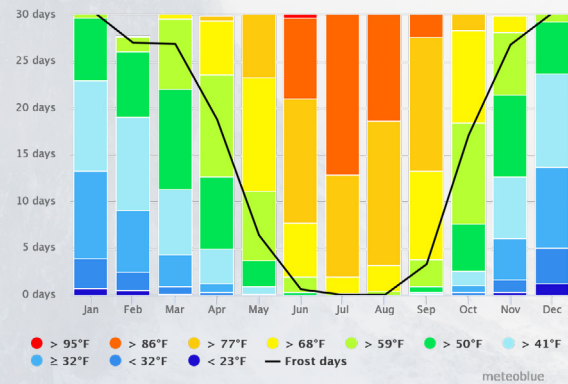
6434.D4A3 1881 .F6

SITE-ANALYSIS

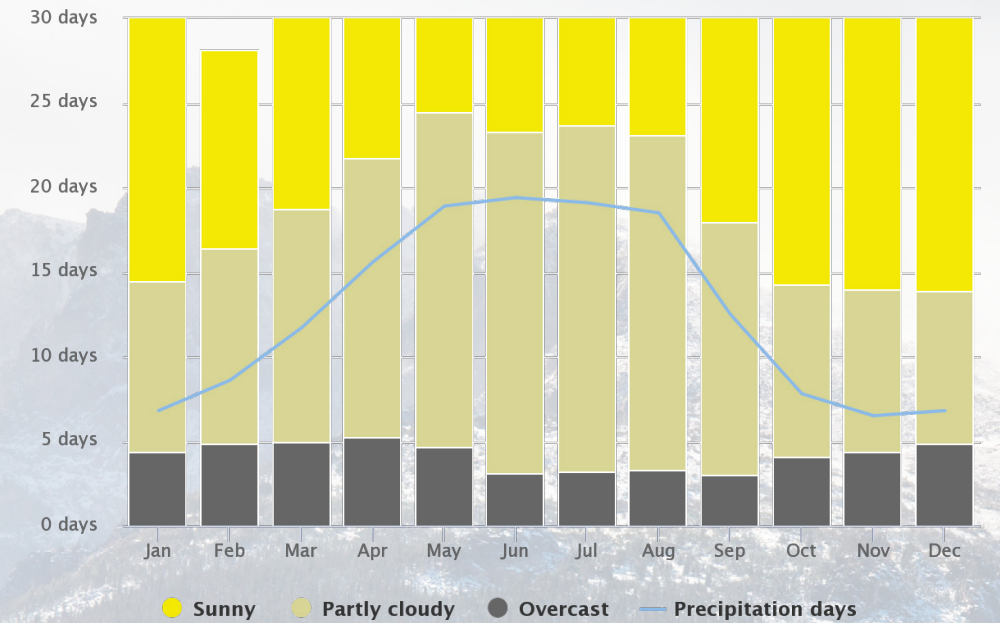
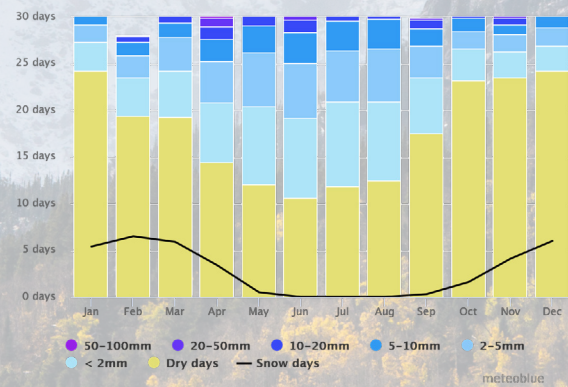


| C L I M A T E |

THE CLIMATE OF COLORADO CAN BE VERY MILD WITH AVERAGE TEMPERATURES STAYING WITHIN THE 20S AND ONLY RARELY REACHING THE 100'S. BECAUSE OF THE ALTITUDE AND DRYNESS OF THE AIR DURING THE SUMMER MONTH, WHEN THE TEMPERATURE IS HIGHER, COMFORT CAN BE FOUND IN THE SHADE COMBINED WITH A COOL BREEZE. COMPLIMENTARY IN THE WINTER, SOLAR HEAT IS MORE THAN CAPABLE OF KEEPING YOU WARM.

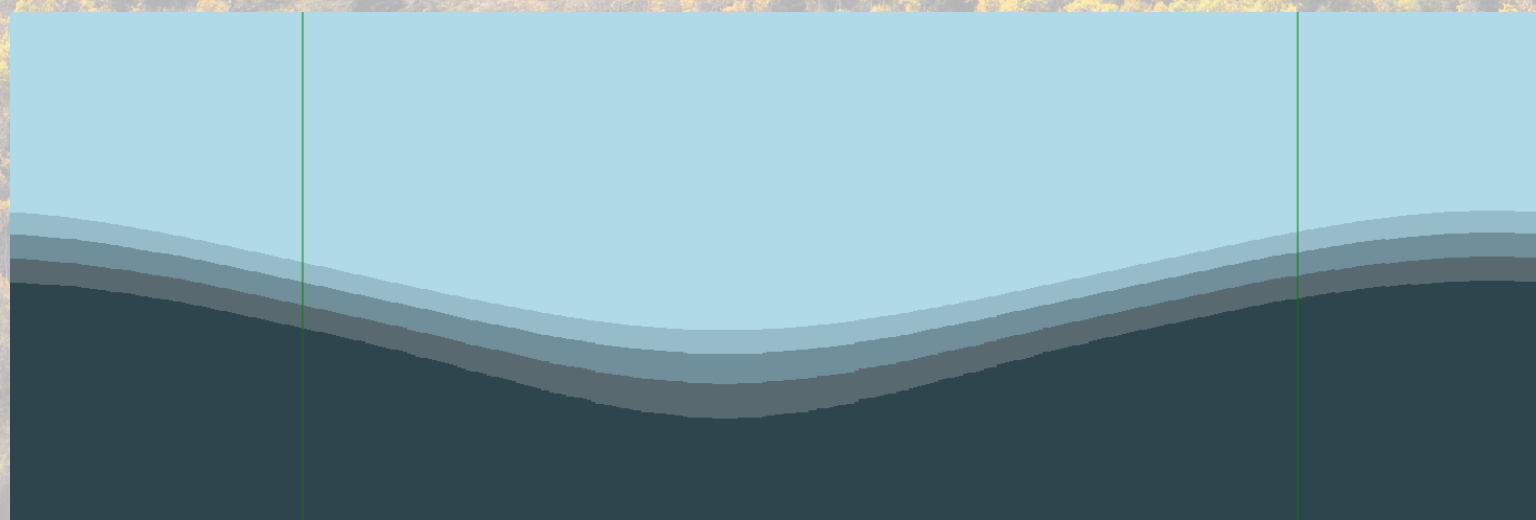


COLORADO HAS BEEN UNDER A THOUSAND YEAR DROUGHT AND WHILE PRECIPITATION CAN BE FOUND THE ENVIRONMENT IS NORMALLY DRY AND ARID DO TO THE UPSLOPE OF THE MOUNTAINS. THE WETTEST MONTH IS ON AVERAGE APRIL WITH OVER 75MM OF RAIN. RAINFALL CAN NORMALLY BE FOUND IN THE HIGHLANDS AND VALLEYS OF THE ROCKY MOUNTAIN RANGE. COLORADO PRIMARILY GETS ITS DRINKABLE WATER FROM UNDERGROUND AQUIFERS THAT ARE FEED AND NATURALLY FILTERED FROM MOUNTAIN SPRINGS.

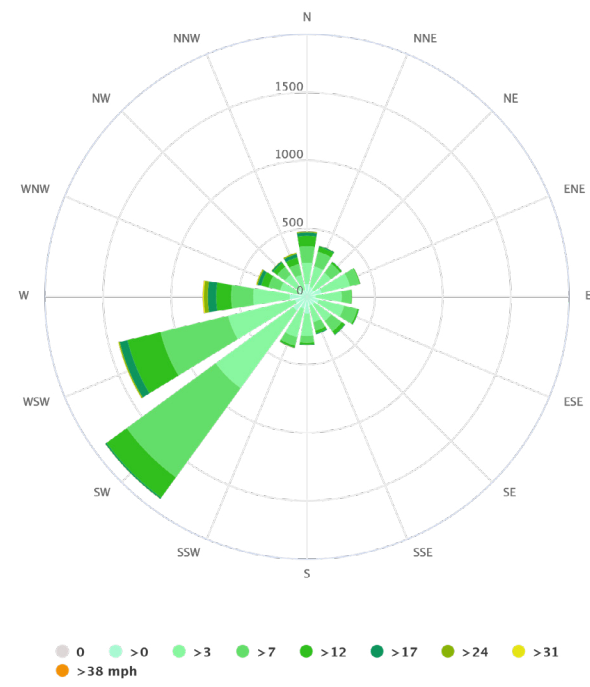


STATEWIDE THERE IS A RESTRICTION ON EXCESSIVE WATERING AND WATER WASTE. IT IS ALSO A STATE LAW THAT WATER CANNOT BE COLLECTED FROM AND USED FROM STREAMS OR RIVERS SINCE THAT WILL BEGIN TO DEplete WATER FILTERING INTO THE UNDERGROUND AQUIFER. (CO.ORG) A MAJORITY OF THIS WATER COMES FROM SNOW MELT DURING THE MONTHS OF APRIL AND MAY. BUT IT IS NOT UNTYPICAL TO GET A LATE SPRING SNOW STORM IN PARTS OF THE STATE.

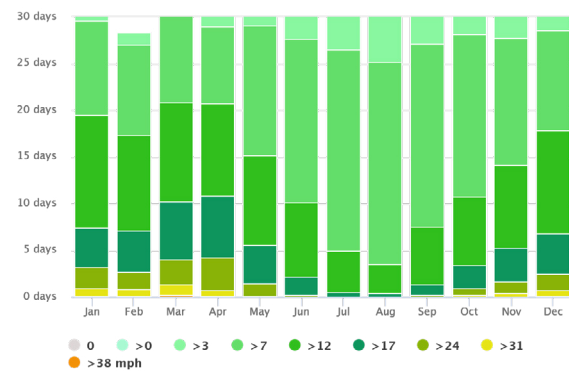
COLORADO WEATHER IS VERY TEMPERATE WITH ONLY SLIGHT DEVIATIONS FROM THE GENERAL NORM. A LARGE PART OF THIS SOME FROM THE SUN. THE SOLAR GAIN A BUILDING CAN ACHIEVE CAN DRAMATICALLY CHANGE THE CHILL OF WINTER AND SHADING DURING THE SUMMER. THE OLD ADICHIE IS THAT IF YOU ARE IN THE SUN IN THE WINTER IT IS 68 DEGREES AND IF YOU ARE IN THE SHADE IN THE SUMMER IT IS 68 DEGREES. THIS IS PRIMARILY DUE TO THE SUN. SEEK IT OUT FOR WARMTH AND HIDE FROM IT FOR COOLING.



WIND IS AN ELEMENT THAT AFFECTS ALL BUILDINGS. DENVER PRIMARILY RECEIVES WIND FROM THE SOUTH-WEST WITH WIND GUSTS ON AVERAGE OF 0 TO 17 MPH. THERE ARE ALSO WIND GUSTS FROM THE WEST SOUTHWEST AND WEST WITH GUSTS REACHING 31 MPH MARKS. ON AVERAGE, MARCH IS THE WINDIEST MONTH WITH WIND GUSTS UP TO 38 MPH. FROM THE MONTHS OF OCTOBER THROUGH MAY WIND GUST CAN REACH UP TO 31MPH.



UNDERSTANDING WHERE THE MAJORITY OF WIND COMES FROM CAN BE VALUABLE INPUT TO THE DESIGN OF A BUILDING. YOU WOULDN'T WANT TO PUT A FLAT WALL ON THE WINDIEST SIDE OF A BUILDING. THIS INPUT CAN ALSO BE USED WHEN PLANNING BUILDING WIND TURBINES OR EVEN AIR INTAKE AND EXHAUST. WITH THIS SITE IT IS GOOD TO NOTE THAT THE LIGHT RAIL AND SHIPPING RAIL LINE CORRIDOR



- 20–25 STORY BUILDING
- 10–20 STORY BUILDING
- 5–10 STORY BUILDING
- 1–5 STORY BUILDING
- GROUND LEVEL

THE SITE, LOCATED ON CHESTNUT PLACE, HAS A SERIES OF NEWER CONSTRUCTION IN THE WEST AND SOUTH DIRECTION. THE NEWLY CONSTRUCTED BUILDINGS VARY FROM 10 TO 20 STORIES. THERE IS A LIGHT RAIL LINE THAT PASSES JUST TO THE NORTH OF THE SITE. THIS RAIL LINE IS A MIX BETWEEN THE LIGHT RAIL AND COMMERCIAL RAIL. THIS RAIL LINE CAN CREATE A WIND TUNNEL THAT ALLOWS FOR A PATH FOR THE WIND TO TRAVEL DOWN. AS SEEN ABOVE, DIRECTLY TO THE NORTH THERE IS ADDITIONAL HIGH RISES THAT ARE 22 STORIES TALL.

AN EVALUATION AND ANALYSIS OF THE SURROUNDING SITE WOULD SHOW THAT THE TALLER BUILDING TO THE SOUTH, SOUTH WEST, WILL PROTECT THE SITE FROM STRONG WINDS GUSTS FROM THAT DIRECTION.



FIGURE 0.0.0

| SITE - CONTEXT |

LOCATED IN DOWNTOWN DENVER, THIS SITE INCLUDES THE RECENT DOWNTOWN RENOVATION PROJECT CONSISTING OF THE CONSTRUCT OF THE NEW COMMUTER RAIL, LIGHT RAIL, AND BUS TERMINALS. LOCATED BETWEEN 16TH AND 18TH STREETS ON CHESTNUT PL., THIS SITE IS AT THE END OF THE NEW RENOVATION PROJECT.

DENVER HAS SEEN A RECENT INFLUX OF INDIVIDUALS MOVING TO THE STATE WHICH HAS INCREASED THE COST OF LIVING BUT HAS ALSO ALLOWED FOR THIS GROWTH. FROM THE TIME THAT THIS SITE WAS CHOSEN IN LATE MAY UNTIL THE SECOND SITE VISIT IN EARLY JANUARY, EVERY EMPTY SITE WAS EITHER COMPLETELY DEVELOPED OR WAS WELL ON THE WAY TO BE COMPLETE. THE GROWTH IN THIS AREA IS IMMENSE.

| Year | Population | Growth | Growth Rate |
|------|------------|---------|-------------|
| 2016 | 693,060 | 13,028 | 1.92% |
| 2015 | 680,032 | 17,607 | 2.66% |
| 2014 | 662,425 | 14,992 | 2.32% |
| 2013 | 647,433 | 13,870 | 2.19% |
| 2012 | 633,563 | 14,282 | 2.31% |
| 2011 | 619,281 | 19,123 | 3.19% |
| 2010 | 600,158 | 45,522 | 8.21% |
| 2000 | 554,636 | 87,026 | 18.61% |
| 1990 | 467,610 | -25,076 | -5.09% |
| 1980 | 492,686 | -21,992 | -4.27% |
| 1970 | 514,678 | 20,791 | 4.21% |
| 1960 | 493,887 | 78,101 | 18.78% |
| 1950 | 415,786 | 93,374 | 28.96% |
| 1940 | 322,412 | 34,551 | 12.00% |
| 1930 | 287,861 | 31,370 | 12.23% |
| 1920 | 256,491 | 43,110 | 20.20% |
| 1910 | 213,381 | 79,522 | 59.41% |
| 1900 | 133,859 | 27,146 | 25.44% |
| 1890 | 106,713 | 71,084 | 199.51% |
| 1880 | 35,629 | 30,870 | 648.67% |
| 1870 | 4,759 | 10 | 0.21% |
| 1860 | 4,749 | | 0.00% |

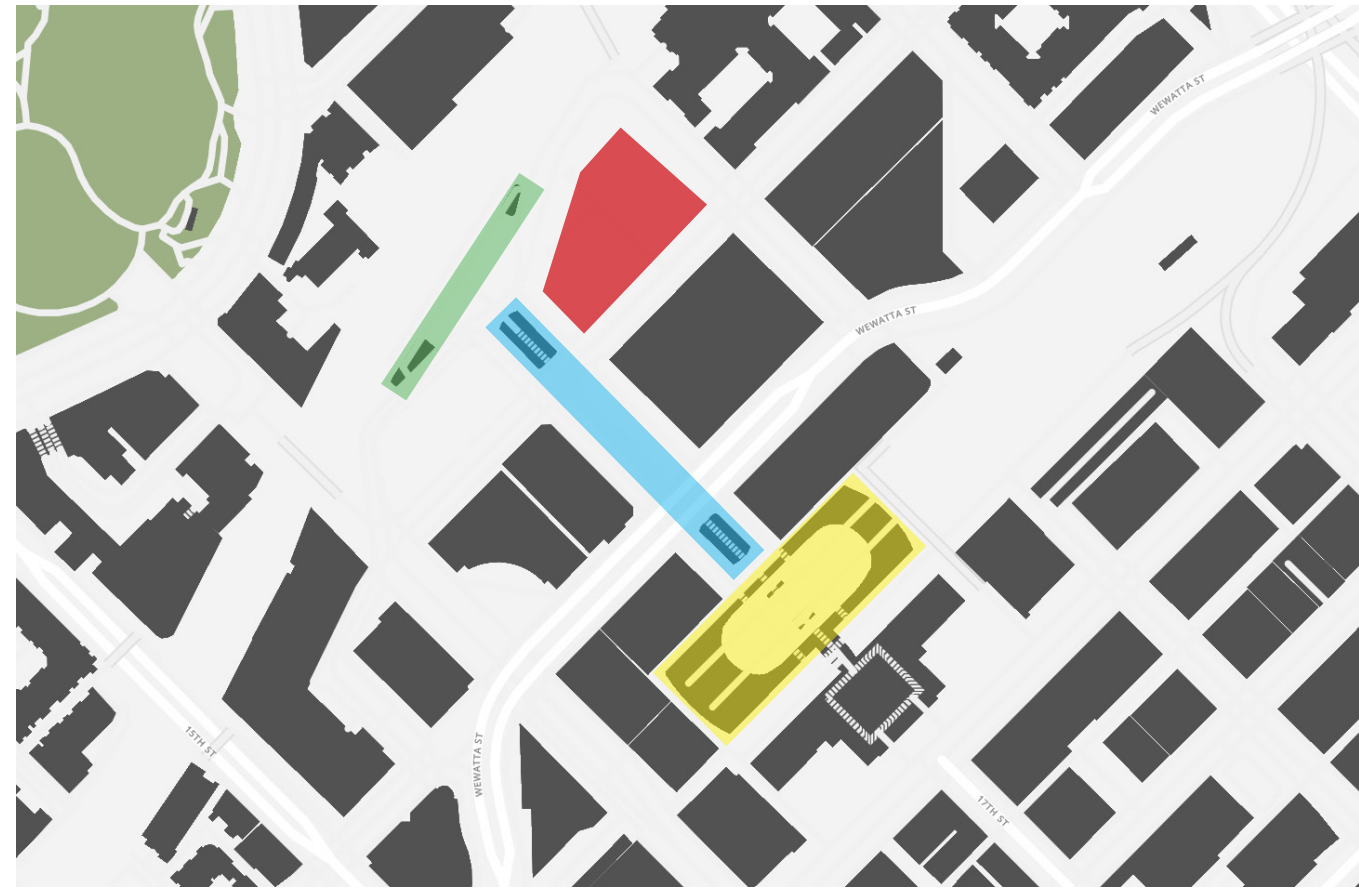


FIGURE 01.01

THE NEW CONSTRUCTION ON THE SITE HAS BROUGHT IN MANY DIFFERENT TYPOLOGIES. THE AREA IS ZONED FOR PUD WHICH IS ZONED FOR ANY DEVELOPMENT THAT IS NEEDED FOR THE AREA. THIS NEW CONSTRUCTION HAS CONSISTED OF MANY DIFFERENT RESTAURANTS AND SMALL BUSINESS SHOPS. AS WELL AS LARGE RETAIL LIKE WHOLE FOODS LOCATED JUST ACROSS THE STREET.



THE LIGHT RAIL LINE ENDS JUST NORTH WEST OF THE SITE. INDICATED ABOVE IN GREEN. THIS END NOD WILL ALLOW FOR A HIGH LEVEL OF PEDESTRIAN TRAFFIC AROUND THE SITE. THE ENTRANCE TO THE UNDERGROUND BUS TERMINAL IS LOCATED JUST ADJACENT THE THE SITE ON THE SOUTH WEST END. INDICATED ABOVE IN BLUE. AS TRANSIT RIDERS BOARD AND EMBARK FROM THE STATION THEY WILL PASS BY THE SITE ALLOWING FOR MANY OPPORTUNITIES. THE COMMUTER RAIL STATION LOCATED JUST DOWN FROM THE SITE, INDICATED ABOVE IN YELLOW, WILL ALLOW FOR OUTER CITY TRANSIT CONNECTION. THESE THREE TRANSIT NODS ALLOW FOR A HIGH NUMBER OF PEDESTRIAN TRAFFIC IN THE AREA.

S I T E

THE NEW CONSTRUCTION ON THE SITE HAS BROUGHT IN MANY DIFFERENT TYPOLOGIES. THE AREA IS ZONED FOR PUD WHICH IS ZONED FOR ANY DEVELOPMENT THAT IS NEEDED FOR THE AREA. THIS NEW CONSTRUCTION HAS CONSISTED OF MANY DIFFERENT RESTAURANTS AND SMALL BUSINESS SHOPS. AS WELL AS A LARGE RETAIL LIKE WHOLE FOODS LOCATED JUST ACROSS THE STREET.

THIS CHANGE WAS BROUGHT ABOUT BY THE ADDITION OF THE BUS, COMMUTER, AND LIGHT RAIL TERMINUS IN THIS AREA. WITH A LARGE GROUPING OF PUBLIC TRANSIT IN THE AREAS WILL ALLOW FOR GREAT PEDESTRIAN TRAFFIC ACROSS THE SITE AS WELL AS A LOT OF FIRST TIME VISITORS AS WELL AS DAILY COMMUTERS. IT IS THIS FOOT TRAFFIC THAT WILL HOPEFULLY TRANSLATE INTO A LARGER VISITING GROUP TO THE BUILDING SITE.



