

Enriching the EXPERIENCE at PUBLIC SPACES through better human engagement and place attackment

Acknowledgement

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beautifully curated with greenery, pathways, benches, lightings and many more static facilities. You see some people around in groups, some out there exercising and a few returning from their jobs strolling and scrolling through their phones. After a while, there is a high chance that even you will take your phone out. These places are indeed good but lack interactivity, the feel of noticing a change in things around, the engagement with the space and emotions that it evokes during those few minutes spent there. Public spaces, in my view, have in a lot of cases been places for people to come in and utilize it for some different purpose. Which is not being opposed here since they are open to any legal use, but the concern here being that the public spaces not being designed in a way for people to use them for what they offer. And a lot of them have been offering just static spaces. Though well maintained and aesthetically pleasing to eyes, they lack the interactivity and liveliness to captivate the users.

Public spaces are places that are open to people and facilitates social action.

They can be open spaces like footpaths, parks, squares, etc. or can be closed ones. Throughout my practice as a part of the community and as a designer, I have been observing public spaces and people interacting with it. The inquiries that I have been undertaking have also been somewhere considering aspects of public spaces to place my design outcomes. The cumulation of practices across fields or themes surrounding public spaces has given me the direction to take it as the theme for this project. The difference here being that public spaces will be the nucleus of the project with the themes surrounding it.

The line of inquiry is about enriching the experience through human engagement and attachment towards open public spaces, in order to fulfill the larger personal concepts of coexistence, inclusivity, sustainability, mental wellbeing, effective use of existing material—"the Jugaad concept", and providing purpose to public spaces. The project outcomes can be seen as bringing the urban, nature and technology together in the form of activated public spaces using innovative solutions and also creating a phygital experience out of them.

Assumptions made while taking up the inquiry are more personal observations. People/users don't quite understand the value of a space or any non-living entity for that matter, spending time outdoors helps in creating a positive mood shift, static functionalities and lack of activity leads to lack of place attachment with the space. These assumptions are the gaps observed whose evidences were obtained through some literature readings.

Being in a design domain the project had to be in limits of the same thus clearly justifying the difference and possible confusions with the fields of design and public space design. Innovation through design is the key interest here which has been shown through the outcomes of the project. This shall also be the clarification needed going ahead since the theme might sound falling into categories of public space design or experience design.

In this context, I am considering public spaces to be open spaces where daily commuters pass through, eg, a footpath, squares, transport interchanges(open or closed), road side parks/walkways, etc







A basic literature reading was carried out to define the context more clearly in terms of the proof of need for the intent of the proposal.

LITERATURE READING

Learning about the existing gaps in public spaces

Factors like lack of places to sit, lack of gathering points, poor entrances and visually accessible spaces, dysfunctional features, paths that don't go where people want them to go, blank walls or dead zones around the space, etc., emerged [1].

PUBLIC SPACES ARE NOT JUST 'NICE TO HAVE' PLACES BUT A NEED FOR CITIES

The need of a public space is also critical to the wellbeing and development of poor/homeless communities. Places for social interaction and economic activities that improves the development and desirability of a community increases the productivity, attracting human capital and thus improving the quality of life. Lack of such spaces affects the pollution, economic activities, social lives and stability of the city [2].

Tactical urbanism

A concept which involves low cost, temporary changes to the spaces to enhance the space has also been looked at since it is about making the most of what is available or the Jugaad concept. Adding to this, tactical urbanism is also about user feedback to make any changes to the design and so syncs with constructive design research method which can be considered as a method to obtain the capstone outcome [4].

How public spaces can affect mental wellbeing

Literature readings show how public spaces, which through public engagement and place attachment, leads to communal use, collective ownership, and community pride which further improves people's sense of belonging in the community to finally promoting connectedness and positive mental health [3].

Personal Motivation

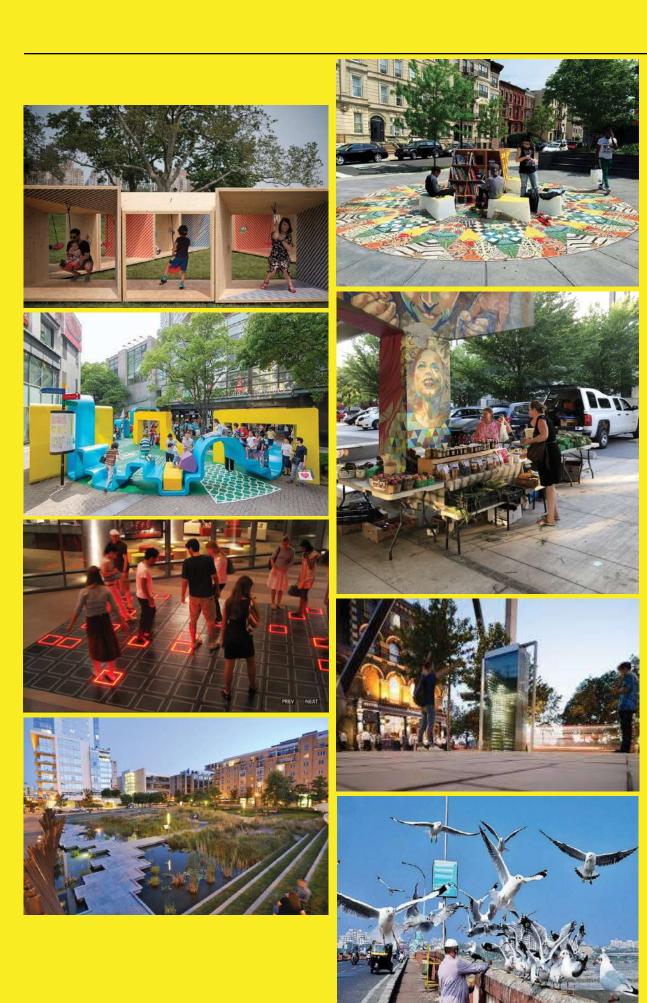
Having a practice of spending any free time outdoors has helped me not only look at public spaces as spaces that amplify the aesthetics of a city but a place I or anyone can spend quality time within, even if it goes to just sitting on a bench of a footpath. Outdoor time spent daily has been a mood booster for me and through some basic research, has been proved to be affecting mental wellbeing of people.

I see spaces, and not just public spaces but any potential, underutilized space as opportunities for creating environments for human engagement, be it personal or social. How does these spaces then become spots with emotions attached and spaces that are artefacts of minimal yet remarkable innovations. Going through some exceptional innovation stories on products, brands and spaces have been one source of motivation for choosing the capstone.

Having worked on themes of sustainability, coexistence, inclusivity, mental wellbeing, purpose to unused and public spaces in previous inquiries, the connections found have led me to work towards public spaces with bits and pieces included from each of these inquiry themes. And as mentioned, being aware of the line between a public space, experience design and that of design led innovation has to be and will be kept in mind.

The project thus has a personal motive attached to it but in a way wants to be placed in front of the larger audience to experience it and feel what I have felt and wanted to convey.

Methodology



Moodboard

Keywords

Public Spaces
Human engagement
Place attachment
Activated spaces
User centric design
Sustainability

Like any design process, this one will begin with **observing**. It is crucial to see, observe, engage and identify gaps

within public spaces and comparing them or placing them in the context of my intent to see whether or not the assumptions made are true. Given the context of physical open spaces, engaging with them as a normal user will be the key. To get more critical feedbacks, **experiences will be recorded** among various personas and across locations. The type of space and location demographics has to be categorized and carefully studied. **Secondary research** around activated spaces, existing gaps, situation in India in particular, impact of outdoor time which becomes a study more on aspects of mental wellbeing, aspects of public spaces, concept of tactical urbanism, organizations/developers that indulge in such projects, interactive technologies, etc.

Considering the user base, it becomes unreasonable to keep on following a linear design process of research - making - feedback but in fact needs constant iterations and experimentations to test what works and so a **CONSTRUCTIVE RESEARCH** method can be of help here. Adopting to concepts similar to tactical urbanism provides an environment where ideas can be tested out for feedback and necessary changes be made for further iterations.

But the **linearity** of the design process shall be visible till the first iteration (in the form of a system or experience provided) and constructive research or research through design will be seen followed ahead. Bifurcation will be around **ideations and outcome development** across various themes or fields that the capstone aims to target – urban, nature and technology, for instance, ideations on renewable energies, activated artefacts, digital technologies, creative and efficient use of unutilized spaces, etc.

RESEARCH

Types of Public spaces

Secondary Research findings

Diversity of uses:

Diversity of uses generates external activities that contribute to the safety of spaces. More people on the streets helps to inhibit crime.

Needs to be there throughout the day.

If the spaces are inviting and only busy during the day, they will still be unsafe places at night.

Social dimension and urban vitality:

Wide, accessible places encourages interaction between people and the environment.

Human scale:

People usually tend to walk faster in inactive spaces and slower in active environments.

Stimulating the local economy

Local identity:

Considering the social dynamics and cultural specificities of the area, in order to generate a strong relationship between people and place.

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Considering the social dynamics and cultural specificities of the area, in order to generate a strong relationship between people and place.

Street furniture

Complete streets:

Basic principles to be considered

while designing a public space [6]

Defined as streets designed to ensure the safe circulation of all users pedestrians, cyclists, drivers and users of public transport. Sidewalks in good condition, infrastructure for bicycles, street furniture and signage for all users are among the elements that can compose a complete street.

Factors for complete streets [7]

Active streetscape:

A space to share and interact

Pedestrian scale lighting

Green infrastructure:

Even a short walk through a green space can reduce stress levels and improve people's mental well-being.

Street furniture:

Improves experience and makes it more active.

Bicycle racks, trash bins, bollards, community kiosks, art installations and transit shelters are forms of street furniture that have additional utility.

Accessibility for all:

Designing considering people with disabilities and for all ages

In a blog by WRI India "Reconfiguring public spaces within the new normal" by Prerna Vijaykumar Mehta and Jaya Dhindaw, India public spaces are broadly classified into five classes:

Local level parks and playgrounds, community level park and open space, district level park and Sub city parks/complex/playgrounds and forest covers (MoHUA 2015) [5]

According to the source, Global studies indicate a minimum of 9 sq.m accessible, safe and functional green space per person, India's Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines recommend 10-12 sq.m open space per person.

Most Indian cities are below this norm.

There is a need to increase the green cover through creation of more public parks and green infrastructure.

Promoting Physical Activity in public spaces [8]

Why?

Refering to a paper by Małgorzata Kostrzewska on "Activating Public Space:
How to Promote Physical Activity in Urban Environment" which says,
Contemporary forms of physical activities are becoming more and more
detached from typical sport facilities.

Physical exercises improves physical and mental health. Ensuring fun and relaxation over rivalry.

Games and their social, physical, and creative character can help children learn about the community.

Economic studies show inactive residents increase the cost for cities.

Spend on physically activated public spaces and infrastructure is lower than cost of treatments due to lack of physical activities.

Desirable characteristics for a public space

- Proximity to the place of residence
- Accompanying greenery,
- Spatial connections to bicycle paths and other recreation areas,
- Multi-functionality
- Formal activity spaces should also perform a social function, serving as a meeting place for local communities and peer groups
- Privacy and intimacy while performing exercises.
- Domesticated places and a placemaking process can be observed if users are given freedom to create and add their elements in the spaces. Builds a sense of ownership among users.

- Zone of games, movement, and different activities which shape the imagination.
- Use natural materials like stones, wood, water, and plants, to teach the importance of having contact with the natural environment.
- Participation in the design to assure the users that they are a part of the community and not guests.
- Adults and senior citizens need motivation, company for joint exercises, a local leader, and organized activities.
- Social programmes and actions for activating the residents.
- Aesthetic and interesting use of colours

Public Space Principles [9]

In a handbook by The State of Victoria Department of Environment, Land, Water and Planning (2017) on Public spaces, similar insights were recorded on the principles to be considered while designing a public space.

A few important and relevant points were considered for the project.

Objective 3.1.2 To achieve attractive and vibrant public spaces

3.1.2a Include a diversity of activities in public spaces that extend the hours of use.

TIP Aim for a public space to be attractive to a diversity of users and at different times of the day. A café, play facilities or community uses can assist in activating public spaces.



3.1.2b Locate features towards the centre of the public space to draw people into and through the space.

→ TIP Features could be a large shade tree, fountain or water feature, sculpture, play or performance space. They provide a focus that invites people into the space.



3.1.2c Locate spaces for vendor stalls beside the main pedestrian through-paths.

3.3.1c Where a principal bicycle route passes through a park, provide separated pedestrian and bicycle paths.

3.3.1d Locate bicycle paths away from children's play areas.

3.3.1e Provide a pedestrian path around the park perimeter for walkers and joggers.

Objective 3.3.2 To encourage use of local parks at different times of the day by a wide range of users

3.3.2a Provide areas and facilities suitable for active pursuits.

TIP Circuit training, ball games, skate boarding or kite flying may need designated areas.

3.3.2b Provide areas and comfortable seating for quiet pursuits

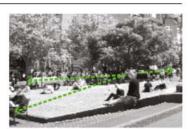
TIP Seating areas are important for encouraging people, particularly the elderly, to use and enjoy local parks and open spaces.

3.1.5b Protect public spaces from the strong winds.

→ TIP When planting windbreaks or shade trees, avoid creating concealment opportunities.

3.1.5c Locate seating to provide users with an interesting outlook and views of the space and opportunity to watch passers-b

> → TIP Increase the number of seats in areas that are popular with people. Popular areas are often those with good sightlines of the whole space and its entry points.



3.1.5d In larger public spaces, install signs with maps to show connections and destinations, location of public facilities, and estimated walking times and distances.

Objective 3.1.6 To support a strong sense of place and local character in public spaces

3.1.6 a Select planting and landscape elements that support the existing character or preferred future character of the area.

3.1.6 b Select planting and landscape elements that engage the senses.

3.1.6 c Integrate locally relevant urban art.

→ TIP Urban art that people can interact with is popular and can draw people to a space.

Human behaviour in Public spaces [10]

How people behave while interacting with public spaces was thought of an essential component to make the output user centric and so an article from UNSW University which talked about various kinds of theories about human behavior has been referenced.

Theories of stimulus load and behaviour constraint theories have had interesting directions towards thinking about the how's and the bigger Why's of the outcome/concepts.

Stimulus Load Theory:

- When faced with an excessive amount of stimuli or 'stimulus overload', people have a tendency to ignore some features and give more attention to those that are perceived as more important to the task at hand. Eg, in a crowded street, one searches for directions through shops or traffic signs while ignoring other activities around them.
- Behavioural after-effects may include errors in judgement, decreased tolerance and frustration, and ignoring others who may need assistance.
- Monotonous environments that are stimulus-deprived lead to boredom and behavioural deficiencies

Temperature of spaces:

- An unidentified study that found that pedestrians walked faster in hot or cold climates as opposed to moderate climates.
- Arousal is at its minimum when temperatures are moderate and comfortable.

Smell of spaces

The interesting point about smell is it ability to conjure nostalgic memories and reproduce past moods and events

The Behaviour Constraint Theory:

- The focus of behaviour constraint theories is on the real or perceived restrictions that are imposed on people by the environment, and the perceived degree of control that people have, or want to have, on an environment.
- When people perceive that they have lost some degree of control over their environment, their first experience is of discomfort, which is then followed by an attempt to reassert their control
- Helplessness can develop if te efforts to regain control fail. This can result in a sense of despair and feelings of alienation about the environment
- When people perceive that they have some control over their environment, it has been found that environmental problems such as littering and graffiti are reduced.

Sound of spaces:

- More errors in noisy settings.
- Changes in street and traffic signals were more frequently unnoticed in noisy environments.
- People may be less likely to help strangers in noisy environments and are more likely to try to escape by walking faster and gazing straight ahead
- In an unidentified study cited by Gifford, shoppers walked slower when slow music was played
- shoppers bought more items when the tempo of music was slower, supposedly because they did not feel rushed.

Revealing the Potential of Public Places: Adding a New Digital Layer to spaces [11]

Digital Placemaking (Noun):

"The augmentation of physical places with location-specific digital services, products or experiences to create more meaningful destinations for all."

Personal meanings and attachment public places can be created by digital adjustment of physical surroundings, digital storytelling, personal photos, and annotations, contextualizing in virtual space and relating to past experiences.

The Play the City project is using game mechanics as a model for engaging stakeholders to have fun and participate in co-creation process (Play the city 2017). The POBLEJOC installation was a site-specific public art installation, supported by digital platforms developed in Barcelona for San Marti district to create new pedestrian areas and public spaces (Active Public Space 2016). The collaborative project Big Screens between the BBC, LOCOG and UK local authorities used multimedia screens as a socialising platform (Thomson 2012). 3D digital water curtains were instated in major cities in Spain for public entertainment and community building.

Areas of possible interventions:

- Understanding urban reality.
- Creating new and preserving old identities.
- Co-creation, including public engagement and participatory activities.
- Educational activities.
- Public entertainments.

Digital interventions possible:

- Mobile applications including applications for digital place-based storytelling, geo-tagging, location specific digital annotations (Nisi et al. 2008).
- Urban art games (Lughi 2017).
- Co-creation platforms used for community engagement, participation and joint activities.
- Monitoring platforms.
- Navigation platforms.
- Platforms for access to information.
- Sharing and checking in platforms.
- Announcing & directing platforms.
- Urban media art including digital site-specific art installations.
- Multimedia experiences with participatory functions. Interactive screens for community engagement, interactive arts and play.
- Animated architecture, combining landmarks and digital platforms.
- NFC (Near-field communication) and QR (Quick Response) touchpoints (Connecthings 2017).

• Showcase of results

direct data-feedback

Dr. Jo Morrison in their piece about guide to digital placemaking talks about the importance of digital technology. The article quotes, "For those working in urban development, regeneration, heritage and local government, these new digital-first cultural norms and rapidly advancing technological possibilities offer important, unprecedented opportunities to enhance how communities experience the spaces around them. These leads to social cohesion, economic prosperity, cultural richness, environmental sustainability, public health and wellbeing, economic sustainability and the green agenda."

Attention is the currency of digital placemaking. Through the creative use of digital technology people's attention can be focussed at the particular place they are at. This way, digital placemaking can transform the quality of time spent there.

A few alternate terms for digital placemaking are: 'bits and atoms' - where digital bits and material atoms are the construction materials of our spaces - and 'digital layers,' where the four concentric layers of the Earth are joined by a digital fifth. [12]



technology. Visitors look through the seaside-style binoculars to see future architecture plans pro location - or bring the past into view by seeing how the area used to look in decades past. The augmented reality binoculars were created by Zubr for 'Ideascape'. Image by Paul Blakemore.



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Examples of digital placemaking

Digital layers possible to create the outcome

Urban objectives required	Design tasks	Digital layers	Provision of experiences,	Organize events and	• Collaborative practices	Improvement personal security	Organise events	• Events
		facilitating	entertainment and spontaneous activities including:	entertainments	• Events		• Engage people	Site-specific media
Improvement to individual and collective empowerment	Joint decision-making and co creation	Digital tools supporting co-creation practices	• Day and night entertainment		• Smart& Interactive furniture		Give community powers Manage boundaries	experiences Navigation
Improvement to communications and collaborative practices	Joint decision-making and co creation:	Dialogue incl. social networks, forum & social media	Provision for sport activitiesEntertainment for children		Access to information Site-specific stories		Improve site management	• User generated sense of place
	Understanding urban reality & generation of ideas	• Engagement with locations			• Navigation			• Collaborative and inclusive practices
	• Refinement of ideas • Creation	Sharing knowledge			• Modelling & prototyping			Community management
	Delivery Monitoring	Data collection Community mapping			Site-specific media experiences Social Inclusion &	Design improvements to: • Shading, greenery & water features	Physical solutions Create additional routs and destinations	Smart & Interactive furniture Pop up installations
		Making sense of data visualization & discussion	Increasing flexibility in use	Organize day & night events all	Accessibility • Events	Roads and paths	Introduce and manage new experiences with new	Physical and virtual events
	Personalising places(e.g. annotating places)Storing information		year round and entertainments accessible for all users	Site-specific media experiences Navigation	Attractiveness Private & public spaces Accommodate all users' needs	boundaries • Mobilise community	Navigation Personalising places by user generated content	
		Joint decision-making Modelling concepts			• Collaborative and inclusive practices	in particular children & disabled people		• Site-specific media experiences
		and virtual prototyping • Play a game and plan for your community			Accessibility			Collaborative practices and inclusive practices

The reinvention of urban spaces with digital technologies [13]

Consumer facing features

- Digital maps helps in exploration of indoor spaces.
- Provides with a dynamic view of what's happening and what's on offer around them.
- Digital screens can be placed in key locations to present relevant live information controlled and updated by building and district owners/operators.
- Interaction with these screens can be made available via either direct input (touch) or mobile handoff (QR code or streaming app)

Operator facing features

- Real-time awareness of physical spaces also provides an opportunity for enhanced incident response.
- Allows for maintenance, security and health services personnel

To make the the experience of outdoor time more valuable, it had to be a bit informal and fun. Play is a direction that was seen as a possible area on the basis of personal experiences till age and following secondary findings.

Typology for Playable Digital Interventions [14]

Promoting play in public spaces encourages people to go on a spontaneous way of discovering new things in daily life relying on awareness, taking one's time, reflecting, experimenting, exploring, etc.

Engaging in play builds human connections and develop social capital.

