



The first greetings in the VR space with students of Bilbao

COMMUNITY AND THE VERNACULAR

DEPICTING THE EFFECTIVITY OF COMMUNITY DESIGN IN FORMING A SUSTAINABLE URBAN LANDSCAPE THROUGH VIRTUAL REALITY

Community and the Vernacular responds to the brief of how a space lives in the context of Zorrotzaurre, Spain. Through my research I have noticed that the locals felt disregarded in the urban regeneration of the island, so the proposal conveys how spaces should embody the views and demands of communities as a collective, with a known challenge of bringing them together at a time where interaction is at a minimum due to the pandemic

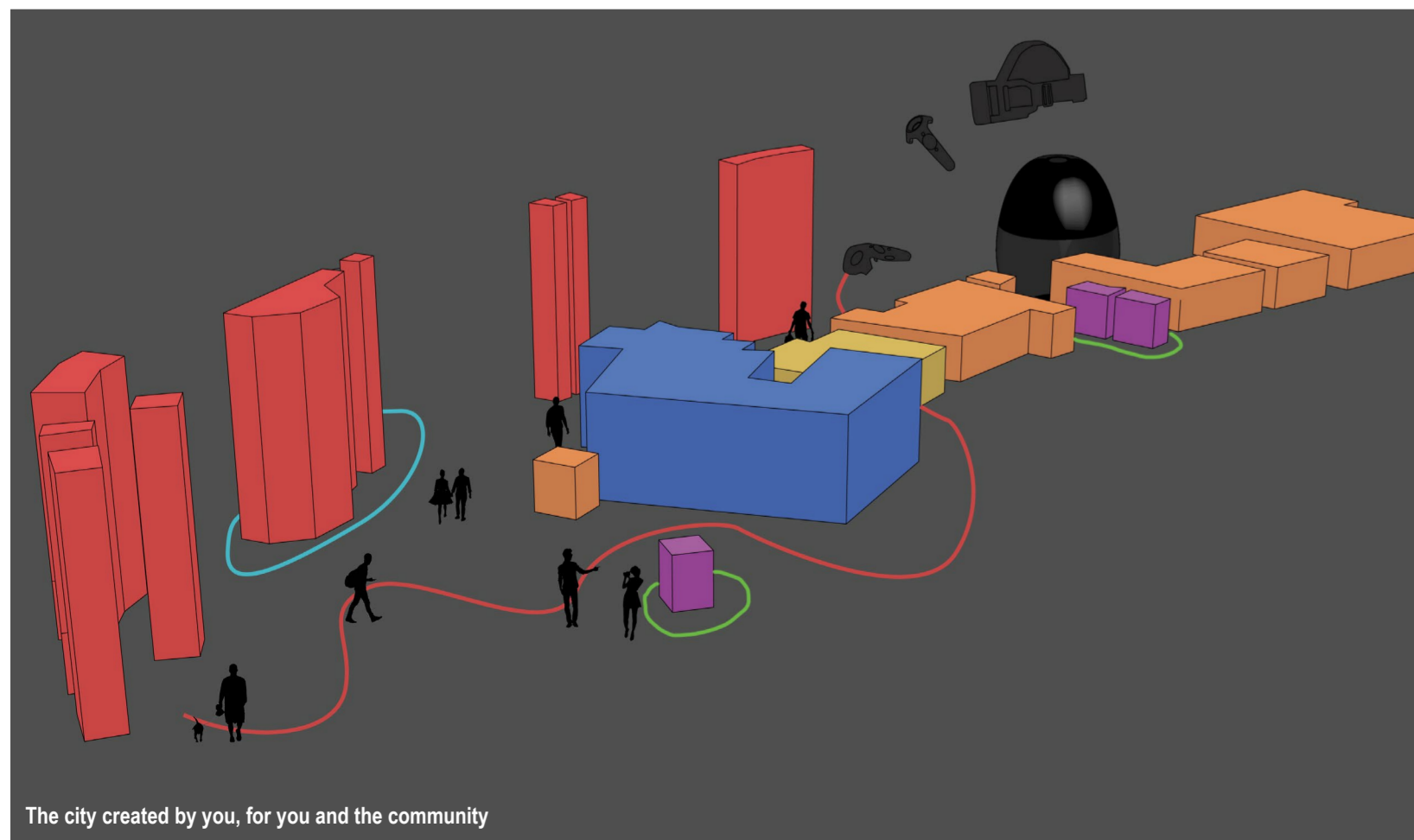
The physicality aspect of interaction during COVID is lost behind a screen, and with the uprising of the digital world that could be manipulated beyond the physical dimension allows for multiple possibilities. Through the pandemic and the given remote site allowed for exploring many forms of collaboration and dialogue around regeneration through virtual reality, where the voices of the local communities can be more clearly represented

This portfolio will exhibit two propositions that were created highlighting collaboration

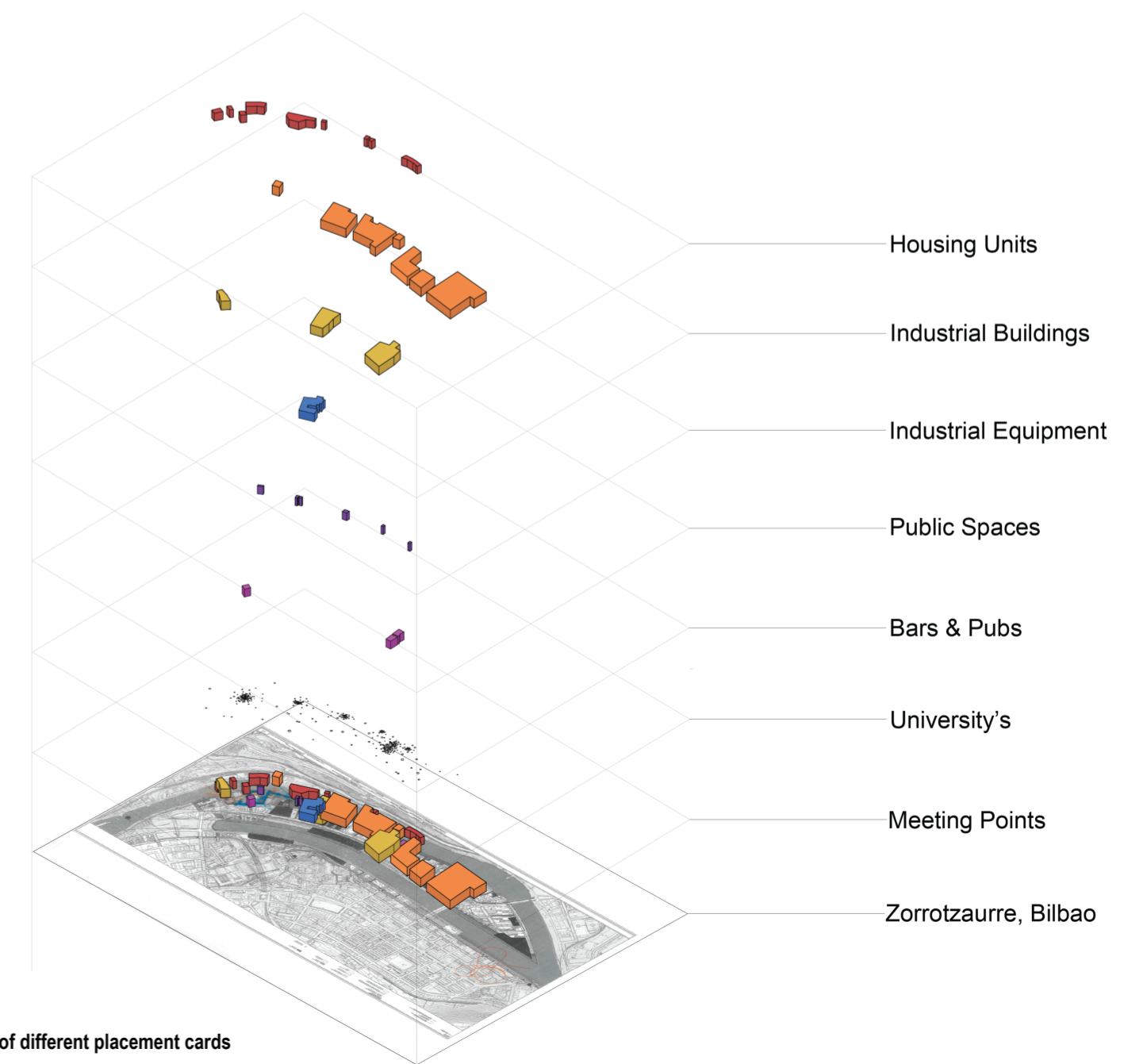
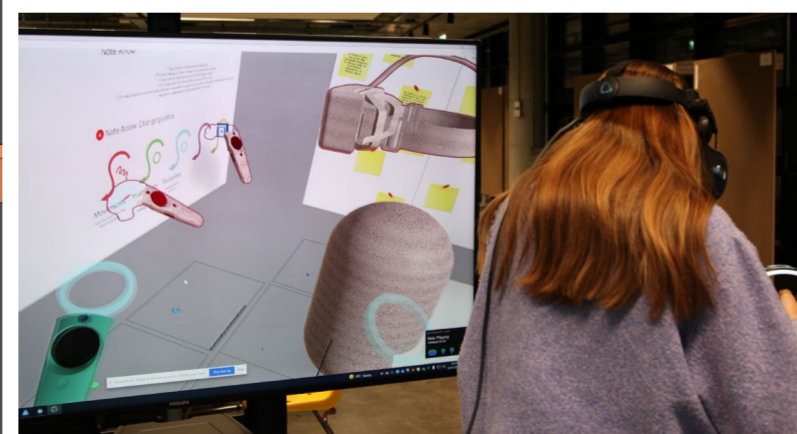
PROPOSITION ONE: THE VIRTUAL

