

Inhabiting Infrastructure



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Infrastructure is everywhere. It surrounds us, supports our everyday living. It's the stuff that makes things 'work', and allows modern life to be 'easy'. Beneath our feet, behind the walls, even in the atmosphere around us, stuff is in motion. In the developed world, infrastructure, with its multi-layered regimes of networks, shapes and conditions the manner by which the everyday persists, circulating matter essential for modern living, a cycle of energy, materials, data, and even excrement.

Much can be said of the invisibility of infrastructure, where beneath the calm veneer of everyday life a myriad of pulses and rhythms are dynamically keeping everything going, providing a seamless experience to the daily routine. It is only when infrastructure breaks or ceases to function as it should that it is revealed, rupturing the stability of normality. But perhaps it is less that infrastructure is invisible – it can be difficult not to notice the some of the planet-spanning systems it includes – rather than it is un-seen. When functioning smoothly, we push it out of our perception. When infrastructure is shoved violently into our view, is can appear in many forms; roads are dug up to expose pipes, traffic is gridlocked disturbing our journey, a flock of hi-vis vests and hardhats descends to buzz in a classified language. But even in the reveal, we are apart. The obliqueness of view can be that infrastructure is located outside of everyday comprehension; codified, categorised and structured as such that we are excluded from it. The condition(ing) of infrastructure that is so close to us, yet we are also always at a distance.

Infrastructure in the developed world is most typically attributed with a technological status, an apparatus of modernity: "To be modern is to live within and by means of infrastructures"[1]. It is how the world became modern, like the railroads that advanced Western civilisation across the globe, infrastructure co-constituted the systems and structures of colonisation for an expanding web of nation states undertaking modernisation. As tentacles of colonisation reached ever outward, the colonised became dominated by and subsumed within modernity itself, captured in extractive flows of material and capital. The dogma of modernity exerted a universalising condition through annexation, potentially compelled by the technological organisation of infrastructure which demands logic, order and scheduling to function efficiently. The infrastructure of colonisation impelled not only flows of material but also meaning, privileging (a certain type of) culture in its supremacy over nature, and embedded "the semio-material support for most systems of oppression under industrial capitalism"[2].

However, it would be unjust to suggest that infrastructure was a condition only emerged during the technological era. Nor is all infrastructure malign. Consider the example of a nomadic desert-based culture that would be sustained by an informal

infrastructure of oasis and other water-sources, structuring the movement of people and goods across an infertile and inhospitable terrain. A less remote context and in resistance to the landscape of extractive procedures is the 'Underground Railroad', a network of secret routes and safe houses established across the United States during the 19th century, and used by enslaved African Americans to escape to Canada. Arguably it is the ideological progress of modernity and the extractivism of industrial capitalism, demanding ever more complex and efficient modes of extracting surplus value, which has fostered a profoundly negative infrastructuralism. But these two examples deliver a praxis of sustainability for the flow of material and meaning, offering resistance to the extractive conditions of the infrastructure of modernity, structured through an ontological relation of "being-with"[3]. In opposition of an infrastructuralism embedded with systems of power and inequality that "co-construct society and technology while holding them ontologically separate"[4], to co-exist with infrastructure advances practices of resilience and living outside the negative influence of capitalist apparatus.

To examine the potential of an infrastructuralism of being-with further, another emblematic example can be located with the Q'eswachaka bridge in Peru. Braided from grass, the bridge is one of the only remaining handwoven Incan bridges once common in the Incan road system, and is replaced each year in a ritual ceremony by the men and women whose livelihood depends on the continuing existence of the bridge[5]. Exemplifying the significance of indigenous practices, and an agenda of "maintenance and care"[6], the semio-material properties of the infrastructure serves those determined to be-with the bridge, an encoding that takes place horizontally, building social connections like the structure itself, rather than vertically for purposes of domination.

Examining another practice of bridge building and the living root bridges of Meghalaya in Northeast India, these structures are 'engineered' from the roots of the *Ficus elastica* tree, and span rivers and gullies capable of holding the weight of several of the Khasi and Jaintia peoples who construct them. The indigenous makers characterisation of being-with includes a multispecies distinction through the horizontal connecting with the nonhuman, rejecting the binary conditioning by which modernity's infrastructuralism places nature at a distance, to be controlled and exploited. "The transcendent force needed for the capitalist machine to keep on producing *rests* on the systemic *undoing* of the ties that bind the clever animal – Anthropos – to nature"[7]. These are gestures that evoke a distinct sensibility of co-habitation, and almost a symbiotic relation with the host structure. But more profound is the strategy of multispecies condition that cultivates opportunities for care and co-creative practices that enable "making worlds with others"[8].

To return and reflect upon those globe-spanning and nature-conquering projects of modern infrastructure – monstrous dams, electrifying power stations, cavernous culverts and many more – these are structures and spaces productive of an imaginary of the other-than-human. Such machinations are designed

by humans but not for them. Their nonhuman condition is exclusive of the human, yet subjected by it. Conversely, the "radical indigenism"[9] above advocates a nonhuman condition of being-with, a position that is potentially restorative of a more sustainable way of multispecies living. In mapping the tension and refrain present in the multispecies frameworks of the nonhuman, more-than-human, and other-than-human, and how these conditions co-constitute the flows of semio-material that circulate our planet, from the micro to the macro, a *critical infrastructuralism* is can be conceived that is sustainable, and potentially restorative. Importantly, the proposition of critical infrastructuralism can be contextualised more broadly by urgent debates on anthropocentrism and decoloniality that challenge existing binaries of nature and culture, and seek to address longstanding embedded exclusion and inequality in contemporary society.