WITH ONLY ONE ACTIVE ROAD VISITOR WOULD BE ENCOURAGED TO VISIT THE SITE BY USING PUBLIC TRANSIT OR BY WALKING. BEING LOCATED RIGHT NEXT TO ALL OF THE PUBLIC TRANSIT IT SYSTEM WILL BE QUITE EASY. THIS MEANS THAT A GROUND HUMAN SCALE WILL BE A KEY FEATURE TO FOCUS IN ON WHEN IMPLEMENTED DESIGN. THAT GROUND LEVEL PLAN NEEDS TO WELCOME VISITORS AND ALLOW FOR AN EASY FLOW OF TRAFFIC. DENVER IS RISING ON THE OVERALL RANKING OF WALKABLE CITIES OF THE UNITED STATES. THEY WILL SOON BE RANKED IN THE TOP FIVE IF GROWTH CONTINUES AS SEE.

WALKABLE URBANISM OF THE 30 LARGEST U.S. METROPOLITANS:

Current Ranking

| RANK | METRO AREA | # OF WALKERS | POPULATION | WALK TO WORK | OFFICE & RETAIL SPACE | % OF OFFICE & RETAIL SPACE WALK TO WORK |
|------|----------------|--------------|------------|--------------|-----------------------|---|
| 1 | Washington, DC | 45 | 5,642,000 | 112,000 | 2,277,300,000 | 43% |
| 2 | New York | 66 | 22,164,000 | 768,000 | 2,213,400,000 | 39% |
| 3 | Boston | 37 | 3,982,000 | 102,000 | 402,900,000 | 47% |
| 4 | San Francisco | 57 | 7,250,000 | 250,000 | 2,273,500,000 | 30% |
| 5 | Chicago | 30 | 5,558,000 | 228,000 | 2,163,374,000 | 29% |
| 6 | Seattle | 23 | 3,864,000 | 169,000 | 569,979,000 | 27% |
| 7 | Portland | 10 | 2,352,000 | 115,000 | 280,240,000 | 22% |
| 8 | Atlanta | 27 | 4,366,000 | 195,000 | 1,119,000,000 | 21% |
| 9 | Pittsburgh | 11 | 2,654,000 | 238,000 | 16,489,000 | 21% |
| 10 | Cleveland | 10 | 2,285,000 | 205,000 | 45,379,000 | 20% |
| 11 | Baltimore | 16 | 2,722,000 | 170,000 | 17,340,000 | 19% |
| 12 | Minneapolis | 10 | 3,955,000 | 295,000 | 66,400,000 | 19% |
| 13 | Philadelphia | 17 | 5,374,000 | 313,000 | 87,419,000 | 19% |
| 14 | Denver | 18 | 2,966,000 | 169,000 | 60,381,000 | 18% |
| 15 | Houston | 12 | 6,400,000 | 140,000 | 90,309,000 | 17% |
| 16 | Columbus | 7 | 2,064,000 | 295,000 | 11,026,000 | 16% |
| 17 | Kansas City | 7 | 1,866,000 | 281,000 | 13,059,000 | 16% |
| 18 | Los Angeles | 54 | 18,579,000 | 545,000 | 2,173,742,000 | 16% |
| 19 | St. Louis | 9 | 2,586,000 | 207,000 | 14,124,000 | 15% |
| 20 | Cincinnati | 7 | 2,054,000 | 289,000 | 11,134,000 | 15% |
| 21 | Sacramento | 6 | 1,384,000 | 201,000 | 14,971,000 | 13% |
| 22 | Detroit | 14 | 4,271,000 | 207,000 | 48,386,000 | 11% |
| 23 | Miami | 17 | 5,628,000 | 140,000 | 42,092,000 | 10% |
| 24 | San Diego | 13 | 3,217,000 | 242,000 | 14,966,000 | 10% |
| 25 | Dallas | 9 | 4,074,000 | 270,000 | 41,409,000 | 9% |
| 26 | Las Vegas | 3 | 2,628,000 | 238,000 | 13,904,000 | 8% |
| 27 | San Antonio | 2 | 1,947,000 | 170,000 | 11,702,000 | 6% |
| 28 | Tampa | 4 | 3,068,000 | 154,000 | 16,960,000 | 6% |
| 29 | Phoenix | 4 | 4,609,000 | 132,000 | 18,425,000 | 6% |
| 30 | Orlando | 3 | 1,960,000 | 203,000 | 10,417,000 | 5% |

Metropolitan areas are ranked according to their current level of walkable urbanism. The walkable urbanism of each metro is determined as the ratio of office and retail space located in its Walk CTR through the first quarter of 2014.

Rankings are divided into four levels of walkable urbanism, which are explained on the following page.

KEY:

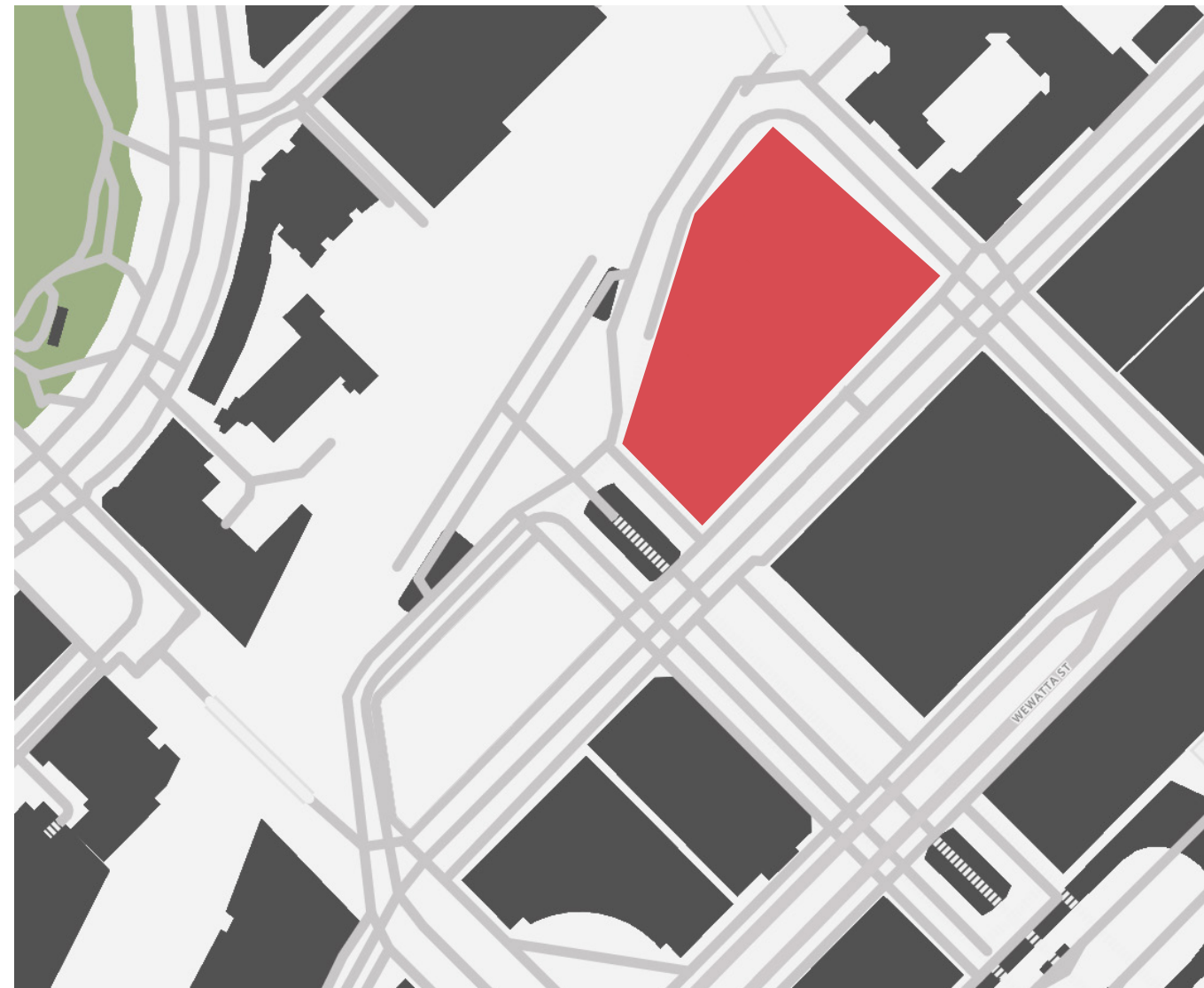
Level of Current Walkable Urbanism

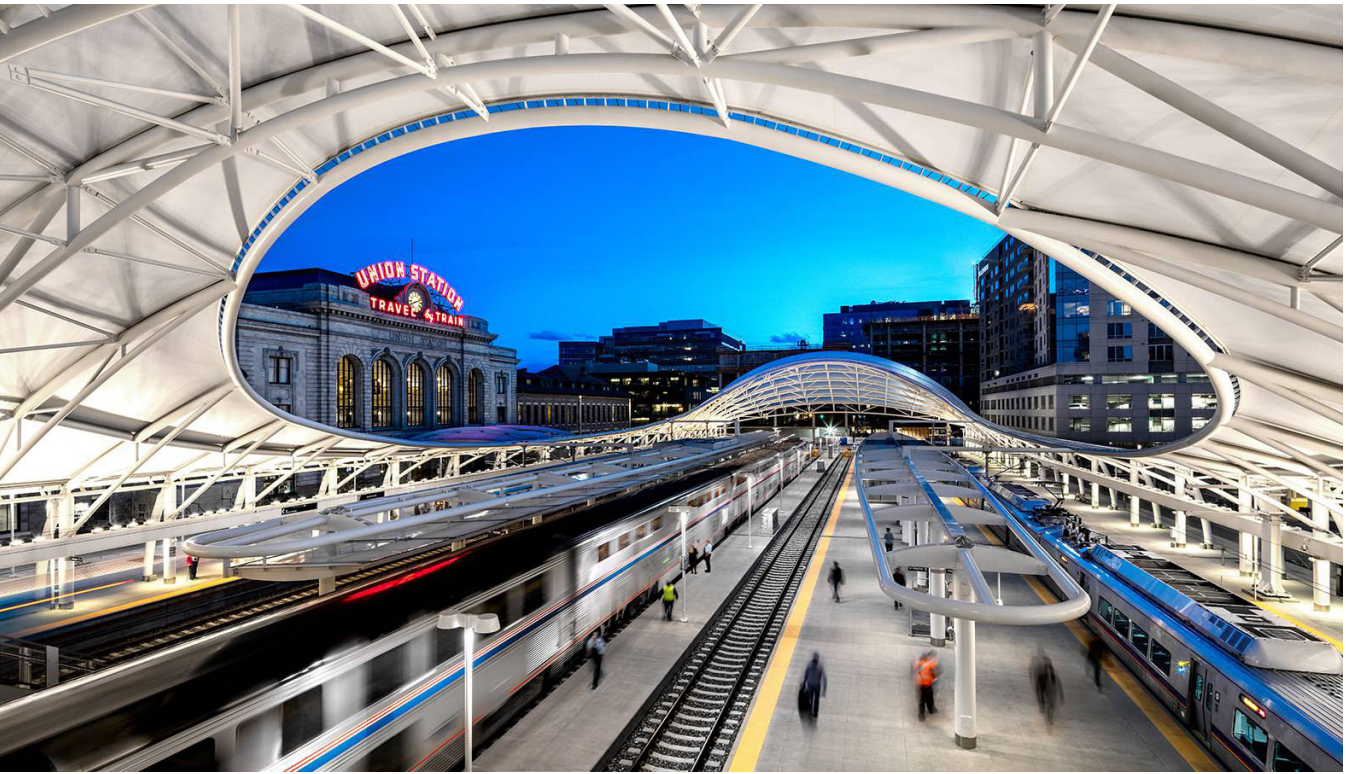
Level 1: High Walkable Urbanism

Level 2: Moderate Walkable Urbanism

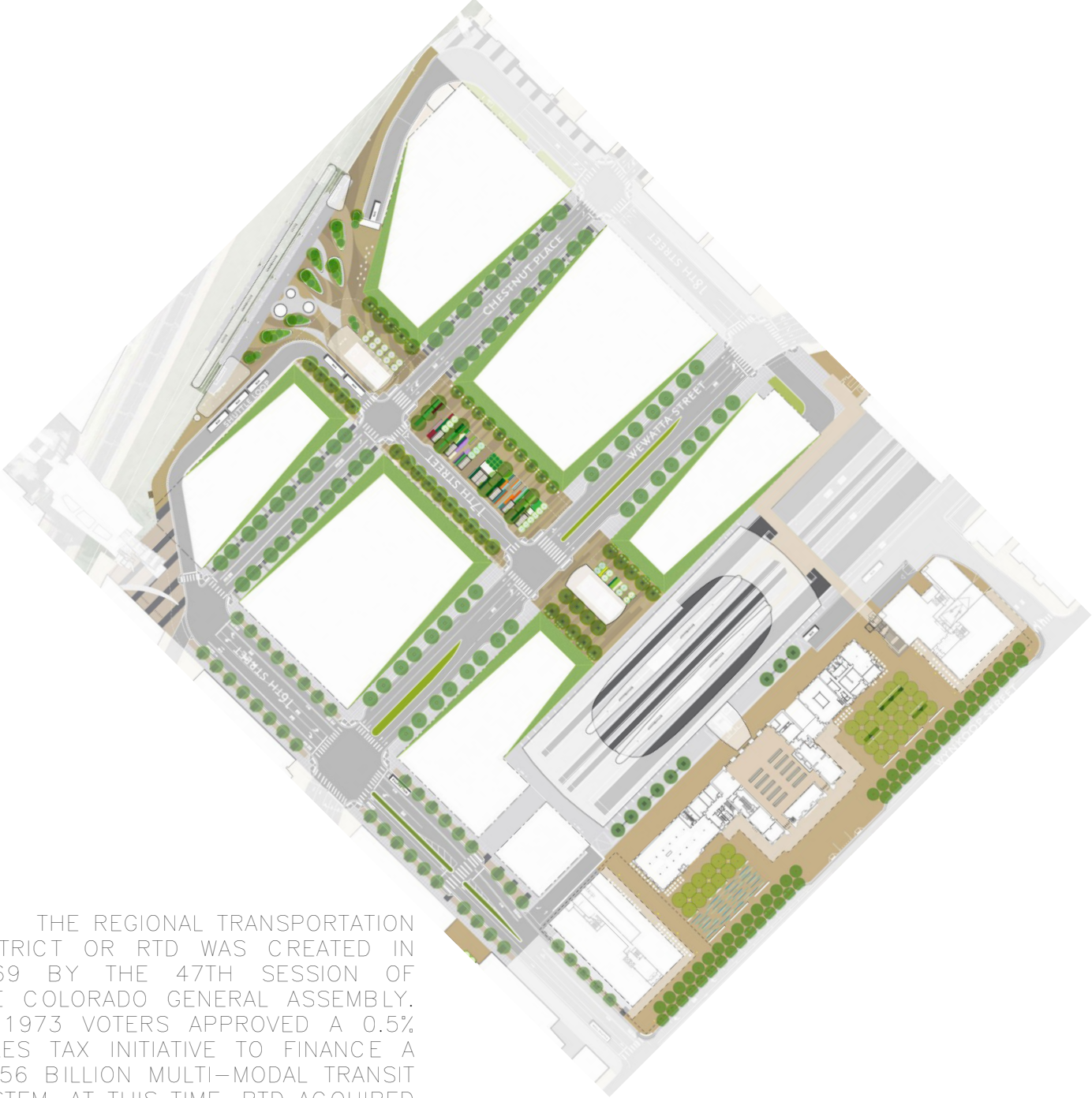
Level 3: Low Walkable Urbanism

Level 4: Very Low Walkable Urbanism



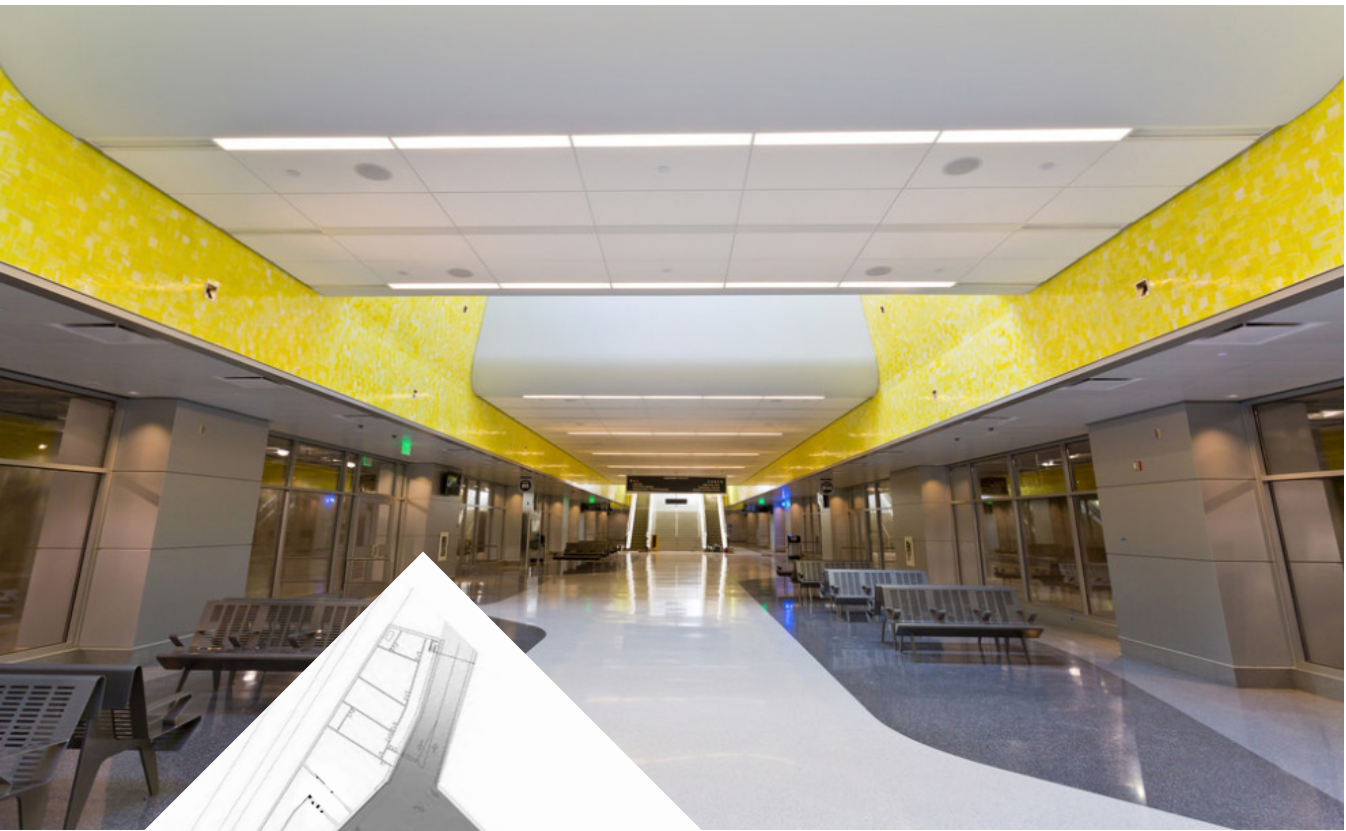


NEW UNION STATION BY SOM

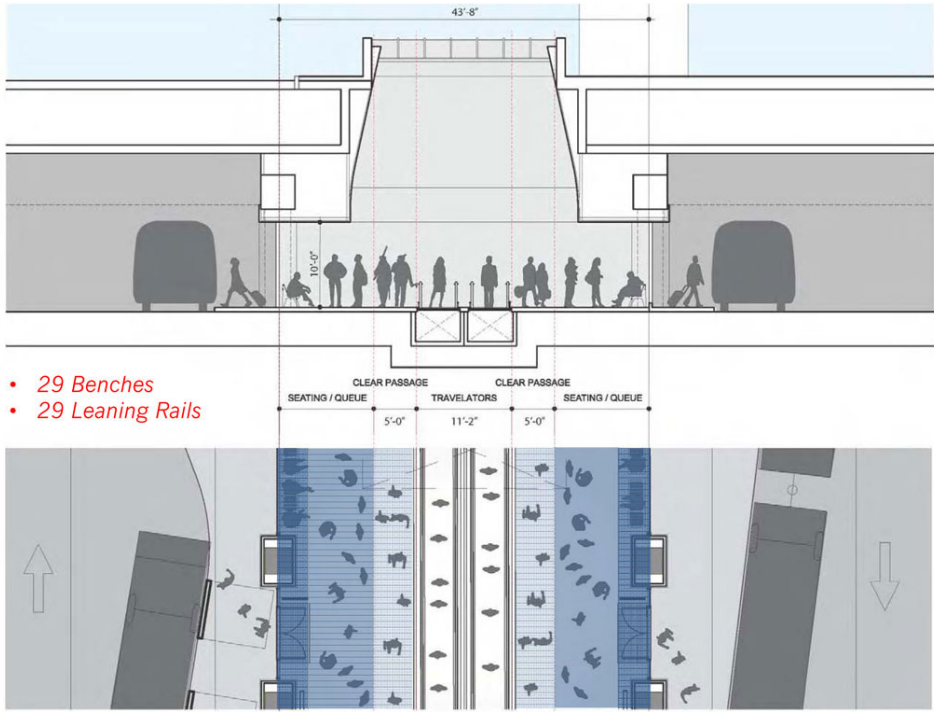


THE REGIONAL TRANSPORTATION DISTRICT OR RTD WAS CREATED IN 1969 BY THE 47TH SESSION OF THE COLORADO GENERAL ASSEMBLY. IN 1973 VOTERS APPROVED A 0.5% SALES TAX INITIATIVE TO FINANCE A \$1.56 BILLION MULTI-MODAL TRANSIT SYSTEM. AT THIS TIME, RTD ACQUIRED PRIVATELY OWNED BUS COMPANIES, IMPROVED SERVICE FREQUENCIES, AND EXPANDED ROUTES IN NUMEROUS COUNTIES THROUGHOUT THE METRO AREA. BY 1976, RIDERSHIP GREW TO 35.2 MILLION RIDES ANNUALLY.