Play has the ability to create a 'magic circle' that creates a spatial and psychological separation between the player and the non-player as well as from ordinary life

Play type	Design	Approach to implementation
Acting contrary to social convention	Attractive colours	Busy location
Adaptation of a well-known game type	Bicycle infrastructure	Guerilla installation
Auditory stimulation	Biomimicry	Infill in underused space
Chance	Imageability	Opportunity to people watch
Cognitive games	Multigenerational appeal	Route choice or environmental mastery
Competition	Pedestrian lighting	Sense of belonging and community connection
Cooperation	Scientific design	Temporary, pop-up or seasonal
Creative play	Unique paths	Uses existing infrastructure
Opportunity to escape	Use of common, everyday materials or objects	Use of social media or pop culture
Opportunity to increase social contact	Use of props to alter movement	
Risk	Vibration	
See cause-and-effect	Water	
See or move beyond boundaries	Written instructions	
Separate from everyday experience		
Simulation		
Test of physical skills		

Play types and approach to implementation

TAG	TYPE		
Interaction type	Immersive digital experience		
Interaction type	Augmented reality interaction		
	Fixed pre-set devices		
Digital equipment type	Mobile devices		
The second secon	Fixed pre-set devices		
	LED		
	Motion Sense technology		
	Projection mapping		
	Interactive 4D Vision		
Technology applications	Hologram		
	AR		
	VR		
	Different sensors		
	Audio		
	Vision		
Interactive percention	Auditory sense		
Interactive perception	Tactile sensation		
	Sense of speed		
	Digital dynamic coverage of physical static space		
Interactive way	Interact with the app on the smart-phone or digital equipment		

Examples of existing playable digital interventions

CASES OF PLAYABLE DIGITAL INTERVENTIONS	YEAR	LOCATION	TYPE
EmPath Splash & Ripple	2016	Bristol, United Kingdom	Audio Augmented Reality
Pokemon Go Nintendo	2016	Global multi- regional distribution	Augmented Reality with mobile device
Super Mario Bros Nintendo	2017	New York, USA	Augmented Reality with mobile device
Ibutterfly Dentsu Inc.	2011	Tokyo, Japan	Augmented Reality with mobile device
Orienteering Apps Wonderland Inc.	2015	Hangzhou, China	Location Based Service
Bloom open space Brian Eno	2018	Amsterdam, Netherlands	Immersive indoor environment, interactive mobile Installation
Blobulous Eindhoven University of Technology	2013	Netherlands	Interactive embedded Installation
Yang Sheng	2013	China	Interactive visual projections
Replication	2012	China	Interactive visual projections
Strijp-T-ogether VanBerlo Agency	2013	Netherlands	Augmented Reality with mobile device
Leave your mark Markies LLC	2013	Netherlands	Interactive visual projections
Moon rising from the sea	2015	Taicang, China.	Visual projection on urban facade
Father.10 Proxy42 Inc	2017	San Francisco	Augmented Reality with mobile device

Primary Research

OBSERVE

This phase has been the foundation stone of the project since the line of inquiry has been derived from all the conscious and unconscious observations made of the surroundings throughout my practice in the field. Here, this phase involves self observing spaces around, documenting gaps and insights on form, feature and functions of various open public spaces.

Location of the study has been the city of **Surat, Gujarat**.



Tactical urbanism - Colorfully painted pillars





Public transport and cycle rentals available nearby

- Easily located entrance through main roads
- Can prove to be risky during rush hours

Location: Underbridge space near Parle point

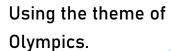


Street furniture - Lights, benches, dustbins, places for social gatherings, events











- Peaceful, less crowded and secluded space
- Immediately beside the road can be noisy, and lack of fresh air





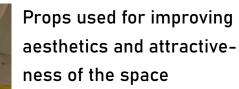


Intervention points for stories about the histo-

ry and monuments of

the city









Location: Anuvrat Dwar, VIP road and across all Vesu main roads



Tactical urbanism - people par-ticipated in painting the space on topic of awareness regarding drugs - participatory design



Painted under spaces and pillars of flyovers

Location: Causeway



Usually crowded bridge sidewalks in morning empty during afternoons



One can find seagulls in the morning hours and people feeding them, having a walk so close to a water body

Location: Dumas road



Idol made of waste plastic bottles: Installations used for awareness



Locally



inspired boat shaped benches

Children play zone



Good amount of lighting. Same as



surroundings



Spots for social gathering, host-ing events, local commerce etc.

Location: Airport road

Cycle lanes marked using traffic cones and paint







Increases engagement of people with the space

PG CAPSTONE PROJECT 2021 - EXEGESIS 10

Street furniture - Shades
 Props for improving aesthetics and attractiveness

of the space

Location: Canal road walkway



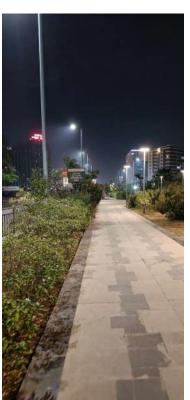
Improving aesthetics and attractiveness of the space through architecture.



Evenly distributed green boundaries on both sides to separate the walkway from the main road

Separate section

for senior citizens



Wide and properly main-

Separate section for people to play sport



Street furniture - Signages, local language, in clearly visible spots



Children play area

Dark spots in the

space usually are

passed on quickly

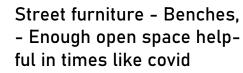
empty or are



ful in times like covid



Enough open space for social gathering, interaction, events etc.





Location: JD Park, Adajan



Senior citizens occupying elevated boundaries of the walkway rather than going inside the parks to rest



Social gathering: People conducting karaoke sessions in huts



office room



Children play area







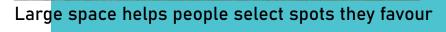
aesthetics and the space



Differences in using white and yellow/warm lights



Shades - Also improving



Engage

Design probe: Priority ranking

To engage with the users/stakeholders, a design probe was used to get insights about what do they prefer as a top priority at any public space.

Some aspects like green cover, lighting, basic street furniture, etc were not included in the study since they are obvious options users might end up chosing.

Rolling out google forms to run the probe.

Reference images used to depict various functions and features of a public space

Diversity of use

















Group activities





ractive artefacts

miro

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Local art

Google form

Instructions provided

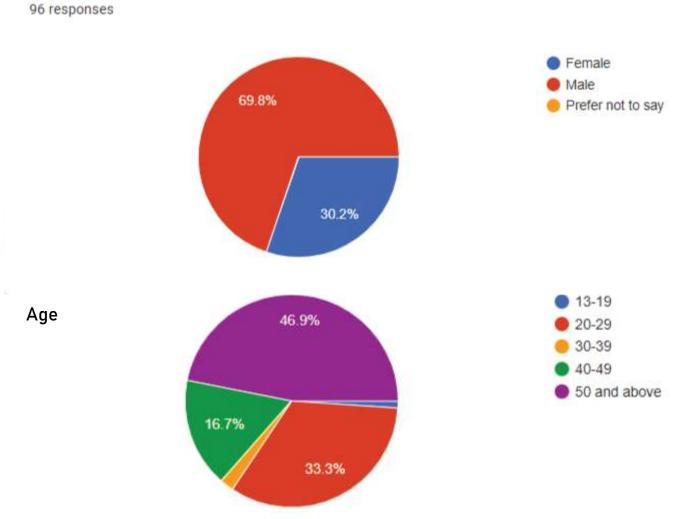
A few pictures will be shown below based in and around PUBLIC SPACES (can be anything from streets, open spaces, local parks etc. around you). You have to prioritize top 5 pictures that YOU WISH TO HAVE and LOOK FOR at any public space. Make sure you prioritize them on the scale of 1-5, with 1 being the highest priority and 5 being the lowest.

--Please see you only choose top 5 priorities out of all the options and leave the rest unanswered--

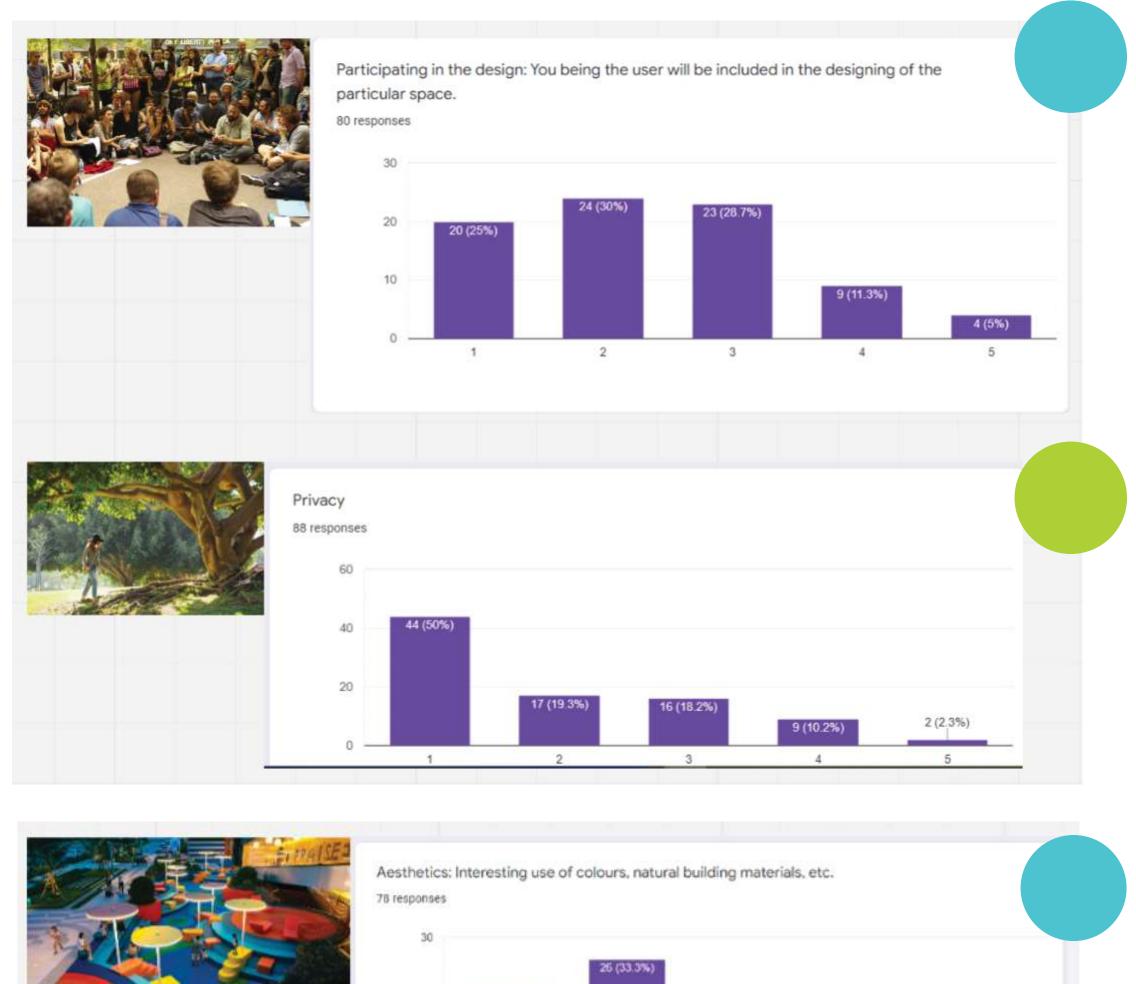
(This activity avoids some of the obvious features like lighting, greenery and basic street furniture as they are already considered)

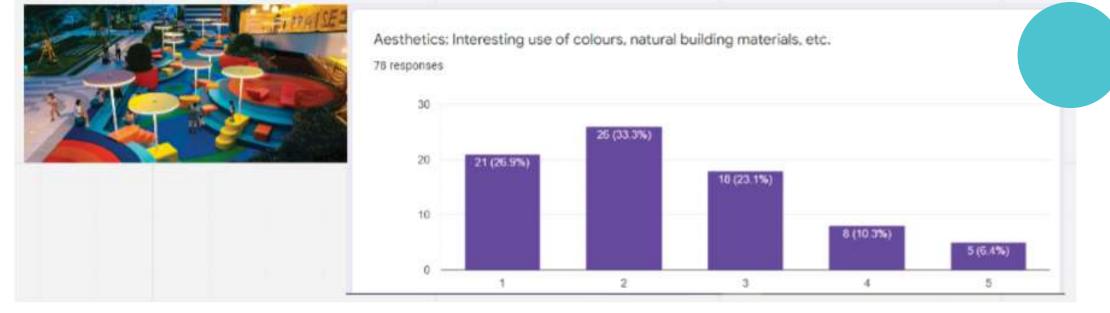
Demographics



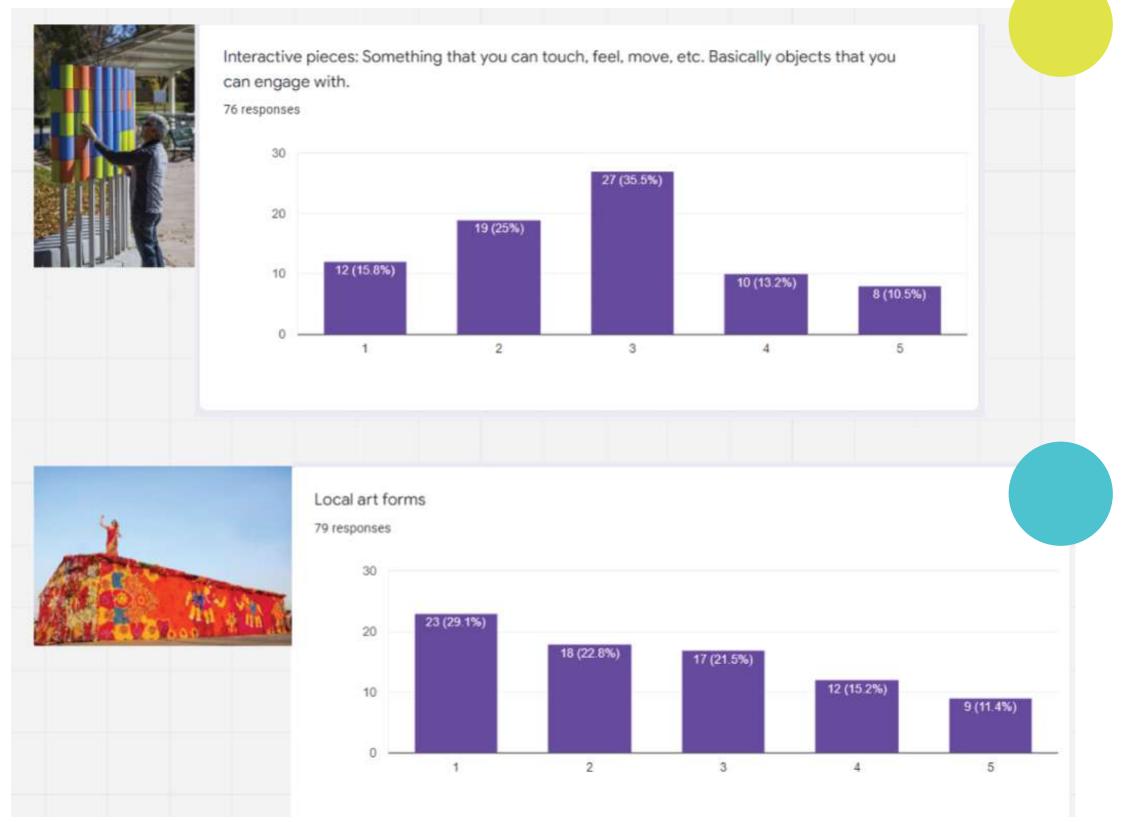


Responses

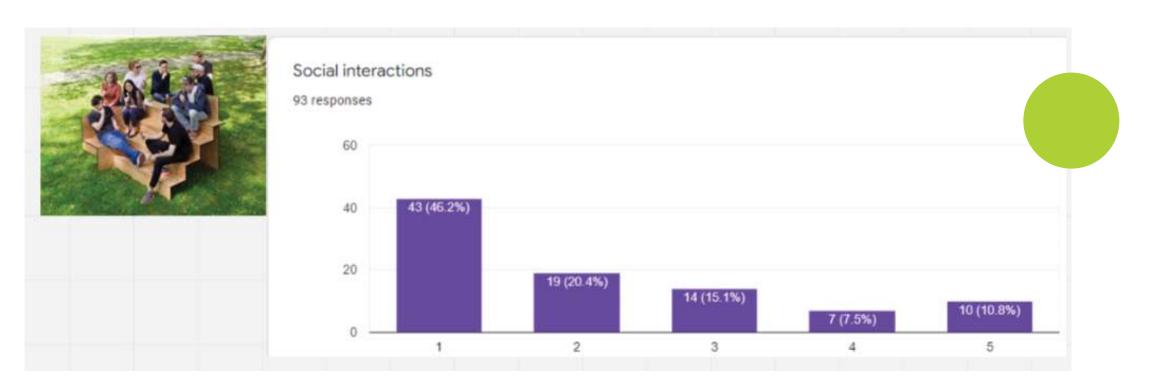












Inferences

- Participating in design has an above average priority.
- Local markets have decent priority. One needs to also consider location before providing them.
- Social interactions is also a top priority for people.
- Aesthetics is important but not maybe the topmost priority. Assuming that it is something which one experiences unconsciously.
- Interactive pieces received less priority as compared to other features, assuming due to lack of them in existing places.
- Play or activity zones are an important and required feature across age groups.
- Distributed priority for local art forms suggesting that it may not be something users consider the most important feature.
- Group activities falls under top 3 priorities as seen from the data.

Design probe: Photo Journaling

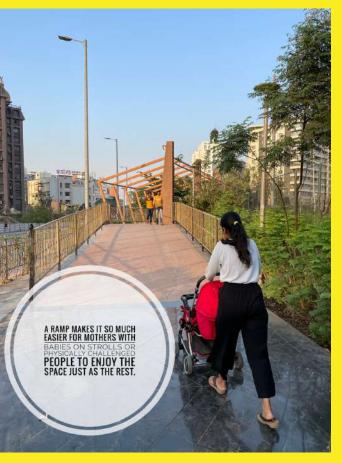
To engage with the users/stakeholders, a design probe was used to get insights about how do they see and experience places.

Users were asked to come and visit the place, for example a walkway, a park, temple, etc, and document spots and features they like and dislike or evoked a positive or negative emotion at the place.

They were asked to mention why the spot or feature was good or bad according to them.

Observations made while performing the probe was that normal users do not look into the detail of any public space much unless asked for. Also, they cannot critically review the space since they haven't faced any issues. This also signifies a lack of interaction and attachment to a public space.

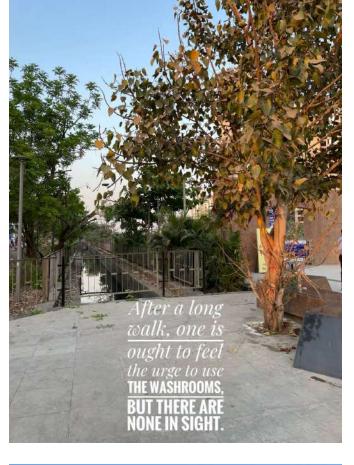




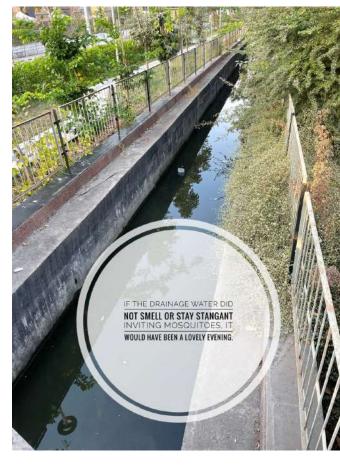
















User demographics: Shrinidhi Palamwar, age group: 20-29, a nearby resident

Location: Lake View Garden

Good features/emotions evoked





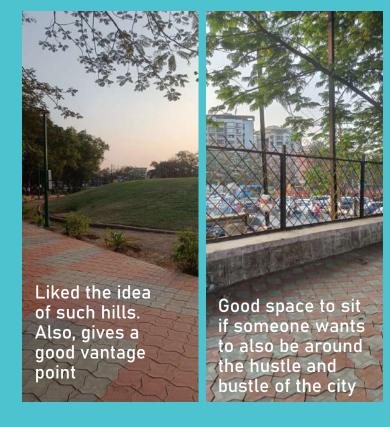




Isolated space for groups to sit and interact

Liked the presence of a natural habitat in the middle of the city









Nearby food stalls and toilets will be a good option after a visit to a park

Features not liked/found less useful



Found such green installations on ground less useful. Rather short trees can be good to provide shade



A shade/cover would have been better on such installations/architecture. The installation is also rusty with a children's park adjacent. Can be risky.



The private spaces can be dark spots at night since there's only one lamp



Food zone took away the space to play field sports which was a regular thing during childhood days. Didn't like to see this.

User demographics:
Shrinidhi Palamwar, age group:
20-29, a nearby resident
Location: Vesu SMC Garden

Separate small sized swings and slides for toddlers available which was an interesting consideration



Selection of plants/green cover was better than other parks. Gave more privacy and silence even in the middle of the city.





Liked the use of solar panels

Activity area for senior citizens/adults was near the main entrance which will be easy for them to access



Use of plastic containers for making bird houses



Drinking water facility right beside the children play area can help reduce the distance kids might have to go for water



Secluded space for gatherings, events, interactions, etc is something I would prefer.

Features not liked/found less useful



Lack of maintenance of a water body can lead to mosquitoes and insects at the space.