The research and projects collected together under *Inhabiting Infrastructure* can be addressed as a means of further exploring and unlocking the potential of a critical infrastructuralism. In Jessica Oag-Cooper's project and its engagement with that most essential of element for life – water, collected from many sources across Scotland – a distinct multispecies collaboration has been undertaken. The resulting biofilm's semio-material delicateness provides a thoughtful and precise moment capturing the immense potential of the process. Equally pragmatic is Melba Beetham's urgent contemplation on the impact of a very specific nonhuman encounter, the COVID-19 pandemic, and its potential to re-distribute urban workspace. As we emerge from lockdown, there is the opportunity to re-assess how, when and where we need to be with others, and propose new modes of being together that might restructure the city. Patrick Macklin and Thomai Pnevmonidou's (SpaceKraft) ongoing visual project engages most exuberantly the monumentalism that underpins how infrastructural structures are weighted in the world, both in sheer scale and the ideological condition embedded in the tradition of the monument. The unbuilt status of Tatlin's Tower and Boullée's cenotaph for Isaac Newton conjures a utopian impulse, that has the potential be released into the world through speculative and reflective inhabitation. Both Digger Nutter and Dave Loder are transfixed by digital infrastructure, with Digger devising his own social media-based rituals, allowing him to reflect on his own location, in and under infrastructure. Meanwhile Dave explores how the domestic itself has been attributed with an infrastructural condition, and explores *détournement* methods to repurpose the extractive circumstances of nonhuman machine vision. Finally, the 2020/21 Masters in Interior Design cohort have engaged with specific artefacts of civic infrastructure – water tower, wind turbine, weather radar, salt dome and motorway gantry – to develop a range of individual responses which advance a specific articulation of the host relation. These projects demonstrate a range of approaches, proposing methods and strategies of speculation, restoration, resilience, multispecies conditions and more, all of which have the capacity to advance the conceptualisation of critical infrastructuralism.

Text by Dave Loder

[1] p.186. Edwards, Paul N. (2002) "Infrastructure and Modernity: Force, Time, and Social Organisation in the History of Sociotechnical Systems" in *Modernity and Technology*. Misa, Thomas J., Phillip Brey and Andrew Feenberg (eds.). Cambridge: MIT Press

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[4] p.189. Edwards, Paul N. (2002)

[5] Chester, Alicia (2017) A Bridge Somewhere: Infrastructure and Materiality [online journal] <https://ivc.lib.rochester.edu/a-bridge-somewhere-infrastructure-and-materiality/> (Accessed 1 May 2021)