"ARCHITECTURE IS TOO IMPORTANT TO BE LEFT TO ARCHITECTS" - GIANCARLO DE CARLO

The first part of the proposition depicts multiple placement cards representing different aspects of the islands topography created in virtual reality as an interactive tool portraying how the communities correlate with the landscape, and allows for new constructs of a dynamic city to be created. These sheets will allow for the student community, the leading future of the island, to restructure the terrain with no regional specificity, or given hierarchy to allow them the freedom to highlight the aspects that they believe are important



The city created by you, for you and the community



Isometric projection of different placement cards

1 Placement Cards

- You have nine placement cards lying in front of you representing different current aspects of the urban landscape of Zorataurre
- Each of these placement cards have a small text explaining which aspect of the island they represent
- There is no set map of the island under these, to give you freedom from limitation in informing your understanding of what you would like to see in the new urban regeneration as you (The student community) will be one of the users
- We cannot revise this understanding simply by throwing a different framework, we must literally revisit, and restructure, the terrain and logic within which we exist" (The student community) will be one of the users

3. This exercise also aims to show the importance of community participation in design projects, to allow for your imagination to reign free and allow for multiple sustainable solutions for the future of the island, all starting with YOU

4. Allow some time for some of you to create different iterations of the placement cards in groups

2 Remotes

To Open Tool Bar

- Hold Down the Touch Pad on your left controller to open the tool bar

To hold items

- Hold down the trigger
- This is located at the back of your right controller, and is how you move the placement cards

3 Tools

Move/Copy

- Open tool bar and while holding the touch pad find the Move/Copy Widget
- Look down at the model placement cards and hover over one until it turns highlighted then hold the trigger and move accordingly
- There is no specified order or preference, I am giving you the freedom to create your own urban landscape

Scale Tool

- Open tool bar and hover over the Move/Copy tool
- In the extension look for the scale tool
- Hover over one of the placement cards until highlighted and hold the trigger
- Dimension tool will pop up that you can drag the X,Z scale to your desired size
- This could inform the importance of the placement card as an element that needs to be preserved or is of interest for you, or your own interpretation

Rotate Tool

- Open tool bar and hover over the Move/Copy tool
- In the Extension look for the Rotate tool
- Hover over one of the placement cards and hold the trigger to draw
- Then, choose your second point of rotation and hold the trigger as you rotate to your desired degree

Eraser Tool

- Open tool bar and look for the eraser icon
- Hover over the objects that you would like to erase
- Press the trigger and erase

Undo/Redo Tool

- Open tool bar and hover over the undo/redo tool
- If you have made a mistake, undo
- If you want to redo what you have erased, redo

Note Arrow

- Open tool bar and hover over the Note Arrow
- This tool allows you to draw in 3D space using the key features below
- Hover over the placement cards and hold the trigger to draw
- To change colors move the thumbstick up, down, left, or right
- To change colors move the thumbstick up, down, left, or right
- To make it easier to interpret, each color will serve a different purpose in your creation, as the spaces in between buildings are just as important in understanding for the regeneration of the island

Note Arrow: Changing colors

Movements
How you move from one space to another

Meeting pts
Circle the most prominent meeting points

Favourites
A favourite spot or Building

USER EXPERIENCE

How will you benefit:

- Increased social interaction by allowing people to interact with the landscape
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How will the architects benefit:

- Architects will have a better understanding of the urban landscape
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What was realized?

- Architects will have a better understanding of the urban landscape
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How to enter the model and adjust

- Use the trigger in your right controller to teleport into the model
- This is located at the back of the controller, and once you hold the trigger over the model you will see a dotted line which will indicate your teleportation and where

Both Controllers

- Once your in don't panic, as everything will be seen as massive
- The reason for this is because the model is at a 1:1 scale, meaning that one placement card is the actual size of the island

- start by having both your hands in a widespread horizontal position as shown above, and hold the grip on both controllers
- Contract the model until it becomes small enough to work on
- You could choose which size suits you, usually the most practical sizes is 150000 or 150,000



HOW TO USE VR SPACE



HOW TO SCALE/DRAW IN SPACE

(Scan QR codes to experience)

Instruction sheets were created showing the students how to use the headset, as well as a user experience sheet exhibiting how themselves, architects and designers will possibly benefit from this experience, in an aim to try to improve user experience and collaboration, and to truly value the spaces that they inhabit by being part of the process

Additionally, participants can draw their own lines on the created city, representing movements, meeting points, and scaling themselves down to walk through the city, empowering them and blurring the disconnection that the virtual world has with the physical.

The realization of this project foregrounds collaboration in the creation of a healthy sustainable cycle of co-existence, through a recalibration of existing assets to help inform, and introduce new constructs of the city

PROPOSITION TWO: THE SPATIAL

FRAMES FOR COLLABORATION: WITH THE VIRTUAL, ENVIRONMENT, AND PEOPLE.

An extension of my collaboration with students from IED university includes the creation of a spatial proposition in the given site of the abandoned Artich cookie factory in Zorataurre, Spain. The challenge was then how to merge both the physical and digital worlds together to help revitalize the connection between people and space through the collaboration with students from IED, which proceeded by creating two worlds

The pavilion utilizes how architecture in the virtual world is made up of microscopic polygons and triangles, meanwhile oriented to a situated GPS reality through sun path analysis to bridge the natural (The real) and the man-made (The virtual) realm. The concave interior triangles were added to soften the edges and make the structure less intimidating, and are color coded to highlight the different aspects of the islands topography that were studied in the first proposition