Notice boards were good but use of english along with local language could have been better. User demographics: Sneha lyer, age group: 20-29, a nearby resident Location: Vesu SMC garden



Catering to all age
groups. Swings and
slides for both toddlers
and younger kids. Such
a blessing for parents.

Good features/emotions evoked



A secluded place within the garden gives an opportunity to have a picnic while enjoying the scenery. It can be a great place to shield yourself from the rain too.



Drinking water while you exercise, walk around or play on the garden is a beautiful initiative.



Pleasant to the way not with the mosquitoes it might invite.

User demographics:
Chandan Nayak, age group: 20-29,
a nearby resident
Location: Aagam Arcade Shopping complex

Good features/emotions evoked



Having a public shopping complex that is visited by hundreds of people on a daily basis, that has a variety of business running can be prone to any accident. Having a fire safety equipment is a must.



Plethora of eateries. Best way to end your shopping spree with some delicious food.



Escalators. When elevators are full and you don't want to climb those stairs, this is just so helpful. Helps people who feel claustrophobic in confined spaces too(the elevators).



A trash can and a hand washing station. Sanitation and health-check.

NARROWING DOWN

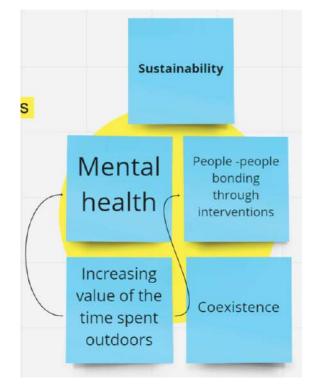
With available material from secondary and primary research the project base was firm regarding the possibilities and directions that the output could shape up to become. Having intervention areas of sustainability, mental wellbeing, diversity of use, local inspirations, use of local materials, interactive installations, digital placemaking, etc, the next step was to narrow down them into top 2-3 priorities that would be the final outcome.

How does all these possibilities shape up or what would be the theme around which the outcome will be developed had to be decided as well.

Thus, the main interventions were prioritized and selected for ideation while the other themes becoming the checkboxes to be referred for the design outcomes.

Increasing the value of outdoor time spent through people-people interaction, in a way targetting the mental wellbeing and thus sustainability emerged as the overall outcomes.

Overall themes



Factors like diversity of use, use of existing/ natural resources and local inspirations are the checkboxes which the design outcomes will be referred and judged on.



Being a public space domain, the location of the place holds the key in making the outcome since different locations will hold their own sets of availability and limitations. The research study so fas had been done for one location, that is Surat, but the intent was to not limit it to one particular location. Hence, through valuable feedbacks the methodology followed was to create a design whose structure or skeleton remains the same while the mass or muscle can change according to location specific features and inspirations to make it more diverse.



Results from the priority ranking probe conducted gave some top priorities, some secondary features and can be features. Again here, the must have features will be main concepts used while the can be features will be an integral part of these concepts.

Feature categories



Intergenerational interaction was a possibility that was discussed in the feedback and so a short study on the same was carried out.

Supporting Intergenerational Interaction: Affordance of Urban Public Space [15]

In Urban Design: The Urban Experience, Jon Lang (1994) employed the same five basic human needs or affordances to define the ability of the urban environment to support human use and interaction.

The paper discusses safety and belonging conditional affordances, as the two affordances which were fundamental environmental needs required of an urban public open space for intergenerational social exchange to take place, because people need to feel safe as well as connected before selecting a space in which to interact.

"The greater the capacity for an environment to generate a feeling of belonging, the greater the capacity for that environment to become a place of importance and thus a place to be visited and enjoyed."

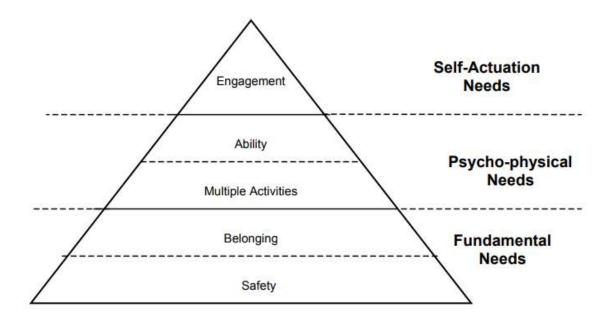


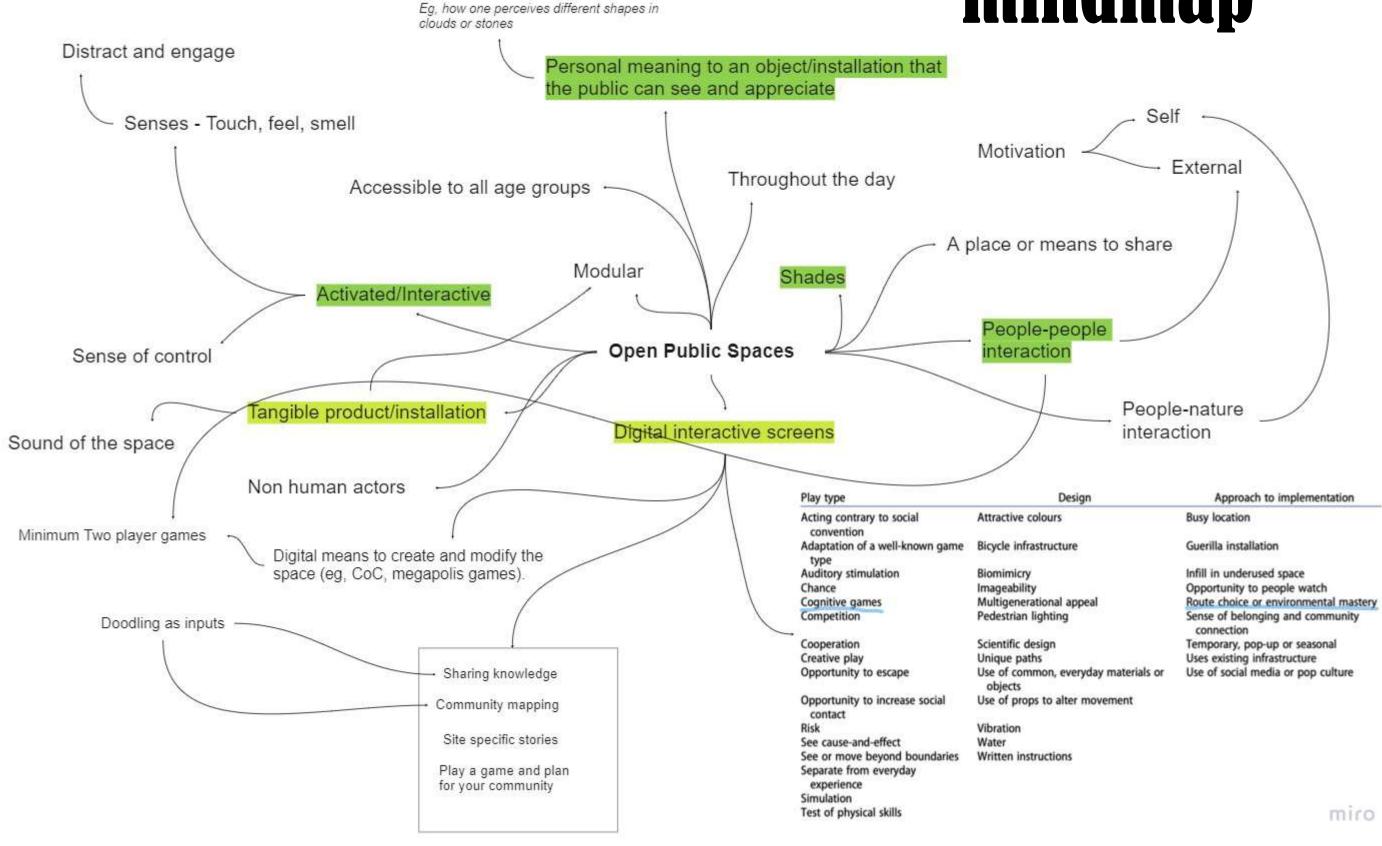
Figure 2.5.3. Hierarchy of Five Conditional Affordance Needs for Intergenerational Social Exchange between Youth and Older Adults

An ideation/concept mindmap was made showing all the possible direction of interventions. Out of these, some top concepts were chosen which are:

- Interactive/Activated installations
- A personal meaning to an object/installation that is visible to the public and can be understood and apreciated.
- Shade at the space
- People-people interaction.

These top concepts or interventions will be presented by using tangible/physical installations and digital interactive screens.

Ideation mindmap



CONCEPTS

Role Playing Probe

In order to make the design user centric, their needs and expectations out of a public space had to be obtained. Direct ways of questionnaires and forms was seen as an option but may lack honest responses and thought in it.

The idea to also include the users in the making was kept in forefront here. For this, a roleplaying probe was made to make the users think of what values they might bring in to a public domain in any form, which would also give ideas to be taken forward while ideating.

Probe

I always knew you as an amazing soul, growing through your practice as a human and the values you bring in. You are a superhero/superheroine whose identity was not yet known to people of your city (you can imagine Spiderman if you want).

However, the time has come. Your identity has been revealed and people of your city know you now and have become your fans. They have decided to reward you with an artefact which will be placed in the public domain as a souvenir.

Think of HOW will you creatively demonstrate or visualize the values you bring in to the lives of people around you or in your own life through this artefact? It can be in any form, an image reference from the internet, an object around you, a doodle, text, or anything that you can relate to, you are free to choose. Please do mention the form you will like to represent this.

Here's an example of how I would have done it.

- I like observing things and people around and so have used a magnifying glass. I find it interesting to look at normal things more deeply and attach meaning to it. So, in my case a big magnifying glass can be placed in the public domain as a souvenir

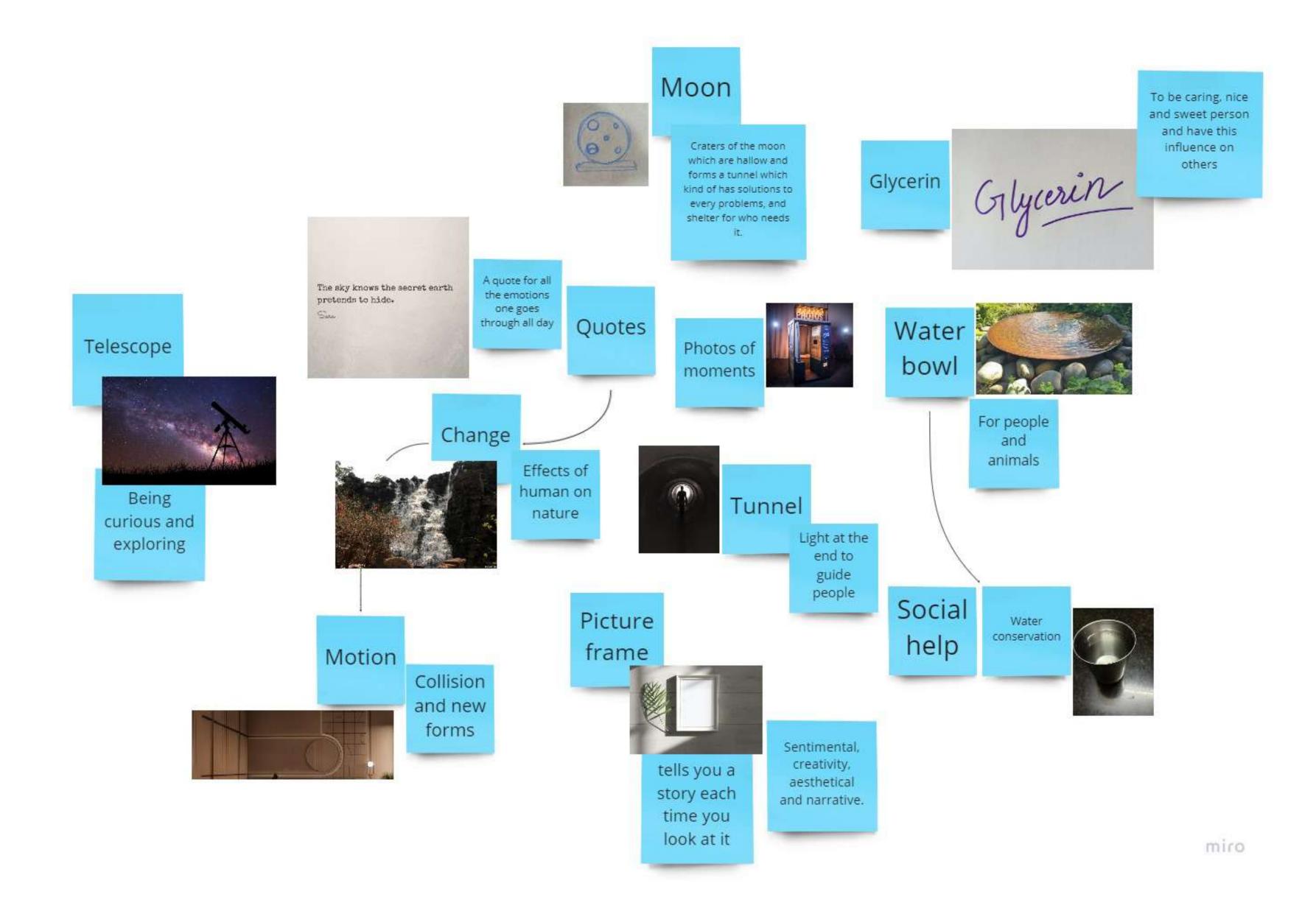


Responses

The probe received 16 responses with some respondants getting the idea of what was being asked while some got a different meaning out of it.

The main highlight of the responses was that how they relate to elements of nature in someway. And this overall idea along with individual ideas was found as something to be considered while designing the output.

Here are some the responses and what each of them meant and depicted for the respondants-



IDEATION

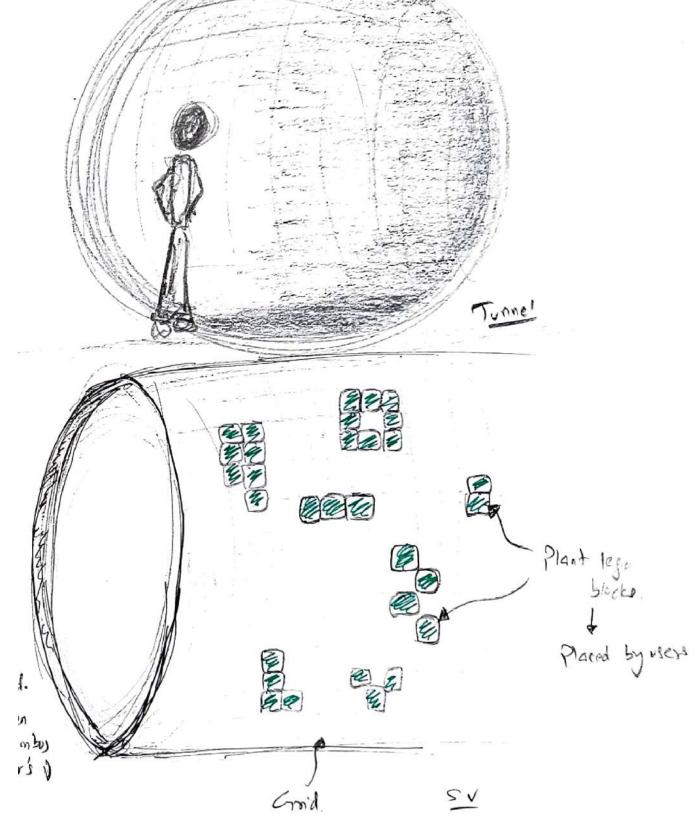
Ideating on the selected parameters was done separately so as to give more flexibility of thought. Ideating on them collectively could lead to restricted creative inputs.

Factors of possible, feasible and affordable were also kept aside while ideating.

The individual concepts that target different intervention themes will be put together so as to satisfy the need of diverse use of a public space.

The Tunnel

- All the concepts discussed will be placed at one location.
- A grid tunnel covered by plantations that can be placed at the location.
- Each of the concept ideas will share a section of the tunnel making it a long space for visitors to engage and interact within.



Moodboard



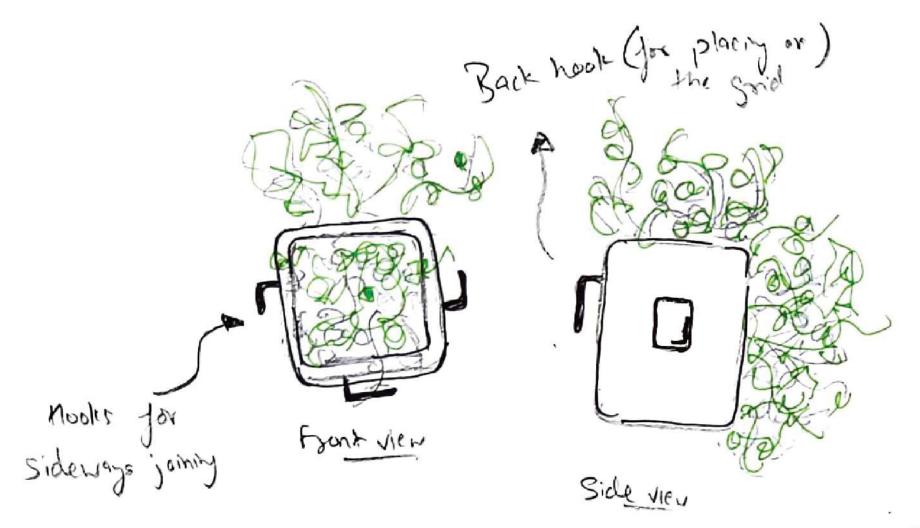


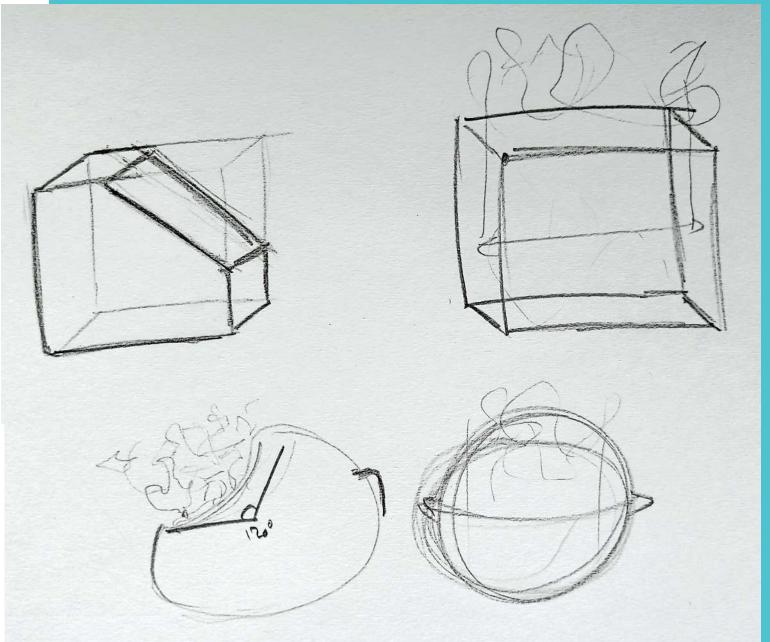


PG CAPSTONE PROJECT 2021 - EXEGES<mark>IS</mark>

PLANT BLOCKS

- Small spherical plant blocks that can be moved and placed on the grid wall using clips or hooks on them.
- Can/Will be used to create a layout on the grid wall.
- Hooks are magnetic and will be locked initially to prevent cases of stealing.



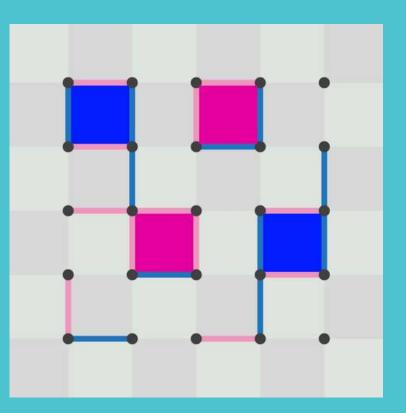


Initial concepts included cube shaped plant blocks. To get a more natural and organic feel, sphere was chosen as the shape.

A cut of 120 deg will provide space to fit in the plants.