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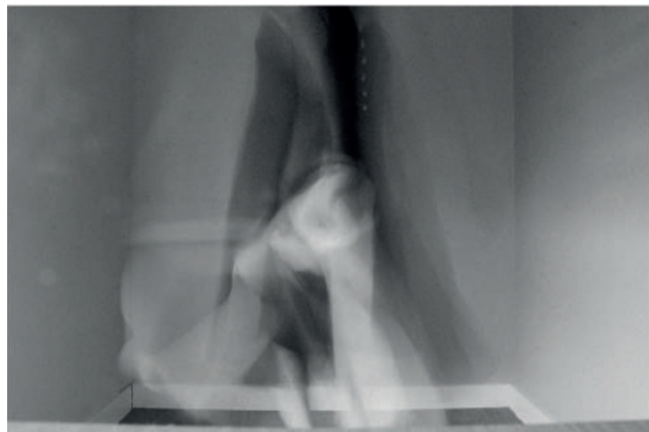
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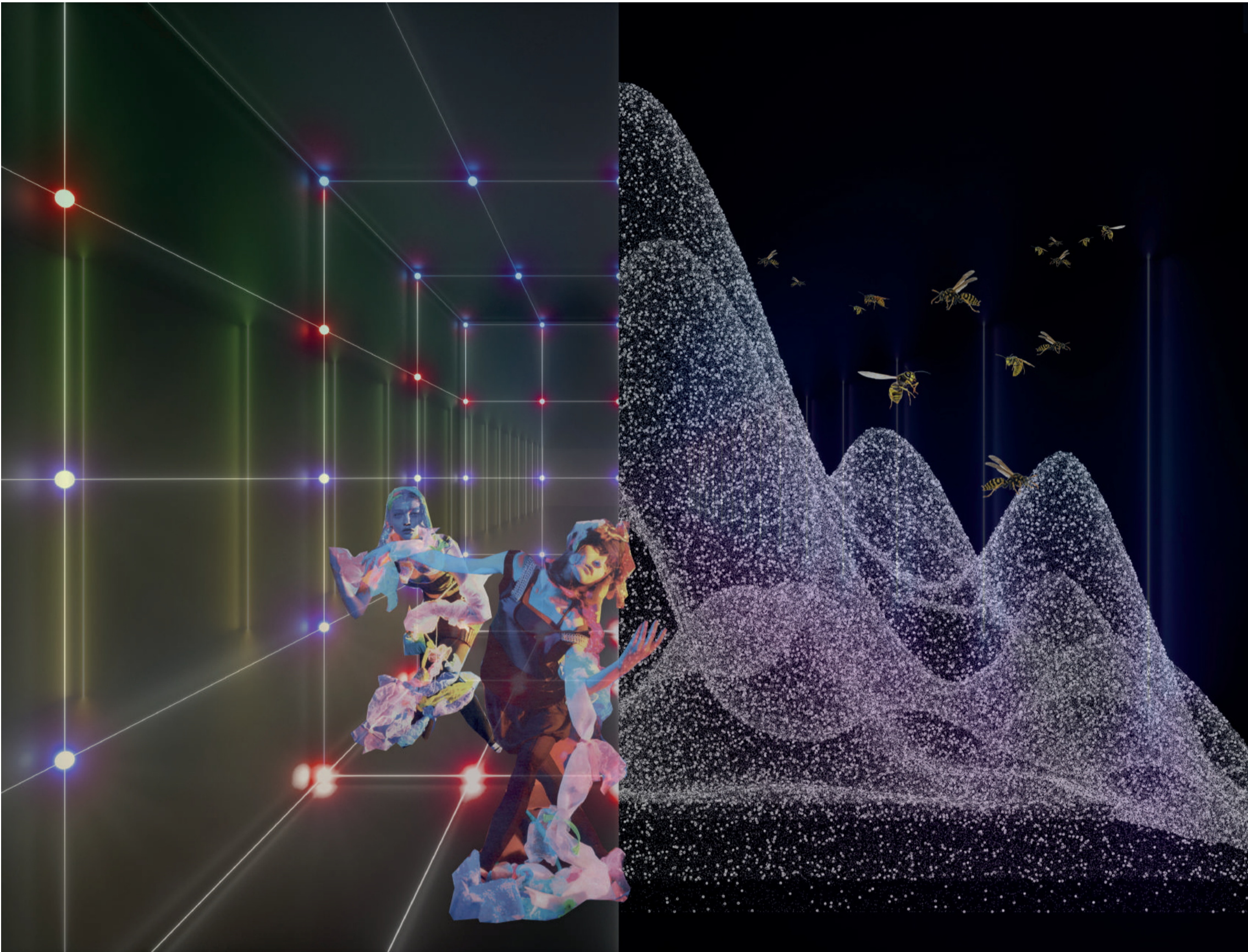
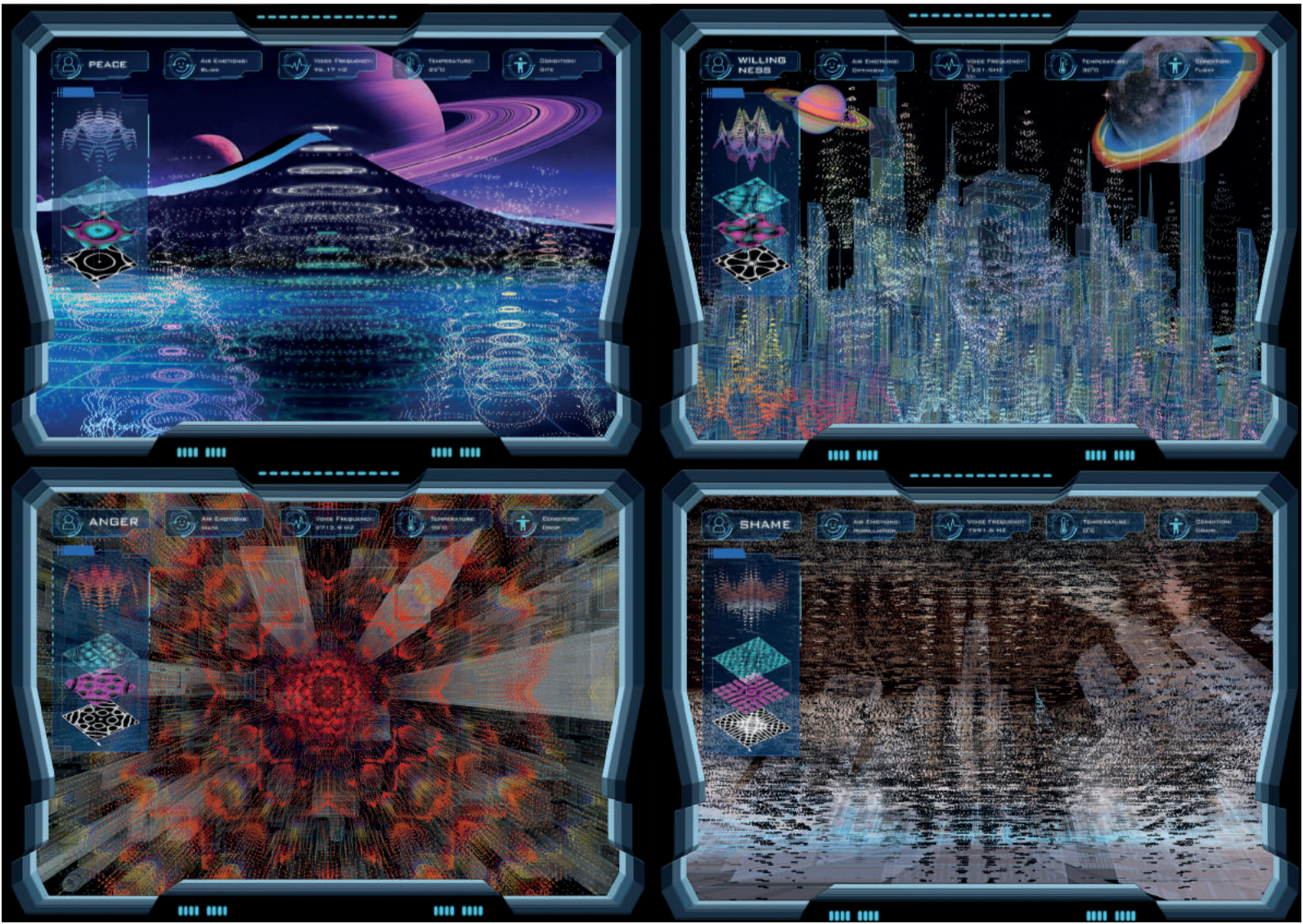
Retrace
by Simran Gupte

Retrace is a research project that explores spatial choreography through memory. Stimulated by the idea of emergence as described by Graham Harman in the book *Object-Oriented Ontology: A New Theory of Everything*, this research places an inanimate, yet discontinuous emergent entity, a situation, at the heart of the site. This very situation dominates a female human occupant, who, through movements, tries to recreate her domestic space in the weather radar. The study dissects ways in which one remembers object-related movements that are embedded through sensory attachment and habituation; even to an extent that one is able to recreate these movements in a new space and time.



Consciousness of Air
by Haha

I started my website with Weather Radar, which is mainly for human activities in the air, so my research is done in the air. Radar travels through the air in the form of waves, and so does sound. What is the shape of sound? Is air conscious? I realized that the air was my host, and I chose the voice as the protagonist. It will be a narrative VR experience device that will view the world from the perspective of a highly active air consciousness in the city of the future. Humans are used to seeing the world from the perspective of human supremacy, this time from the perspective of natural consciousness.