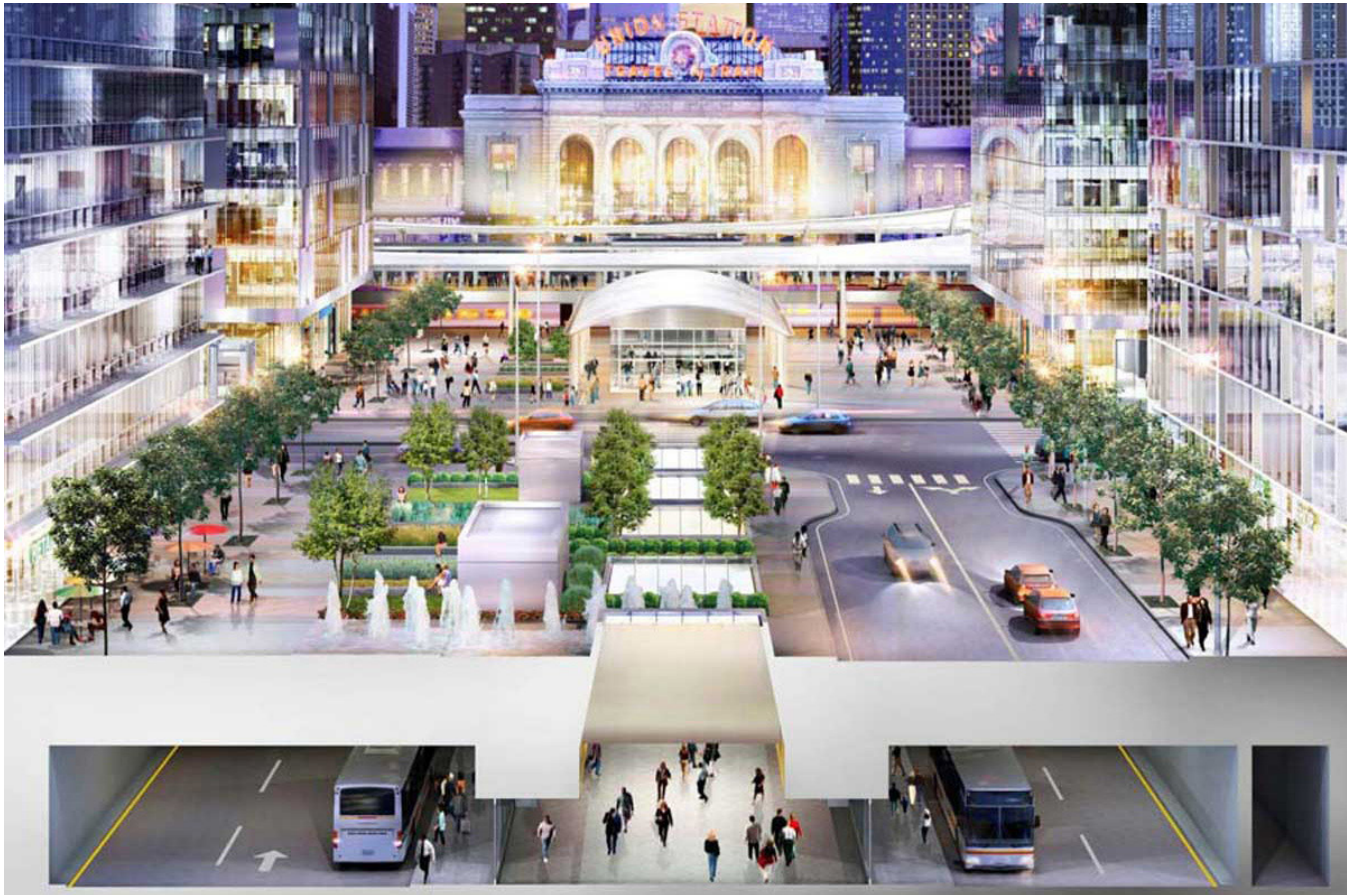
BUS TERMINAL BY SOM



- 29 Benches
- 29 Leaning Rails

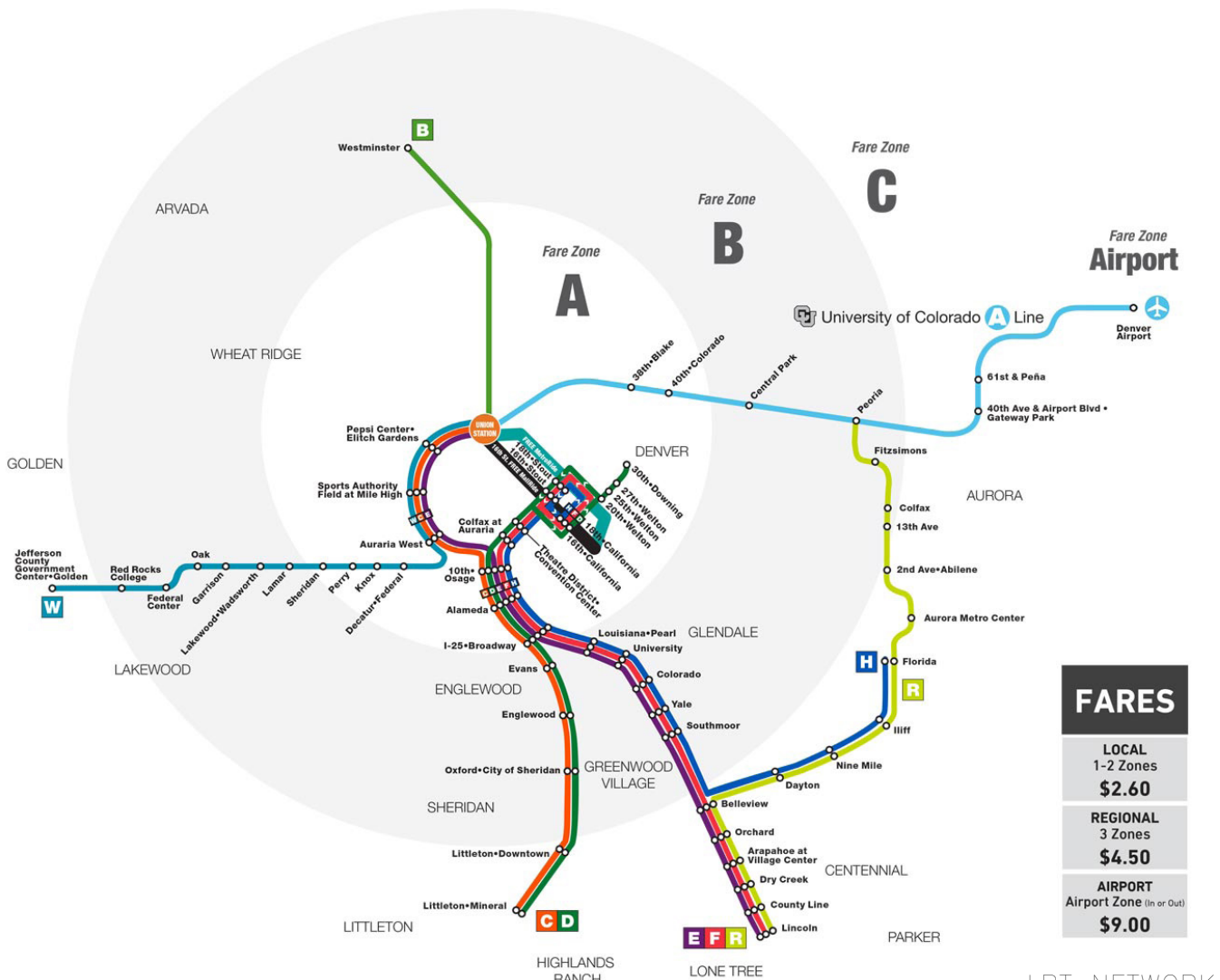
Denver Union Station Redevelopment

PRELIMINARY | AECOM SOM HARGREAVES ASSOCIATES





LRT PLAZA STATION BY SOM

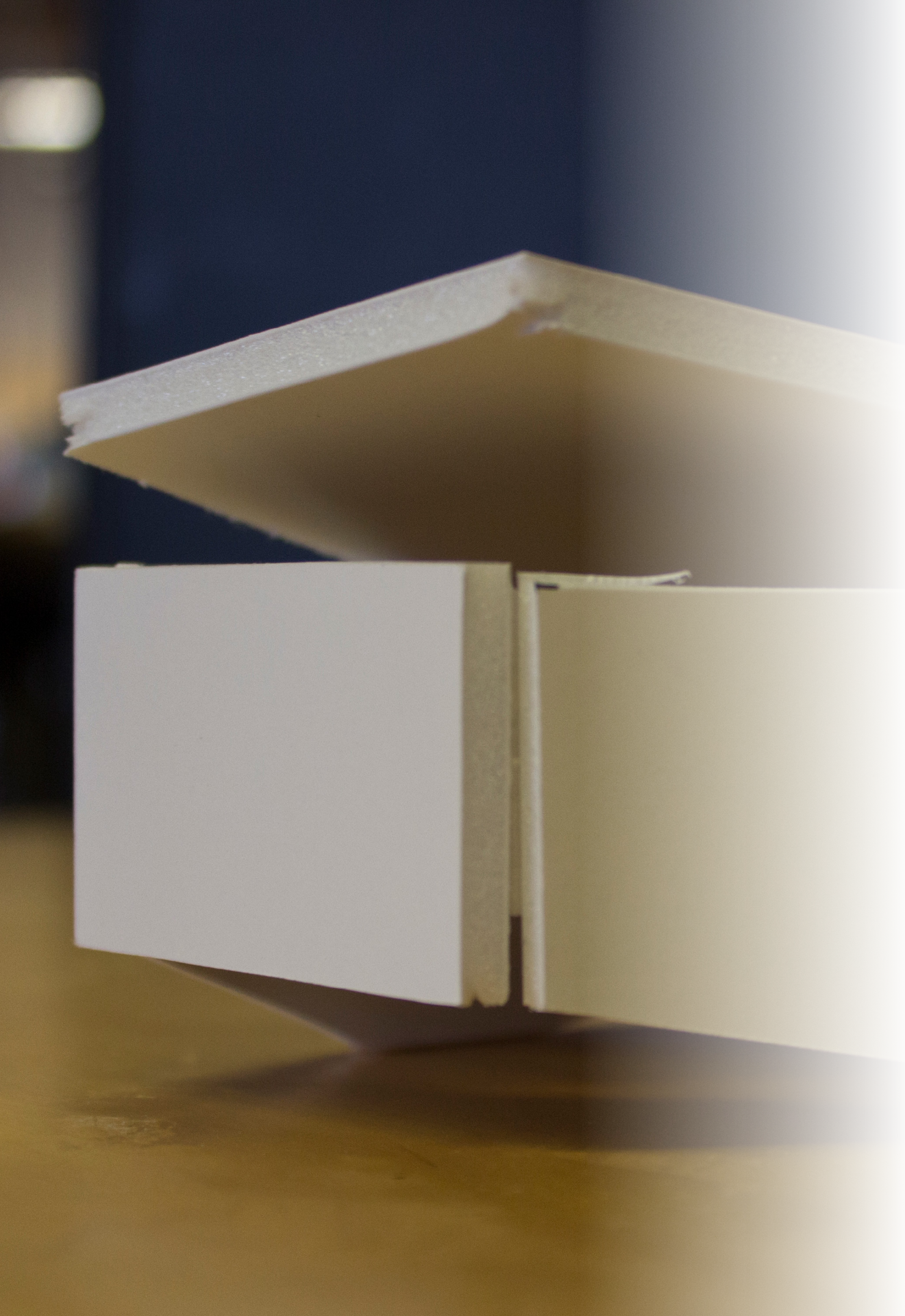


LRT NETWORK

RTD LIGHT RAIL SYSTEM

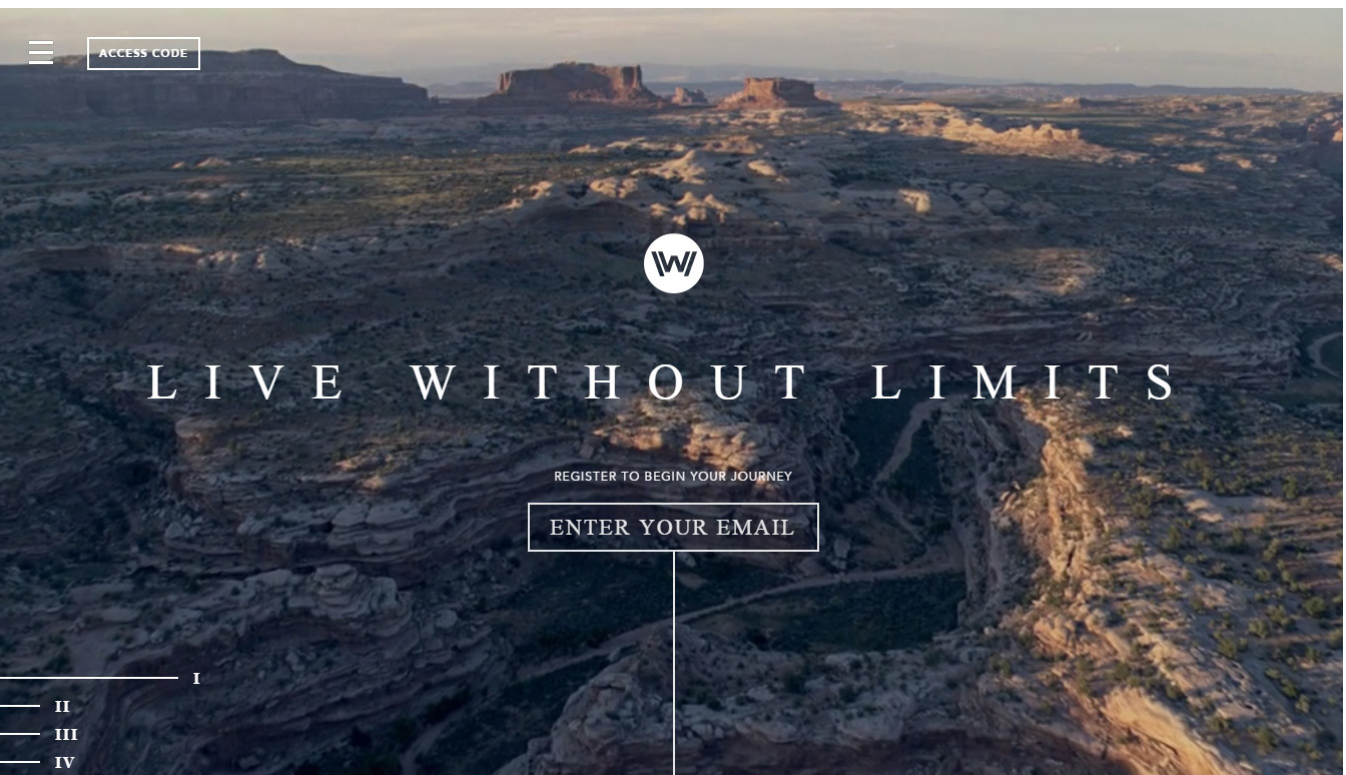
THE DENVER LIGHT RAIL GOT ITS START ON OCTOBER 7TH, 1994 WITH THE D LINE WHICH STRETCHED 5.3 MILES ACROSS DOWNTOWN DENVER AND OUT TO LITTLETON/MINERAL. WITH THE ANISTIONAL ELEVEN LIGHT RAIL VEHICLES, HUNDREDS OF THOUSANDS OF RIDERS USED THE SYSTEM TO GET IN AND OUT OF DENVER. IN NOVEMBER 2004 REGIONAL VOTERS APPROVED A TRANSIT TAX THAT WOULD EXPANDED THE TRANSIT SYSTEM TO THE REGION. THIS PROVIDED FUNDS TO THE RTD TO BUILD AN ADDITIONAL 122 MILES OF COMMUTER RAIL AND LIGHT RAIL, AS WELL AS 18 MILES OF BUS RAPID TRANSIT AND 21,000 NEW PARKING SPACES AT RAIL AND BUS STATIONS ACROSS THE METRO, WHICH INCLUDES EIGHT COUNTY DISTRICTS. (RTD, 2017)





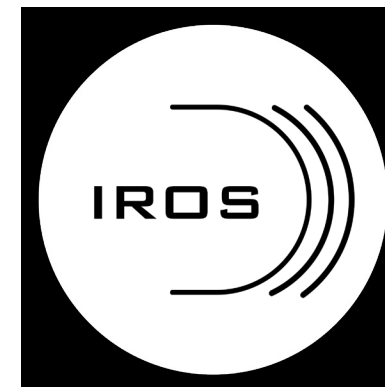
A P R O C E S S

"ITS NOT ABOUT DESINGING A BETTER
BUILDINGS ITS ABOUT DESIGNING
BETTER PEOPLE." —ANONYMOUS



| C L I E N T |

WELCOME TO IROS



IN MANY WAYS, A PROJECT BEGINS WITH A CLIENT. THE CLIENT IS WHO COMES TO YOU AND SAYS THIS IS WHAT WE WANT, WHERE WE CAN DO IT? WITH A THESIS THAT LINE GETS A LITTLE BLURRY, BECAUSE YOU DO NOT NECESSARILY NEED A CLIENT. IN MANY WAYS, YOU ARE THE CLIENT TO YOUR IDEA AND YOUR IDEA, IS WHERE EVERYTHING BEGAN.

IT IS MY BELIEF THAT A CLIENT IS A VERY IMPORTANT PART OF A PROJECT. A CLIENT REALLY GIVES YOU A BASES TO GIVE FLUIDITY TO YOUR IDEA AND CAN BEGIN TO LIMIT YOU ON WHAT YOU CAN DO AND CANNOT DO. THAT BEING SAID, THE CLIENT REALLY IS A PUPPET THAT IS THERE TO ACT AS THE INTERMEDIARY BETWEEN THE PROJECT AND YOURSELF.

TO CREATE A CLIENT, I CHOSE TO BE INFLUENCED BY A FAKE REAL-WORLD CORPORATION. ON THE POPULAR HBO SHOW WESTWORLD, ABOUT A VERY ADVANCED THEME PARK WHERE VISITORS CAN SAY DO OR BE ANYTHING THEY WANT, THE CORPORATION, DELLOS, OWNS AND OPERATES THE DELLOS EXPERIENCES. THEIR TAG LINE BEING "LIVE WITHOUT LIMITS." THE PREMISE OF THE ORIGINAL MOVIE, WHICH CAME OUT IN 1979 WAS COMING OFF OF THE SUCCESS OF PARKS LIKE DISNEY WORLD WHICH OFFERED A REAL-WORLD EXPERIENCE OF THE DISNEY STORIES. THE ORIGINAL MOVIE WANTED TO SHOW HOW THIS IDEA COULD BECOME SO IMMERSIVE THAT REALITY AND FANTASY.

WHILE THIS SHOW IS FICTION WE CAN STILL APPLY REAL WORLD APPLICATIONS TO THE PREMISE OF THE SHOW. A CORPORATION LIKE DELLOS WOULD HAVE SUBDIVISIONS THAT RUN AS RESEARCH AND DEVELOPMENT, MARKETING, ECT. THESE SUBDIVISIONS WOULD MAKE UP THE LARGER DELLOS FAMILY. A MAJOR PREMISE OF THE DELLOS EXPERIENCE IS HOW REAL THE WORLD FEELS. CREATING A REALITY THAT IS NOT REAL, BUT THE VIEWER CANNOT TELL THE DIFFERENCE.

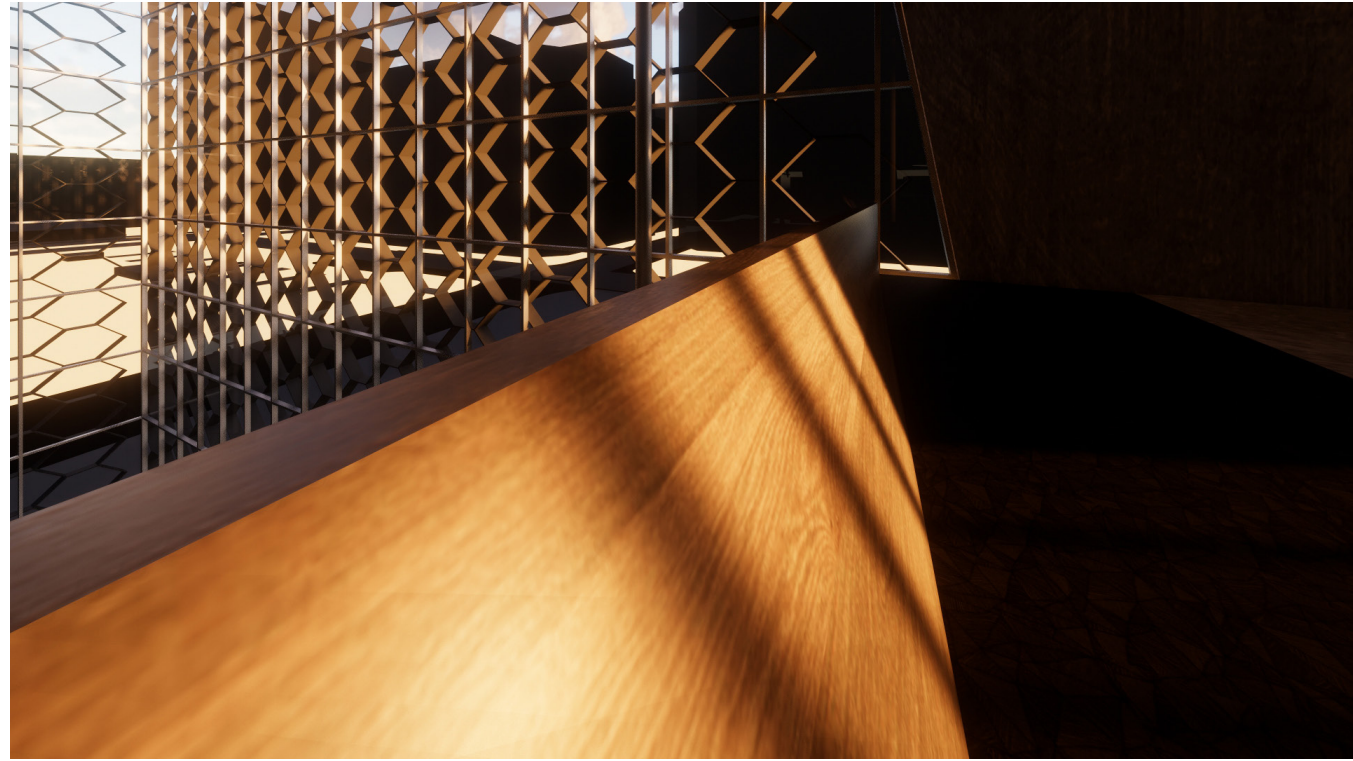
THIS IS WHERE IROS WAS BORN. IROS STANDS FOR INTERACTIVE RESEARCH INTO ORGANIC STIMULATION. THE GOAL OF IROS IS TO UNDERSTAND HOW WE INTERPRET THE WORLD AROUND US AND HOW WE CAN MAKE THAT INTERPRETATION MORE REALISTIC AND FOOLPROOF. IROS WOULD USE THE VIEWS EXPERIENCE TO UNDERSTAND AND CREATE BETTER EXPERIENCE.