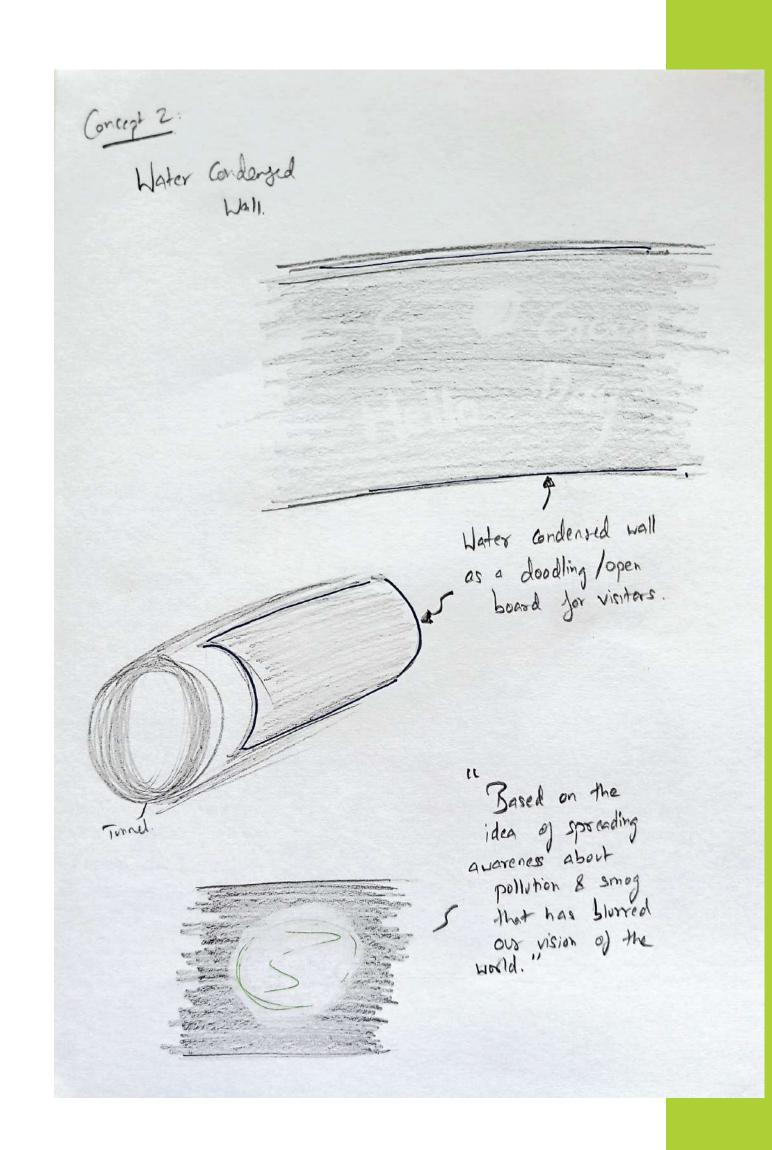






FOGGY SCREENS

- A foggy screen that can be used as a doodling or an open surface for people to share, draw etc.
- The concept here targets awareness towards environmental pollution; the foggy wall depicting the effects of pollution on the environment and how through our acts, we can reduce them so as to see a clear surrounding.



Moodboard

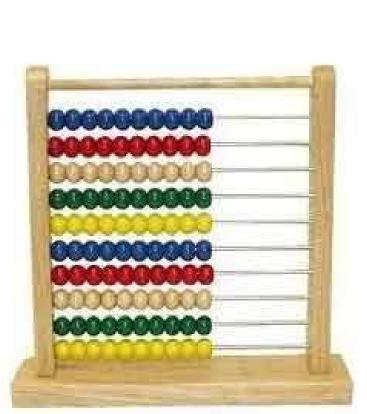




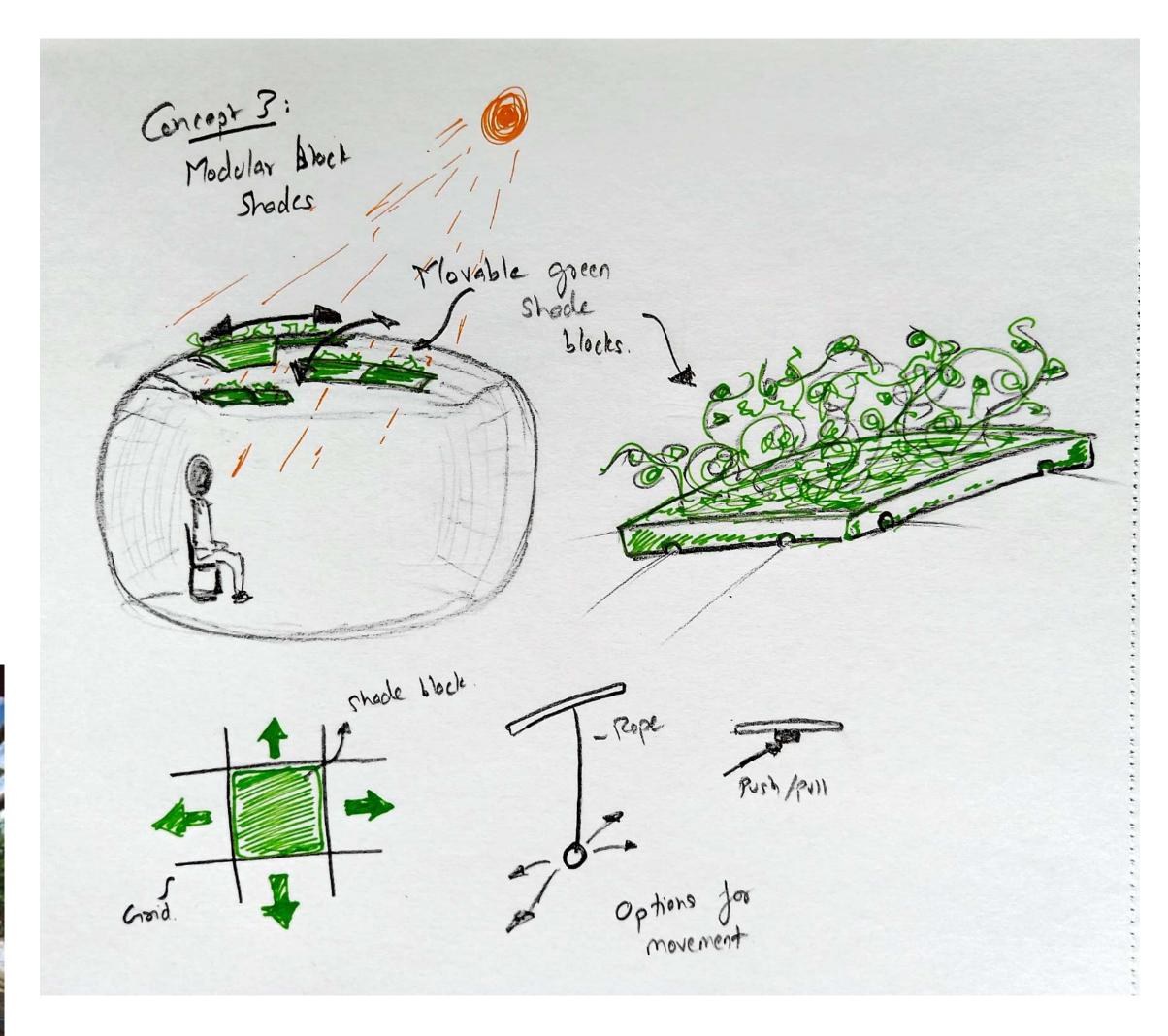
- The condensed surface will be formed using water vapour from the water present inside the screen (between the walls) by using the heat of the day.
- The outer surface of the screen exposed to the open will have a highly conductive material coating Copper or aluminum.

MOVABLE SHADES

- Shades was one of the common features users talked about having at the public spaces. Being a basic feature it needed to be made more interactive so as to engage the users.
- Movable shades are above the head shade blocks that can be moved or slid across the top rails to create a customized shaded space beneath.
- The functionality of the shades would be an important factor which will depend on the height of the tunnel.
- The top side of the shades can be covered with plantations to make it more of a natural shade and will also be aesthetically pleasing.



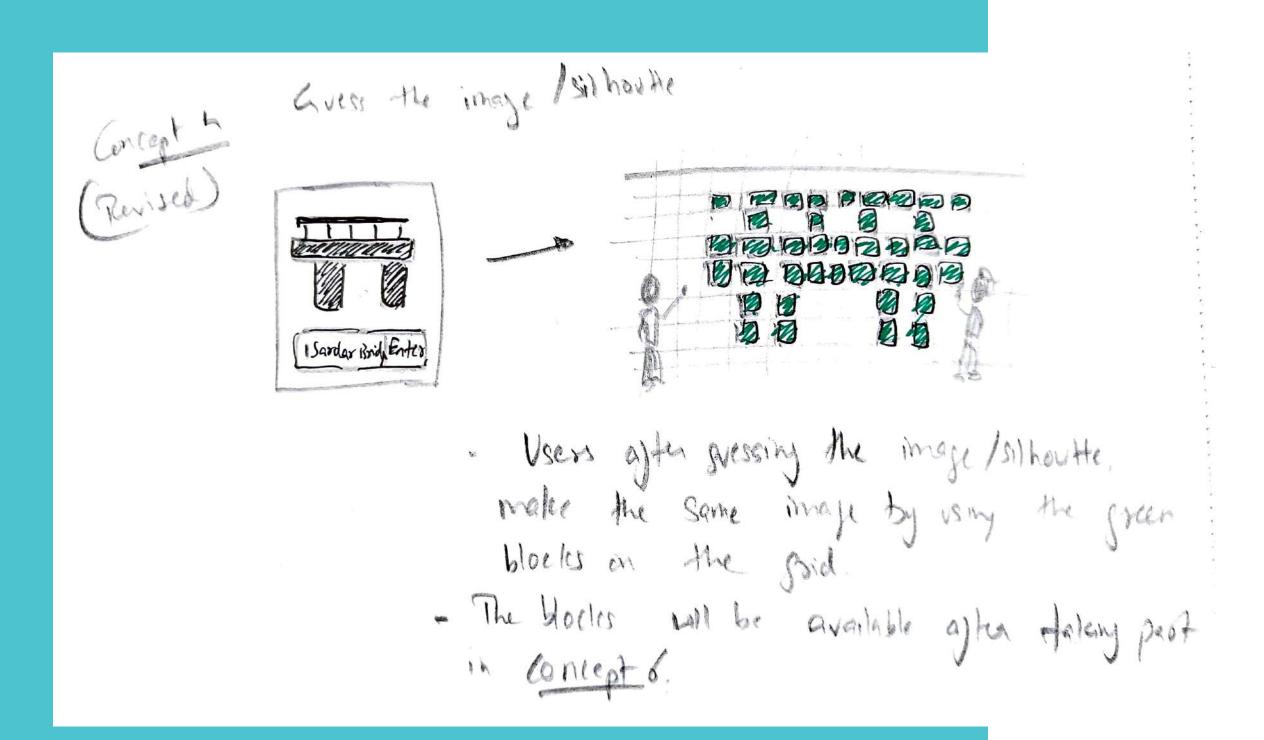




Moodboard

Guess the Place

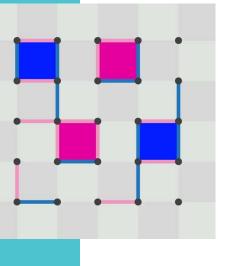
- A phygital experience which asks the users to guess certain locations of the city/town/locality displayed as silhouttes on digital screens present at the location.
- The same identity has to be then replicated on the vertical grid using the plant blocks unlocked by playing the "Know your step" game (will be discussed forward).
- This will thus target a people-place first and a people-people interaction later while making the grid. Users will form the layout on the grid and will thus be engaged into the space while interacting with other visitors/participants.
- The location shall change every few hours which can be decided based on the traffic at the place.
- Such activities targets enhancing cognitive functions of attention.



Moodboard

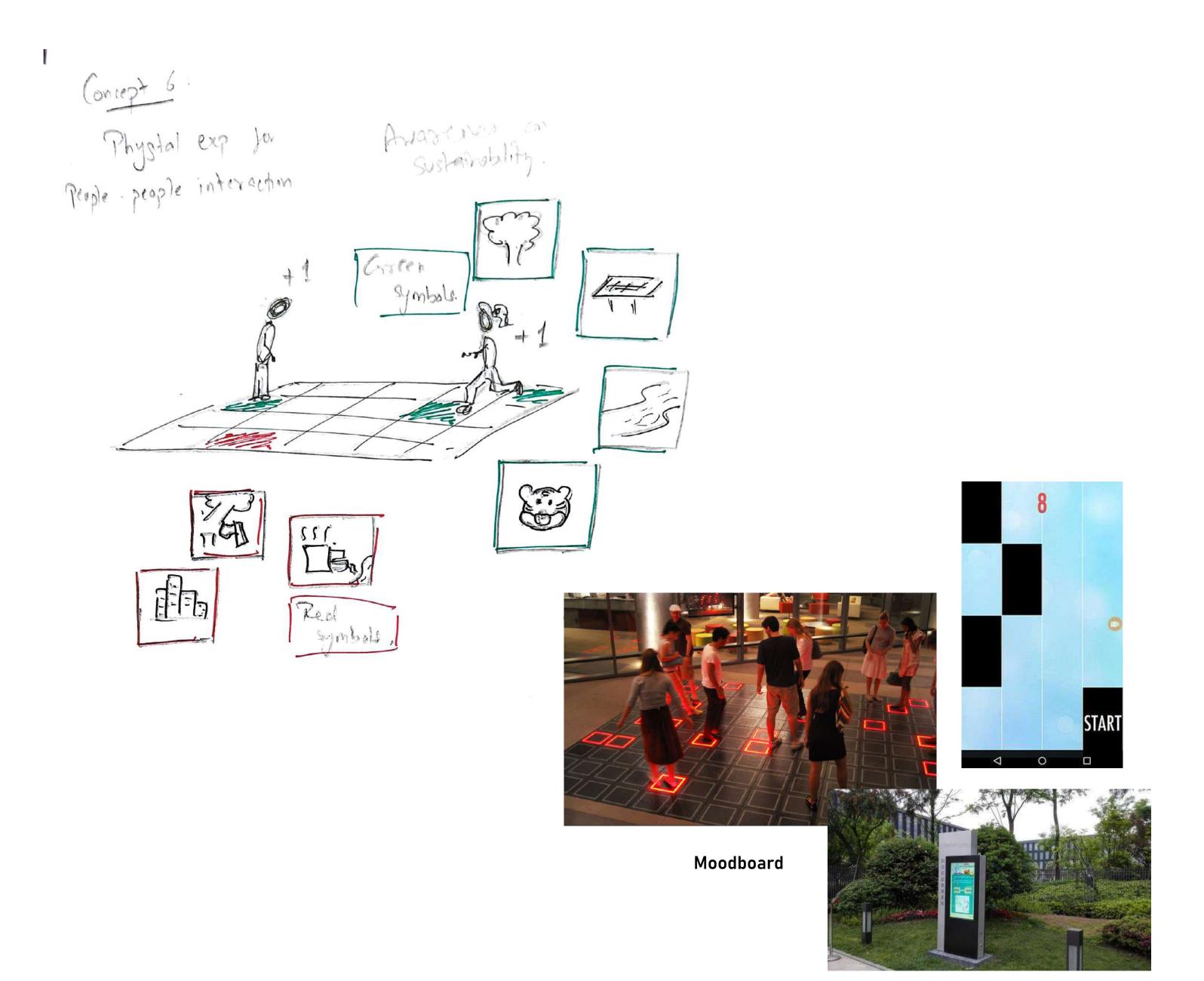






Know Your Step

- Again a phygital gamified experience wherein the participants take part in a game similar to that of footloose, piano tiles, etc.
- The game consists of an interactive tile layout on the ground which shows two types of images, one related to outcomes of green/renewable practices and the other one being outcomes of unsustainable practices.
- The participants have to step on the green tiles as many times at possible in a given time limit and collect points simultaneously.
- Stepping on the unsustainable tiles lead to deduction in points.
- The points collected by playing this will be used to unlock the plant blocks (in 'Guess the place') in order to make the grid.
- This will also encourage people-people interaction and knowledge sharing about sustainable and unsustainable practices.



ACTIVITY ZONE

- Physical activity zones emerged as one of the top priorities from the research and so a space was designed for it.
- A frame grid encircling the main tunnel is the idea with features like pull-up bars, balancing beam, monkey bars, and wall climbing.
- Providing diversity of use for physical activities at one place.
- These features can be altered, added with new according to the site flexibility.

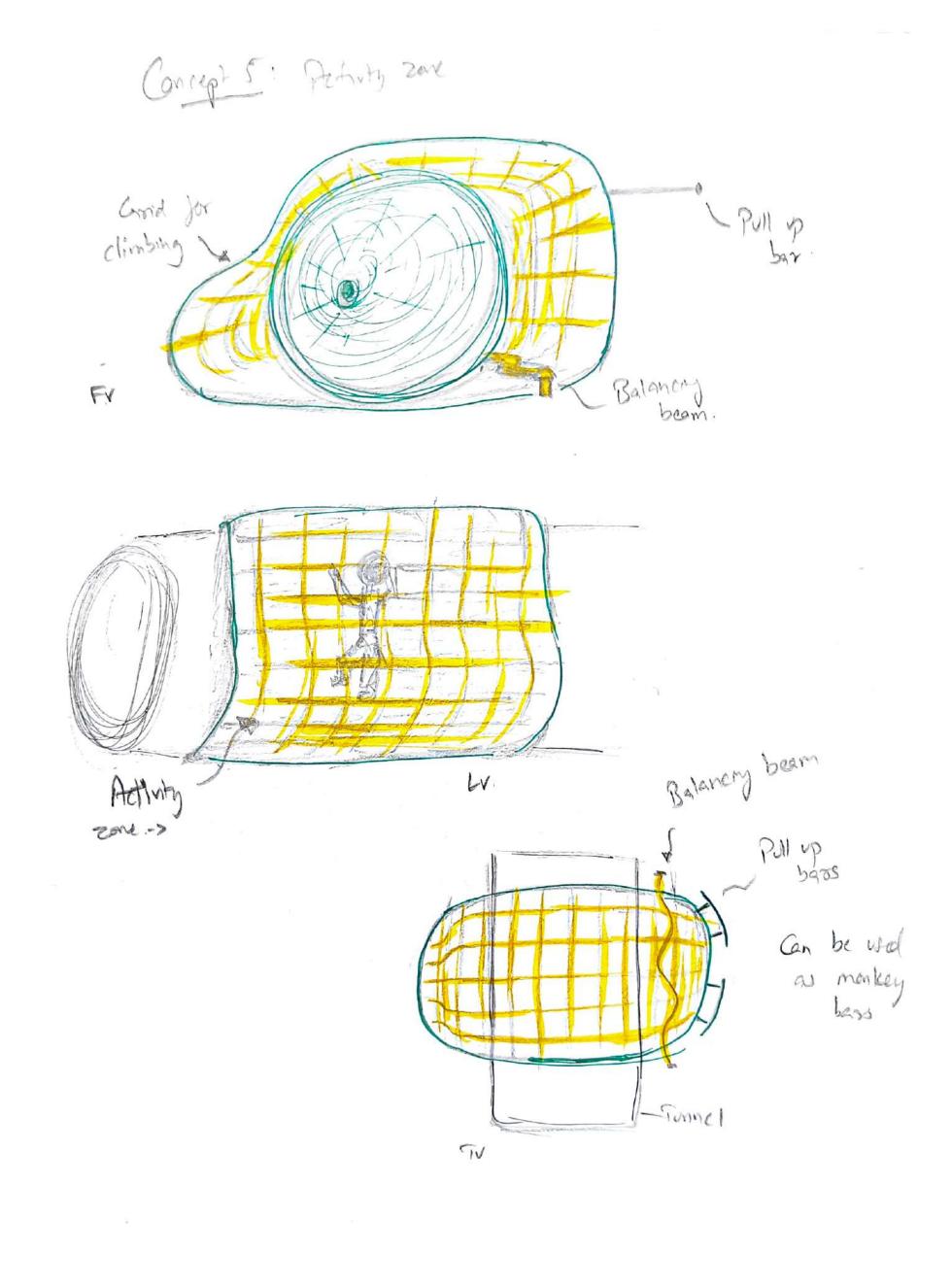




Moodboard

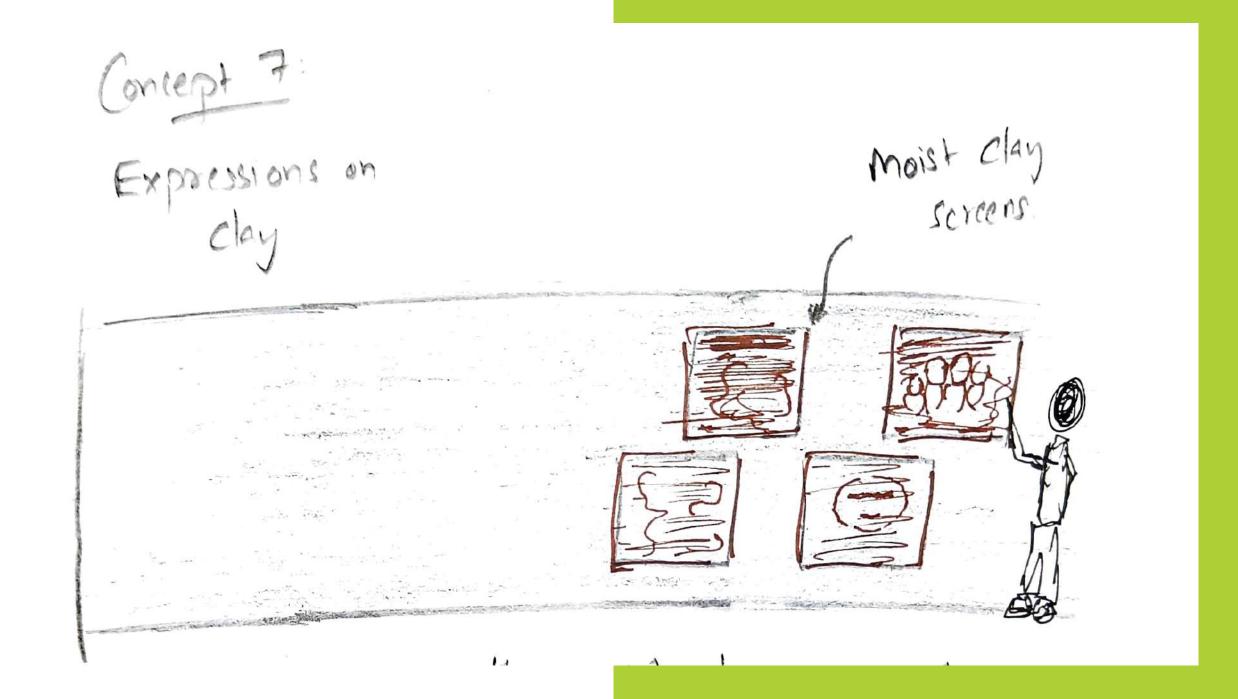




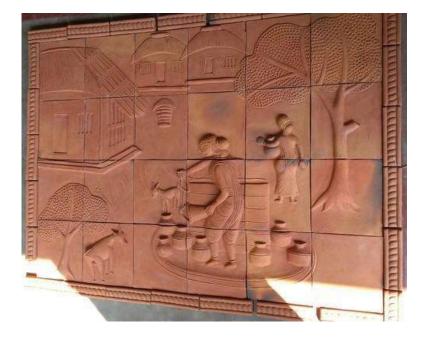


EXPRESSIONS ON CLAY

- Visitors can use the moist clay screens attached on the walls to create expressions they like. It can be used to share something personal, make some beautiful features, etc.
- Clay is a material used to express one's ideas and can be changed and moulded again.
- This will enourage visitors to create and leave an identity in that public space which will enhance the attachment and belongingness to the space and will also encourage them to vsit again.
- Mositure for keeping the clay moist can be retained from the condensed foggy screen behind.