60 degrees

45 degrees

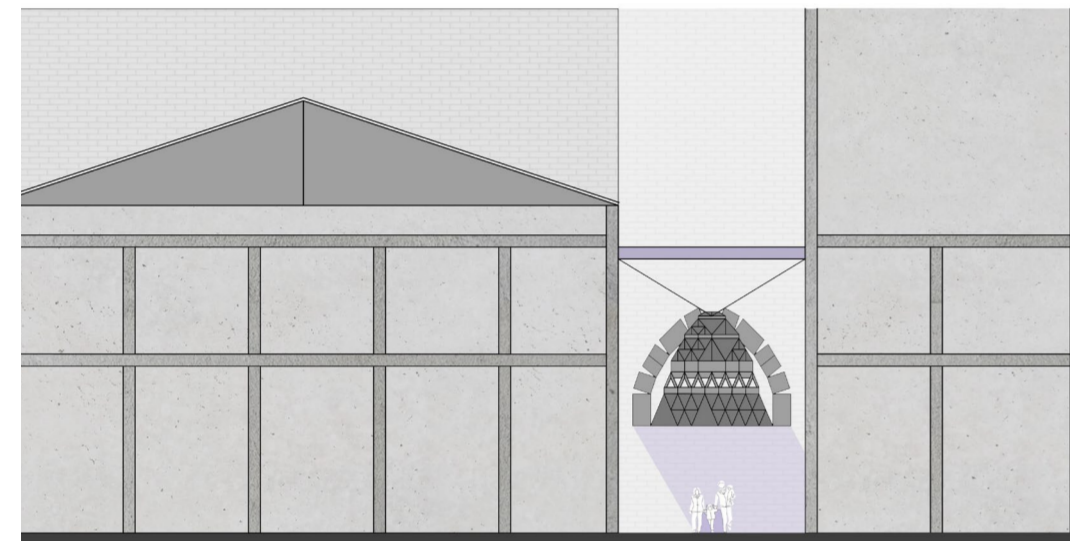
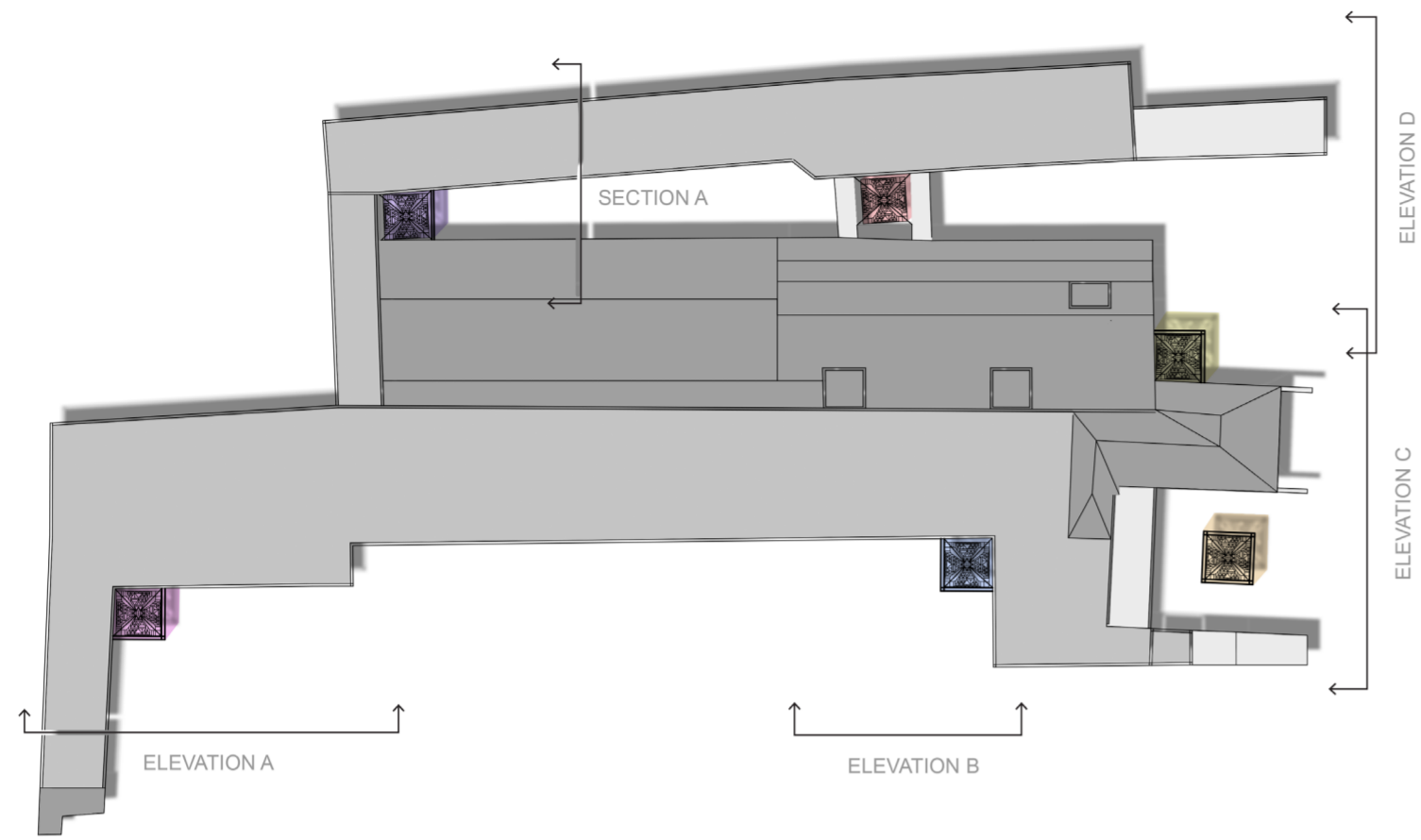
30 degrees

15 degrees

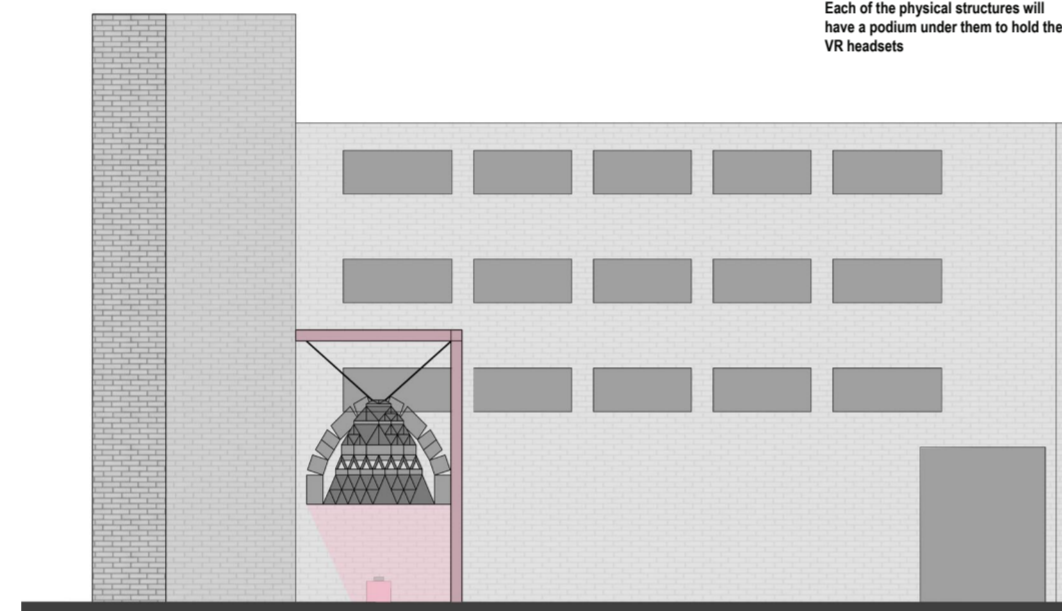
Light testing to understand how the sun fluctuates