The 'Host', the Bees and the humans need each other
by Xinyu Zhao

In 2050, environmental problems are becoming more and more serious, scientists decided to produce artificial bees to maintain ecological balance, but artificial bees combined with artificial intelligence awakened their consciousness, and then they decided to fight against human beings. In the design of this weather radar, the artificial bees and the remaining bees on the earth are the 'Host' and human beings are parasites on the earth. Human beings strive to survive and disguise, trying to integrate into nature and biological groups that they once did not cherish. I also explored how humans coexist with bees in this situation, such as using colour and lights to communicate between humans and bees. This building will symbolize our cruel treatment of nature, the price we must pay.



Water, Sugar, Yeast

Jessica Oag-Cooper

We can see infrastructures being innately a product of its environment with the people inhabiting them being irrelevant to its origin. Embedded in our microscopic surroundings are integral structures that inhabit everything and are fundamental to the mechanism of normality. In our plant cells, there is inhabited cellulose which is the matter that acts as the structural component in the primary cell wall. Cellulose is our most abundant organic material on earth, and plays an integral role in keeping the structure of the cell stable; even the flexible rigidity of a blade of grass is due to its cellulose interior. This matter can be utilised in different ways and can be grown in the form of a biofilm, a pure form of cellulose that adheres to the surface of liquid, and is incredibly strong. By reverse engineering the grown material to understand its ingredients it was possible to critically analyse its usability, locality, and sustainability. By simplifying the recipe it was possible to examine the value of each component, therefore the cellulose biofilms were made using three integral ingredients; water, sugar, yeast.

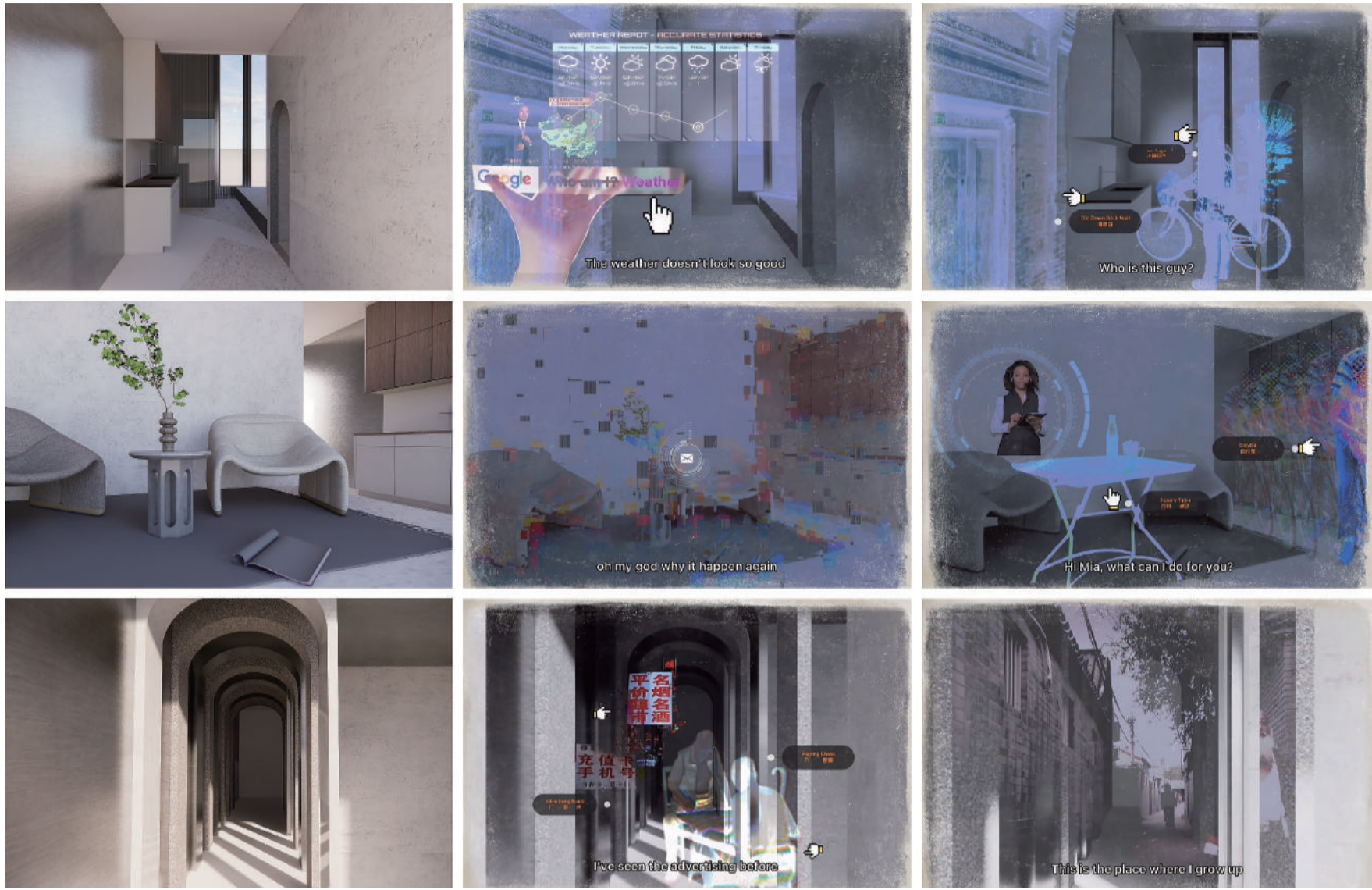
Water is something that we take for granted; it is present in our taps and our food, and allows crops to grow and thrive. We have water infrastructure in our cities; drainage systems, treatment plants, waste disposal, and proximity to a network of complex interconnecting lakes and rivers. Bacteria is present in these waters and exchanges contaminants when it meets. Water absorbs the typography of space; air, stone, and metals. As our climates change,

water adapts in scale in attempt to support its land and its people. It has an inherent geology to a place like marble or slate; with every drop providing information in both its microscopic detail to its physical presence. Grown biofilms inhabit this information and conclude in an embodied physical material.