WITH THIS IDEA OF A CLIENT IN MIND, IT ALLOWS FOR AN INPUT OUTPUT SYSTEM TO DEVELOP CAUSE AND EFFECT OF THE ENVIRONMENTS AND EXPERIENCES THAT WE AS A SPECIES WOULD EXPERIENCE.

| P R O P O S A L |

OUR WORLD IS BUILT UP OF INDIVIDUAL PARTS. EACH PART IS UNIQUE IN ITSELF BUT, IT IS THE PROCESS OF BRINGING THEM TOGETHER THAT MAKES UP OUR EXPERIENCE. WE USE OUR SENSES: SIGHT, SOUND, TOUCH, TASTE, AND SMELL, TO INTERPRET THE WORLD AROUND US. EACH ONE, HAS ITS OWN IMPACT ON OUR PERCEPTION OF EXPERIENCE BUT IN THE ABSENCE, WE LOSE A PART OF WHAT IT IS LIKE TO PERCEIVE THE WORLD.

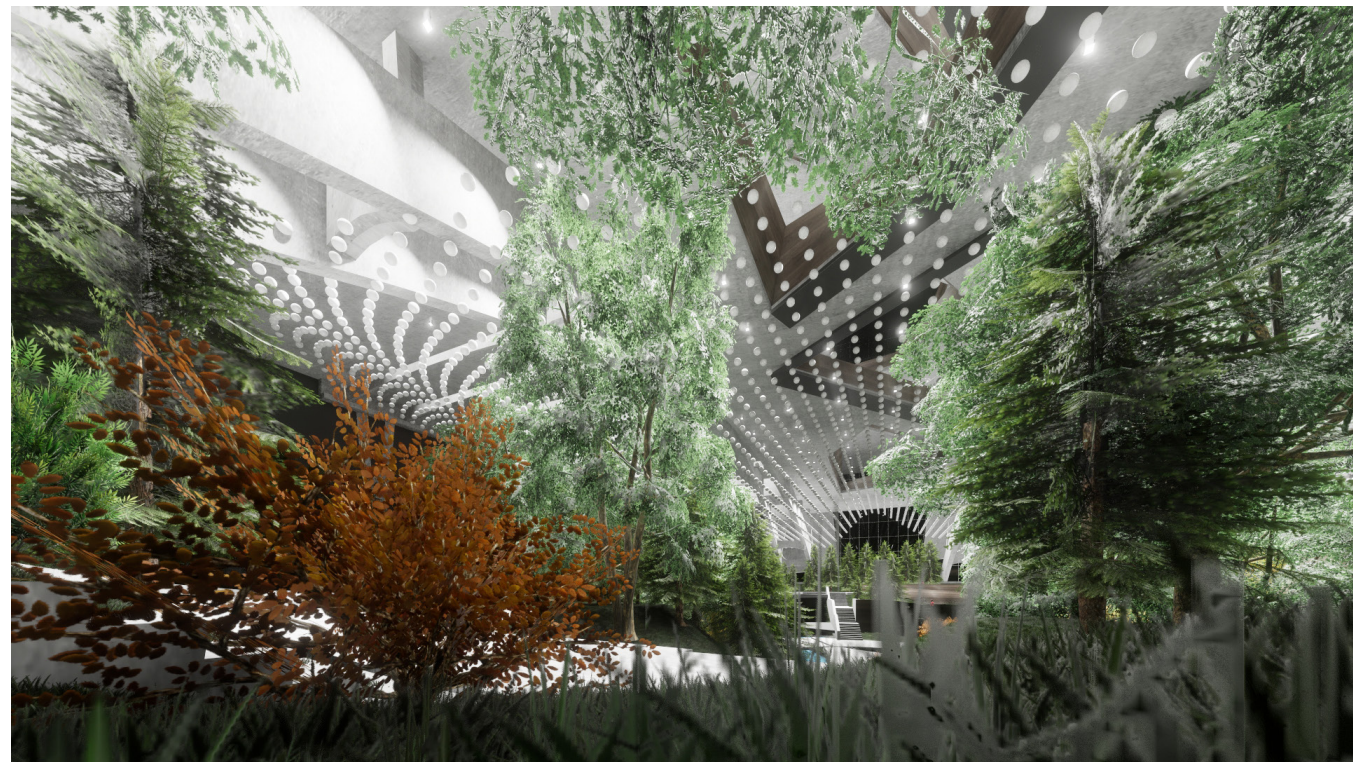
EACH PLACE OFFERS A MULTI-SENSORY EXPERIENCE, BUT EACH EXPERIENCE IS ONLY ENHANCED BY THE INPUT OF STIMULI. THE PROCESS OF "EXTERNAL STIMULI PRODUCES INTRINSIC EXPERIENCE" IS NOT ONLY AN ELEMENT OF HUMAN EXPERIENCE BUT IS MY DRIVING FORCE IN DESIGN. BY CREATING A BUILDING THAT IS RESPONSIVE TO EXTERNAL INPUTS, I DEVELOPED A FLEXIBLE SENSORY ENVIRONMENT THAT CREATES A DYNAMIC SENSORY EXPERIENCE.



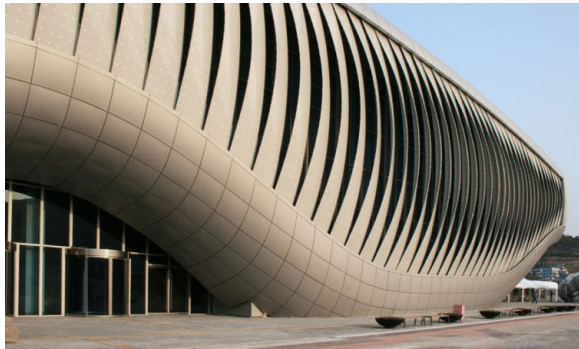
| T Y P O L O G Y |

THE TYPOLOGY REALLY BECAME A FOCUS IN THE BEGINNING BECAUSE THERE WAS NO SPECIFIC TYPOLOGY THAT WOULD APPLY TO THIS BUILDING IDEA. IT WAS NOT ART, NOT NECESSARILY SCIENCE, AND IT WAS DEFINITELY NOT A MUSEUM. USING SENSOGRAPHY AND IROS AS A COLLABORATION MODEL AN EXPERIENCE TYPOLOGY BEGAN TO BE DEVELOPED. THIS BUILDING WOULD CONSIST OF FLEXIBLE GALLERY LIKE SPACES TO ALLOW FOR ARTISTS TO COME IN AND COLLABORATE WITH IROS TO CREATE EXPERIENCES. MUCH THE SAME WAY ENVIRONMENTAL ARTISTS LIKE JAMES TURRELL WOULD.

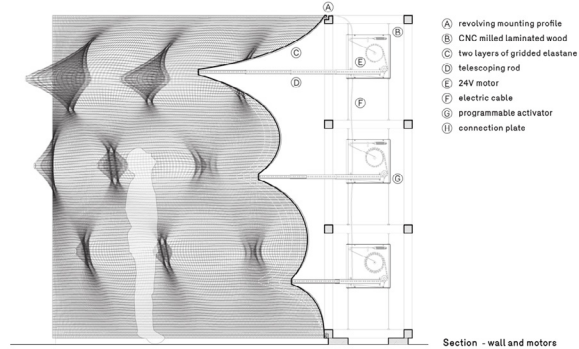
EACH SPACE COULD BE CONTROLLED USING FLEXIBLE WALL AND CEILING SYSTEMS TO CONTROL SPACE AND FORM. ENVIRONMENTAL ELEMENTS SUCH AS TEMPERATURE, SMELL, TEXTURE, ETC. COULD ALSO BE CONTROL USING THE POSSIBLE IROS SYSTEMS. THIS TYPOLOGY WOULD ALLOW FOR ARTISTIC EXPRESSION OF SPACE AND THE ABILITY TO EXPRESS SOMETHING IN MANY WAYS ART LACKS FULL IMMERSION.



FLEXIBILITY

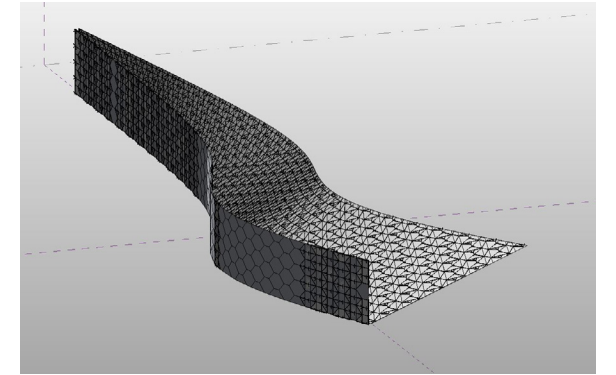


AFTER THE TYPOLOGY WAS DEVELOPED THE NUMBER ONE DESIGN ELEMENT BECAME FLEXIBILITY. THIS BUILDING WHICH IS MEANT TO CATER TO EXPERIENCES AND ADAPTABILITY, MEANING THAT EACH EXHIBITION SPACE NEEDS TO HAVE THE ABILITY TO CHANGE AND ADAPT TO NEW NEEDS OVER TIME. WITHOUT CAUSING MASSIVE RENOVATION FOR EACH INSTALLATION.

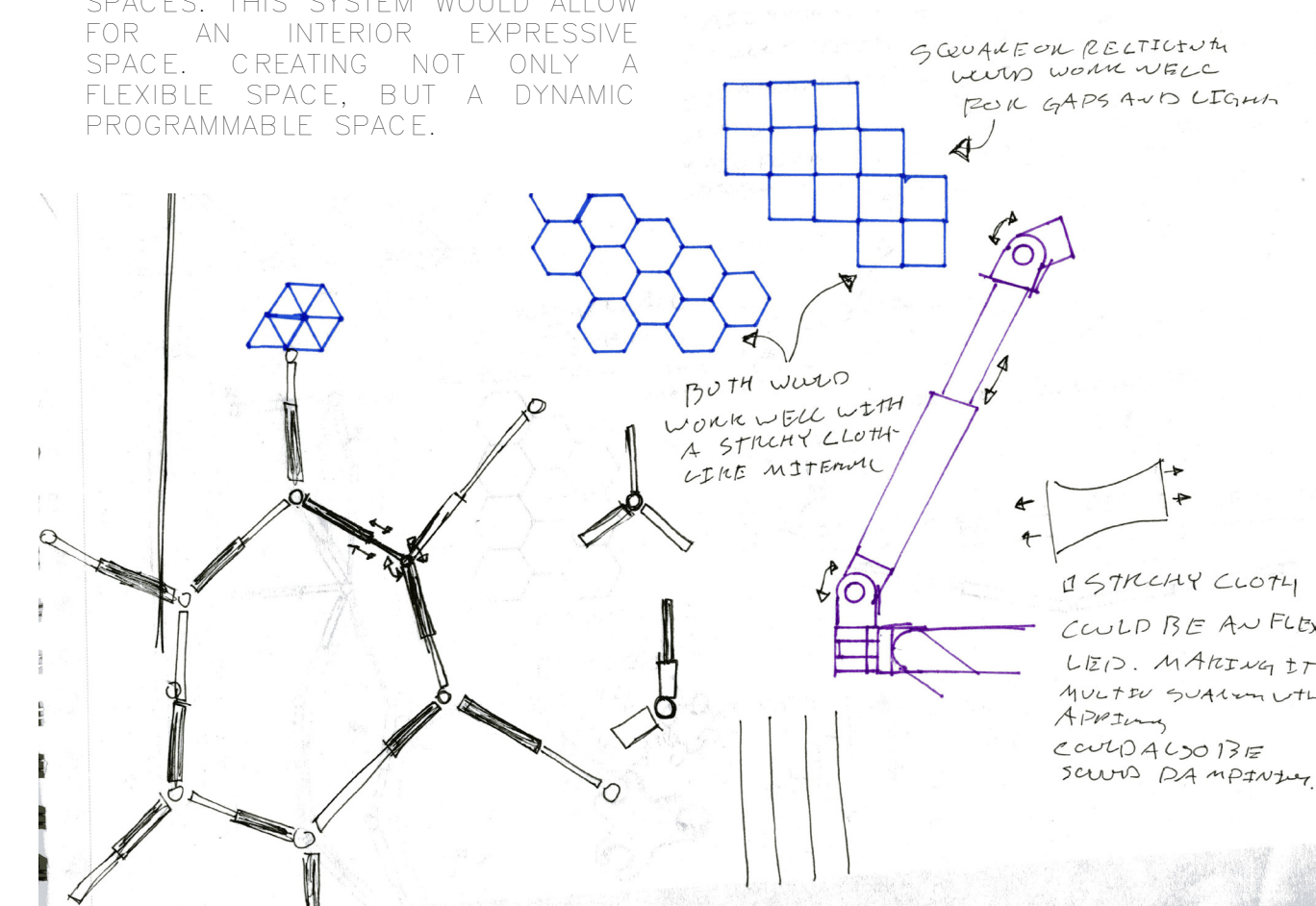
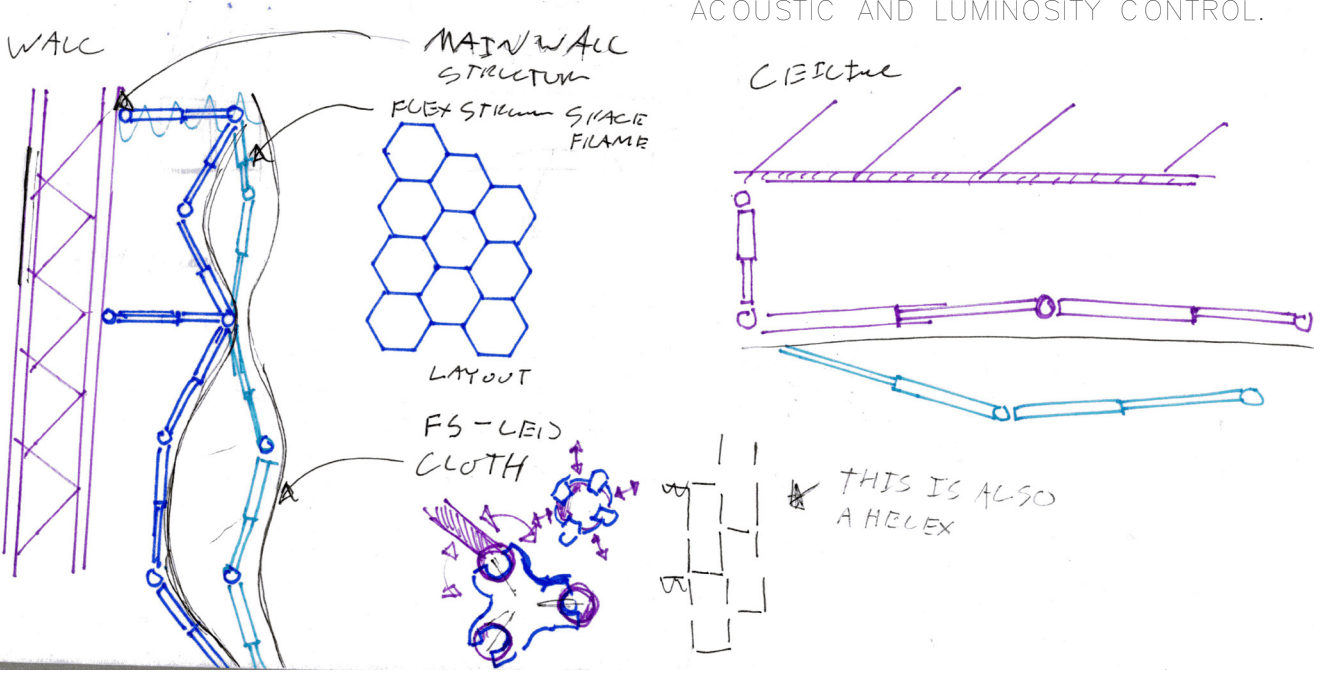
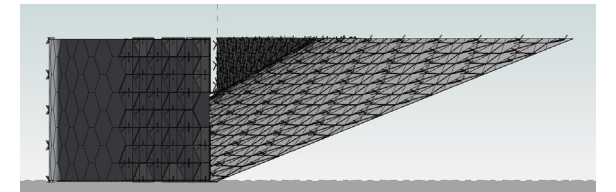


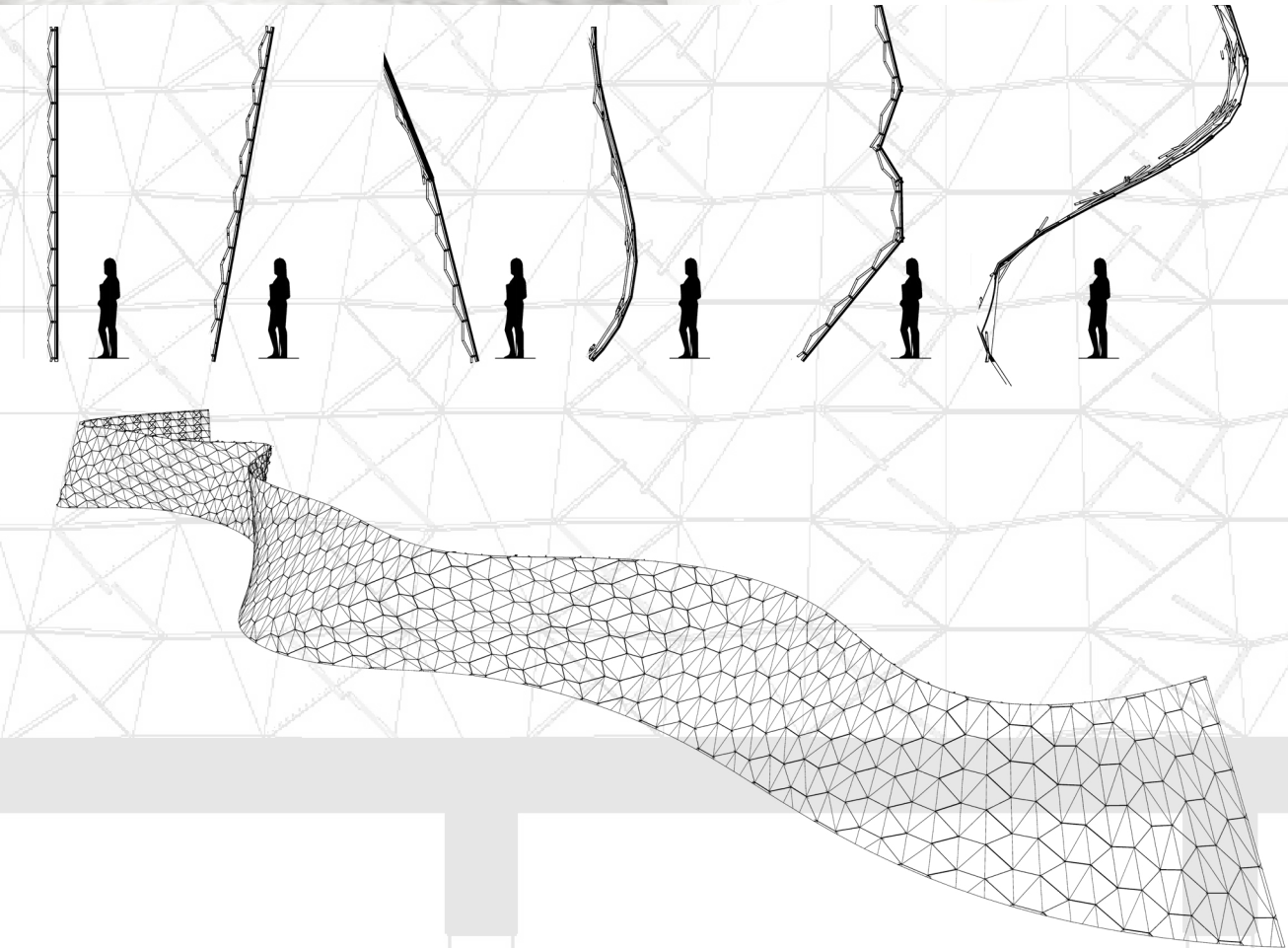
LOOKING INTO ADAPTIVE DESIGN THIS IDEA OF A FLEXIBLE MEMBRANE SYSTEM BEGINS TO DEVELOP. THINKING ABOUT IT AS A SPACE FRAME THAT ALLOWED FOR MOVING JOINTS TO CREATE AN ALMOST INFINITE AMOUNT OF SPACE ALLOWED FOR A FLEXIBLE, YET CONTROLLABLE SYSTEM. WITH EITHER INTERCHANGEABLE OR A FUTURISTIC MATERIAL STRETCHED ACROSS THE SURFACE THAT WOULD ALLOW FOR COMPLETE TEXTURE AND COLOR CONTROL AS WELL AS ACOUSTIC AND LUMINOSITY CONTROL.