3D printed model of pavilion

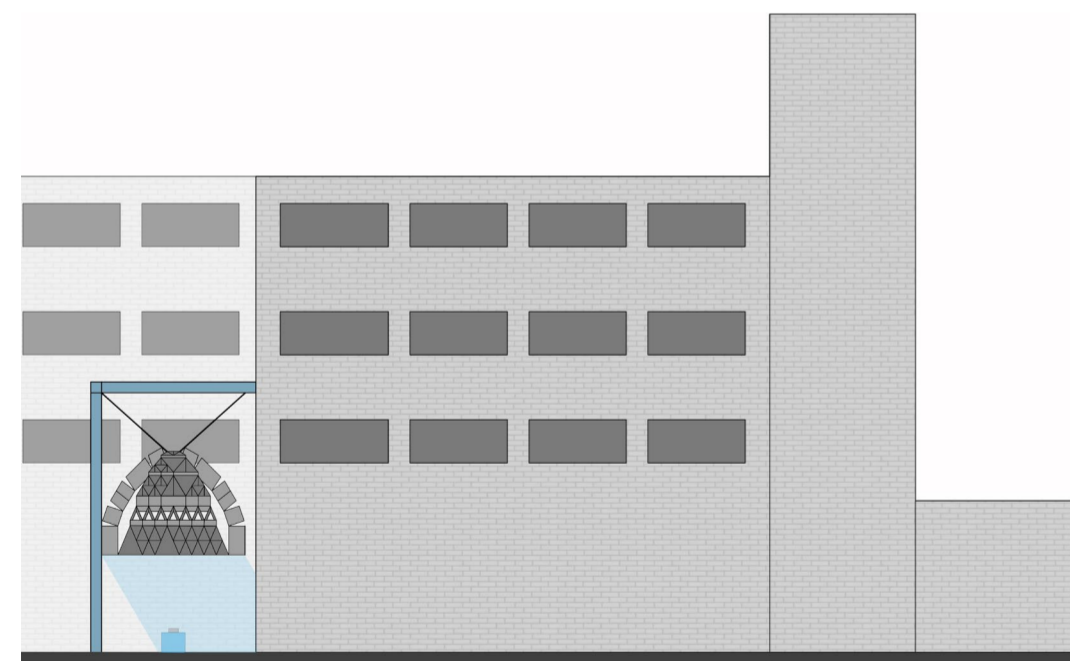
THE PHYSICAL SPACE



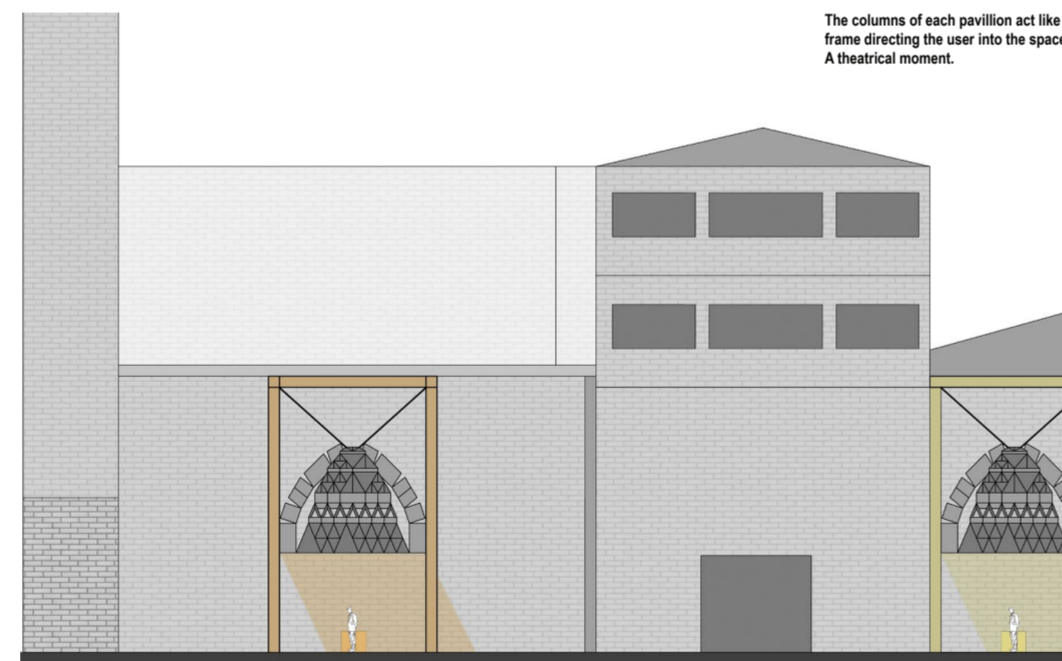
SECTION A



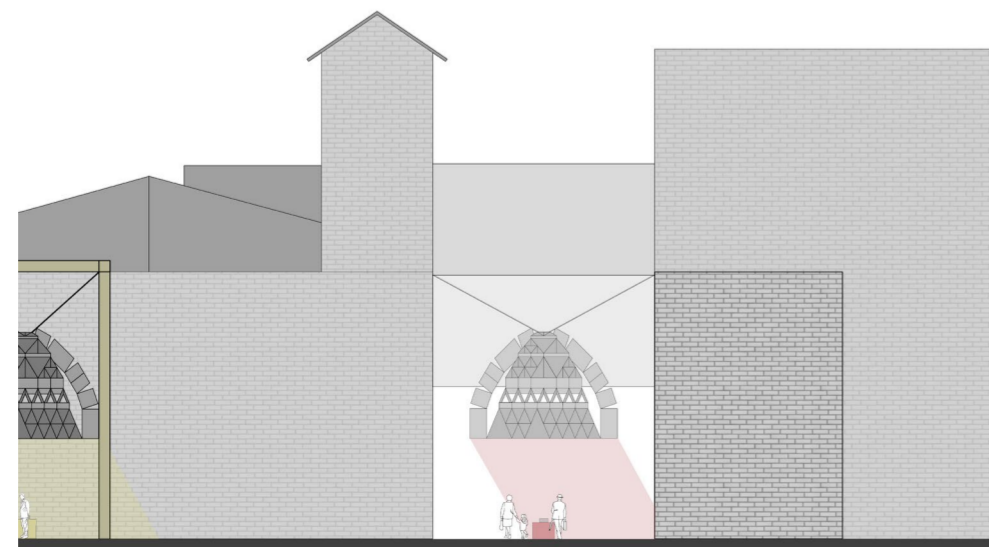
ELEVATION A



ELEVATION B



ELEVATION C

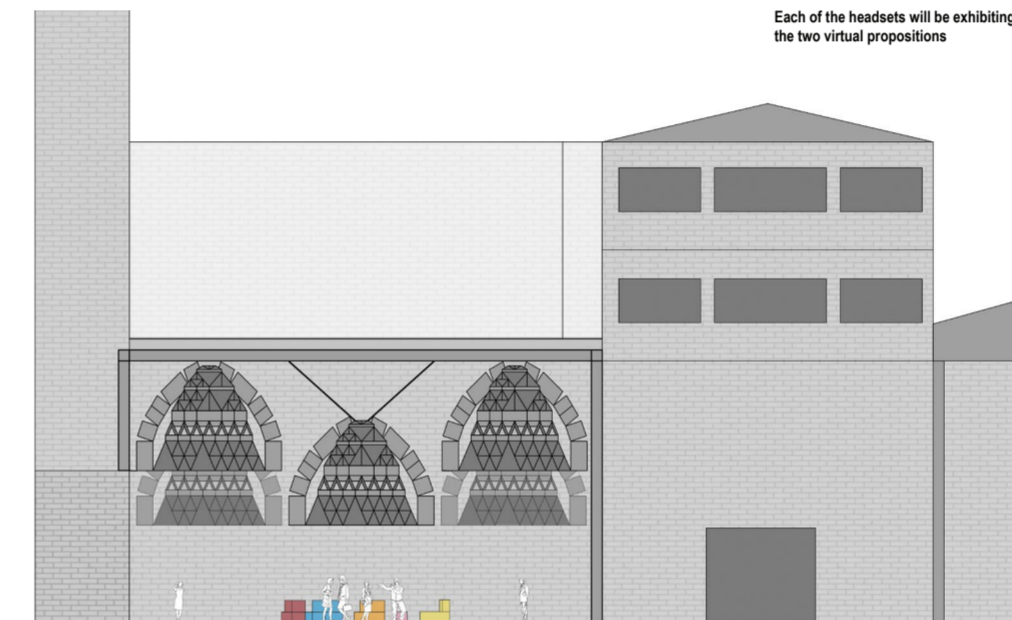
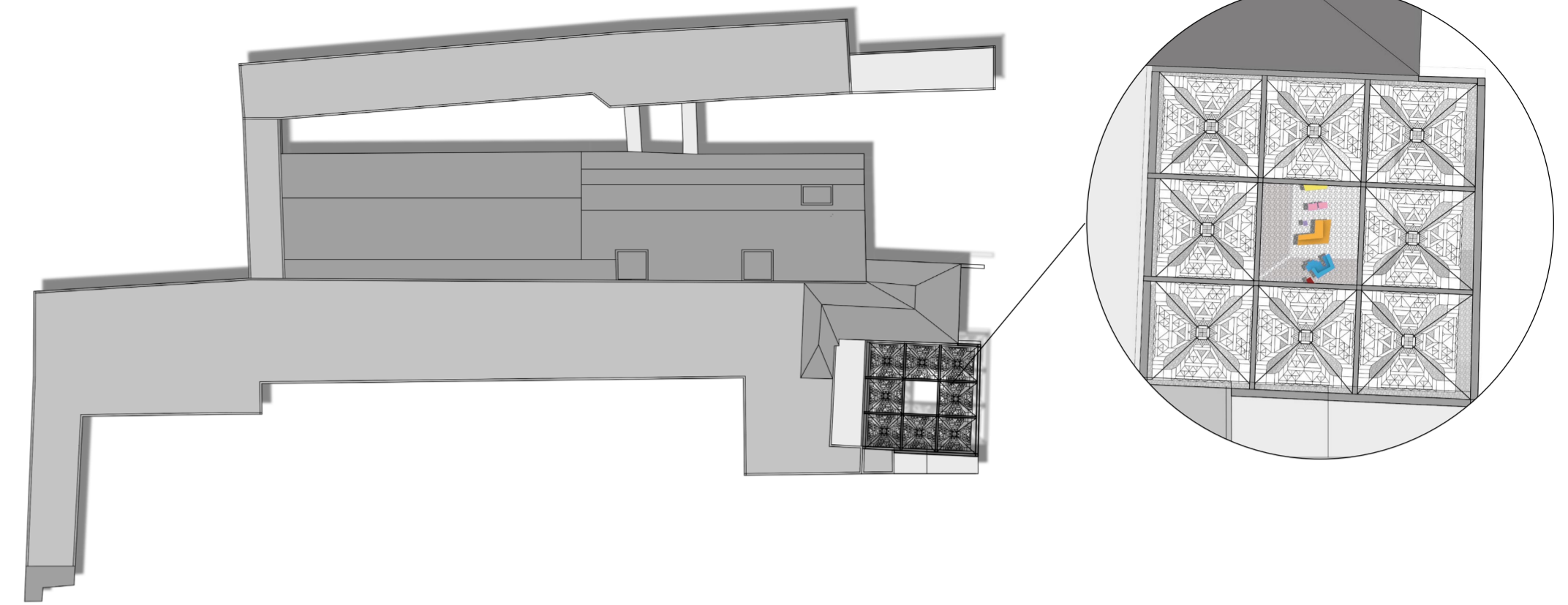