Moodboard





This Artist's Installation Relieves Stress With Clay Balls

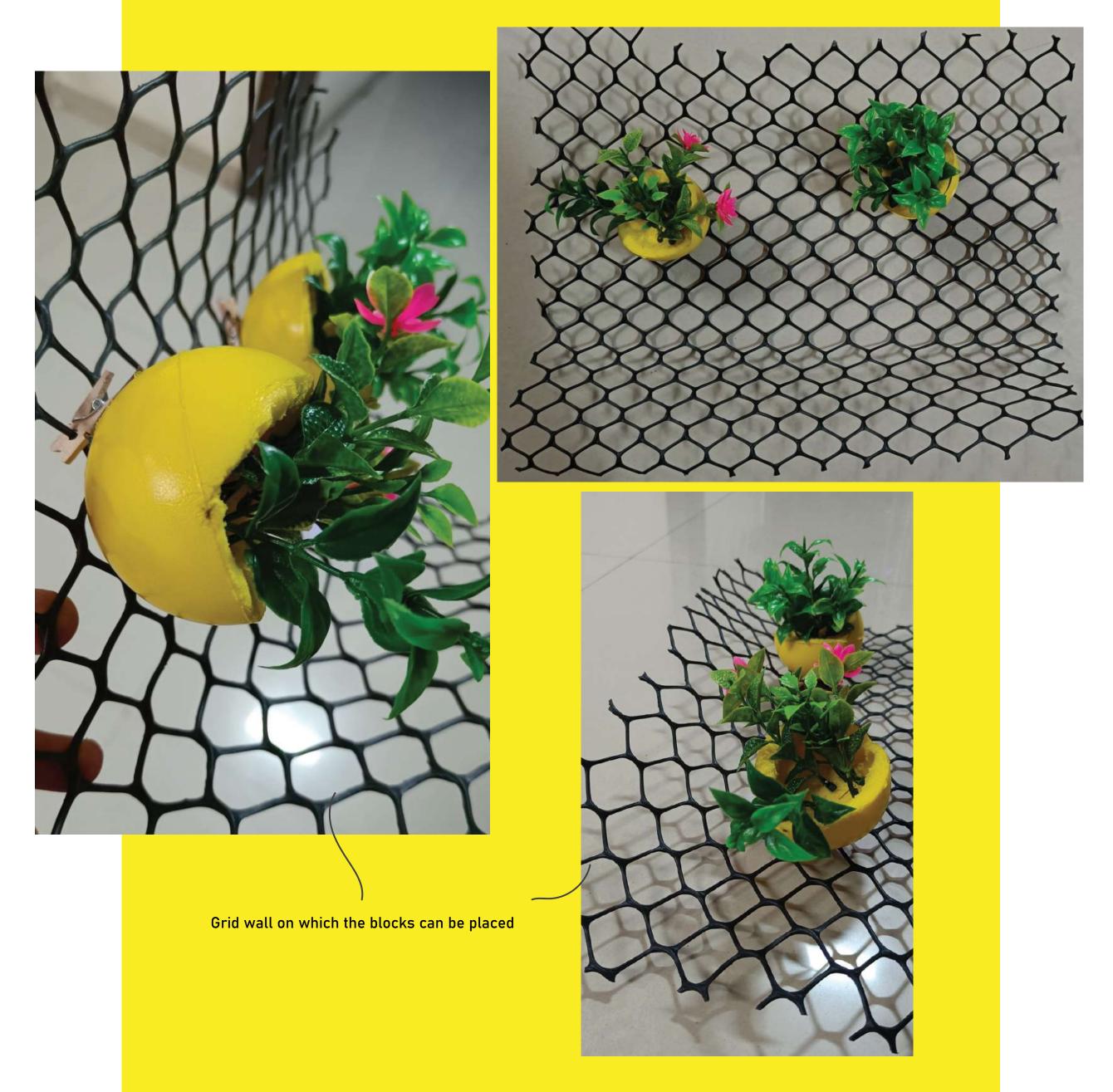
https://www.wbur.org/news/2020/01/15/kim-sooja-clay-balls

ROUGH PROTOTYPES

PLANT BLOCKS

Rough prototype model made out of sponge balls and artificial plant models.

Clips attached behind resemble the functioning of hooks in real scale models.



Movable Shades

Rough prototype model made using sponge blocks, wires and paperclips.

The functioning of the movable shades can be seen by moving around the sponge blocks to adjust the amount of light from the source.











Movable blocks shifting to create shade

Guess the Place

Low fidelity wireframing of the interface of the concept that will be displayed on the digital screens at the place.

Touch interaction with inputs of responses using keyboard.

Responses revealed after a decided time and directions for using the grid wall for making layouts.



Answers



Waste bottle sculpture, Dumas beach

Bottle statue, Dumas

Waste bottle sculpture, Dumas beach

Waste bottle sculpture, Dumas beach

Bottle statue, Dumas

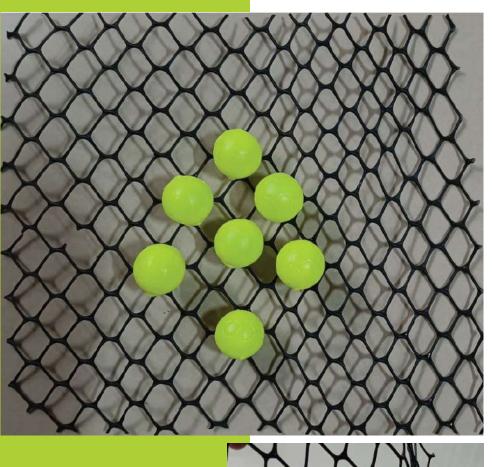
Waste bottle sculpture, Dumas beach

You can now use the unlocked plant blocks to create this on the wall here.

If the blocks are locked, play the tile game to unlock those.

It will be fun. Enjoy

Example of a layout made on the grid using the unlocked plant blocks (eg, a tree shown here)



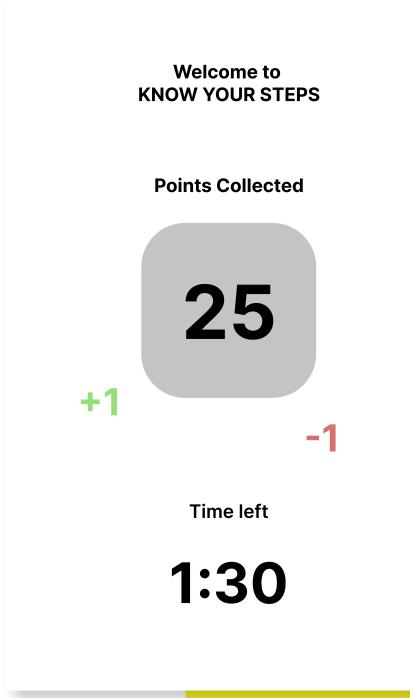


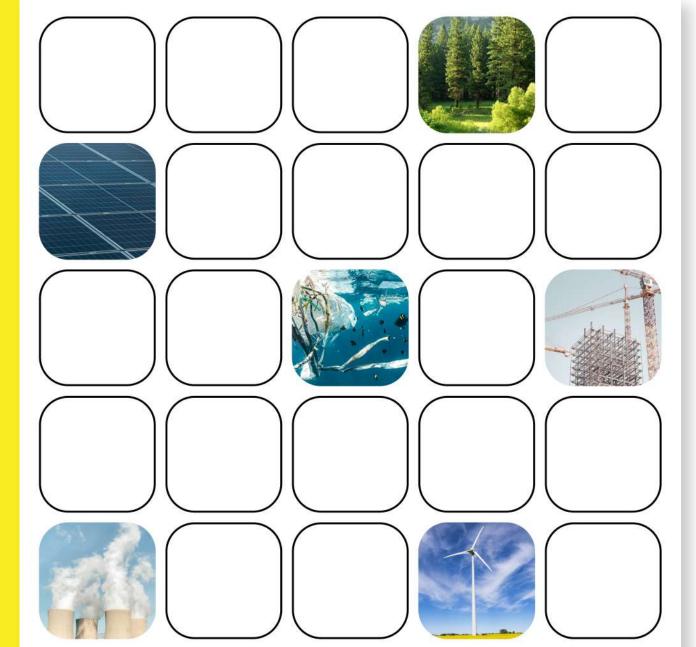
Know Your Step

Low fidelity wireframing of the interface of the concept that will be displayed on the digital screens at the place.

Interaction with touch inputs from users.







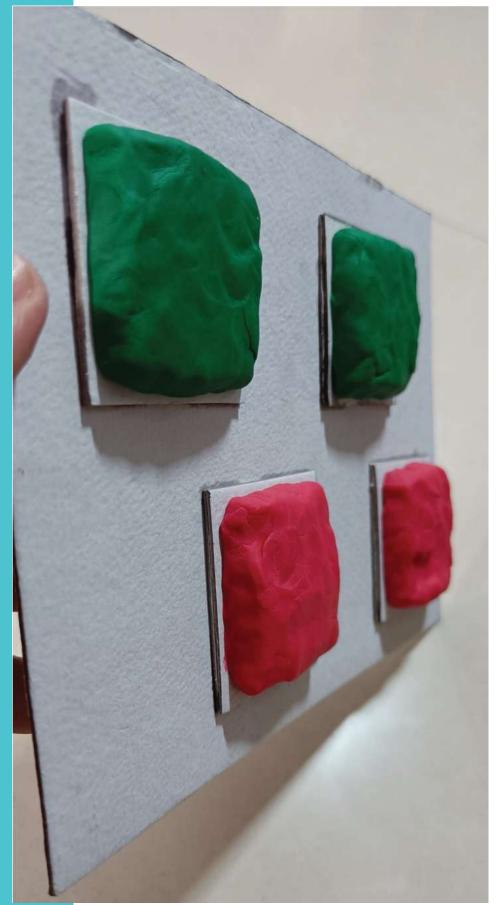
Correct and incorrect selections

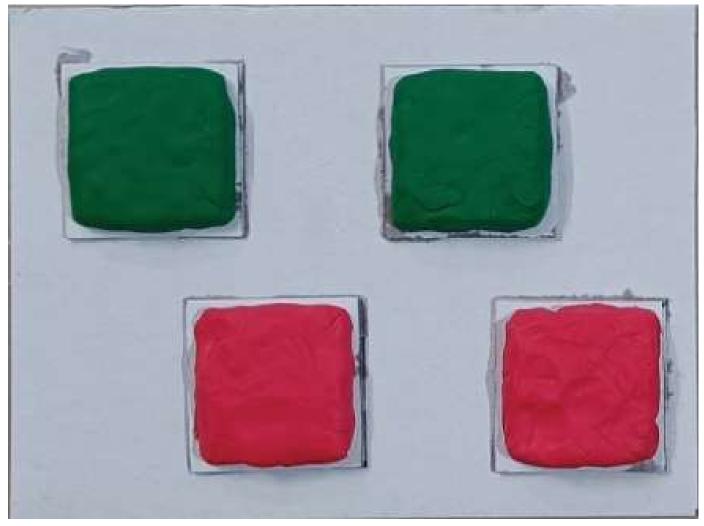
Grid layout on the floor

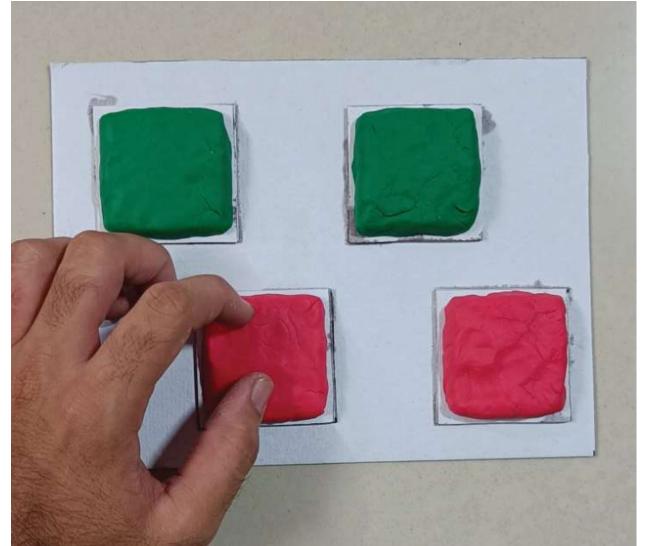
Points collected

EXPRESSIONS ON CLAY

Small scale clay screens made using clay dough and cardboard sheets.







OUTCOME

Constructive Feedback

- Outdoor stimulus has reduced due to more stimulus fed by the digital screens.
- More people-people interaction, collaboration needed.
- Increase physical-social factor.
- Looking at the intensity of stimulus (eg, social media provides more stimulus nowadays).

To increase the stimulus provided outdoors, in this context public spaces, targeting the cognitive functions was considered as an addition towards the outcome.

Cognitive Stimulation Activities

An article on types of cognitive stimulating activities by Bitbrain suggests various activities and exercises to enhance attention, perception and praxis [16].

A few relevant to the context of the inquiry were considered which are:

- A drawing is observed and then must be reproduced exactly.
- The person sees somebody else carrying out a sequence of beats in a melodic manner. Then hears different sound sequences. The person must identify which sound corresponds with the beats executed previously.
- A screen displays a symbol during a short period of time. Then a set of symbols is shown and the person must indicate which symbol was previously displayed.
- Complex figures are presented along with incomplete figures. It is asked to add the details and elements to the incomplete figures, so that they match the more complex ones.
- Cut-out figures following a series of dots and then comparing whether the cut-out adjusts with the same figure printed on paper.

Another similar article by Magnetic Memory Method on cognitive exercises for adults [17] suggests activities like:

- Mindful Walking

When you step out for a morning walk, concentrate on sensations like the wind in your hair, your breathing, or the sounds around you.

- Drawing

Observe a complex drawing with multiple colors or layers, and try to replicate it later.

Or take in a scene around you and draw it on paper, bringing out all the minute details.

- Physical exercises
- Board games

Similar concepts already included in the ideations.

Music was considered as an addition to the features to increase the stimulus of public spaces.

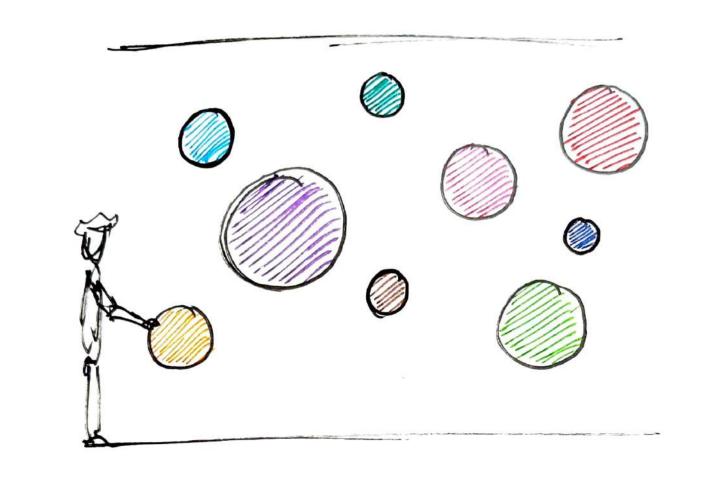
ADDITIONS

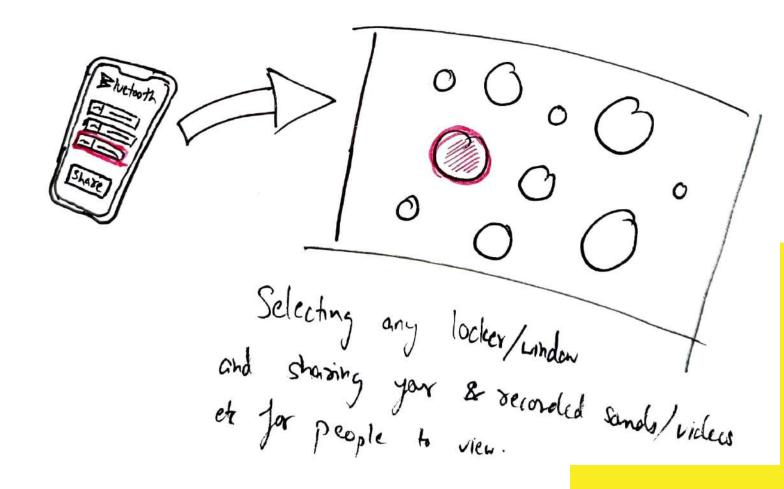
SOUND DISCS

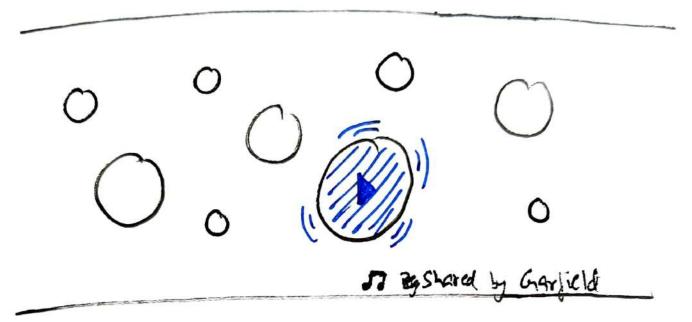
- Digital discs where one can share any sounds, recordings, music, etc, that they wish to share out with people.
- The board will play files randomly out loud in the space and will display the name of the person who shared it (however not mandatory).
- This aims to enhance cognitive functions by encouraging mindfulness while being at the place.
- This also aims to increase the outdoor stimulus being provided to the visitors than the stimulus provided by their smart phones.

SHELF

- The concept of "Expressions on clay" was not taken forward considering the limitations in functioning. To keep the clay screens moist will require a maintained environment and might be heavy on the costing of the concepts.







The board will play shared files randon! and poor display have by the shared it.

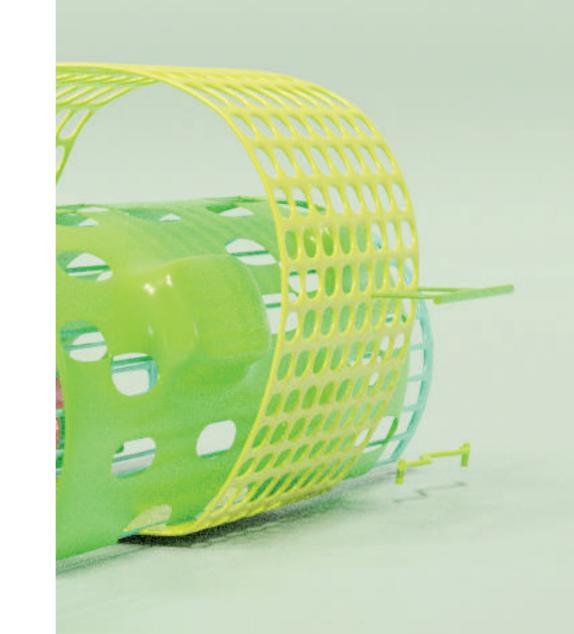
FINAL RENDERS

The final outcome or the concepts are created in 3D using Blender software and Figma for creating the high fidelity versions of the digital screens.

The colors have been chosen to give it a more natural and organic feel. Material and dimensions of any product/installations are essential details and have been mentioned wherever necessary. However, given that the artworks are examples of concepts possible in the direction of the proposed inquiry, these components are kept open to alterations based on the availabilty, feasibilty, affordability of the location.