THINKING OF THE WALLS AND CEILING AS THE SAME ELEMENT ALLOWED FOR COMPLETELY ADAPTABLE SYSTEMS THAT COULD BECOME ANY FORM THE ARTIST OR CURATOR DESIGNED FOR A SPACE. SINCE BOTH WOULD ONLY NEED TO BE STRUCTURAL FOR THEMSELVES ALLOWED FOR A MULTITUDE OF ITERATIONAL DESIGN. CREATING AN OPEN FLOOR CONCEPT ALLOWS FOR LARGEST FLEXIBILITY OF SPACE SO THAT EACH EXHIBITION CAN ONLY OCCUPY AS MUCH SPACE AS IS DESIRED.



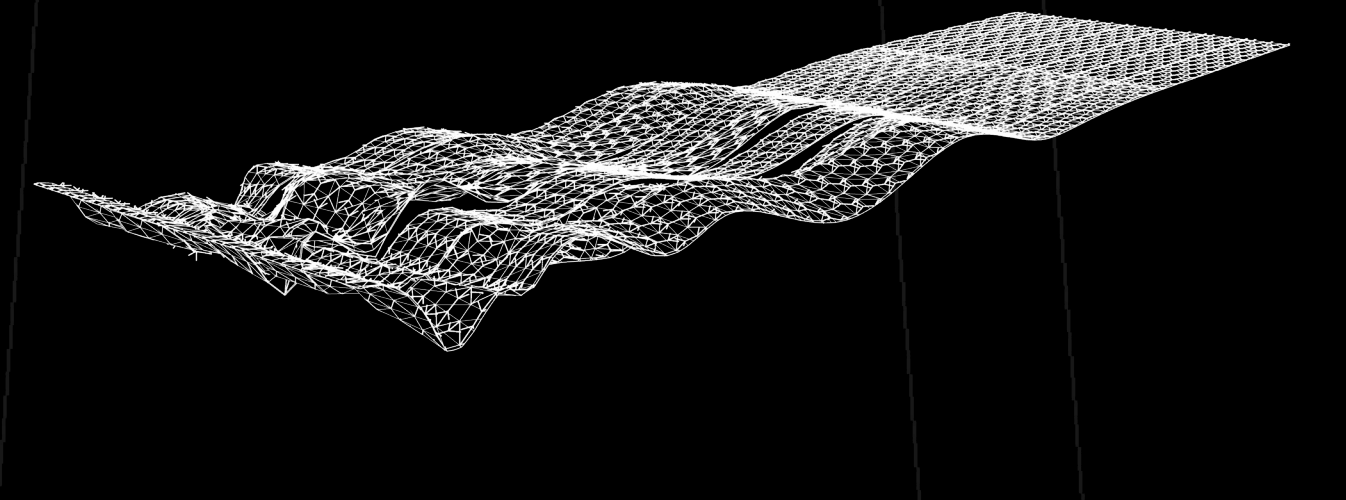
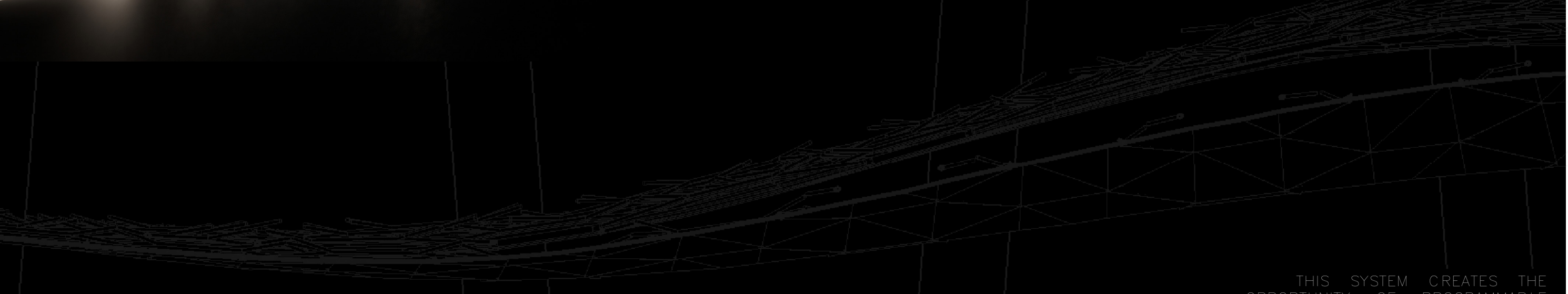
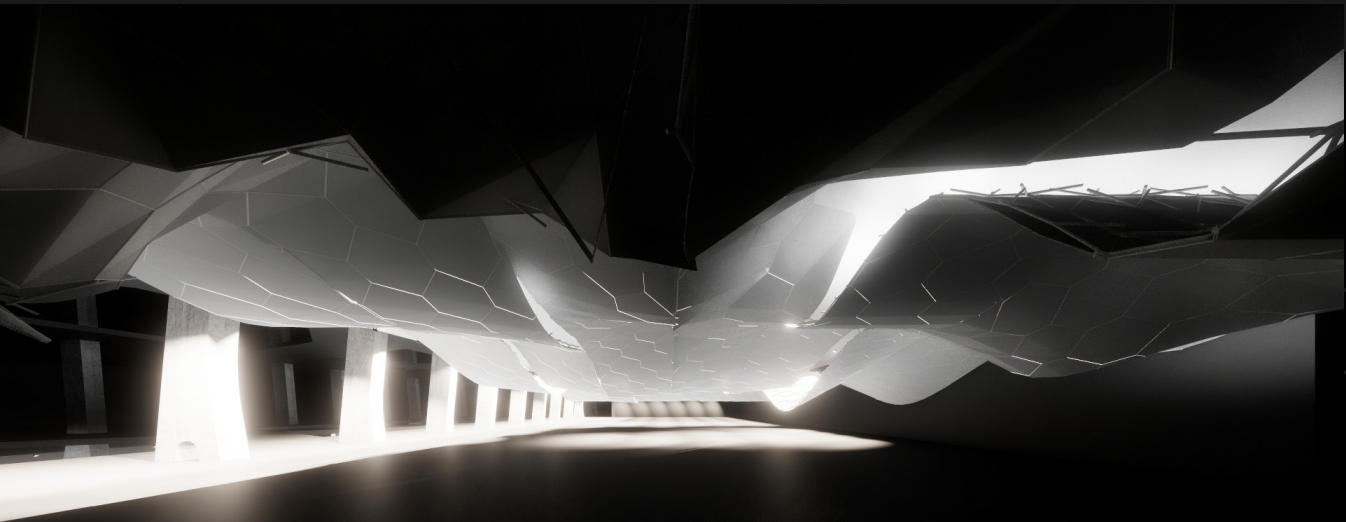
THE WALL SYSTEM WOULD BE DEVELOPED AS MOVABLE AND FILL IN THE SPACE AS THE DESIGNER FEELS FIT. IF A CERTAIN SQUARE FOOTAGE IS REQUIRED, THEN IT CAN BE ALLOWED WITHIN THE OVERALL SPACE. ART MUSEUMS HAVE BECOME ARCHITECTURAL EXTERIOR EXPRESSIVE WITH INTERIOR STANDARD SPACES. THIS SYSTEM WOULD ALLOW FOR AN INTERIOR EXPRESSIVE SPACE. CREATING NOT ONLY A FLEXIBLE SPACE, BUT A DYNAMIC PROGRAMMABLE SPACE.





THE WALLS WOULD BE CONSTRUCTED USING A MODELER SYSTEM. EACH SET OF PANELING WILL BE ONE SIDED WITH THE ABILITY TO BE CONNECTED TO ANOTHER SIDE. THE WALLS WOULD BE BROUGHT IN FROM STORAGE TO CREATE AS MANY SPACES AS DESIRED. THIS COULD THEN BE IMPLEMENTED TO HIDE MECHANICAL SYSTEMS THROUGHOUT THE SPACE IF SUCH SYSTEMS WERE NEEDED PER THE ARTIST'S EXPERIENCE.

WITH TRADITIONAL TECHNOLOGIES THE WALL SKIN COULD BE ANY MIXTURE OF MATERIAL THAT COULD BE DESIGNED. ROUGH OR SMOOTH, HARD OR SOFT, BRIGHT OR DULL; ALL MANNER OF TEXTURAL OR EVEN ACOUSTICAL SKINS COULD BE APPLIED. WITH THE FUTURE IN MIND, IT COULD BE POSSIBLE TO DEVELOP A MATERIAL THAT COULD ACT ON ALL OF THOSE ELEMENTS WITHIN ITSELF.

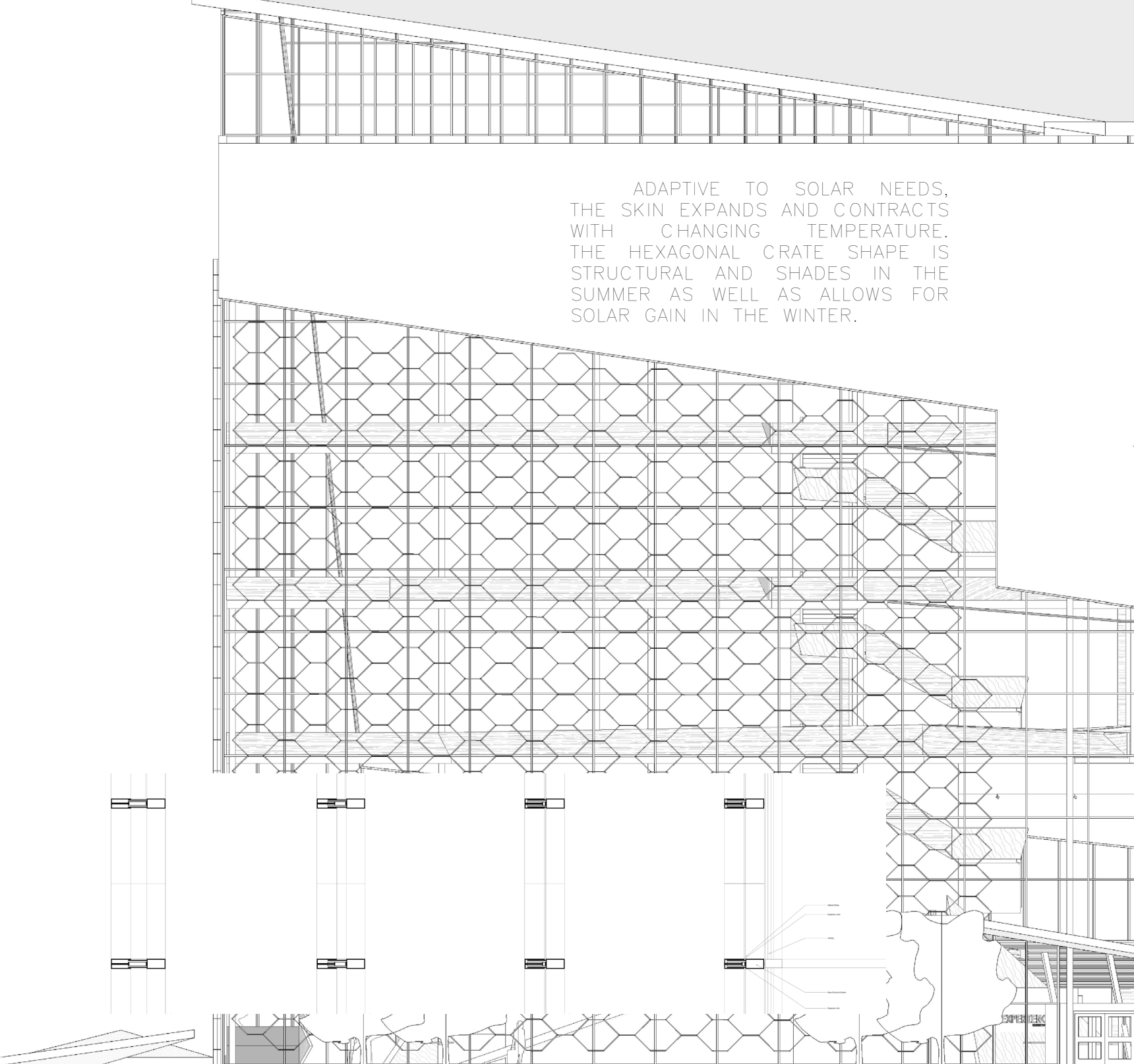
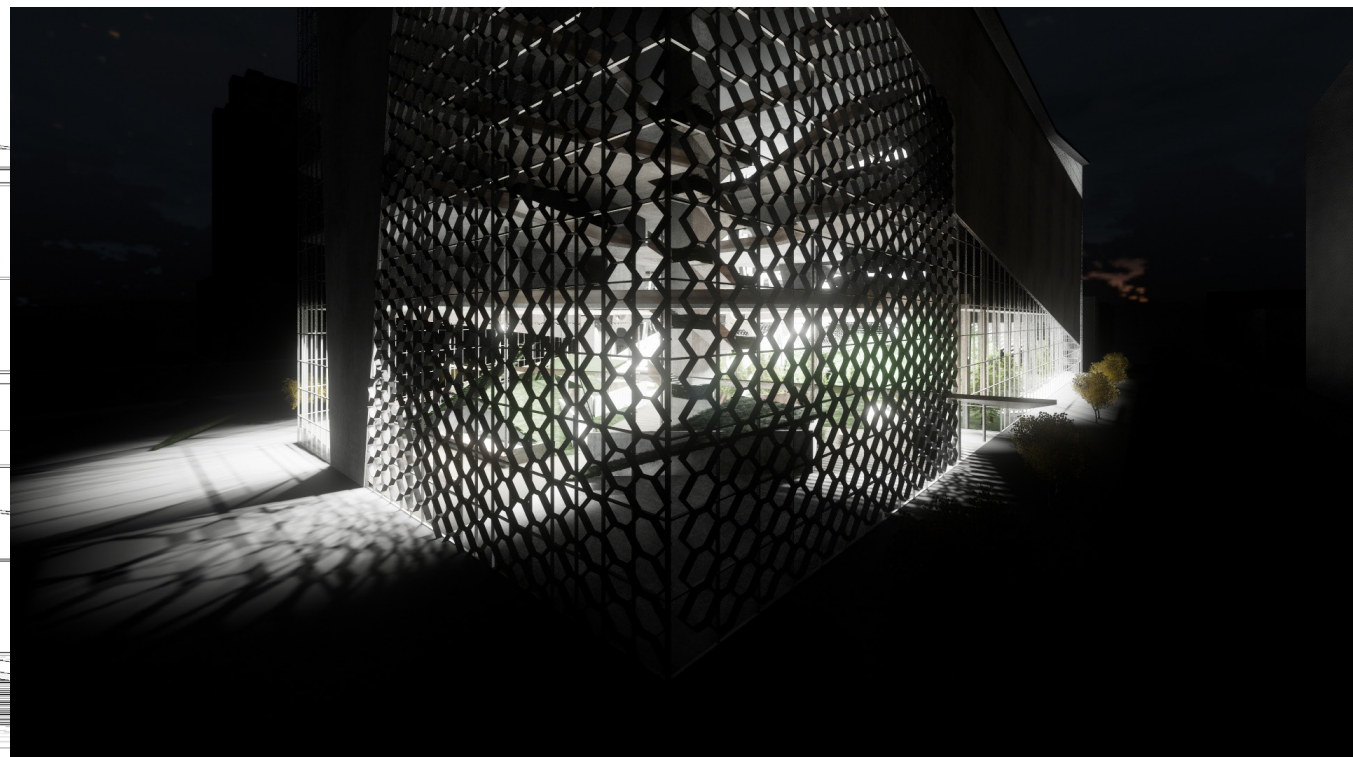
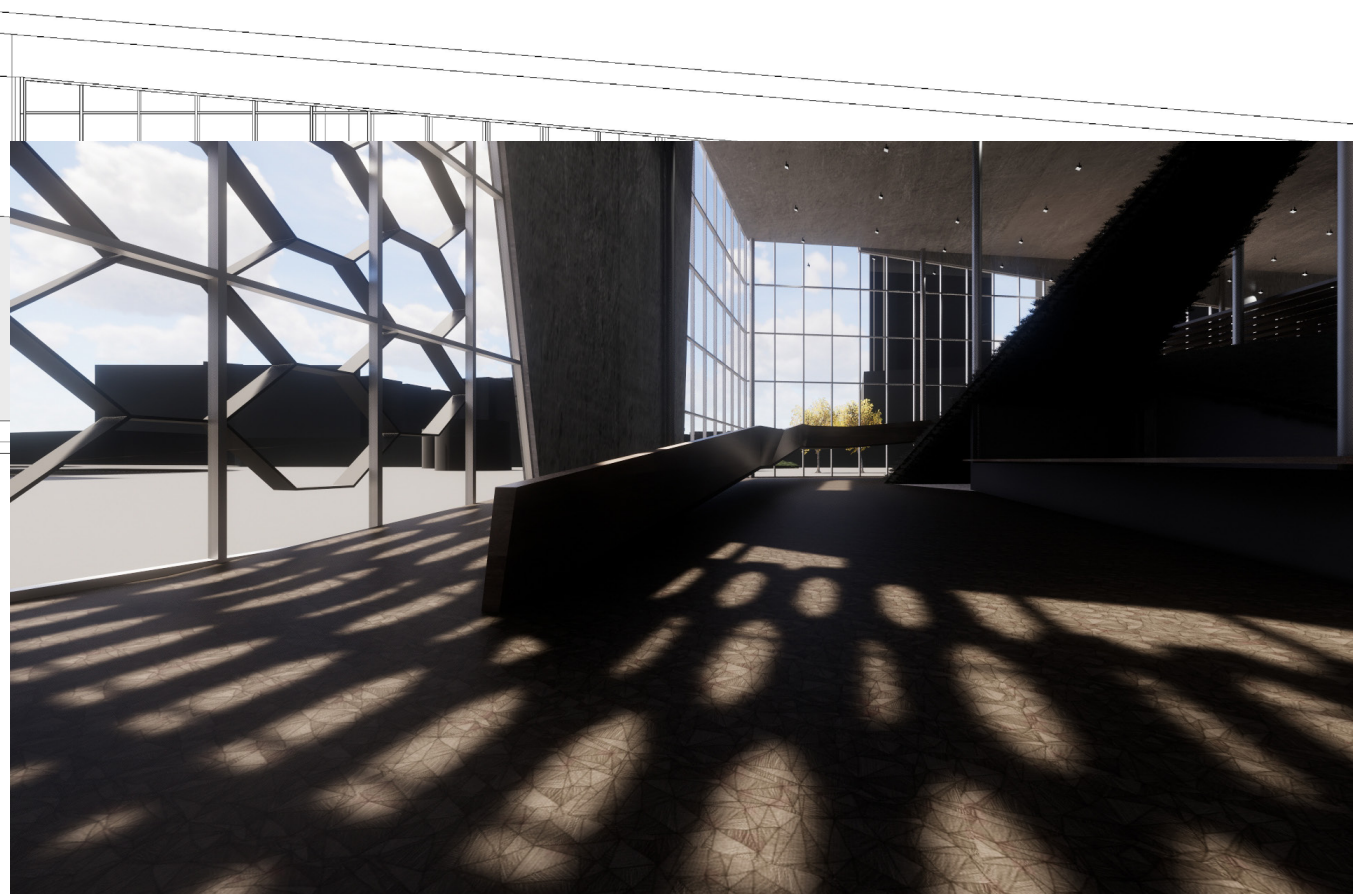


THE CEILINGS OF THE EXHIBITION SPACE WOULD BE BUILT THE SAME AS THE WALL BUT WOULD BE SUSPENDED FROM THE FLOOR ABOVE. THE SYSTEM COULD BE REMOVED AND PLACED INTO DIFFERENT LOCATIONS AND ADAPT AS SEEN FIT. THE CEILING COULD ACT AS A COVER FOR LIGHTING SYSTEMS TO DISTRACT FROM THE MECHANICAL NATURE OF THE EXHIBITION IF DESIRED.

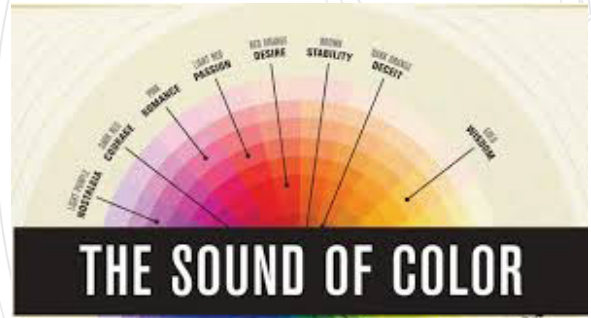
THIS SYSTEM CREATES THE OPPORTUNITY OF PROGRAMMABLE MOVEMENT SINCE IT WILL NOT COME INTO CONTACT WITH ANY VISITORS PHYSICALLY. SOMETHING AS SIMPLE AS MIMICKING WAVES, AS SEEN TO THE LEFT, SHIFTING LIGHT PATTERNS COULD BE EASILY PROGRAMED INTO THE SYSTEM. USING THE SAME TEXTURAL SYSTEM OR FUTURISTIC MATERIAL WOULD ALLOW FOR A MULTITUDE OF COLOR, VISUAL TEXTURES, OR LIGHTING EFFECTS.

| SKIN AND LIGHT |

ADAPTIVE TO SOLAR NEEDS,
THE SKIN EXPANDS AND CONTRACTS
WITH CHANGING TEMPERATURE.
THE HEXAGONAL CRATE SHAPE IS
STRUCTURAL AND SHADES IN THE
SUMMER AS WELL AS ALLOWS FOR
SOLAR GAIN IN THE WINTER.