ELEVATION D

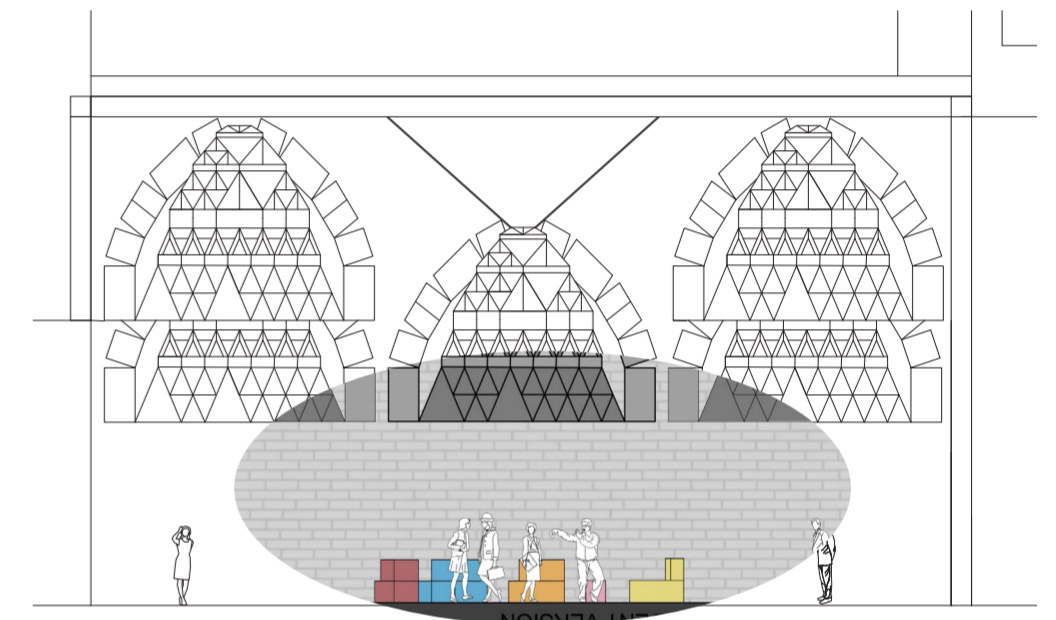
Each of the physical structures will have a podium under them to hold the VR headsets

The columns of each pavilion act like a frame directing the user into the space. A theatrical moment.

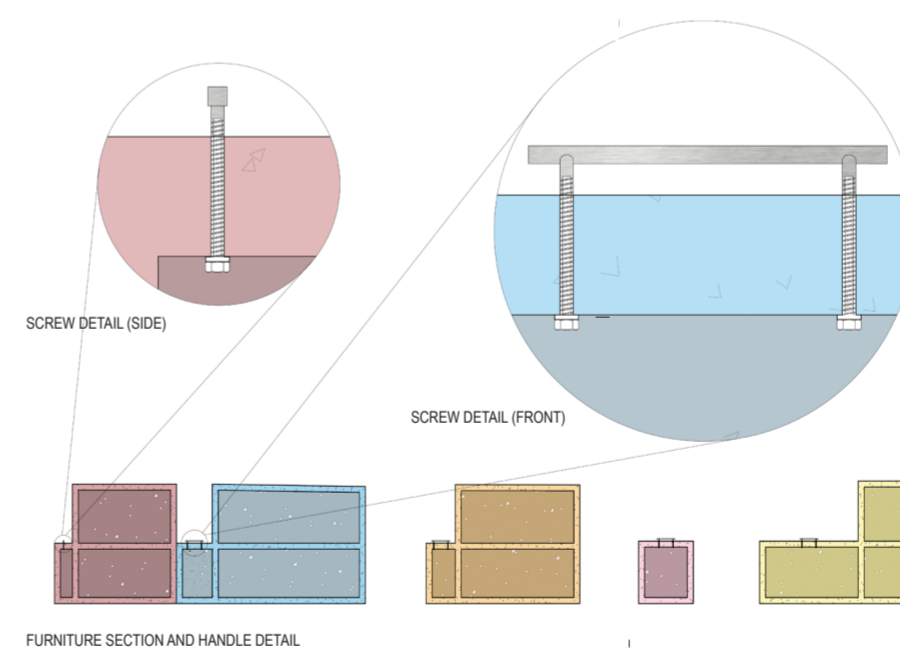
THE VIRTUAL SPACE



Each of the headsets will be exhibiting the two virtual propositions



CALL NOT TO SCALE!

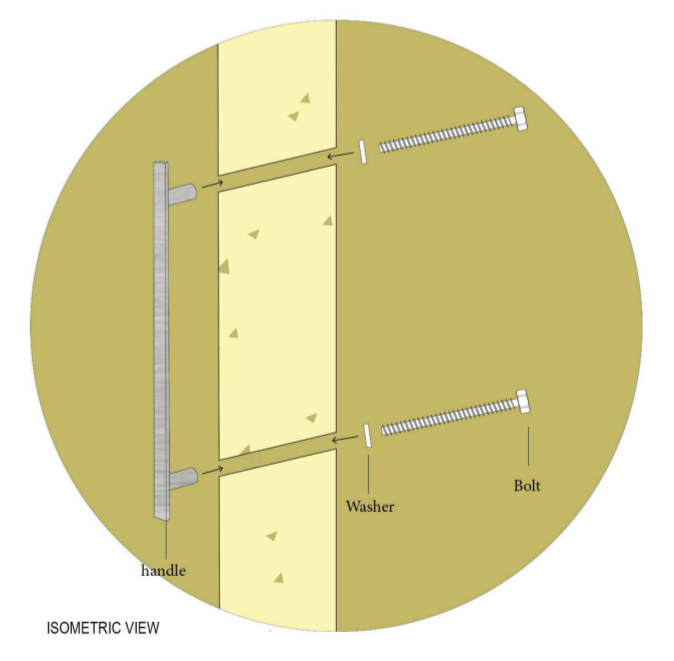


FURNITURE SECTION AND HANDLE DETAIL

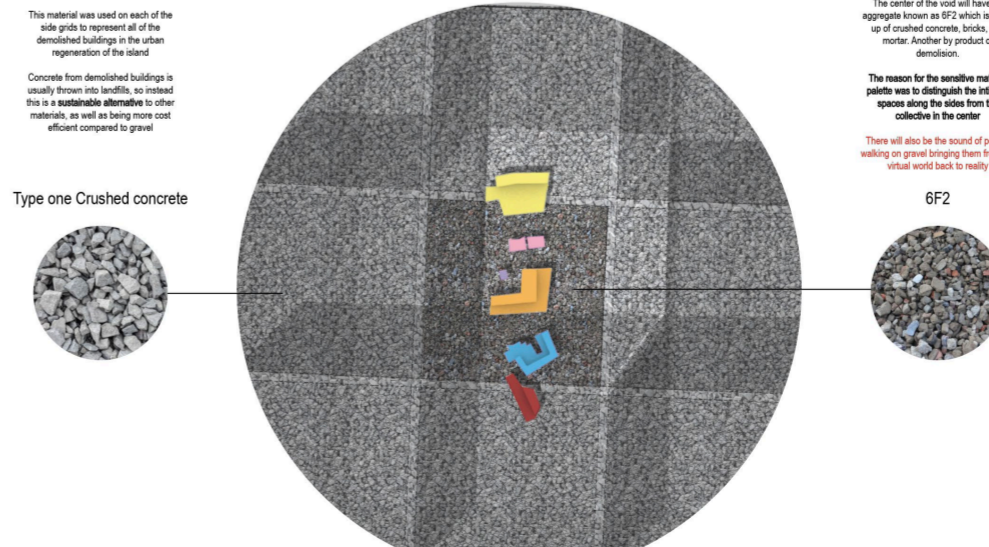
The creation of furniture pieces in the shape of the topography placement cards in the center of the space fill an empty void with not only objects, but users