The distribution of sugar is a complex system, and is ever-present in the modern diet, biofuels, and bioplastics. Sugar interacts with water creating a syrup vying to be a fragile crystal formations and sticky caramel. We can find sugar in molasses, the skins of fruits, and the tissues of most plants; extracting energy to grow the biofilms. This can be found locally, even in environmentally sensitive regions, and be used to start to rehabilitate the erosion caused by this polluting import. The difference between just sugar and water, and the production of a biofilm is yeast. Yeast thrives when its environment provides food and warmth; budding, enlarging, duplicating. Its colony will occupy space, allowing fermentation to begin and the production of organic cellulose, allowing the biofilm to trace the contour of its vessel.

Following these ingredients back unveiled a series of conflicting needs amongst different communities, but as our infrastructures and systems start to interconnect, we are presented with a new challenge; doing more with less.



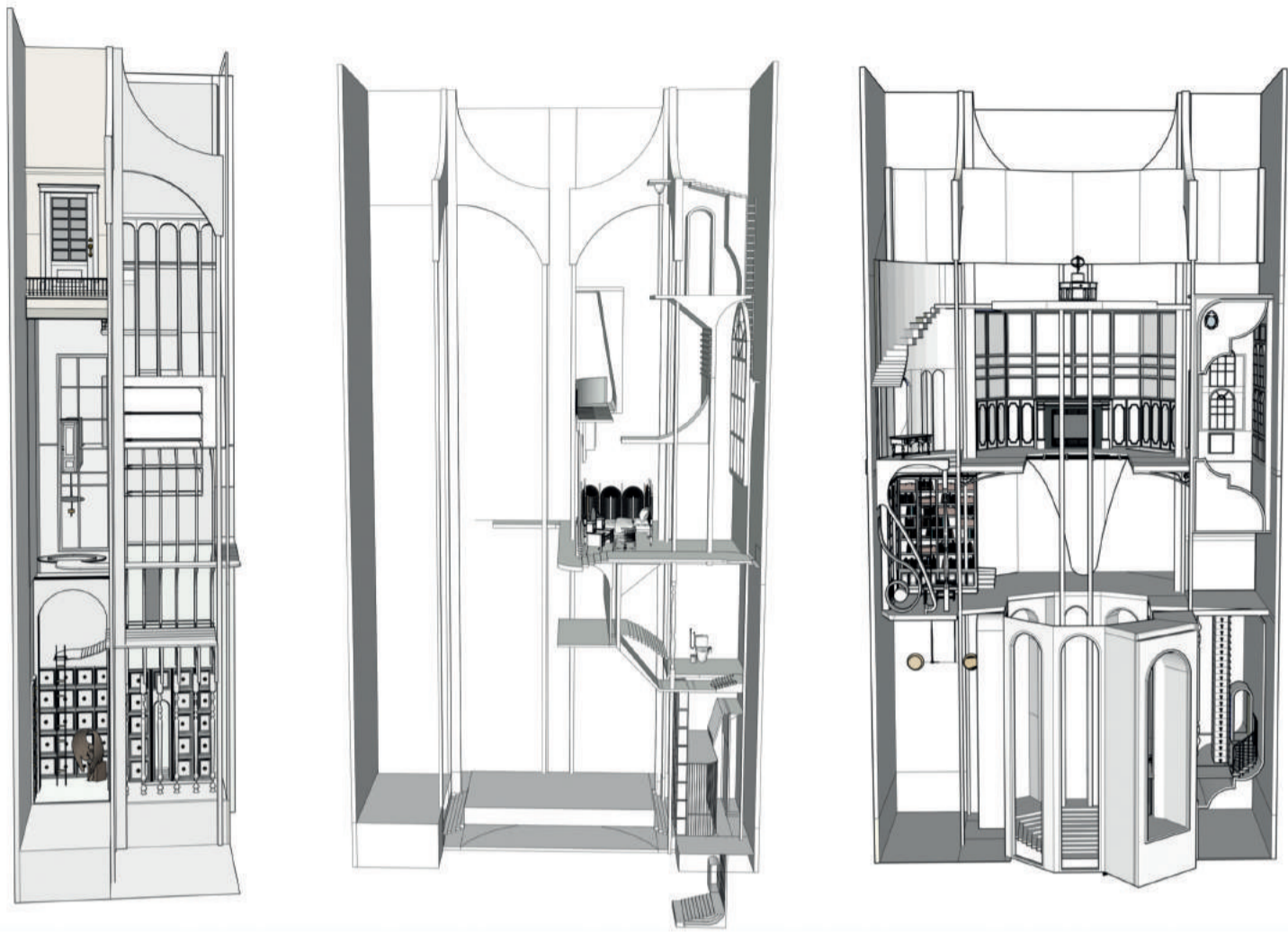


Mia's House
by Wenfei Gao

Exploring how individual memory and collective memory overlap then affects the perception of space through cyborg's view, turning the Radar Station into a cyborg home to be an experience space.