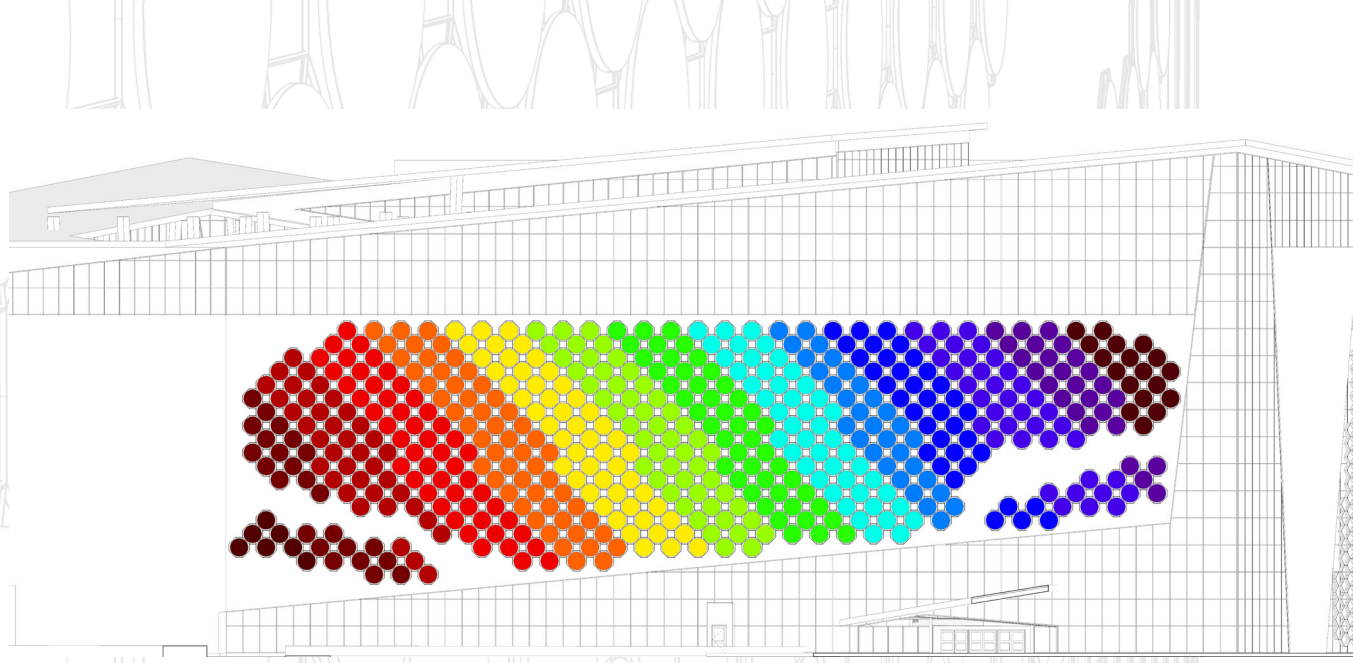
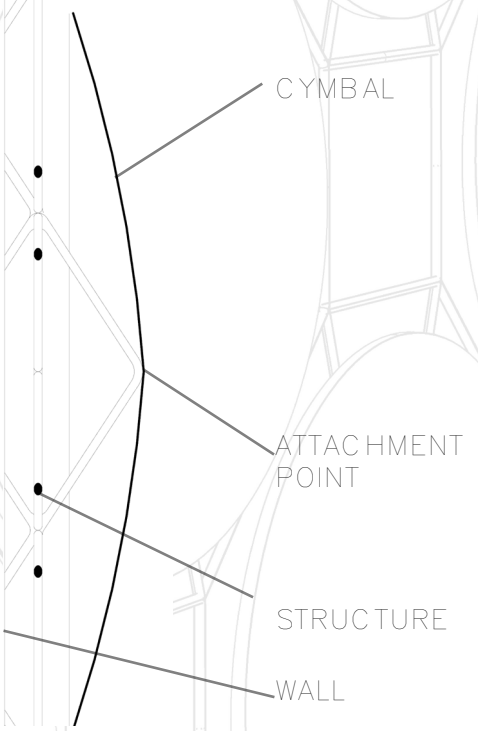
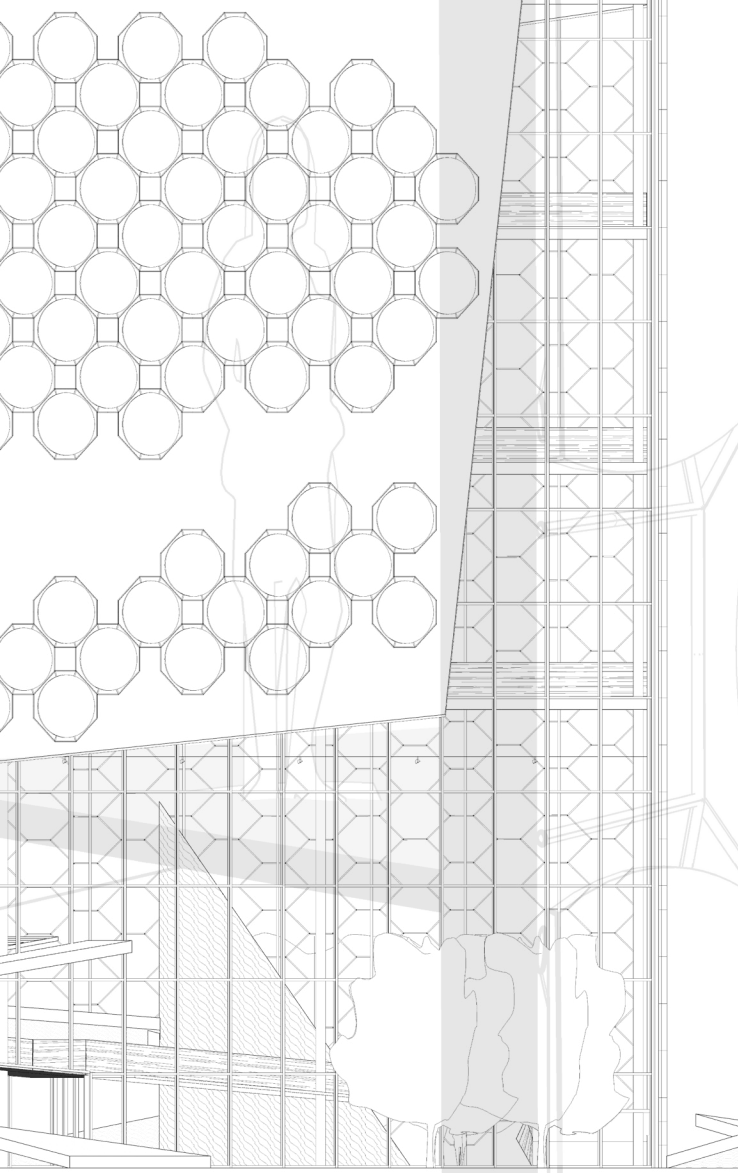
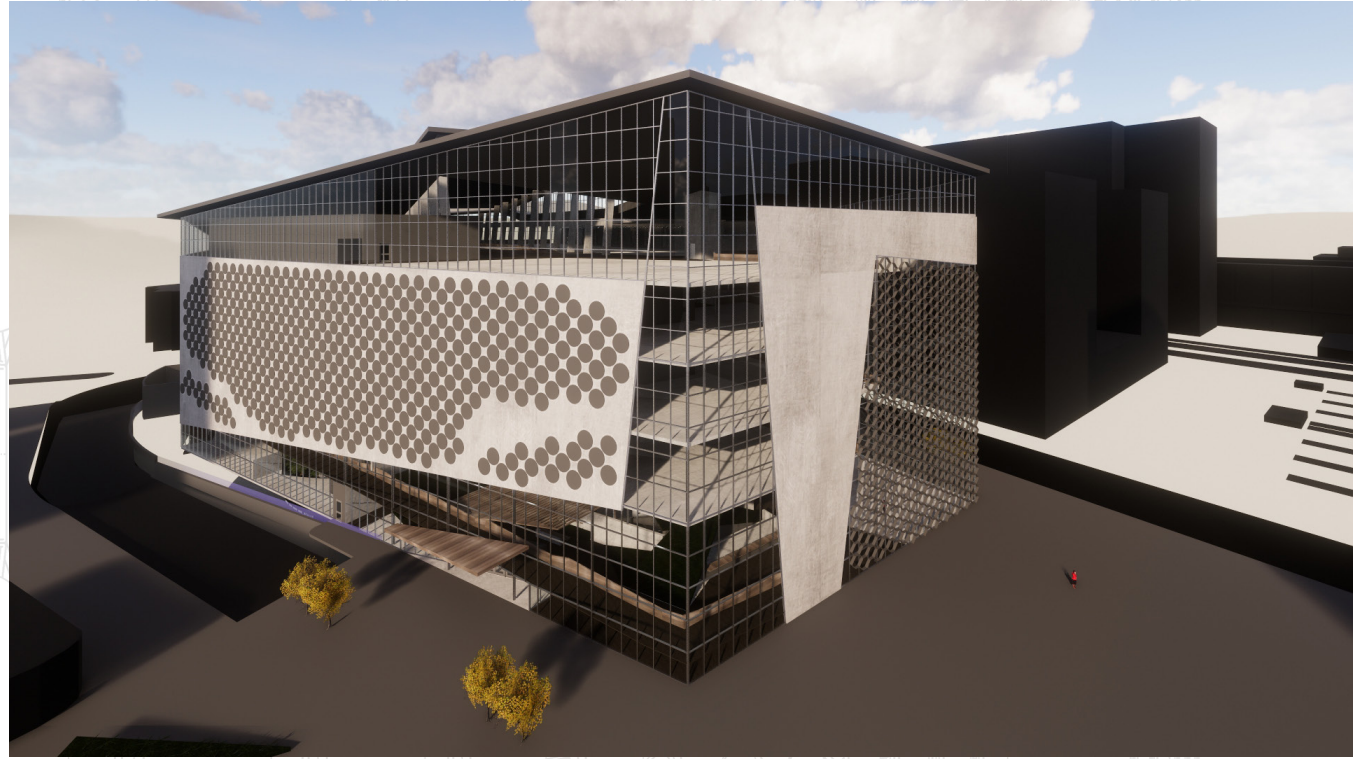


WIND AND SOUND



| Sound | Frequency (Hz) | 348.0 | 370.0 | 392.0 | 415.3 | 440.0 | 466.2 | 493.9 | 523.0 | 554.4 | 587.3 | 622.2 | 659.3 | 698.5 |
|-----------------|----------------|-----------------------------|----------------|-----------------------------|----------------|-----------------------------|----------------|----------------|-----------------------------|----------------|-----------------------------|----------------|----------------|-----------------------------|
| Wavelength (cm) | 98.88 | 93.33 | 89.00 | 85.15 | 80.48 | 76.47 | 72.20 | 68.59 | 65.20 | 61.88 | 58.70 | 55.60 | 52.58 | 49.64 |
| Notes | F ₄ | F ₄ [#] | G ₄ | G ₄ [#] | A ₄ | A ₄ [#] | B ₄ | C ₅ | C ₅ [#] | D ₅ | D ₅ [#] | E ₅ | F ₅ | F ₅ [#] |
| Red | 348.0 | 370.0 | 392.0 | 415.3 | 440.0 | 466.2 | 493.9 | 523.0 | 554.4 | 587.3 | 622.2 | 659.3 | 698.5 | 739.8 |
| Orange | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 | 0/00 |
| Yellow | 172 | 139 | 76 | 17 | 0 | 102 | 215 | 255 | 255 | 210 | 186 | 168 | 170 | 210 |
| Cyan | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 | 255 |
| Magenta | 52 | 40 | 11 | 2 | 0 | 2 | 54 | 80 | 69 | 98 | 99 | 89 | 92 | 72 |
| Black | 98 | 100 | 100 | 82 | 0 | 0 | 0 | 0 | 0 | 64 | 88 | 88 | 88 | 100 |
| White | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 100 | 42 | 0 | 0 | 0 | 0 | 20 |
| Grey | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Blue | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Green | 32 | 45 | 70 | 93 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Purple | 25 | 35 | 54 | 71 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 |
| In-phase | 124 | 135 | 153 | 171 | 182 | 141 | 111 | 77 | 28 | 42 | 60 | 83 | 100 | 112 |
| Out-of-phase | 109 | 112 | 119 | 122 | 101 | 65 | 49 | 38 | 70 | 107 | 140 | 144 | 134 | 122 |

WIND IS A VARYING ELEMENT THAT AFFECTS THE OUTSIDE OF EVERY BUILDING. ORIENTED TO THE NWW, SPECIFICALLY ATTUNED PANELS, FOLLOW THE PREVAILING WINDS TO PRODUCE A DIFFERENT PITCH OF SOUND TO PRODUCE A LARGE SELECTION OF SOUNDS AND MUSIC. THE ENTIRE SYSTEM WILL ALSO DOUBLES AS AN EXTERIOR SHADING DEVICE FROM THE SETTING SUN.