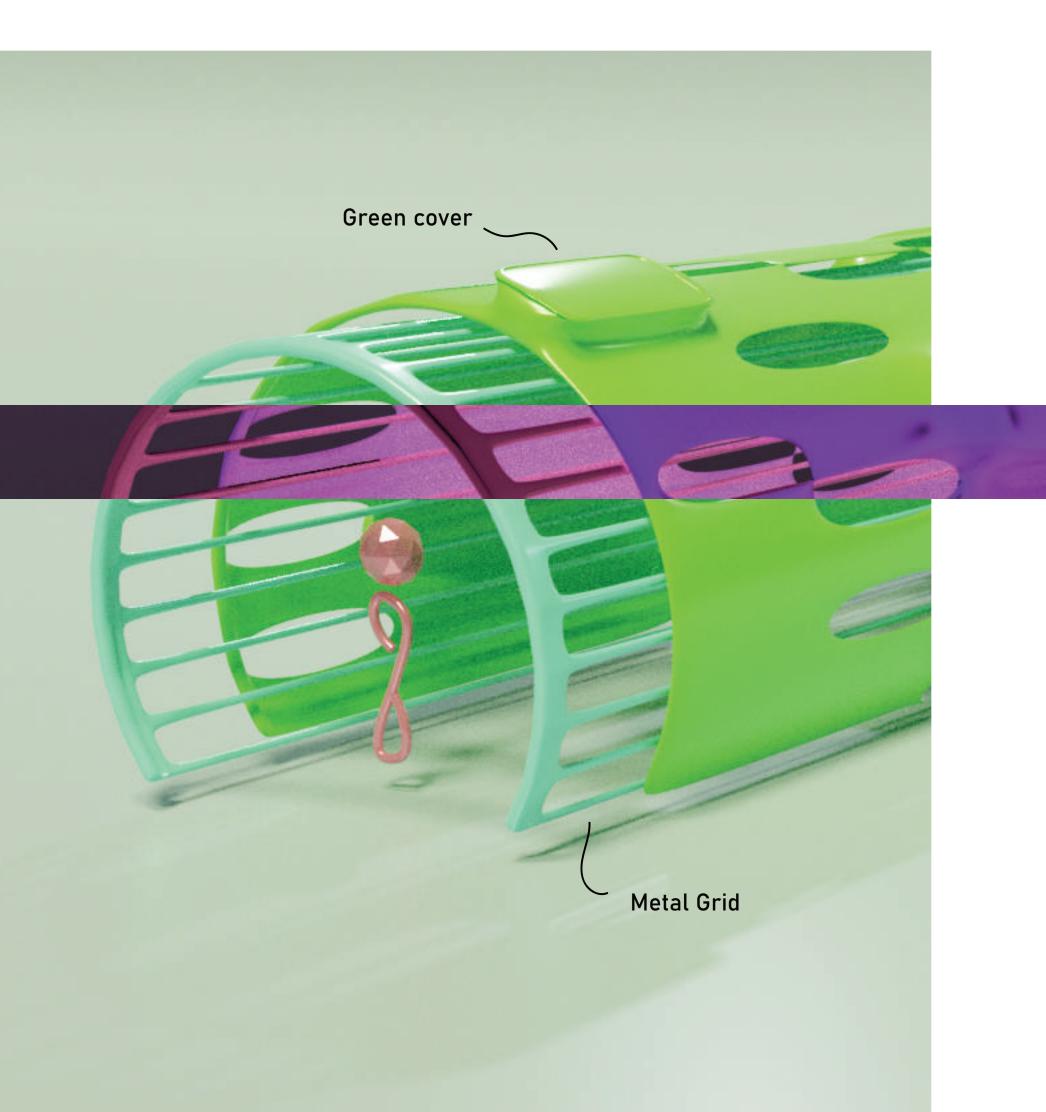


he following collection of artwork is an attempt at enriching the experience at public spaces and promote better human engagement and attachment towards outdoor spaces. This work has been derived from a user centric research process and feedbacks from mentors and faculty. Concepts shown here make a part of what all is possible and so are not finite and unalterable. They are examples that target the larger concepts of sustainability and mental wellbeing. This work has been developed to be used at any open spaces and is not limited to any target group. They are not adhered to any particular location and thus site specific developments and changes are possible.

A green shelter wherein all the other interventions will be placed.

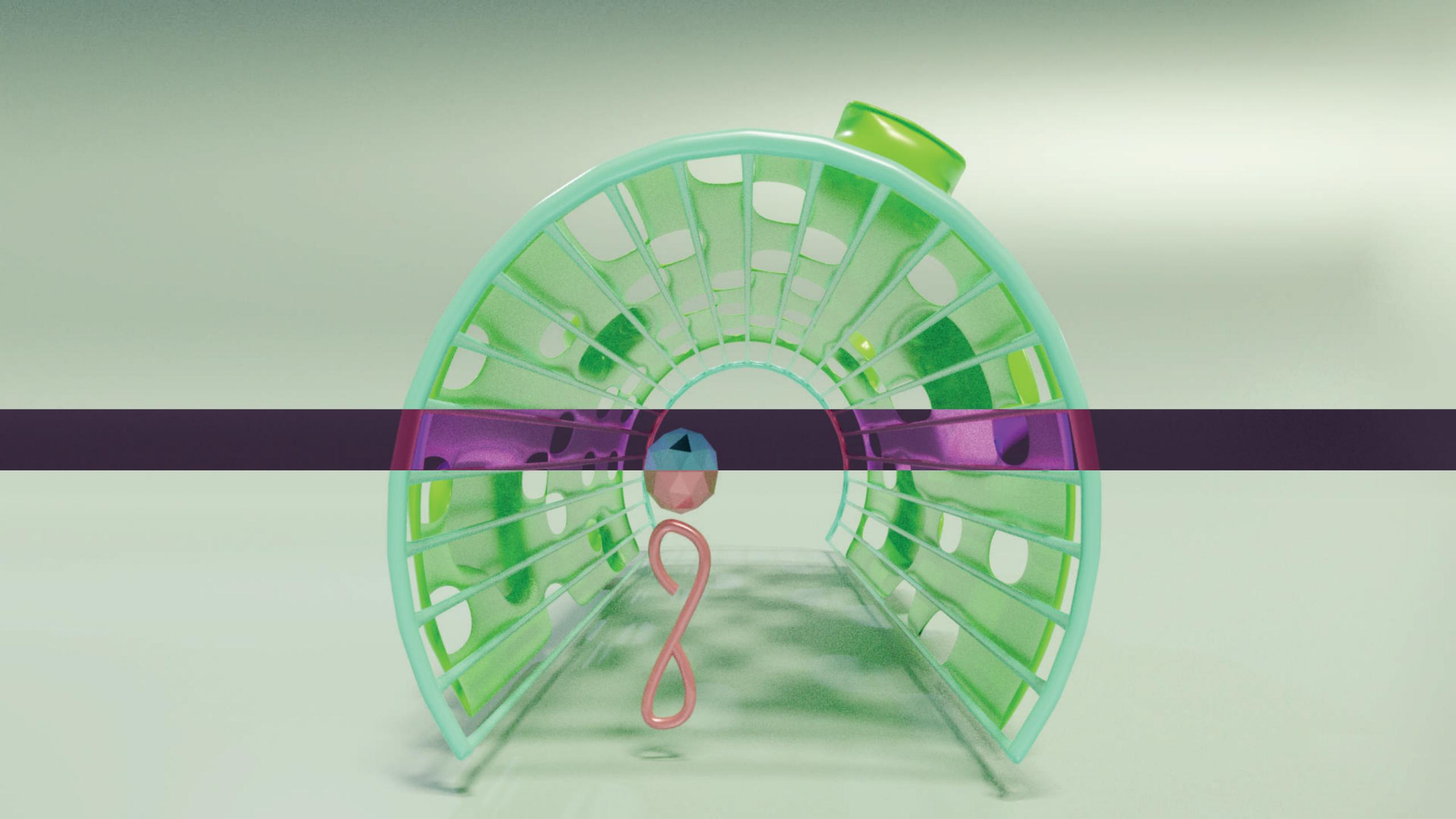
Metal grid covered with plantations to provide a natural sheltered space within.

Hence can be of any length or shape according to the site constraints.



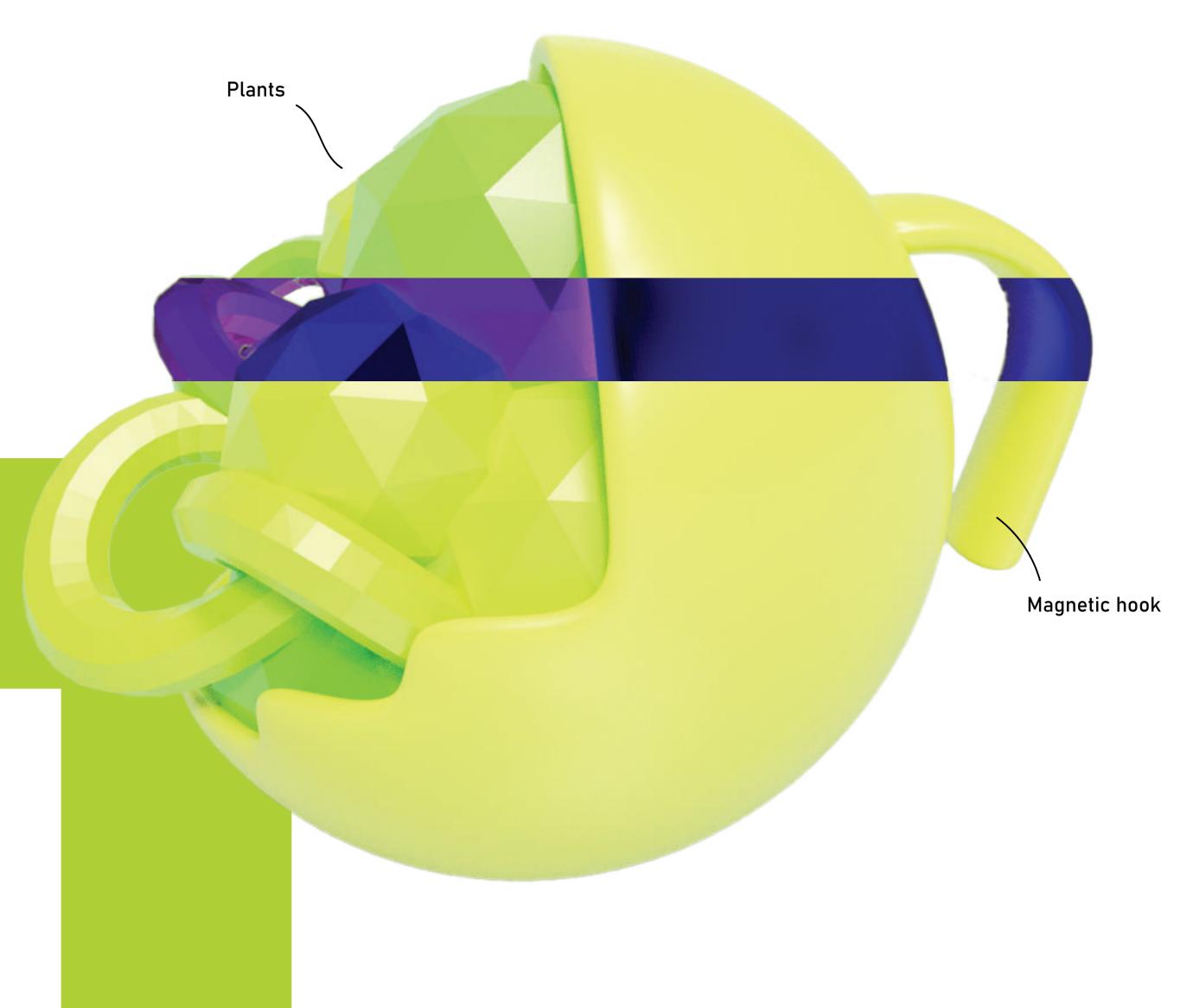


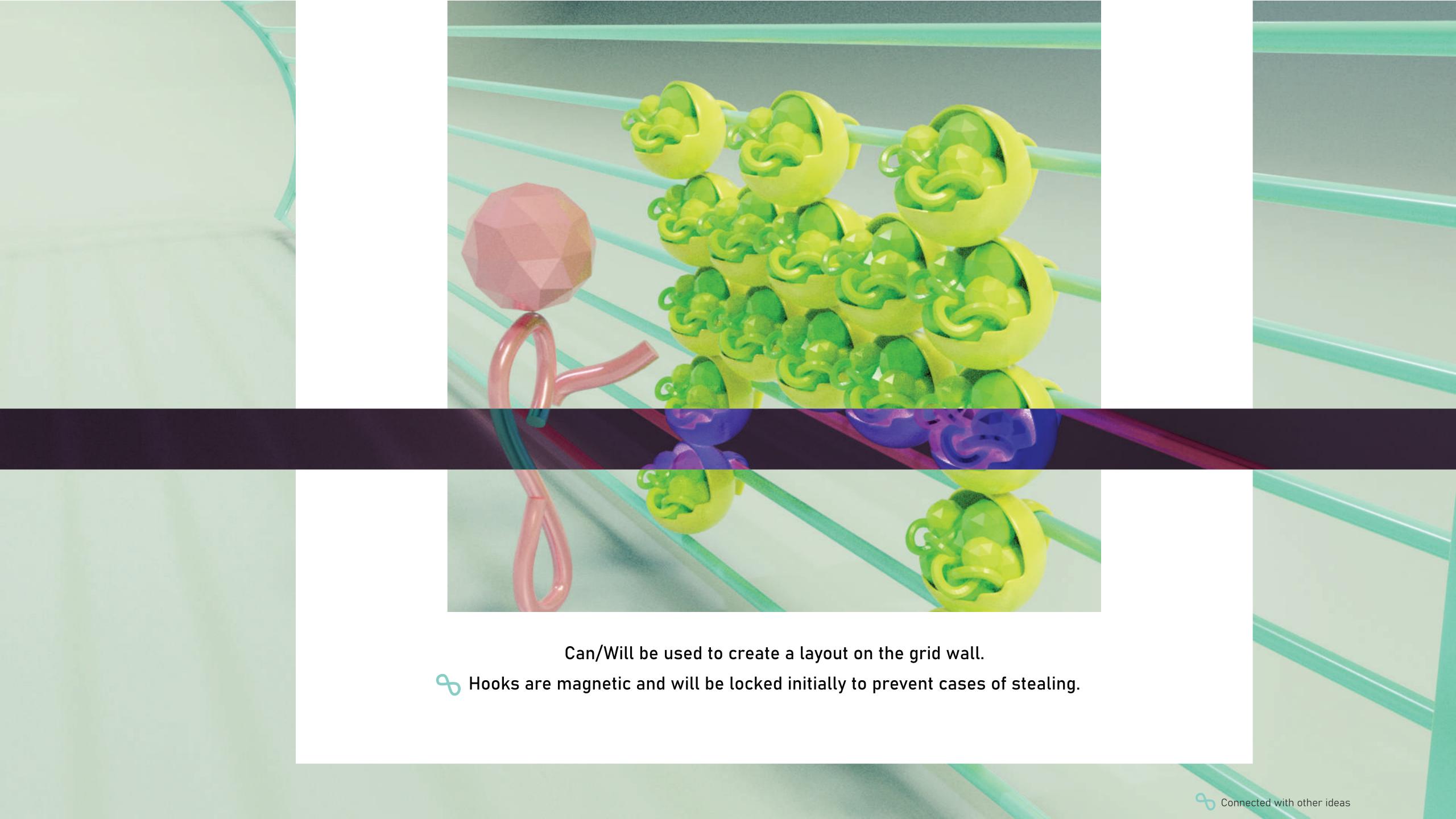
7 ft



PLANT BLOCKS

Small spherical plant blocks that can be moved and placed on the grid wall using clips or hooks on them.



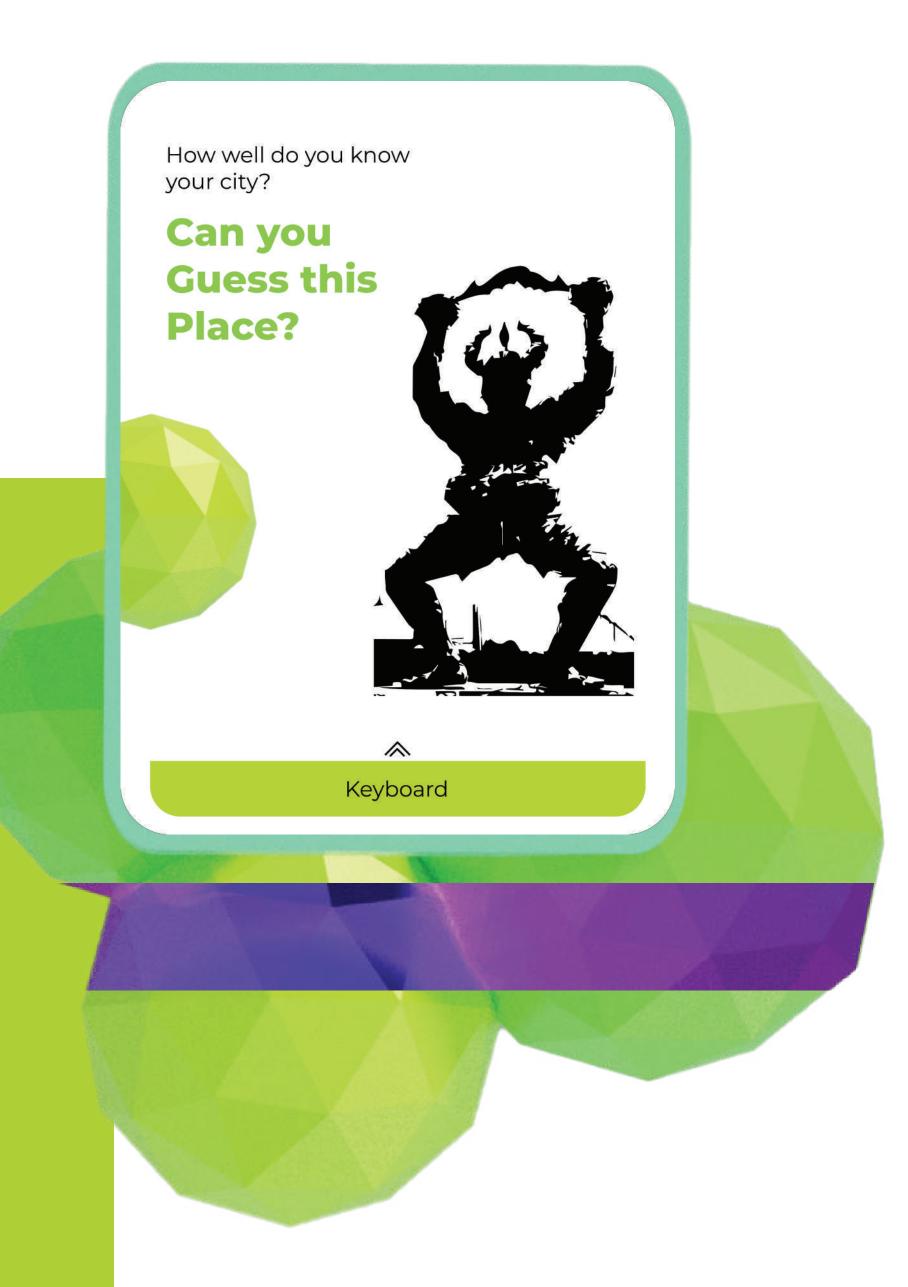


GUESS THE PLACE

Locally inspired interaction where the visitors are asked to guess special locations of the city/town displayed.

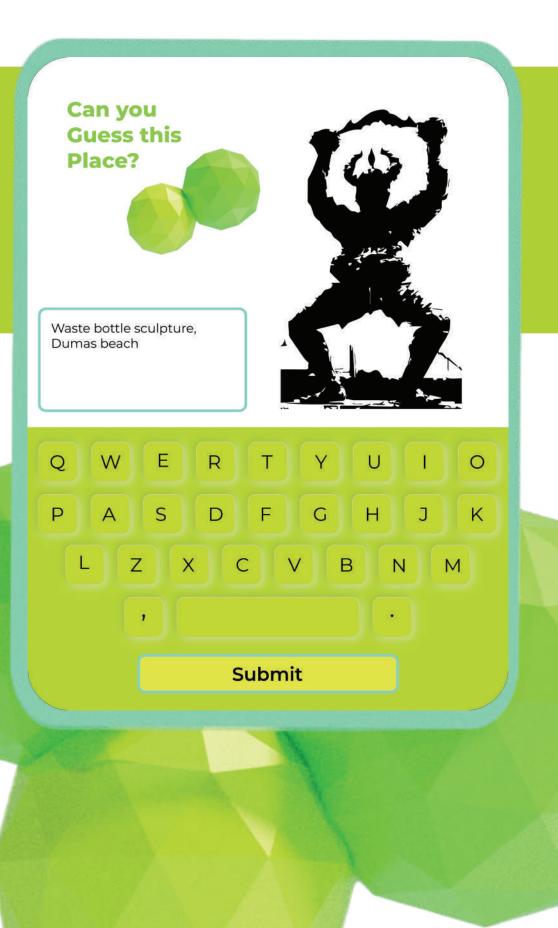
The locations will be displayed as silhouttes.

The location shall change every few hours which can be decided based on the traffic at the place.



How well do you know your city? Can you Guess this Place?