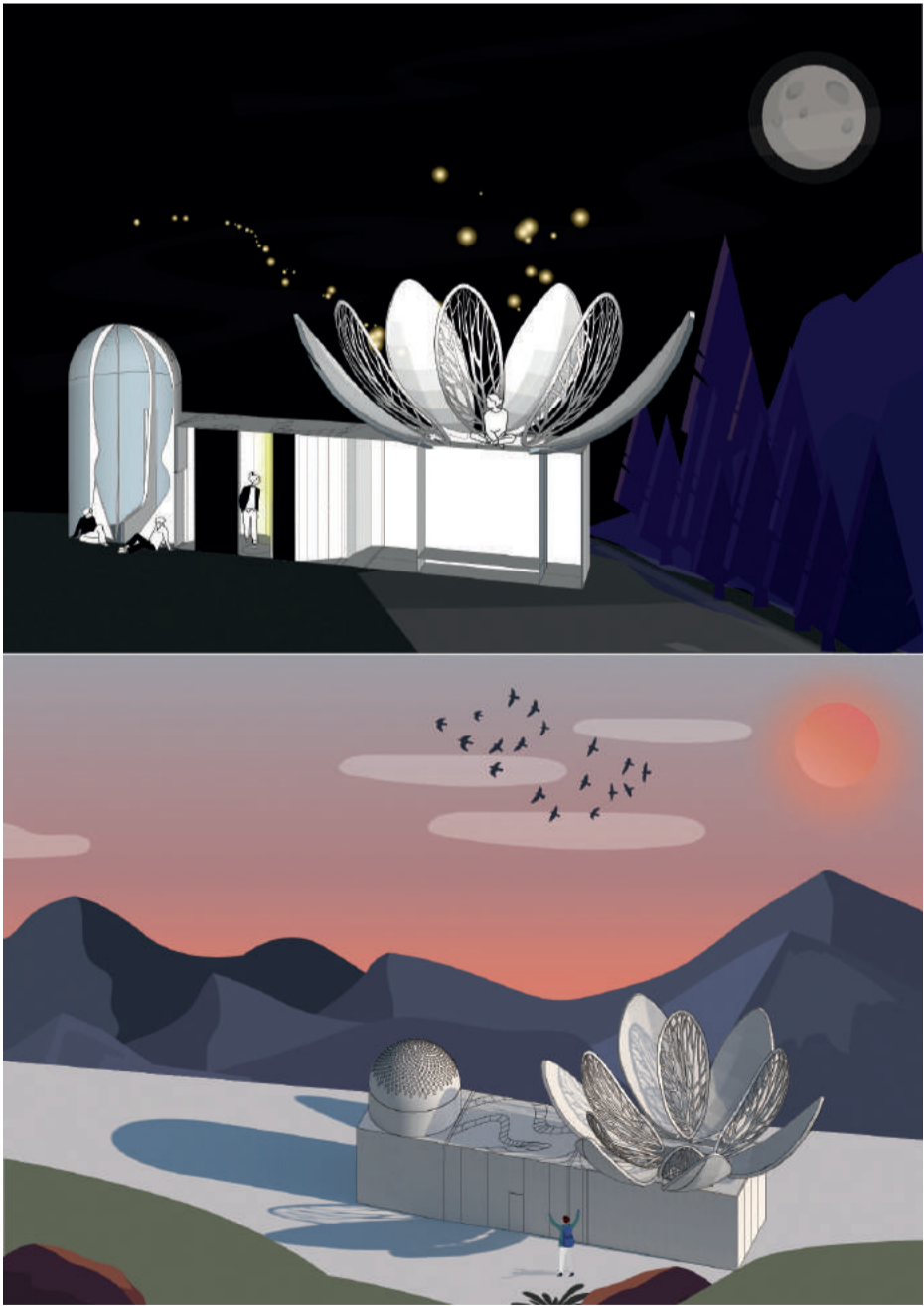
'Host' is an impressive experience that happened in the process you grow up. That experience is a specific moment, in a specific time, space, people around you, sensory experience, emotion mixed together to create a unique experience, this unique moment can quietly influence how you perceive the world in the future.

For Mia, the experience of growing up in the alley (HuTong) in Beijing is the 'host' even though she was transformed into a machine body, but the memories of childhood still flash in her mind. Maybe it's a glitch from an electronic system, maybe it's Deja vu, no matter how it happened, this flashback affects her perception of the present space.



Mr. Smith's anti-surveillance house
by Unique Xia

The project is formed through a space based on the translation of the novel 1984, with the ultimate aim of expressing the overall surveillance against Big Brother collectivism. By contrast to today in 2021, the context of this story has shifted to supervisory capitalism. This space reflects the totalitarianism of 1984, and the surveillance of capitalism of 2021. Make conceptual contrasts and parallels.



Healing Chamber
by Shuyuan Deng

If escaping time is to escape suffering, then this would bring us full circle, back to two of the central objectives of Buddhist meditation (Tanahashi, 2004). My story is set 50 years later, the virus broke out again with more violent power. But this time more people chose to believe in their inner strength, developing inner radar to control turbulent emotions. People's emotions and spirits have been hit like never before. Various negative emotions such as death, violence, pain, and disease are constantly increasing. The appearance of the healing chamber has brought great comfort and relief to people's emotions. People meditate in this place, which is similar to the Garden of Eden, absorbing the natural energy and finding their mental foothold.

Epitaph of the Land
by Matcha Liang

Host "Epitaph of the Land" is a speculative design project. This is a seed museum, defined as a tombstone in a non-traditional way. The work presents three elements based on the value of the land: water, soil, and wood (Scots pine), then extends with experiment and exploration in terms of the time dimension. The theme of symbiosis between humans and the environment in this work highlights the importance of architecture as a contractor of artificial products to provoke, guide, and develop public awareness of the environment. Addressing consumerism, desertification, it closely linked to the pressures that humans contribute to the environment. The project hopes to draw the public's attention to the wicked problems of consumption, global food supply scarcity, exploitation of natural resources, environmental pressures, and climate change. More importantly, human beings as members of the Earth's vast ecosystem, to take responsibility. Otherwise we will never be happy.





Rebuilding The City Around Hybrid Work

Melba Beetham

Remote working has impacted the lifestyle of the desk-based professional in the last year and prompted a comparison of the extremes; a nine to five office job and a fully remote work life. The debate around what happens next is anchored in middle ground and balance. Whether we loved or hated the experience of working from home in the pandemic, distributed work post lockdown promises to be a very different thing; a society now experienced at remote working within cities open for business.

There are many facets to the discussion about the new workplace, yet the nucleus is the non-negotiable office desk. No matter what the job is, it's hard to get away from the workstation's basic requirements; a desk, a chair, a power socket, a little circulation. All in all, a rectangular block of two to three square metres.

This component moved overnight from its base at the office to the home as if by flying carpet. The real estate requirement hadn't gone anywhere. It carved out a slice of domestic space. Work may have landed on the kitchen table or in the bedroom corner. The lines between work and home became a tangled mess. And yet, evidence has now gathered to suggest that the model has numerous benefits.