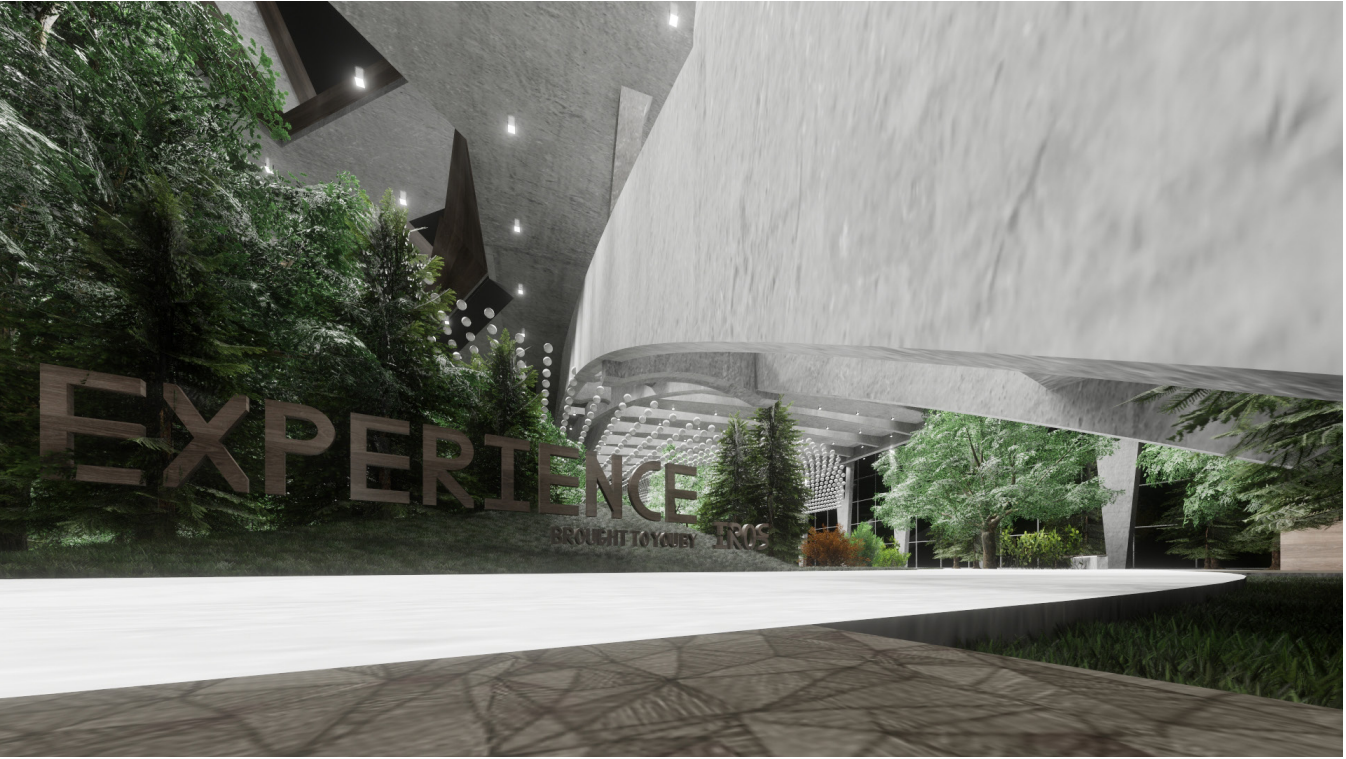




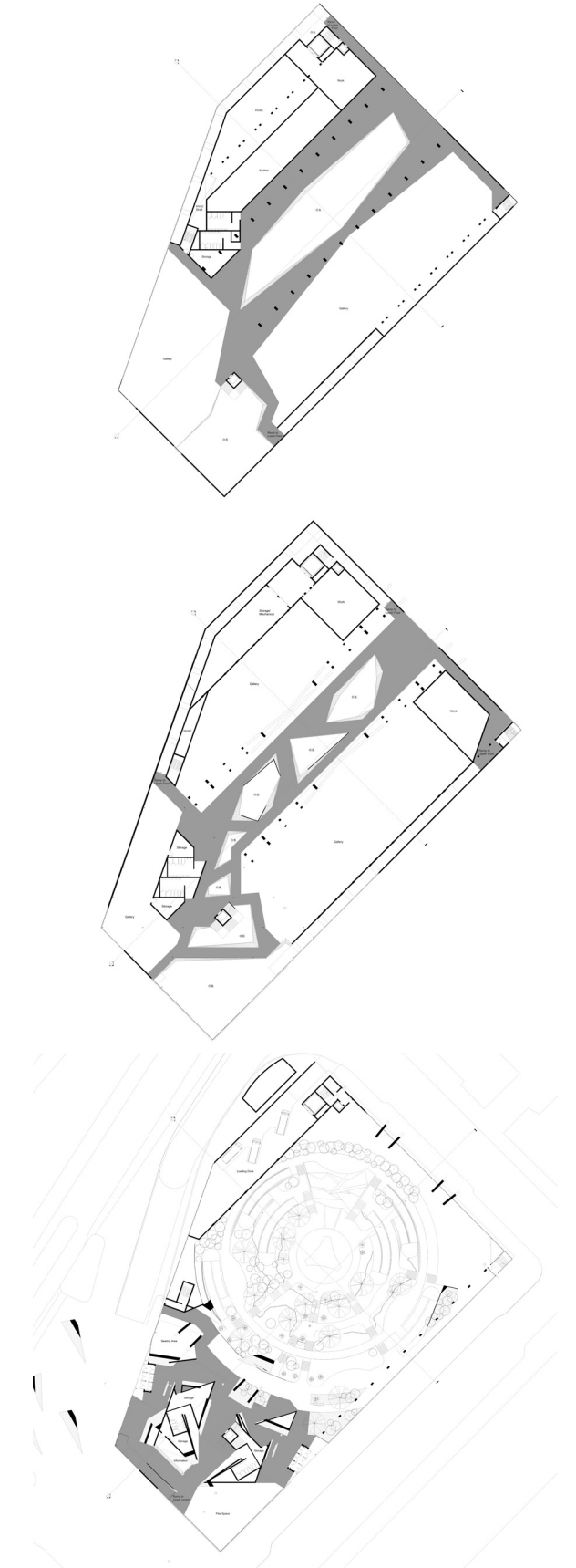
EXPERIENCE

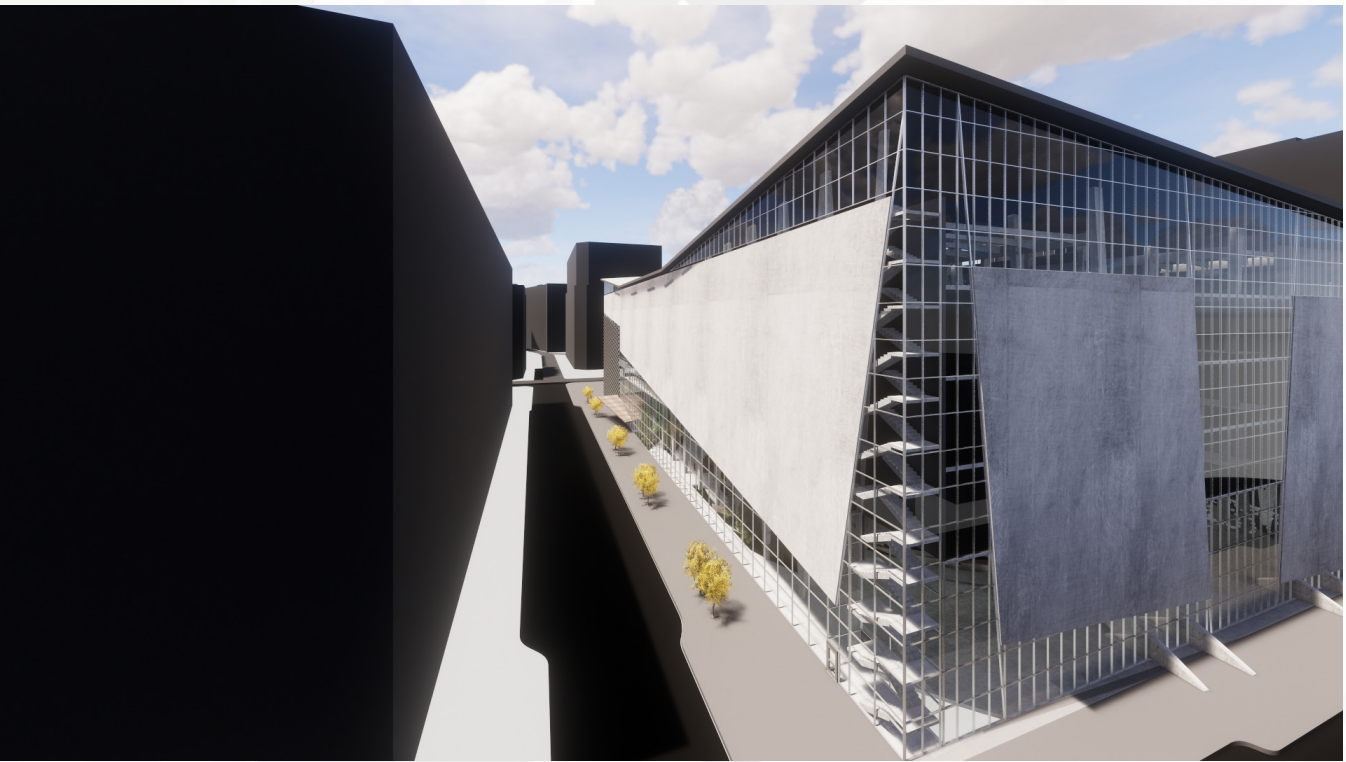
DEATH IS ONLY THE BEGINNING.
—IMHOTEP

| FINAL APPLICATION |

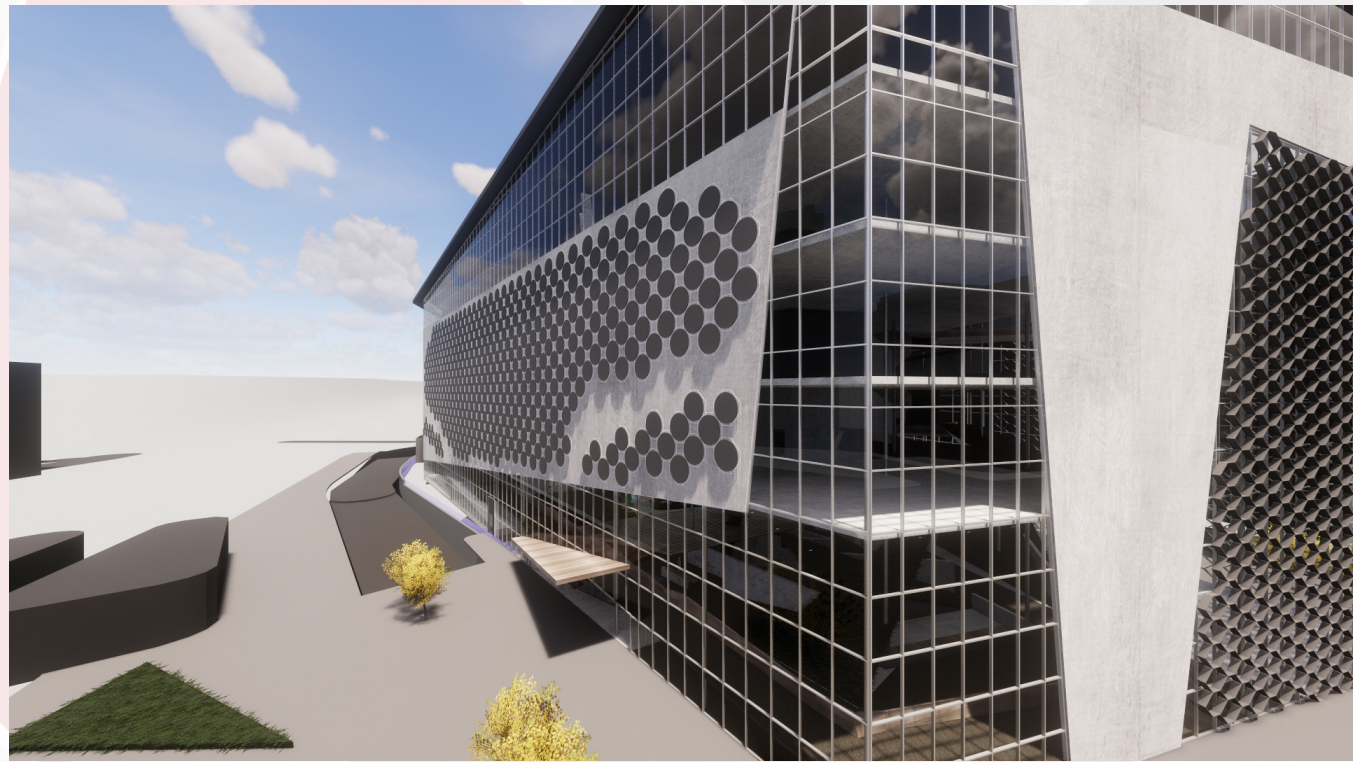


EXPERIENCE IS THE FINAL EXPLORATION INTO THE SENSE-ARCHITECTURE IDEA. THIS BUILDING TYPOLOGY WOULD BE THAT OF AN EXHIBITION OF EXPERIENCES. COLLABORATING WITH ARTISTS, IROS WILL SUPPLY SPACE AND TECHNICAL SYSTEMS TO ACHIEVE ANY POSSIBLE EXPERIENCE THE ARTIST WISHES TO EXPRESS. EACH EXHIBITION WILL NEED TO FOCUS IN ON OR LIMIT A GIVEN SENSATION. USER EXPERIENCE CAN THEN BE DOCUMENTED AND USED TOWARDS ENVIRONMENTAL RESEARCH IN THE ARCHITECTURAL OR AMUSEMENT FIELDS. IT IS THE HOPE OF IROS THAT WITH THIS COLLABORATION WE CAN BETTER UNDERSTAND HUMAN EXPERIENCE OF SPACE AND OF EVENTS. CREATING WORLDS WITHOUT LIMITS.

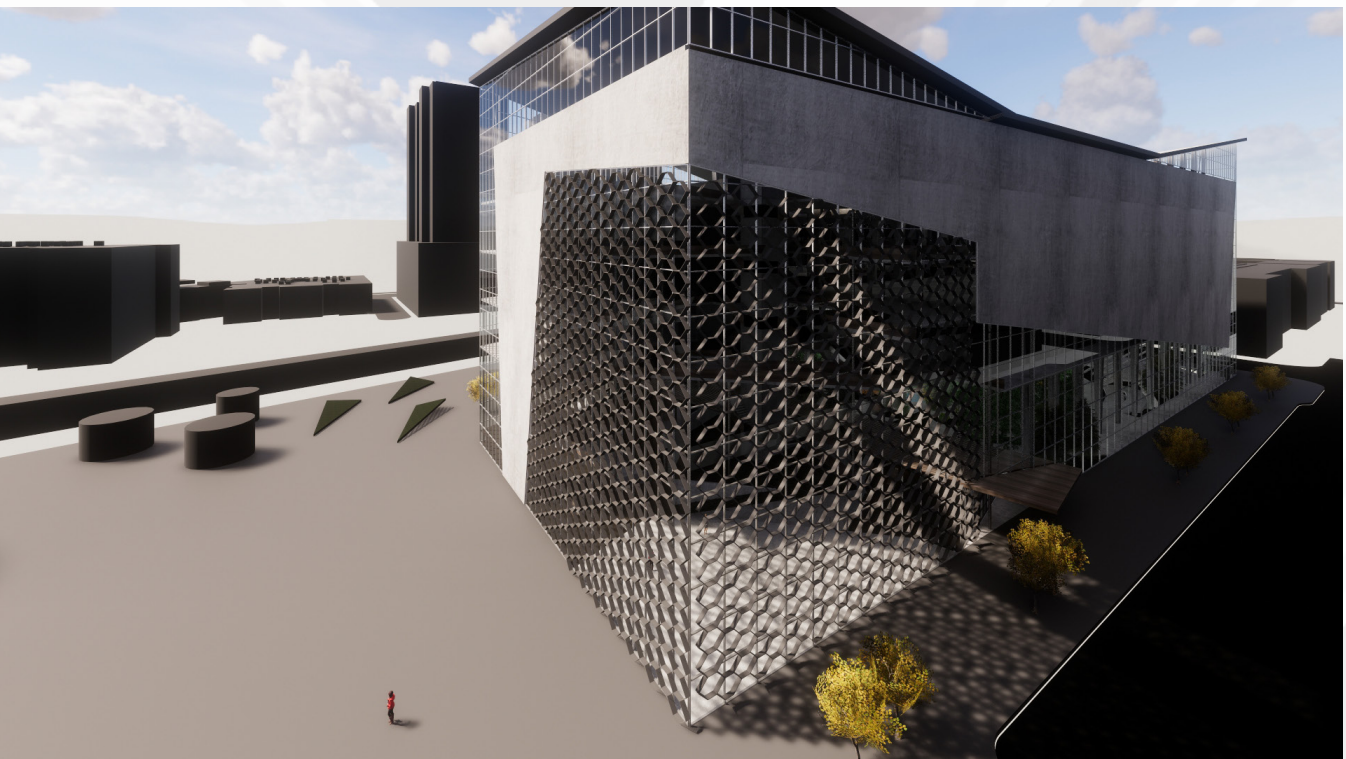




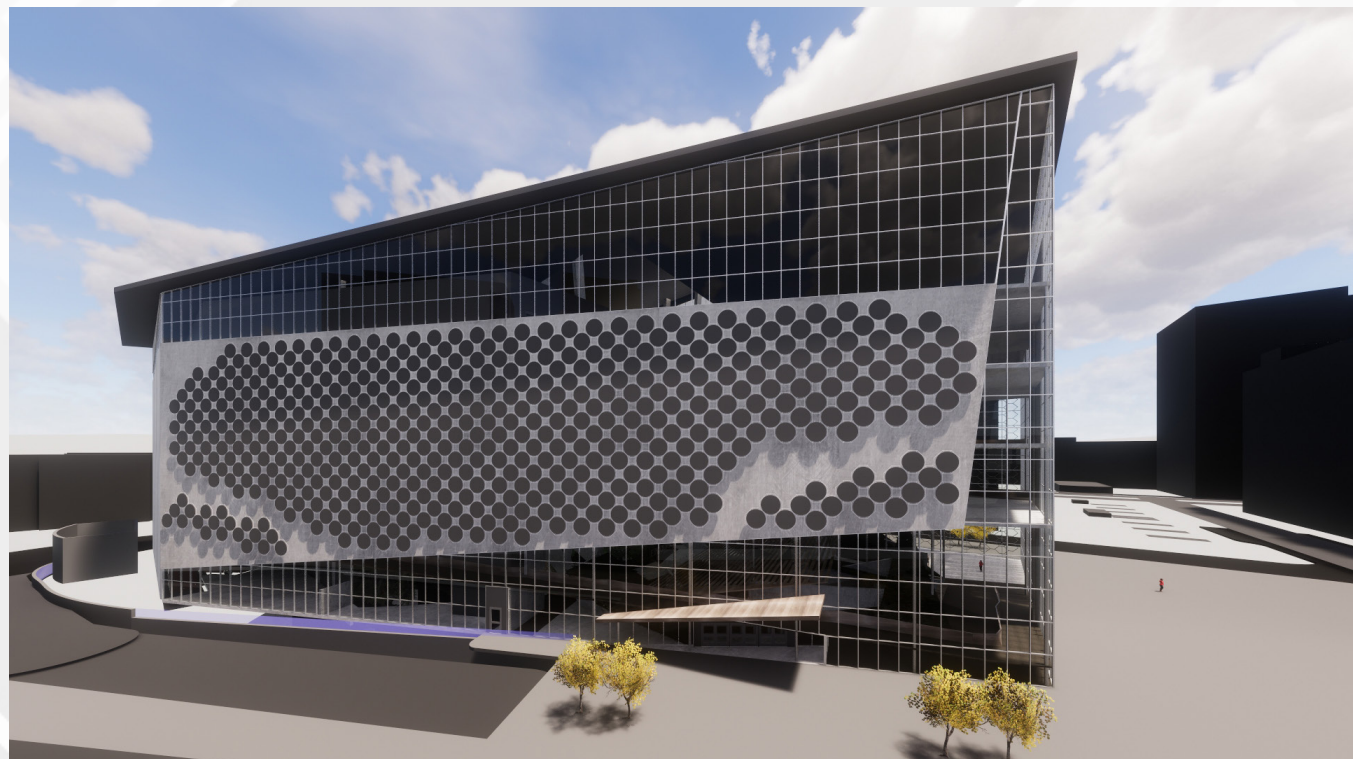
EASTERN BUILDING CORNER



WESTERN BUILDING CORNER



PARK WATER COLLECTION POND



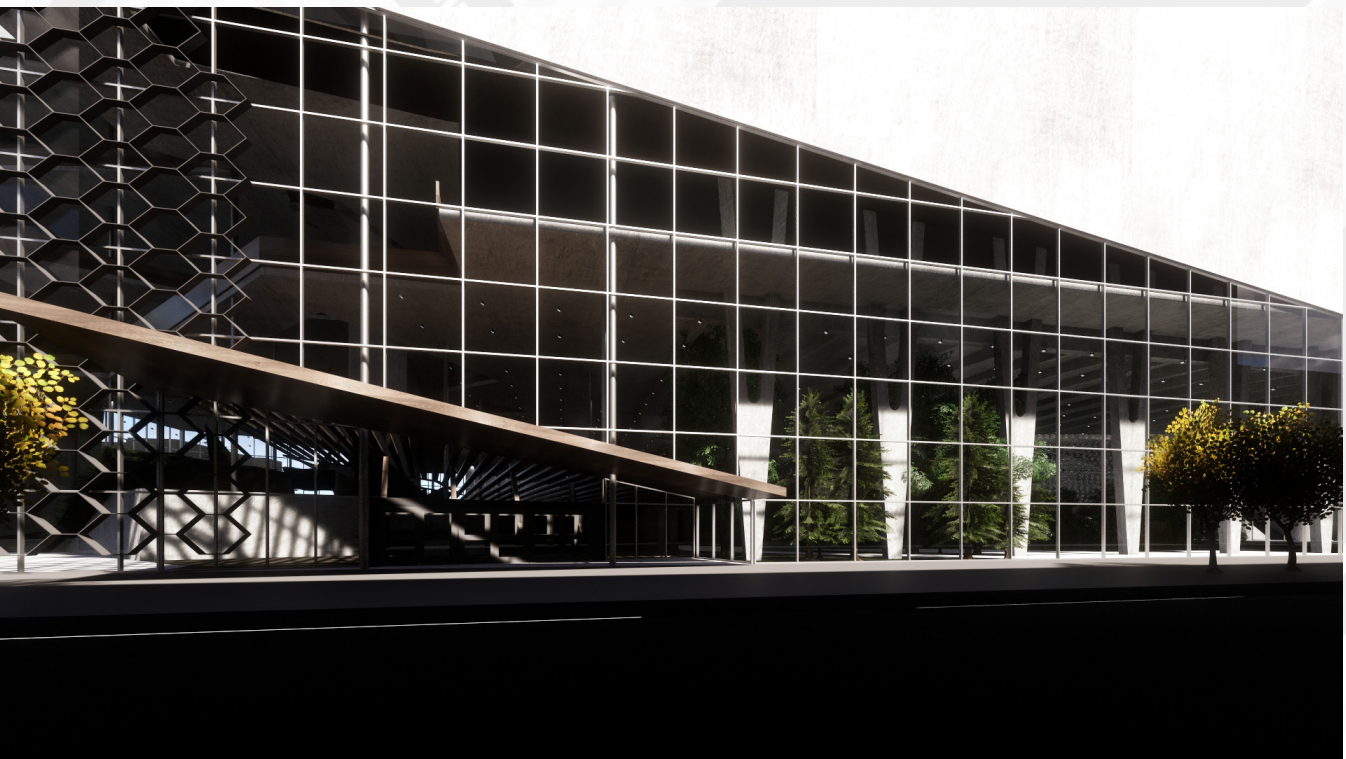
WIND ACTIVATED SOUND SYSTEM



STREET ENTRY NIGHT RENDER



PARK WATER COLLECTION POND



STREET ENTRY



PARK EXPERIENCE



EXHIBITION ITERATION: DRIFTWOOD

Ramp to
Upper Floor



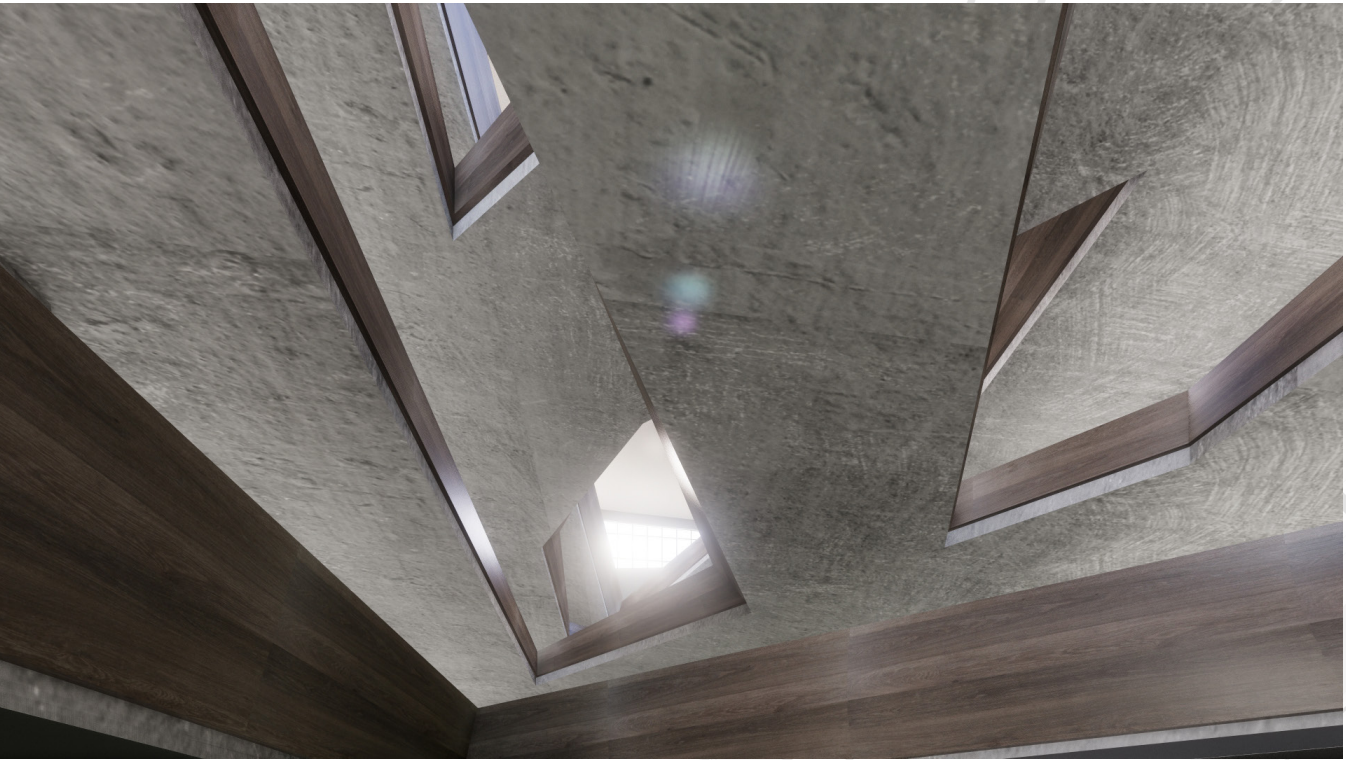
EXHIBITION ITERATION: FASHION SHOW



EXHIBITION ITERATION: PAINTING



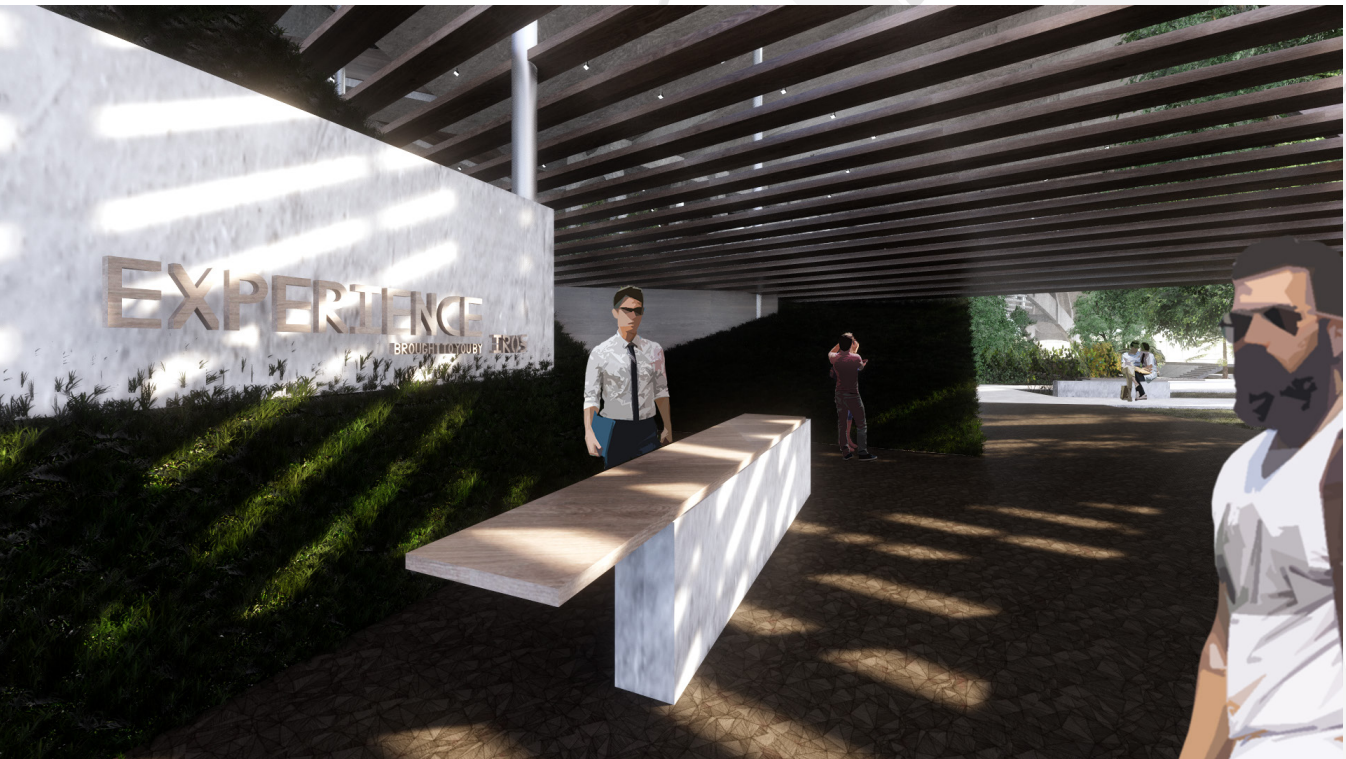
SOUTHERN ATRIUM EVENT SPACE



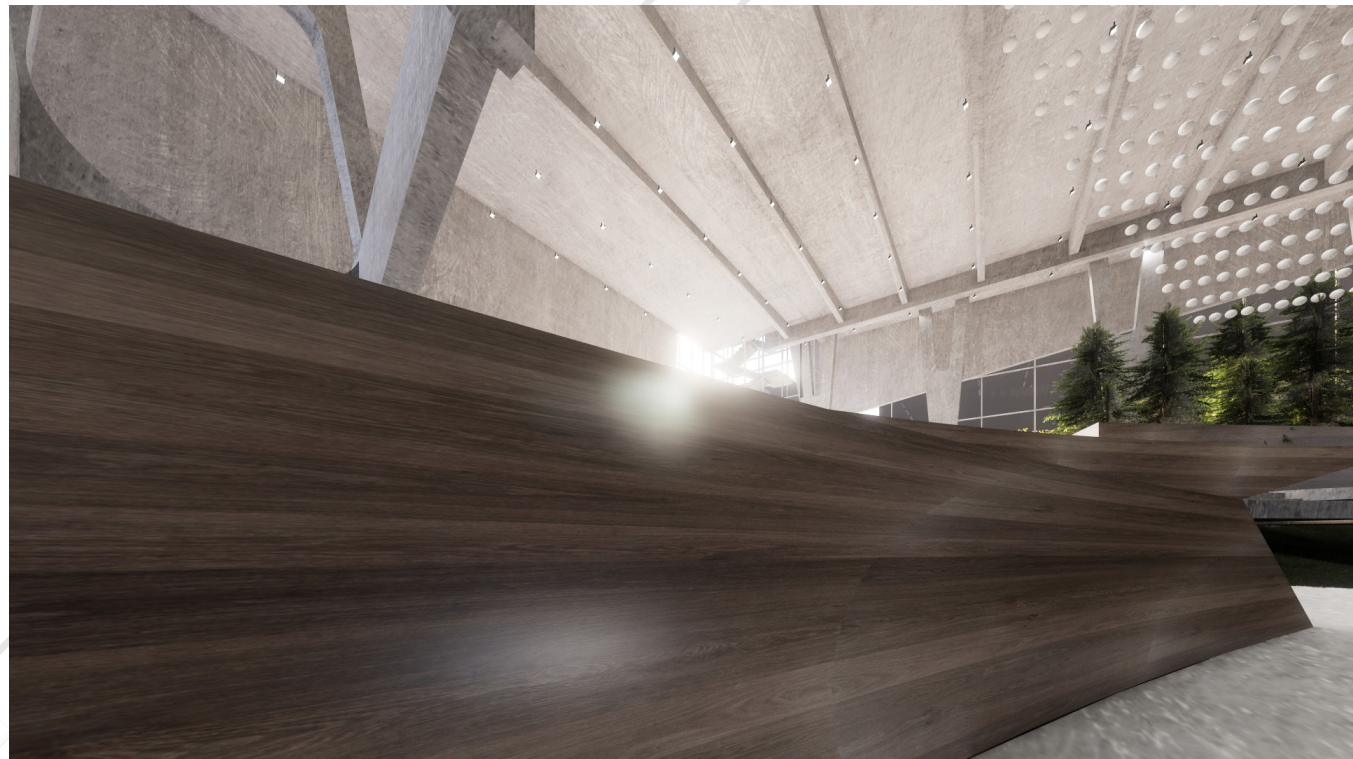
GREAT HALL ATRIUM LOWER LEVEL VIEW LEVEL 2