The furniture will be made of cast concrete with a hollow interior for light-weight mobility purposes with handles to mimic the community interaction in the first proposition

Each of the handles will be bolted in from the inside and held with a washer



ISOMETRIC VIEW



MATERIAL DETAIL

This material was used on each of the side grids to represent all of the demolished buildings in the urban regeneration of the island

Concrete from demolished buildings is crushed through into landfill, so instead this is a sustainable alternative to other materials, as well as being more cost efficient compared to gravel

Type one Crushed concrete

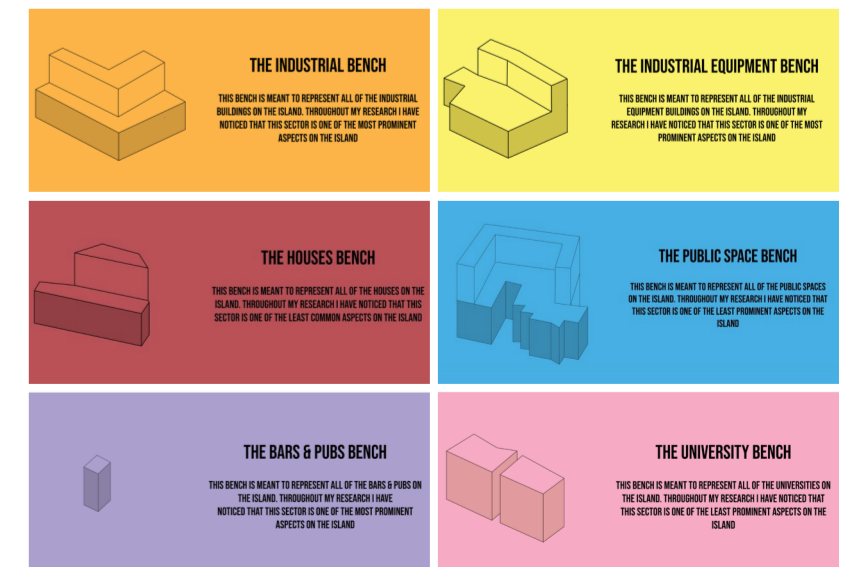


The center of the void will have an aggregate known as 6F2, which is made up of crushed concrete, bricks, and mortar. Another by product of demolition.

The reason for the variable material palette was to distinguish the intimate spaces along the sides from the collective in the center

There will also be the sound of people walking on gravel bringing them from the virtual world back to reality

6F2



FURNITURE SHEETS

THE INDUSTRIAL BENCH

THIS BENCH IS MEANT TO REPRESENT ALL OF THE INDUSTRIAL EQUIPMENT BELONGING TO THE ISLAND. THROUGHOUT MY RESEARCH I HAVE NOTICED THAT THIS SECTOR IS ONE OF THE MOST PROMINENT ASPECTS ON THE ISLAND

THE INDUSTRIAL EQUIPMENT BENCH

THIS BENCH IS MEANT TO REPRESENT ALL OF THE INDUSTRIAL EQUIPMENT BELONGING TO THE ISLAND. THROUGHOUT MY RESEARCH I HAVE NOTICED THAT THIS SECTOR IS ONE OF THE MOST PROMINENT ASPECTS ON THE ISLAND

THE HOUSES BENCH

THIS BENCH IS MEANT TO REPRESENT ALL OF THE HOUSES ON THE ISLAND. THROUGHOUT MY RESEARCH I HAVE NOTICED THAT THIS SECTOR IS ONE OF THE MOST COMMON ASPECTS ON THE ISLAND

THE PUBLIC SPACE BENCH

THIS BENCH IS MEANT TO REPRESENT ALL OF THE PUBLIC SPACES IN THE ISLAND. THROUGHOUT MY RESEARCH I HAVE NOTICED THAT THIS SECTOR IS ONE OF THE MOST PROMINENT ASPECTS ON THE ISLAND

THE BARS & PUBS BENCH

THIS BENCH IS MEANT TO REPRESENT ALL OF THE BARS & PUBS ON THE ISLAND. THROUGHOUT MY RESEARCH I HAVE NOTICED THAT THIS SECTOR IS ONE OF THE MOST PROMINENT ASPECTS ON THE ISLAND

THE UNIVERSITY BENCH

THIS BENCH IS MEANT TO REPRESENT ALL OF THE UNIVERSITIES ON THE ISLAND. THROUGHOUT MY RESEARCH I HAVE NOTICED THAT THIS SECTOR IS ONE OF THE MOST PROMINENT ASPECTS ON THE ISLAND

CALL NOT TO SCALE!

COMMUNITY AND THE VERNACULAR: THE PHYSICAL AND THE VIRTUAL

Every image illustrates how the local community will engage with the space in first person, as well as navigate through the large building. Each pavilion in the physical world will be suspended across the factory as separate entities to represent how the communities felt disregarded in the urban regeneration of the island, all exhibited through a story line in the first person in the eyes of a local. Under every pavilion is a headset that will exhibit the virtual space, as well as the interaction that was present in proposition one

In the virtual world also known as the united pavilion, will be suspended together in the east void of the artiach, celebrating the importance of collaboration, especially in design to help represent the capabilities of the community to inform and transform its topography. The virtual reality experience is not only for people who would visit the actual space, but could be shared with anyone who has a device to bridge the gap between the near and far

TIME: 1:55 PM



**PAVILLION 3/6
THE INDUSTRIAL PAVILLION**

COMMUNITY AND THE VERNACULAR IS A PROJECT ABOUT HOW TO REVITALIZE THE CONNECTION BETWEEN PEOPLE AND SPACE IN AN EFFECTIVE WAY THROUGH BOTH A PHYSICAL AND VIRTUAL WORLD. PEOPLE IN TODAY'S SOCIETY ARE CONSIDERED INERT CONSUMERS THAT ONLY USE THE SPACES THAT THEY INHABIT BUT ARE NOT ACTUALLY PART OF THE PROCESS. THROUGH MY RESEARCH I NOTICED THAT THE LOCAL COMMUNITY FELT DISREGARDED IN THE URBAN REGENERATION OF ZORATZAURRE, BUT BY ACKNOWLEDGING THEIR CAPABILITIES AS PART OF ITS VERNACULAR WILL HELP INFORM A SUSTAINABLE URBAN LANDSCAPE.

THE COMPLEX PAVILLION REPRESENTS HOW EVERYTHING IN THE VIRTUAL WORLD IS MADE UP OF MICROSCOPIC POLYGONS AND TRIANGLES, Juxtaposed BY THE SHAPE OF AN ORGANIC STRUCTURE INSPIRED BY THE ORIENTATION OF THE SUN AT DIFFERENT INTERVALS OF THE DAY. THIS REPRESENTS THE BRIDGE BETWEEN THE NATURAL (THE PHYSICAL WORLD) AND THE MANMADE (THE VIRTUAL WORLD).

THE STRUCTURE IS MADE OF LOCALLY SOURCED STEEL TO REPRESENT HOW BILBAO WAS A LARGE ECONOMIC POWER IN THE EARLY 19TH CENTURY WITH HIGH SUCCESSES OVER MINING, SHIP BUILDING, AND INDUSTRIAL SECTIONS, UNTIL THE FALL OF THE WORLD ECONOMY IN THE MID 70S LEADING TO ITS DECLINE.

EACH PAVILLION IS COLORCODED TO EXEMPLIFY A DIFFERENT PART OF THE ISLANDS TOPOGRAPHY, AND ARE SUSPENDED TO DEPICT NO DIVISIONS, WALLS, OR BOUNDARIES TO LIMIT THE COMMUNITY FROM FORMING THEIR OWN URBAN LANDSCAPE. EACH OF THE SIX PAVILLIONS ARE SUSPENDED ACROSS THE ARTIACH COOKIE FACTORY, TO EMBODY HOW THE LOCALS FELT DISREGARDED IN THE URBAN REGENERATION OF THE ISLAND.