The gains aren't just practical such as the lack of commute, but psychological. The pressure to be seen to be working, and even presenteeism, has been removed. This opens up the potential for increased trust. Feeling trusted to deliver is good for self-confidence and builds better relationships. It also can help organisations to be more effective.

"A trust-based work culture has two major benefits: One, which people may not suspect, is productivity. As long as everyone is clear on the vision, people can be left to get on with their work. Tasks are not doubled up on through micromanagement. The second benefit is speed because everyone doesn't have to be involved with everything. Together, the increased productivity and speed that come out of a trust culture mean that organisations can get so much more done." (Matthew Phelan, Author of Freedom To Be Happy: The Business Case For Happiness. In personal communication)

With employers having gathered evidence that workers can deliver remotely, the typical working week is under review. Many organisations move to a hybrid model, with remote working offered at least part of the week. The task organisations face is balancing the advantages of remote working with the challenges.

"The counterweight to increased flexibility and freedom is lost focus, missed opportunities for collaboration and, most insidiously, the risk of isolation." [1]

As options other than one's own home become available, workers may ask themselves, 'If I can work from anywhere, then where

do I want to work?' We turn to co-working spaces to provide remote, non-domestic workspace. Up until now, these venues have primarily scooped up free-lancers and small companies. This time around, digital nomads of large organisations. This option brings the flexibility of location and a sense of freedom to choose the environment that works best for the individual. It also creates networking opportunities, expanding social connections, which sounds exhilarating after a year at home.

Even the term co-working space becomes increasingly expansive. The purpose-built co-working offices that have steadily grown in the last decade may grow and reshape themselves in some way. Both civic and commercial spaces absorb the activity of work, with hospitality venues not only accommodating people who wish to work but inviting them. CitizenM Glasgow offers access to workspaces for £15 per day, including a range of quiet niches and meeting rooms. BrewDog innovated during the lockdown, offering a WFH desk booking service for £7 per hour, including free coffee.

As well as having an effect on public spaces, distributed work has a ripple effect on infrastructure on a large scale. In a Financial Times Future Forum webinar Micheal Power, strategist at Ninety One, described how WFH may change the role of cities, with around 40 per cent of office space likely to be released.

"Living in cities is going to become an altogether different proposition. And I think that, depending on to some extent what happens to property prices, and that a critical consideration in all of this, the conversion of office space to residential space is something that's going to take place in a number of the big cities of the world" [2]

In personal communication Michael added:

"...released office space if properly packaged into not-too-big residential units will provide a perfect entry point for the younger generation seeking to get onto the bottom rung of the property ladder, which is currently out-of-reach for many of them"

This paints a dynamic picture of city centres as more youthful and energetic spaces.

Rural areas could also change as a result of this movement. The Irish government have laid plans to create a network of 400 remote working hubs across the country. The project intends to improve the regional distribution of jobs and offer a better quality of life by reducing commuting. The intention is to repopulate rural areas. [3]

With this wave of changes across the world, what happens to the office? Is there even an office? The conversation is mainly going in the direction of Yes, probably, but with a different emphasis.

With workers sharing physical space less often, the redefined office has a crucial role in keeping communication flowing and encouraging teamwork.

"Workplaces are being reimaged for activities benefiting from face-to-face interaction, including collaboration on projects and employee training, as a way to promote a company's culture and identity." [4]

More fluid and social spaces are looking likely. The workstation footprint will be cut down dramatically, and permanent desks give way to hotdesking. This will require careful planning of logistics to

get the capacity well matched to the number of available spaces. Storage of personal items needs to be catered for.

Vitra has captured the redefinition with The Club Office concept, a model they have already established in their organisation. This three-tiered system "inverts the traditional focus of the physical office – from being a place of productivity, the office becomes a place of belonging and social identification." [5]

Workplaces may borrow the language of other interiors more in the coming months, such as bars and hotels, to make offices feel sociable and domestic interiors to make them feel comfortable. Yet, the definition of workplace needs to be carefully maintained if we are still to feel we're at work. Innovation in the design of hybrid online and IRL meeting rooms is likely to flourish. Booths for video conferencing offer a chance for creative expression and could even become the signature of an organisation.

The changes offer an opportunity to scrutinise the interior, checking the alignment of the intended activity with the interior. For example, is the primary purpose of a given space concentration and quiet work or conversation and social engagement?

David Dewane's Eudaimonia (Human Flourishing) machine, an experimental laboratory space in which spaces are defined intensely by the intended activity. "Social Galleries" are offset by "Deep Work Chambers." [6]

Whilst it's prudent to develop spaces for better output, let's not forget that the workplace isn't only about productivity. At least not in a directly measurable form. The development of individuals and organisations also comes from the serendipitous.

"Not being able to work in the studio, bounce off each other, have those chance discussions and interactions that lead to creative ideas developing can be challenging. Meeting with other colleagues in the studio kitchen to get a coffee or looking over someone's shoulder as you pass them, finding interesting materials and samples. All these things are missed." (Roisin Reilly, Associate, B3 Designers. In personal communication)

These incidental aspects of the working day help explain why there may be a mixed bag of emotions in losing the established office culture. It may not have been perfect; at times mundane and at times restrictive. But the workplace holds us together, giving the organisations we are part of some definable form. It can even provide refuge when other aspects of life are in disarray.

The redefinition of workplace culture and the spaces we work in is bound to be a steep learning curve. As things settle into a new shape, we may have more precise models of success, a blueprint of where to draw the line between structure and flexibility.

The first day in a new job could have a very different feel. Where typically you are shown to your desk, and from there you learn how to adapt to the new environment. Instead, you are at liberty to figure out what environment best fits you, at least for some of the time. The working week is becoming more personally tailored.

As we move into a new era for workplace culture and consequently redesign, the choices opening up to people are exciting. They offer empowerment to the individual and could well spark eudaimonia - or at the very least, a little more wellness in the working day.