MAIN STAIR CIRCULATION LEVEL 2



STREET ENTRY INFORMATION DESK

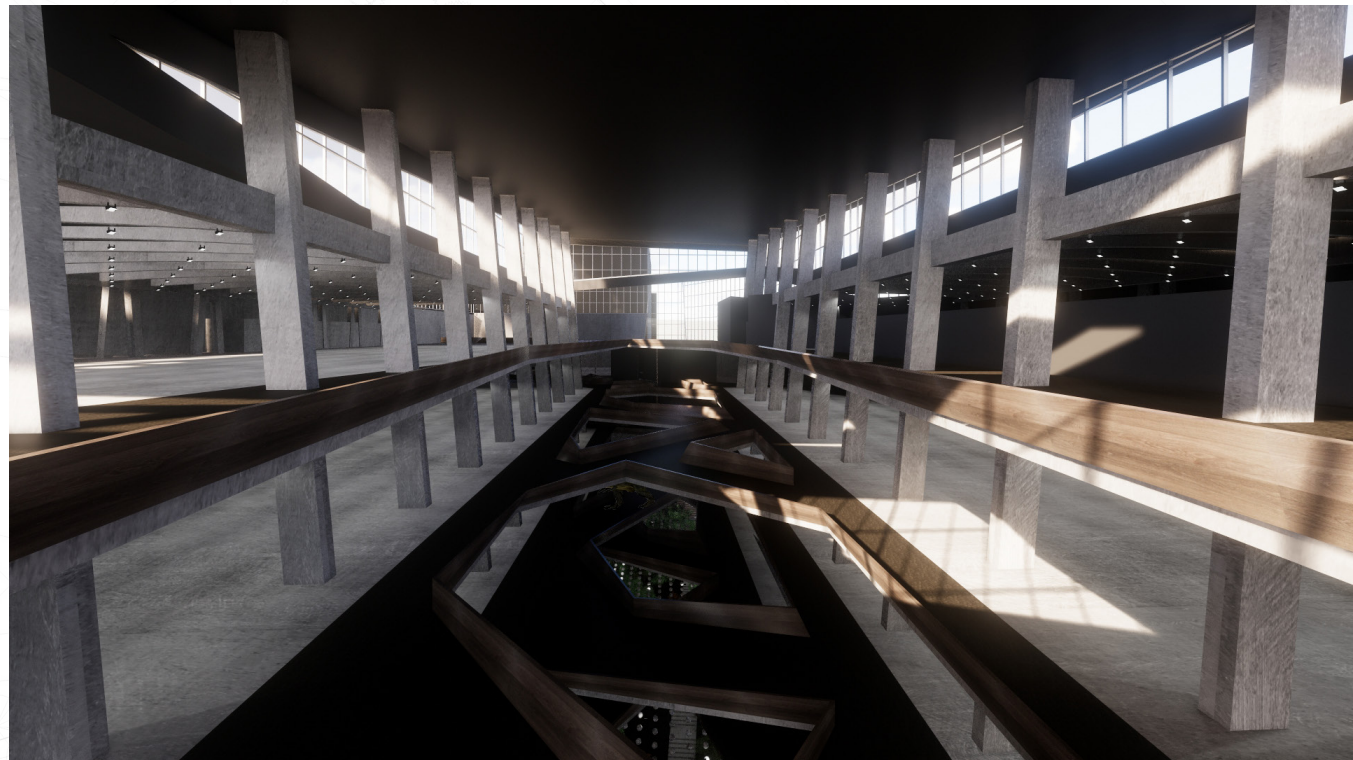


BALCONY WOOD RAILING DETAIL

Loading Dock

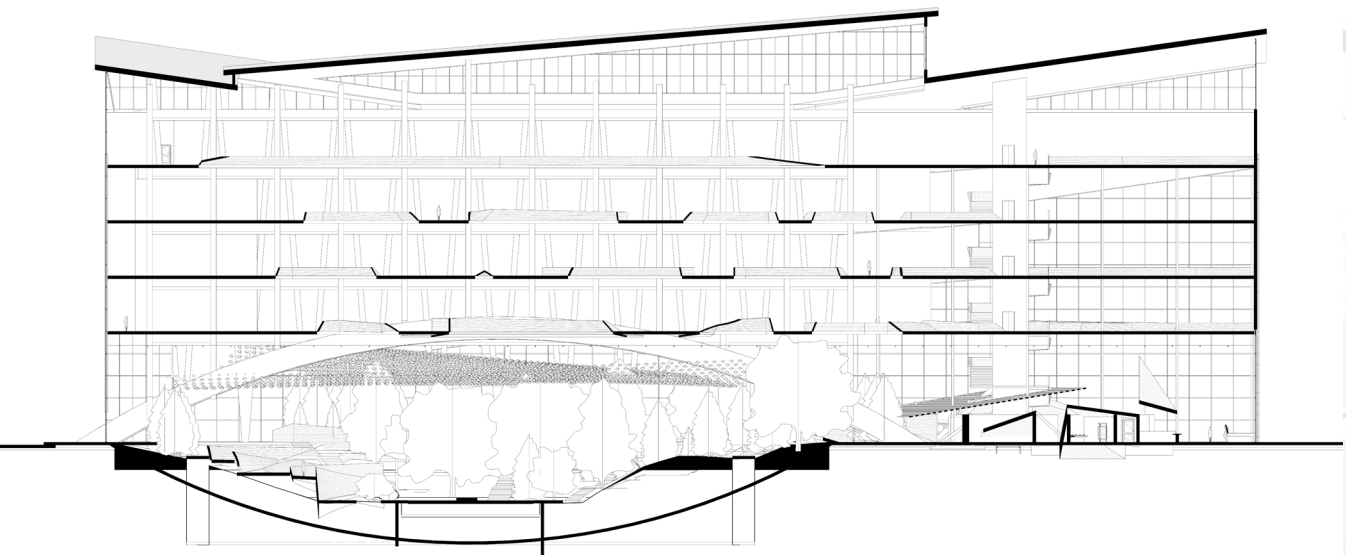


STRUCTURAL SYSTEM OVER PARK EXPERIENCE

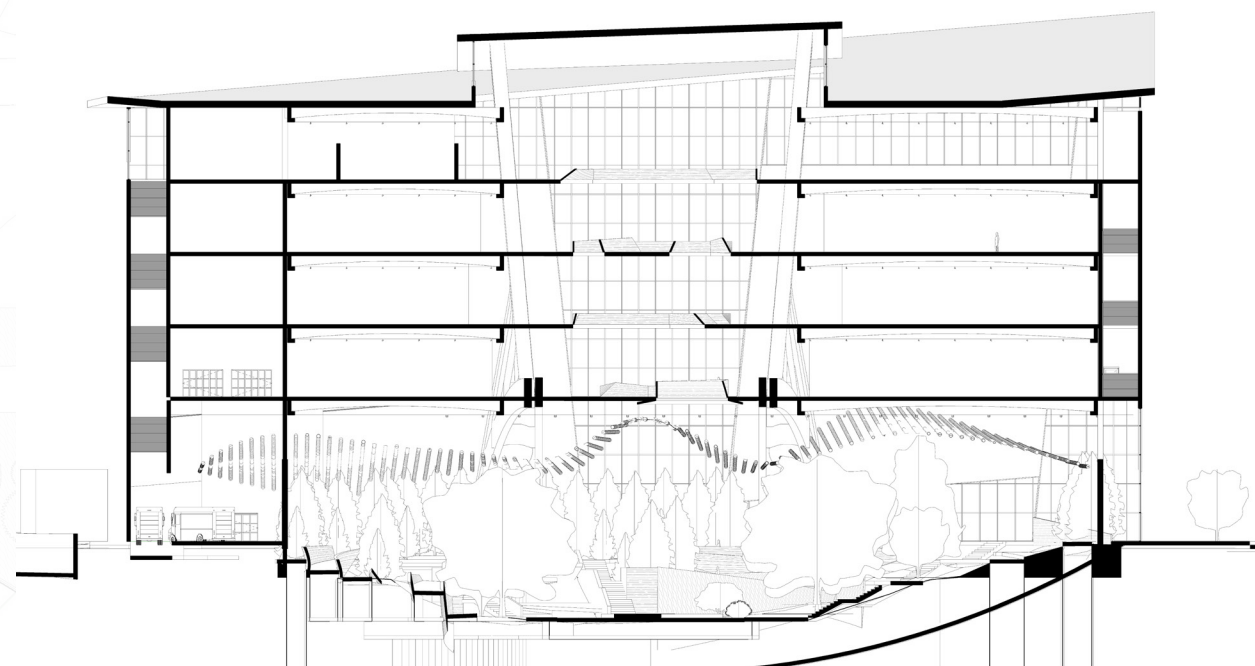


GREAT HALL ATRIUM

Seating Area

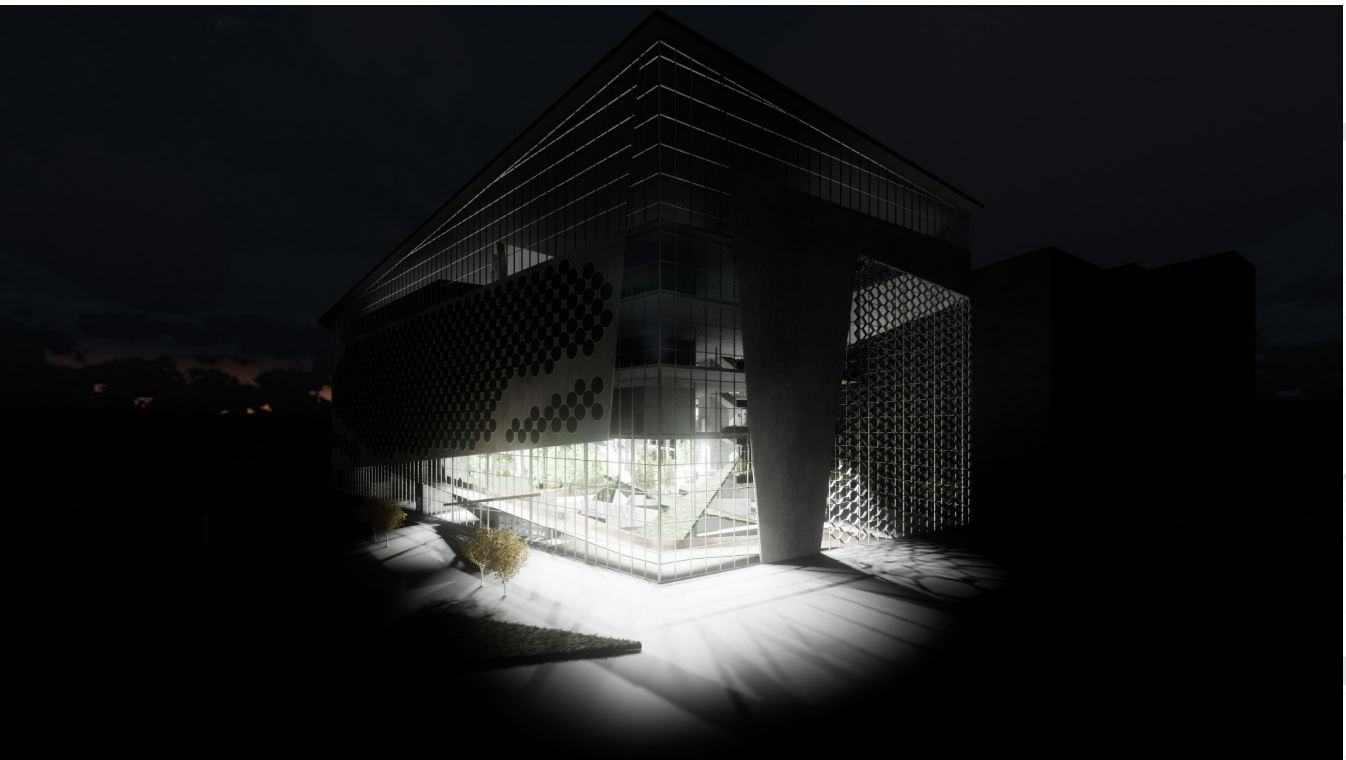


LONG SECTION CUT



SHORT SECTION CUT

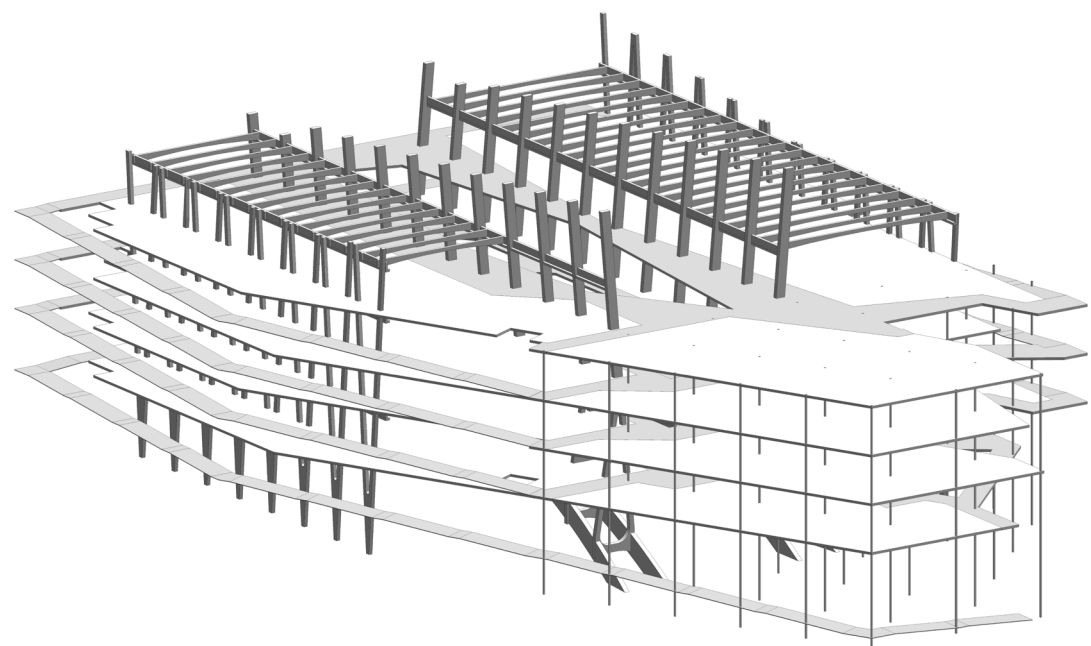
Information



NIGHT LIGHTING TEST



SOUTHERN ATRIUM



STRUCTURAL SYSTEM WITH RAMP AND FLOORS



RAMP VIEW

C I T A T I O N

ALEXANDROU, PETER. THE SENSE OF TOUCH: HARDLY NOTICED, BUT KEY TO OUR SURVIVAL. 2018. [HTTPS://INFOLIFIC.COM/HEALTH-AND-FITNESS/ANATOMY-AND-PHYSIOLOGY/TOUCH/](https://infolific.com/health-and-fitness/anatomy-and-physiology/touch/)

CELL PRESS. "HOW INJURED NERVES GROW THEMSELVES BACK." SCIENCEDAILY. SCIENCEDAILY, 3 OCTOBER 2010. [WWW.SCIENCEDAILY.COM/RELEASES/2010/09/100927141144.HTM](http://www.sciencedaily.com/releases/2010/09/100927141144.htm)

COLORADO DEPARTMENT OF PERSONNEL AND ADMINISTRATION. 2005. [HTTP://198.187.128.12/COLORADO/LPEXT.DLL](http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm)

DENVER. THE MILE HIGH CITY. 2018. [HTTPS://WWW.DENVER.ORG/](https://www.denver.org/)

DOWNEY, CHRISTOPHER. ARCHITECTURE FOR THE BLIND. 2015. [HTTP://WWW.ARCH4BLIND.COM/](http://www.arch4blind.com/)

FARGO MOORHEAD VISION SUPPORT GROUP. PERSONAL INTERVIEW. 2017.

FOYLE, JANATHAN. SCENT OF A BUILDING. 2012. [HTTPS://WWW.FT.COM/CONTENT/8DB9B640-34C2-11E2-8986-00144FEABDC0](https://www.ft.com/content/8db9b640-34c2-11e2-8986-00144feabdc0)

GALLAUDET UNIVERSITY LIBRARY. LOCAL AND REGIONAL DEAF POPULATIONS. 2018. [HTTP://LIBGUIDES.GALLAUDET.EDU/C.PHP](http://libguides.gallaudet.edu/c.php?g=773916&p=5552995)

HESCHONG, LISA. THERMAL DELIGHT IN ARCHITECTURE. 1979.

HUBER, CARLOS. ARQUISTE. 2018. [HTTP://ARQUISTE.COM/ABOUT/CARLOS-HUBER/](http://arquiste.com/about/carlos-huber/)

LACMA. RAIN ROOM. 2017. [HTTP://WWW.LACMA.ORG/RAINROOM](http://www.lacma.org/rainroom)

MCCURRY, TIGERMAN. ILLINOIS REGIONAL LIBRARY FOR THE BLIND AND PHYSICALLY HANDICAPPED. 2018. [HTTP://WWW.TIGERMAN-MCCURRY.COM/PROJECT/LIBRARY-FOR-THE-BLIND](http://www.tigerman-mccurry.com/project/library-for-the-blind)

NEWMAN, RUTH. WHY SMELL IS THE NEW FRONTIER IN BUILDING DESIGN. 2015. [HTTPS://SOURCEABLE.NET/WHY-SMELL-IS-THE-NEW-FRONTIER-IN-BUILDING-DESIGN/](https://sourceable.net/why-smell-is-the-new-frontier-in-building-design/)

RAVEN, PETER, H. BIOLOGY. 2005. 7TH ED. ISBN:0072437316

RED ROCKS. PARK AND AMPHITHEATRE. 2018. [HTTP://WWW.REDROCKSONLINE.COM/](http://www.redrocksonline.com/) [HTTP://WWW.REDROCKSONLINE.COM/ABOUT/HISTORY-GEOLOGY](http://www.redrocksonline.com/about/history-geology)

ROMM, CARI. THESE ARE THE PEOPLE MOST LIKELY TO GET THE CHILLS FROM SAD MUSIC. 2016. [HTTPS://WWW.THECUT.COM/2016/06/THESE-ARE-THE-PEOPLE-MOST-LIKELY-TO-GET-THE-CHILLS-FROM-SAD-MUSIC.HTML](https://www.thecut.com/2016/06/these-are-the-people-most-likely-to-get-the-chills-from-sad-music.html)

RTD. 2018. [HTTP://WWW.RTD-DENVER.COM/INDEX.SHTML](http://www.rtd-denver.com/index.shtml)

SANTIBAÑEZ, ROBERTO. SIMPLE FEAST. 2018. [HTTPS://SIMPLEFEAST.COM/CHEFS/ROBERTO-SANTIBANEZ](https://simplefeast.com/chefs/roberto-santibanez)

SENATE BILL 118, 1911; SENATE BILL 152, 1929; SENATE BILL, 1964.

SMITH. PERSONAL INTERVIEW. 2017.

SPIELMAN, ROSE PHD. PSYCHOLOGY. 2014. ISBN 13: 978-1-9381683-5-2

STAFF, HISTORY.COM. COLORADO. 2009. [HTTPS://WWW.HISTORY.COM/TOPICS/US-STATES/COLORADO](https://www.history.com/topics/us-states/colorado)

WEBSTER. 2018. [HTTPS://WWW.MERRIAM-WEBSTER.COM/](https://www.merriam-webster.com/)

WORLD HEALTH ORGANIZATION. 2018. [HTTP://WWW.WHO.INT/EN/NEWS-ROOM/FACT-SHEETS/DETAIL/BLINDNESS-AND-VISUAL-IMPAIRMENT.](http://www.who.int/en/news-room/fact-sheets/detail/blindness-and-visual-impairment)

YOUNG, BRENTON. DENTAL PRODUCTS REPORT; NORTH OLMSTED VOL. 45, ISS. 4, (APR 2011): 52.