UNDER EACH PAVILLION IS A VIRTUAL WORLD THAT AWAITS FOR YOU, THE VISITOR, TO UNFOLD

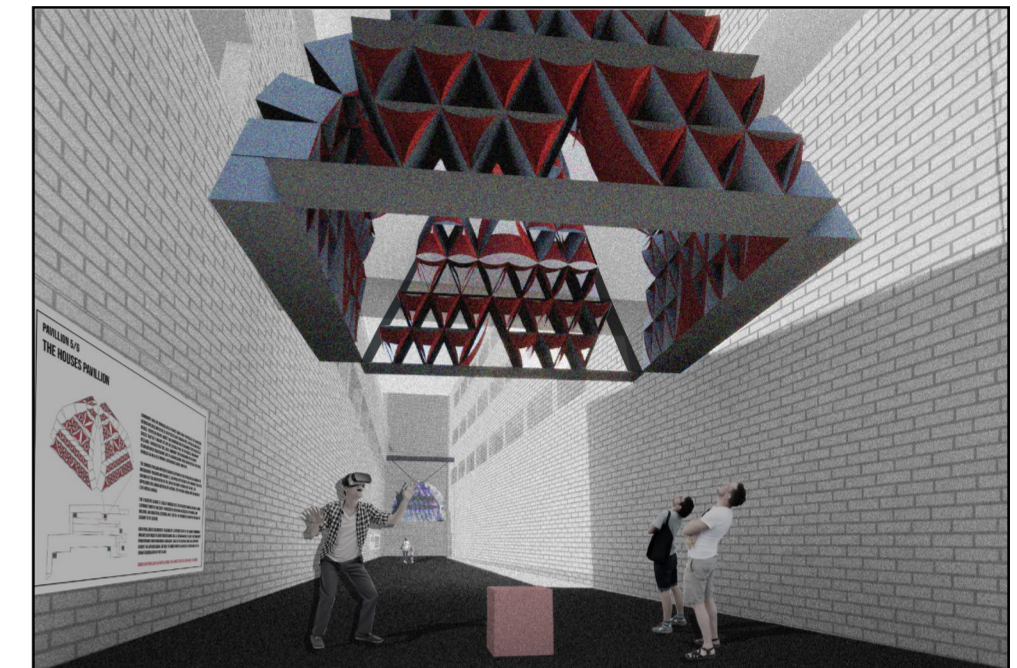
AS I WAS TAKING A STROLL AROUND ZORATZAURRE, I SPOTTED AN UNUSUAL PAVILLION IN THE ABANDONED COOKIE FACTORY SO I DECIDED TO EXPLORE.

TIME: 2:36 PM



WOW THAT WAS SO INTERESTING, I WOULD LOVE TO SEE THE REST OF THE PAVILLIONS AND HOW PEOPLE ARE REACTING TO THE EXPERIENCE.

TIME: 2:45 PM



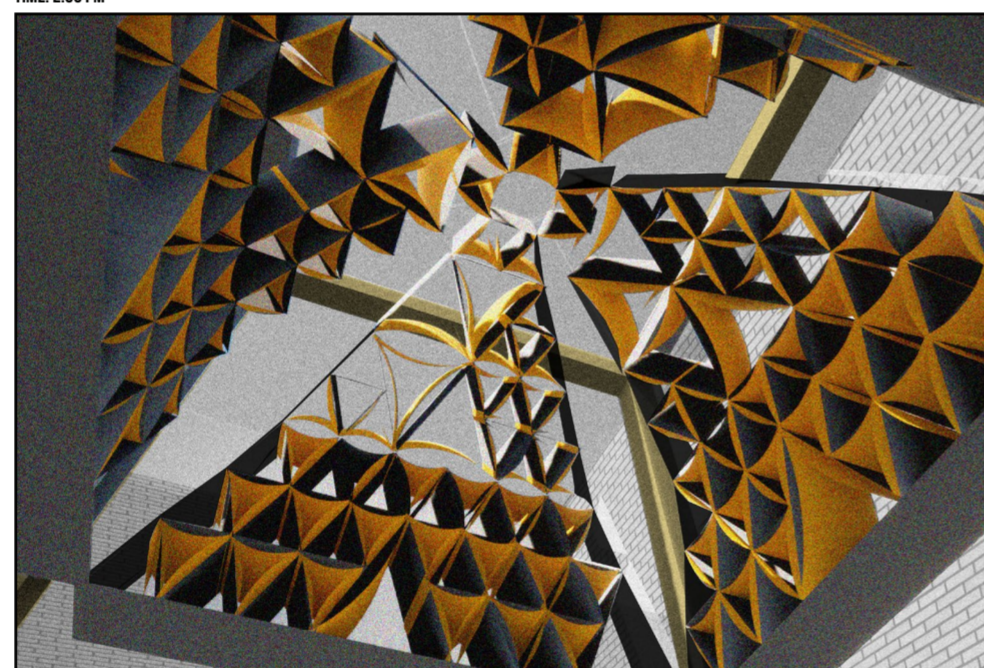
ITS INTERESTING TO SEE THE CONTRAST BETWEEN THE OLD AND THE NEW. I FEEL LIKE THE BUILDING HAS A PURPOSE AGAIN.

TIME: 2:05 PM



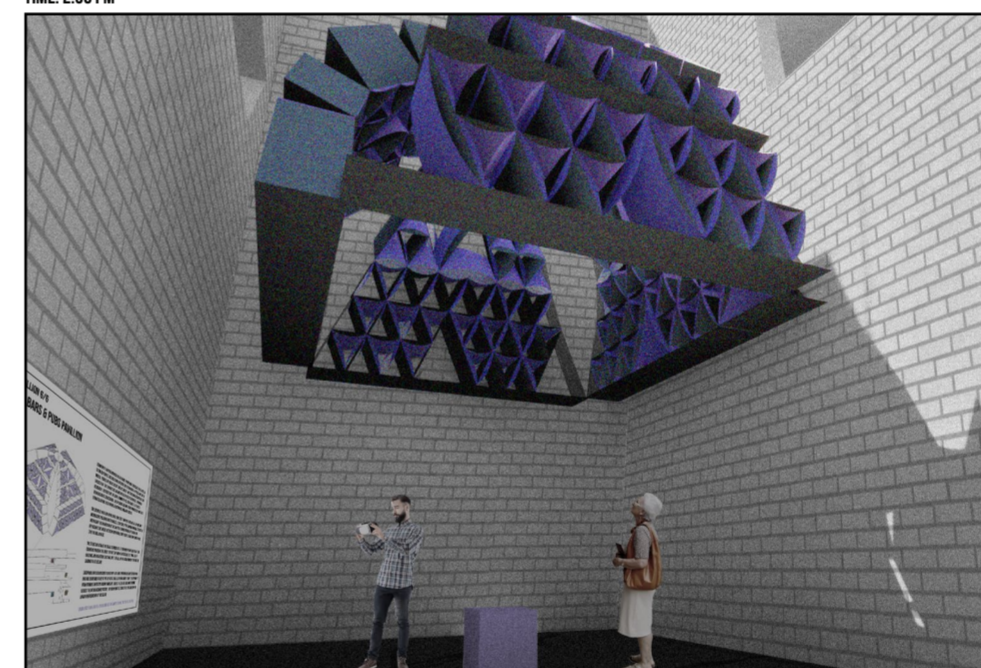
AMONG CLOSER INSPECTION I NOTICED THAT THE VR HEADSET WAS IN USE, AND STARTED TO INSPECT THE PAVILLION BEFORE MOVING ON TO THE NEXT.

TIME: 2:06 PM



OH WOW, I FEEL LIKE UP CLOSE THE STRUCTURE SEEMS LESS INTIMIDATING, MAYBE DUE TO THE COLORS AND THE INTERESTING SHAPE.