Keyboard



Responses

Waste bottle sculpture, Dumas beach

Bottle sculpture, Dumas

Waste bottle sculpture, Dumas beach

Plastic bottle sculpture, Dumas

Dumas circle structure
Waste bottle sculpture,
Dumas beach

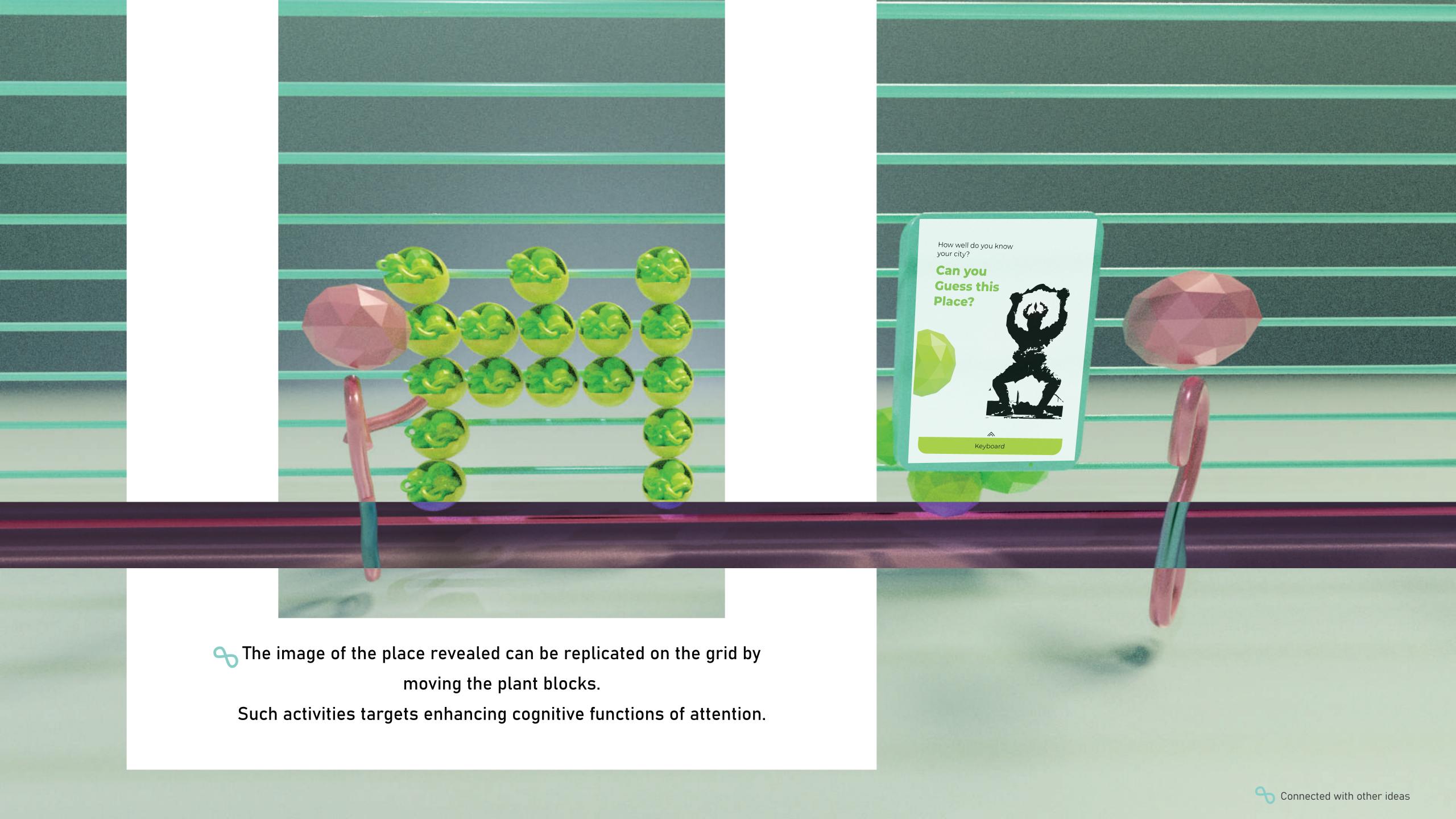




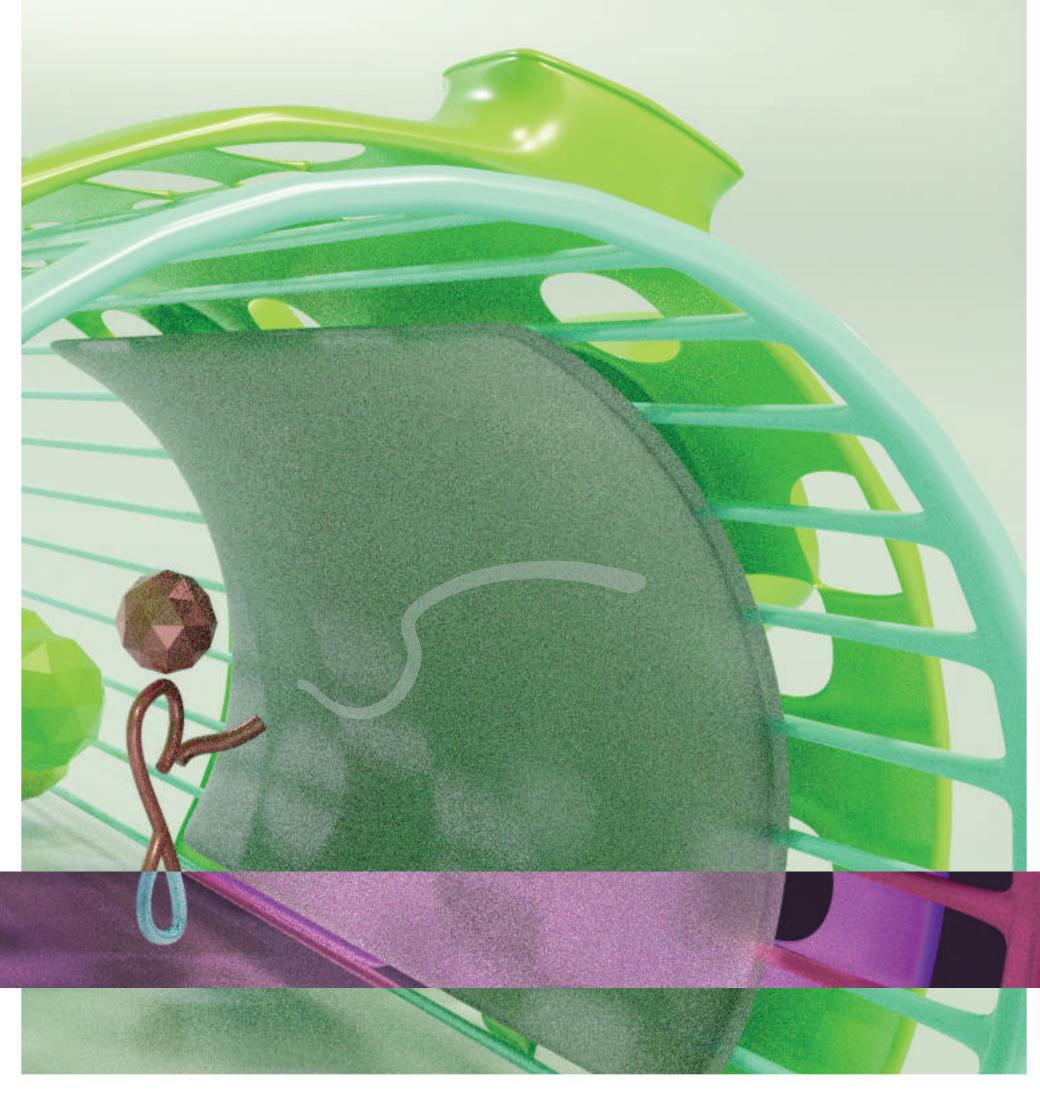
You can now use the unlocked plant blocks to create this on the wall here.

If the blocks are locked, play the tile game to unlock those.

It will be fun. Enjoy





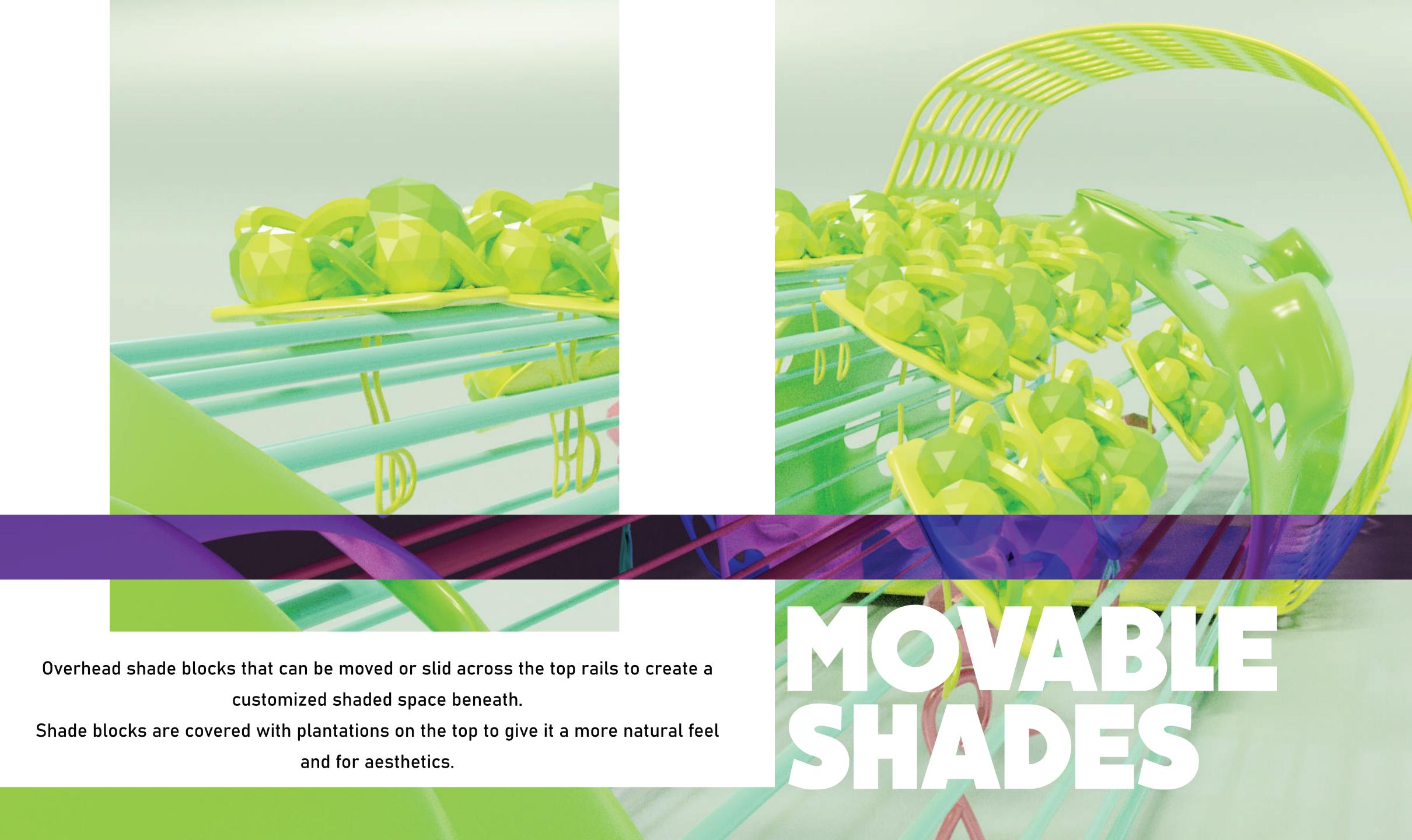


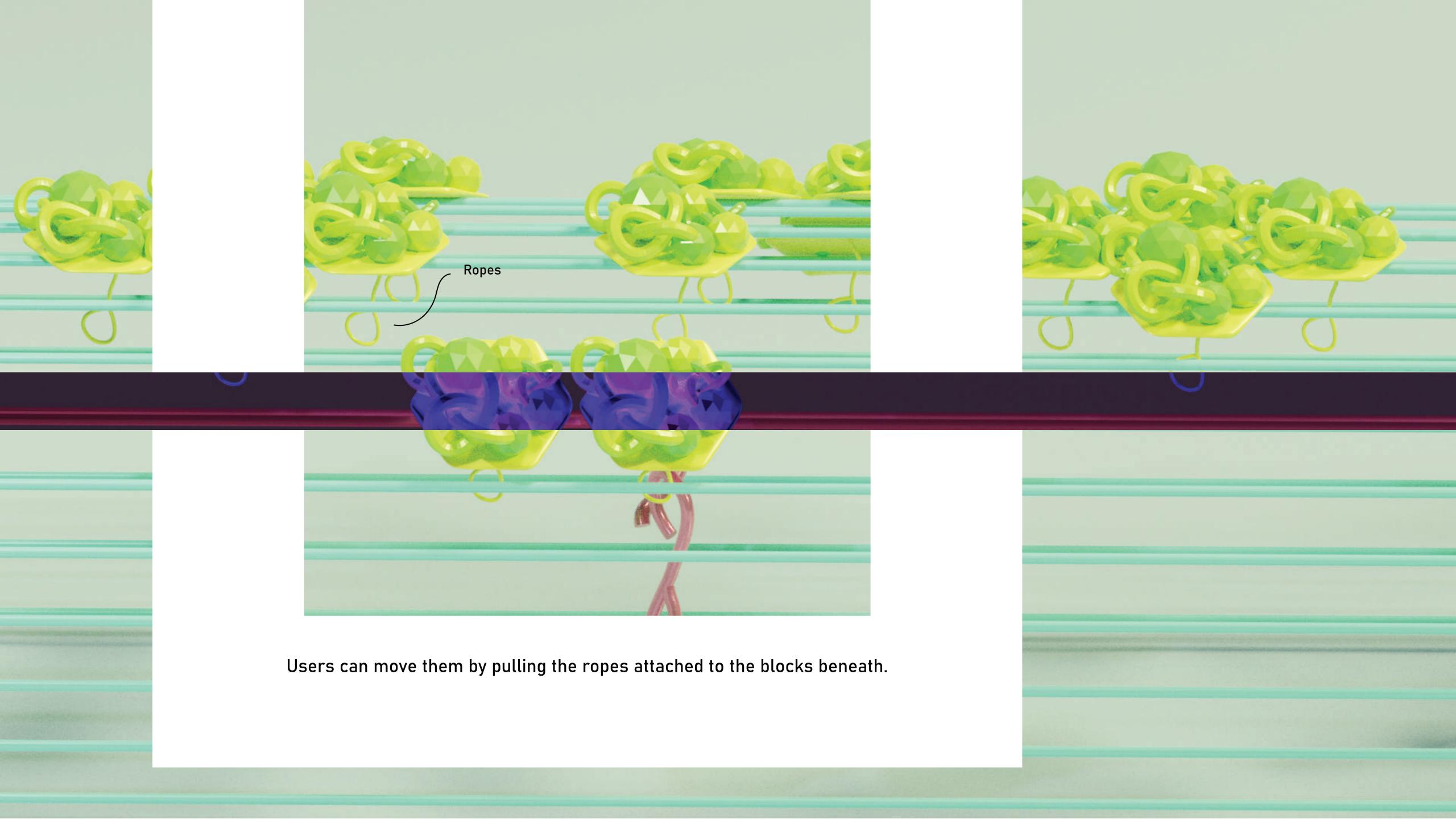
"The concept here targets awareness towards environmental pollution; the foggy screen depicting the effects of pollution on the environment and how through our acts, we can reduce them so as to see a clear surrounding"

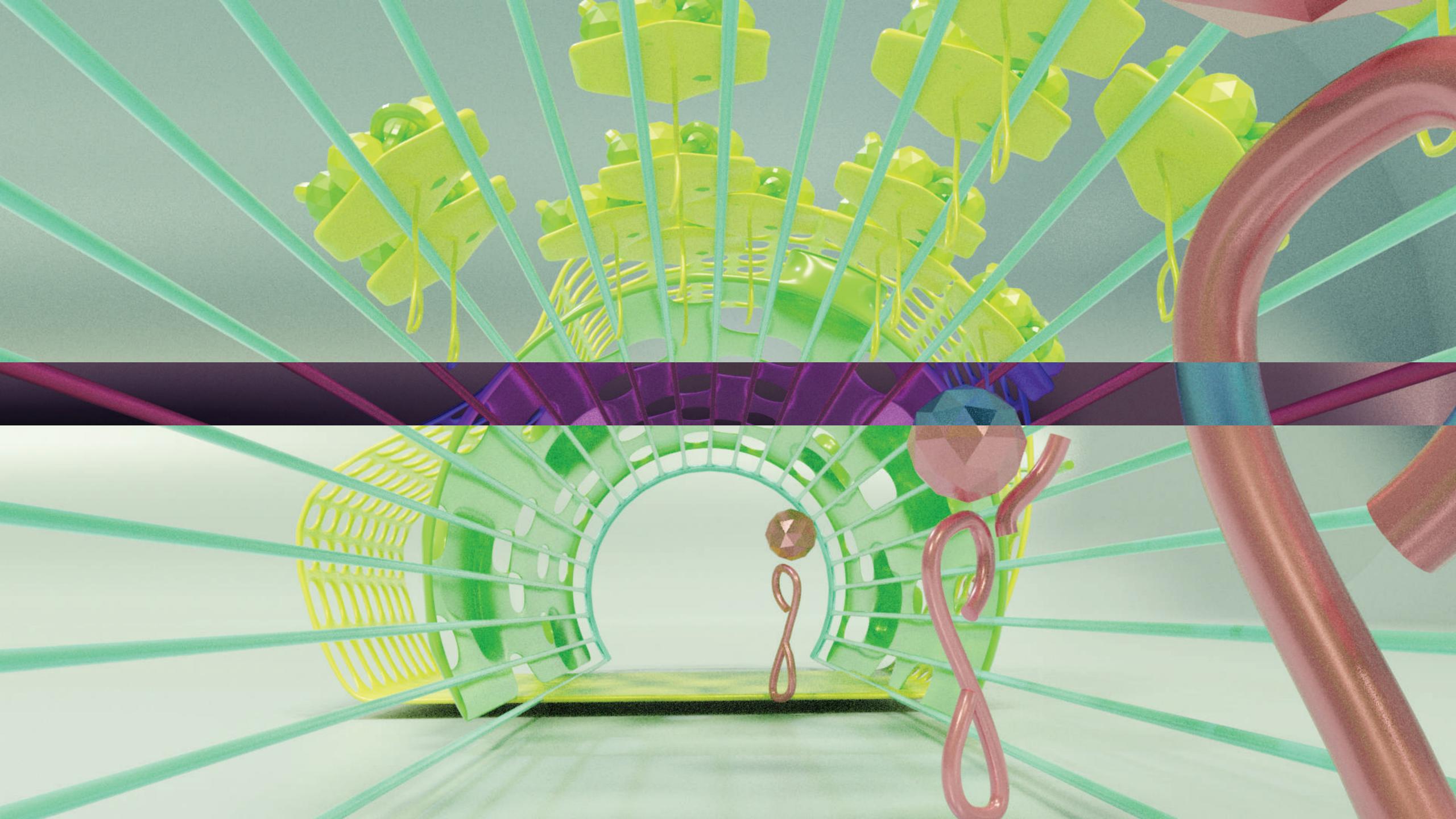
A foggy condensed glass screen that can be used as a doodling or an open surface for people to express and share.

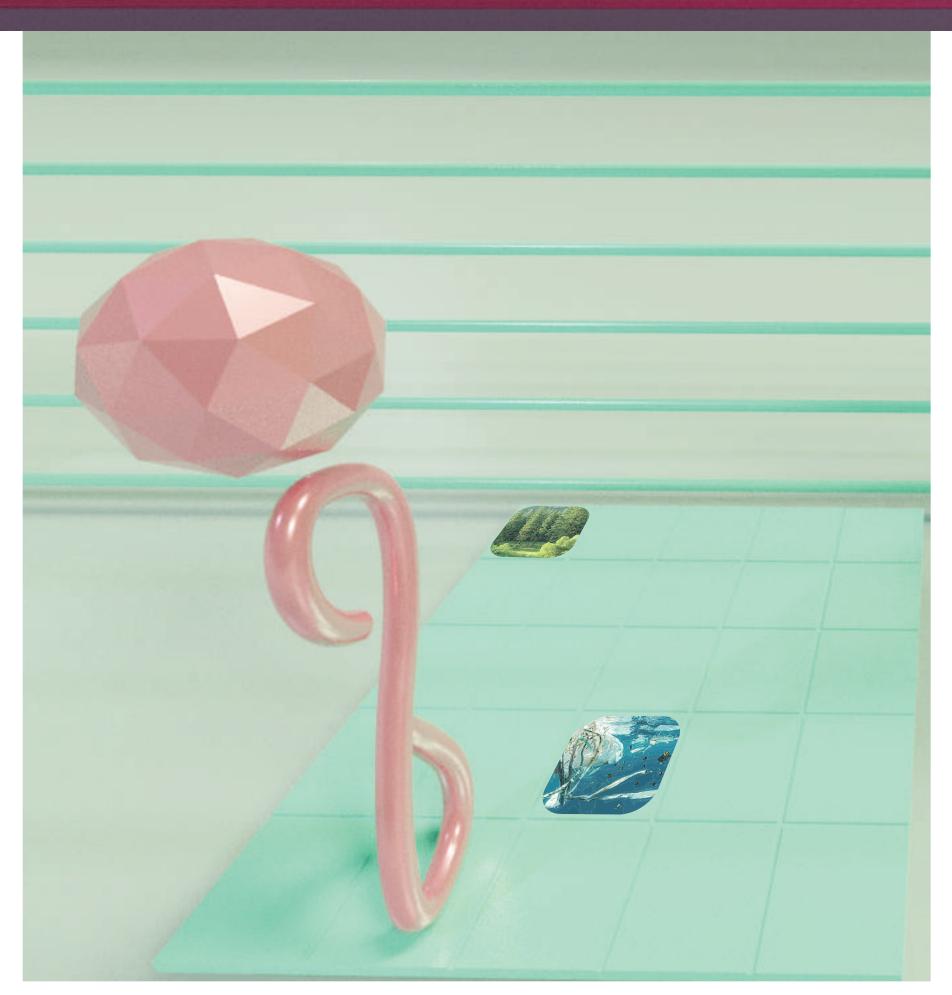
The condensed surface will be formed using water vapour from the water present inside the screen (between the walls) by using the heat of the day.