TIME: 2:50 PM



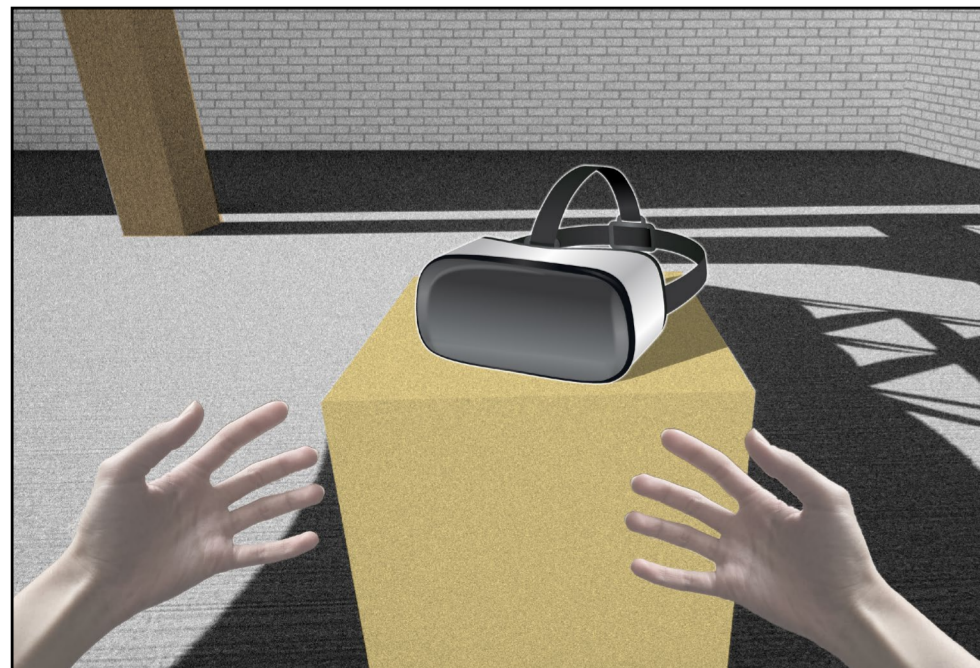
I NOTICED PEOPLE OF ALL AGES WALKING AROUND, ITS NICE TO SEE THE COMMUNITY UNITE TOGETHER HERE.

TIME: 3:15 PM



ON THE OTHER SIDE OF THE BUILDING I ENCOUNTERED THE PUBLIC SPACE PAVILLION, WHICH IS SOMETHING I BELIEVE IS LACKING ON THE ISLAND SO FAR.

TIME: 2:10 PM



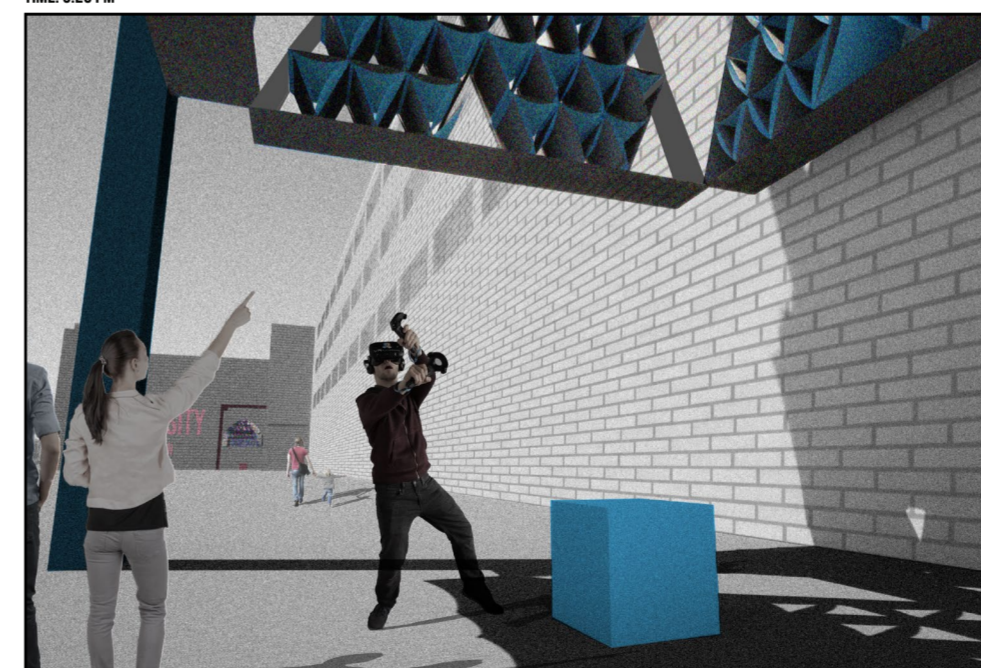
GREAT! THE HEADSET IS FREE LET ME SEE WHAT THIS VIRTUAL WORLD IS ALL ABOUT!

* THE VIRTUAL *



(SCAN QR CODES TO EXPERIENCE)

TIME: 3:20 PM



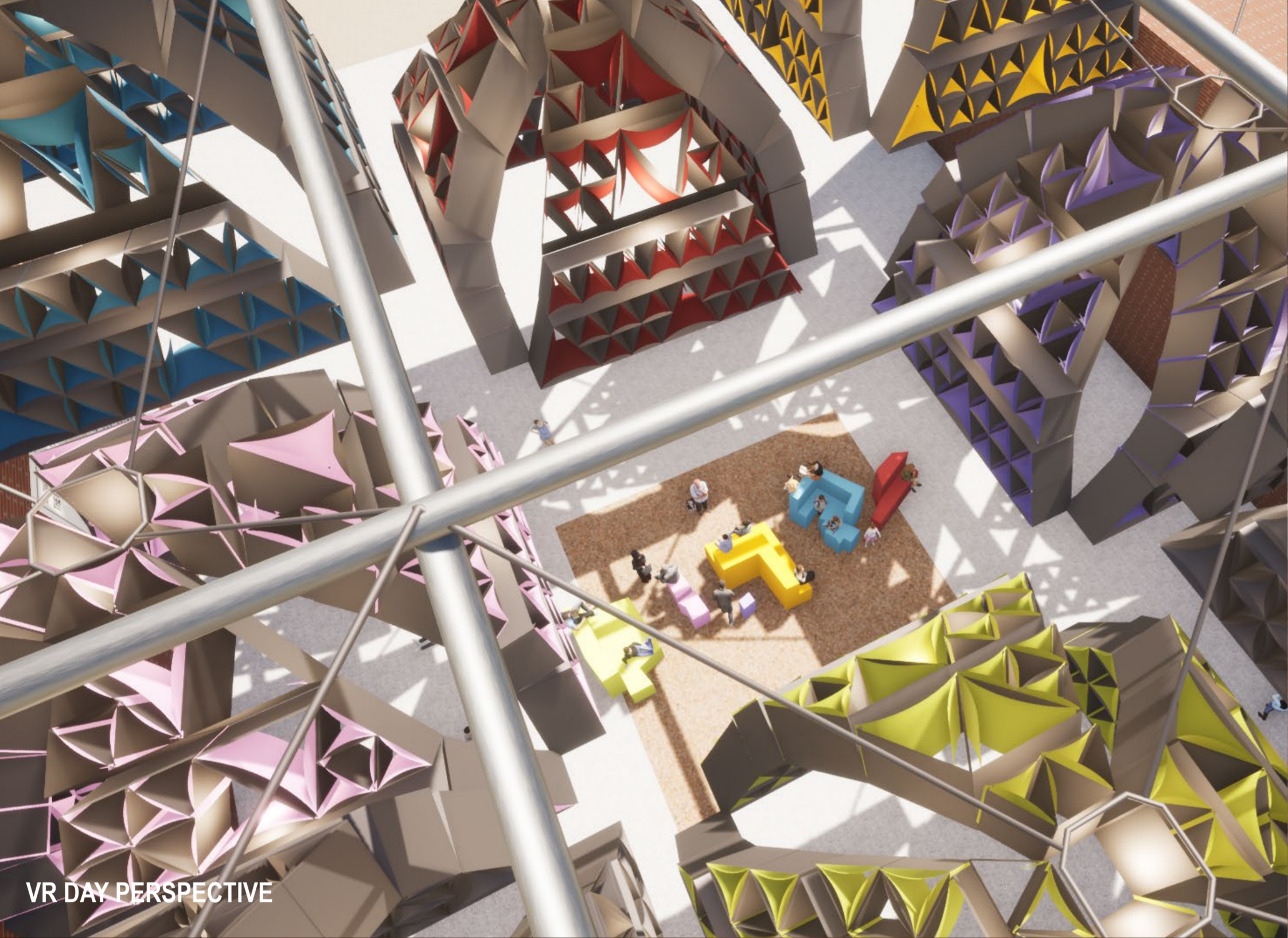
I FIND IT QUITE FASCINATING HOW THE TRIANGLES REFLECT ONTO THE GROUND, OH LOOK! THE FINAL PAVILLION IS RIGHT THERE!

TIME: 3:30 PM



BESIDES THE HUGE SIGNS, I LIKE HOW THE COLUMNS ARE ALSO COLORED. I FEEL LIKE IT ACTS LIKE A FRAME THAT PULLS ME IN, VERY THEATRICAL.

* ONE OF MULTIPLE SCENARIOS TO EXPERIENCE THE SPACE. THERE IS NO SPECIFIED ORDER *



VR DAY PERSPECTIVE



VR NIGHT PERSPECTIVE