The outer surface of the screen exposed to the open will have a highly conductive material coating - Copper or aluminum.









Phygital gamified experience.

Consists of an interactive tile layout on the ground which shows two types of images, outcomes of green or sustainable practices and unsustainable practices.

Encourages people-people interaction and knowledge sharing about sustainable and unsustainable practices.





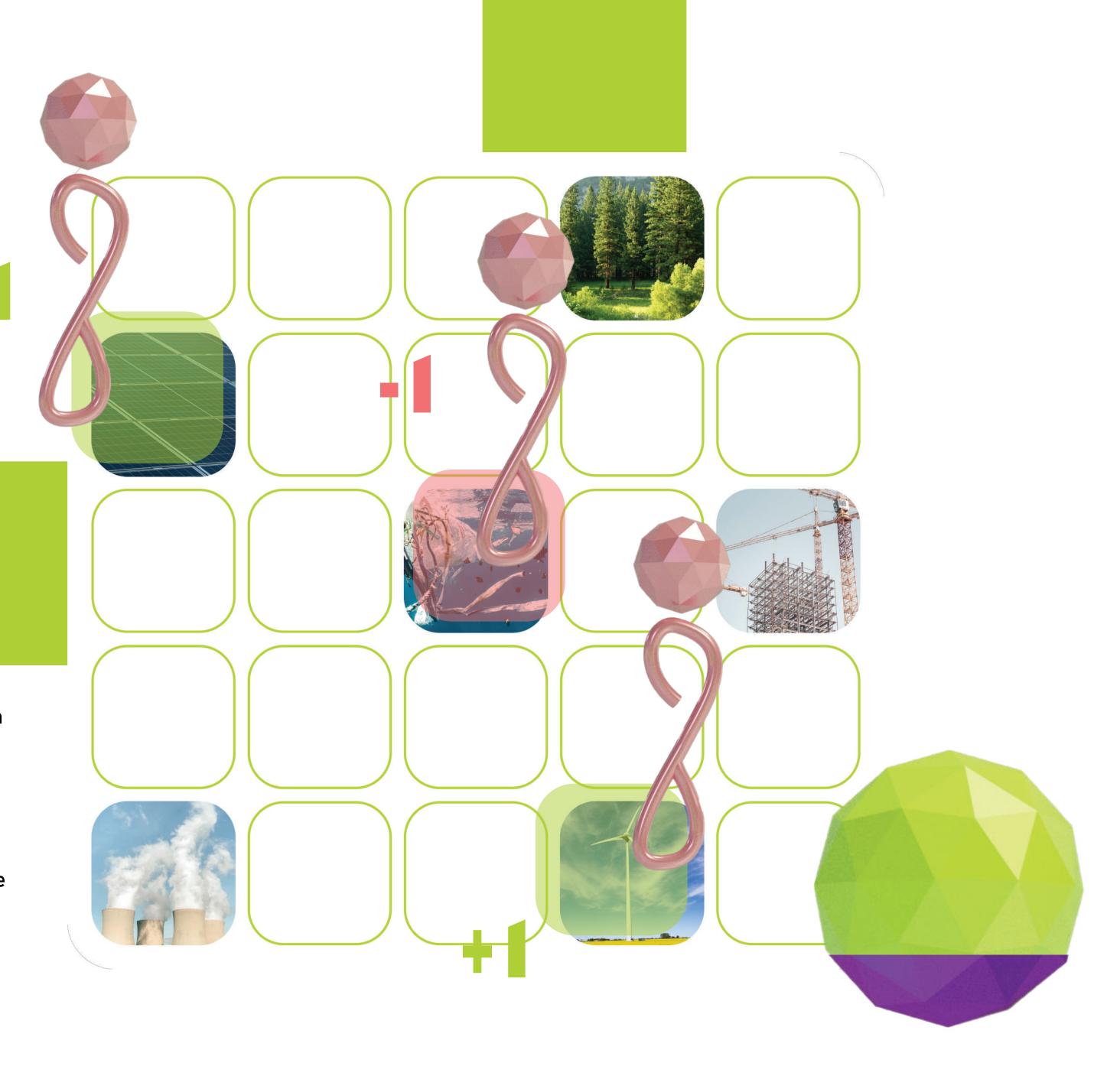


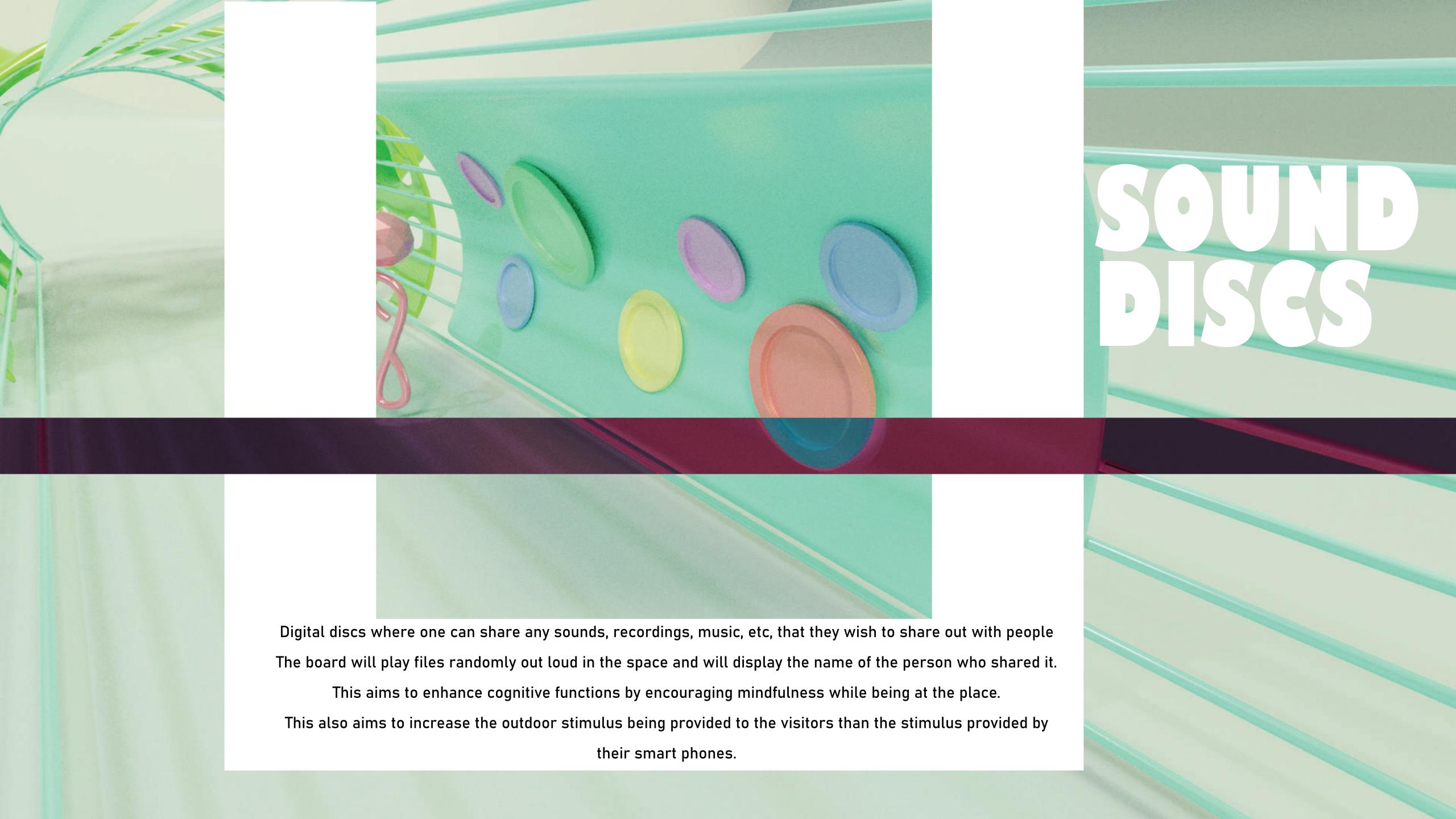
Points will be collected by jumping on the tiles resembling green outcomes. Points will be deducted if jumped on the non-green

Each game lasts between 2-3 minutes.

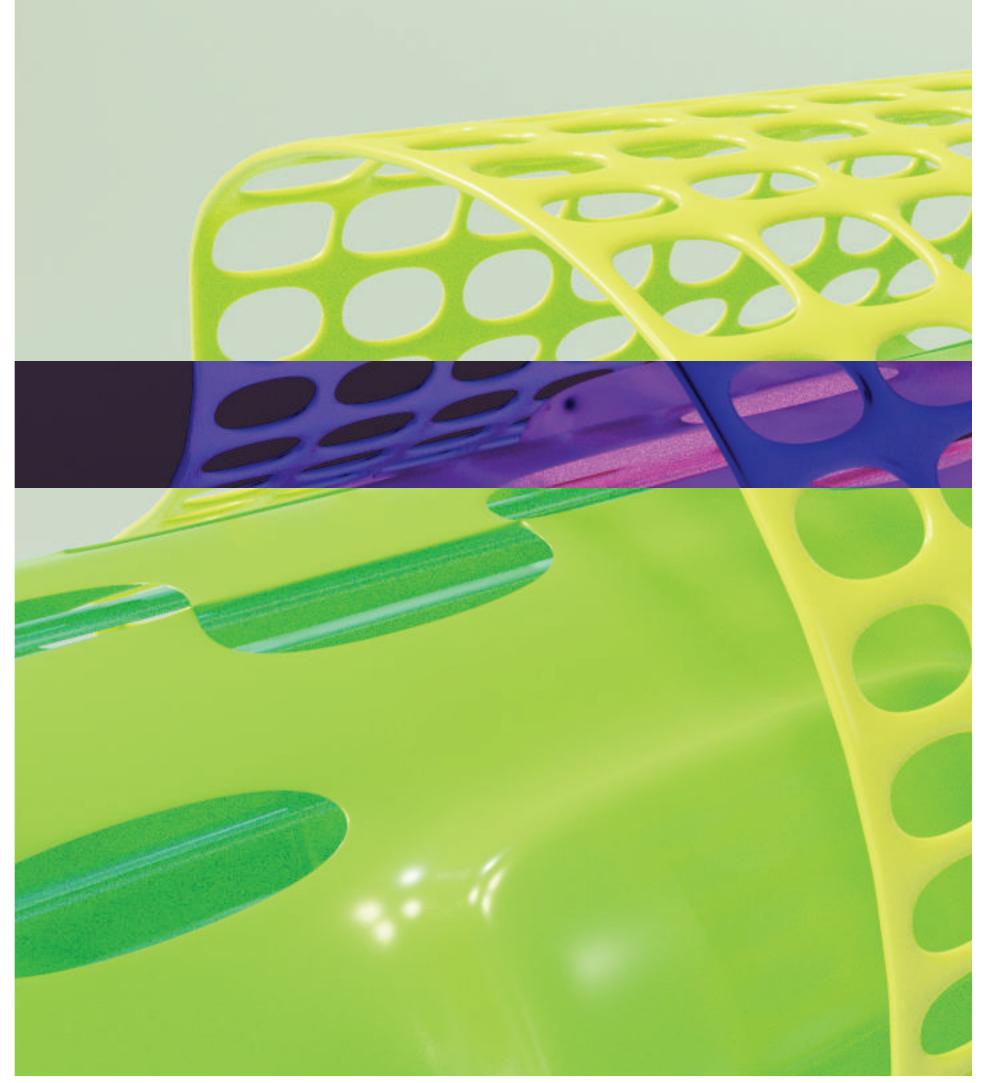
outcomes.

The points collected will help in unlocking the plant blocks on the grid for the users to move them around.







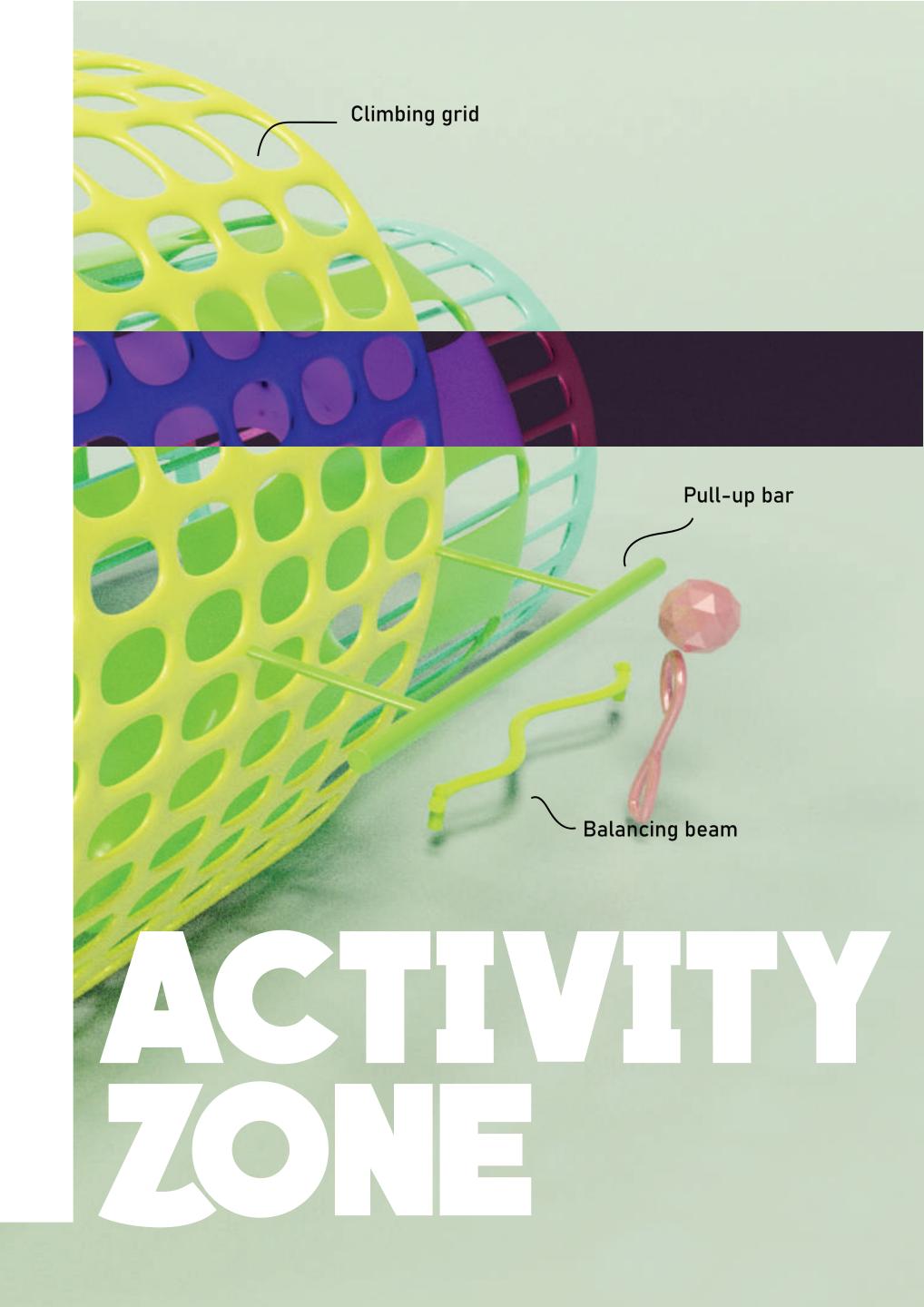


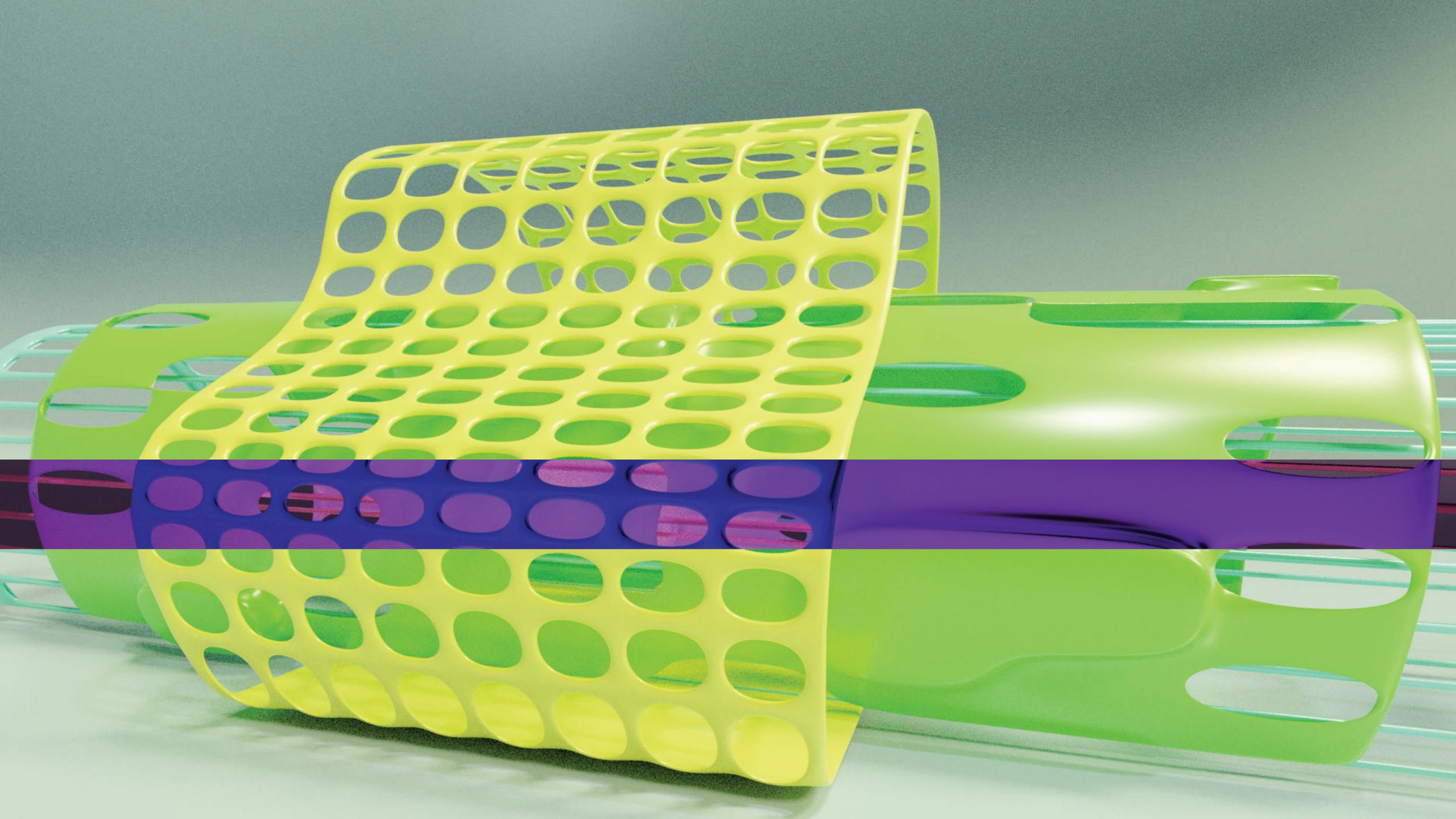
In open public spaces, performing physical activity shares a larger purpose for visitors.

A must have feature selected by the users.

Physical activity zone is a multipurpose frame grid encircling the main tunnel providing with features of pull-up bars, balancing beam, monkey bars, grid climbing, etc.

These features can be altered, added with new according to the site flexibility.





CONCLUSION

REFLECTIONS AND DIRECTIONS

Working towards a domain of public space has been a privilege given how I have been observing and interacting these spaces around me. Outdoor time is an essential part for a positive mental wellbeing and to take it as a theme for this project has given me an opportunity to try and project the same to the world. I am not sure how healthy it is to have an idea about what you want as the final outcome for an inquiry, but the user centric research process followed here gave some critical insights about how users take public spaces as and so the outcomes have been derived from that rather than following those initial urges of an outcome already in head. It was intimidating in the begining to have so many areas to target but was a learning to narrow down to certain themes with proper guidance. Secondary research gives you theoretical proofs for the assumptions you have for any concept or direction, however through this project the primary research gave diverse insights of how this theme is so personal even though being at a public level. While conducting the probes for primary research, the way the test users understood the task and the need for it was critical and honestly that still hasn't been fully successful here. It was then about using those perspective of the users and trying to get relevant information out of it.

Feedback on how can outdoor stimulus be increased than that provided by the digital means like smartphones was an acute one and challenging at the same time. To enhance the stimulus outdoors can be attempted but it still depends a lot on personal choices and levels of tolerance towards digital screens. Plus, we are living in times of digital age and to work with something that challenges or is denied of it would have higher chances of failing. The conceptualization was thus done by keeping the digital means in consideration.

For every designer, the making part becomes the dessert to the meal and while developing the concepts I had a good learning by working with 3D softwares. The limitations of this project can be seen in lack of user testing of the final outcomes. The initial direction was to follow a constructive research methodology with constant testing and validations. Hence, the possible directions that the project can take up ahead is to test these concepts with the users and making necessary changes.

The project also proudly stands correct at the point made about clearly staying in boundaries of design and not get into aspects of public space design.

Given the vastness of possibilities in this domain, the final outcomes are just directions and examples of what all is possible.

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