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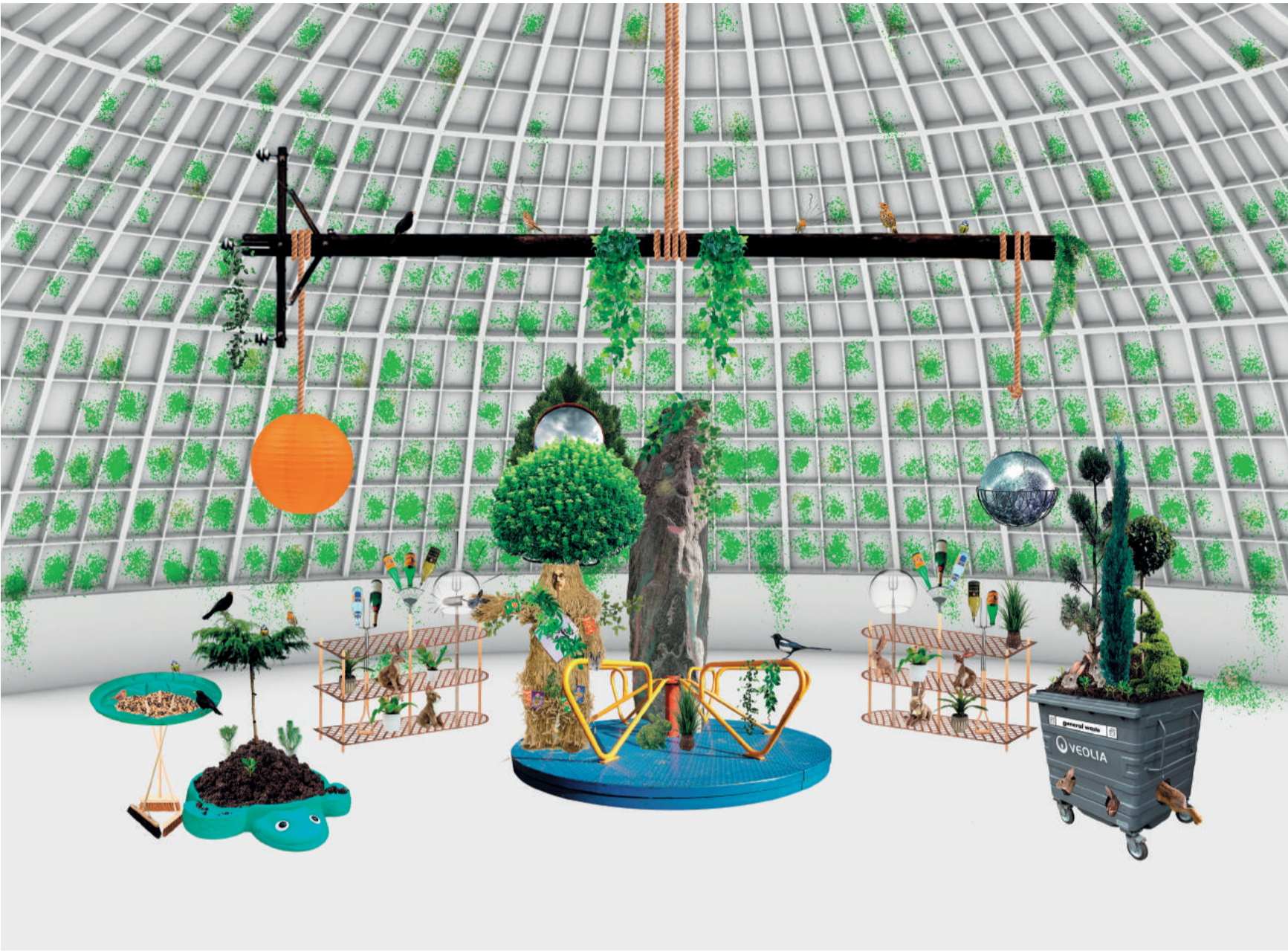
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Time is Malleable
by David Ross

When a Midwinter festival goes wrong, our hosts - a Neolithic tribal leader, a magpie and a standing stone, are accidentally transported through time, from the Land of the Pishinrain 2628BC to Argyll 2031AD. Arriving in Glasgow, they are fascinated by the scale and acoustic properties of the Gartcraig Road salt dome and decide on this as the site of their future festivals and ceremonies. Making use of the unfamiliar objects from their new material world, they design new ceremonies based on those of their past, with a wish to reconnect with their past lives through these familiar acts. Time is Malleable is a fictional exhibition of the assemblages of objects created by our Hosts for this purpose. The exhibition presents an investigation into material culture and the role objects play in the creation of memory, ceremony, relationships and time.



Shelter in fire
by Meng Zhang

Salt dome has a stable structure, its internal temperature can be stored for a long time, and can adapt to temperature changes. Its original purpose was to store and protect salt, like a shelter. After investigating the environment and studying the characteristics of salt dome, I chose to place it in the forest of Australia to protect the koala and reduce the damage caused by frequent fires. Koalas need food and water, as well as a certain space for activity and treatment. At the same time, people who work in shelters to protect koalas also need working space and rest space. Therefore, the space is divided into koala activity area and the human activity area. Koalas can move on planted trees and artificial poles. Human trucks can bring injured and homeless koalas into shelters and put them in this safe place.

Hierarchy of Being
by Erin Moodie

This project explored the Science Fiction genre in its depiction of nonhuman identities. The host in its function as existing is in service to humans, part of a larger network, in allowing for the transportation of goods and movement across the country. Subservient and dutiful in its identity, the Host is unaware of its activity as aiding in a system of mass consumption.

The new function looks to theoretical studies of the experience of beings and 'nonbeings', such as the 'Hierarchy of Needs' and the 'Great Chain of Being', to develop a vertical interior programme of the Host's evolving consciousness. The layers of each interior space, interpreted through materiality and spatial elements, represent the journey of the Host, in its basic function, its need to interact, to connect, to learn, and finally to reach an understanding and awareness of the world around them.

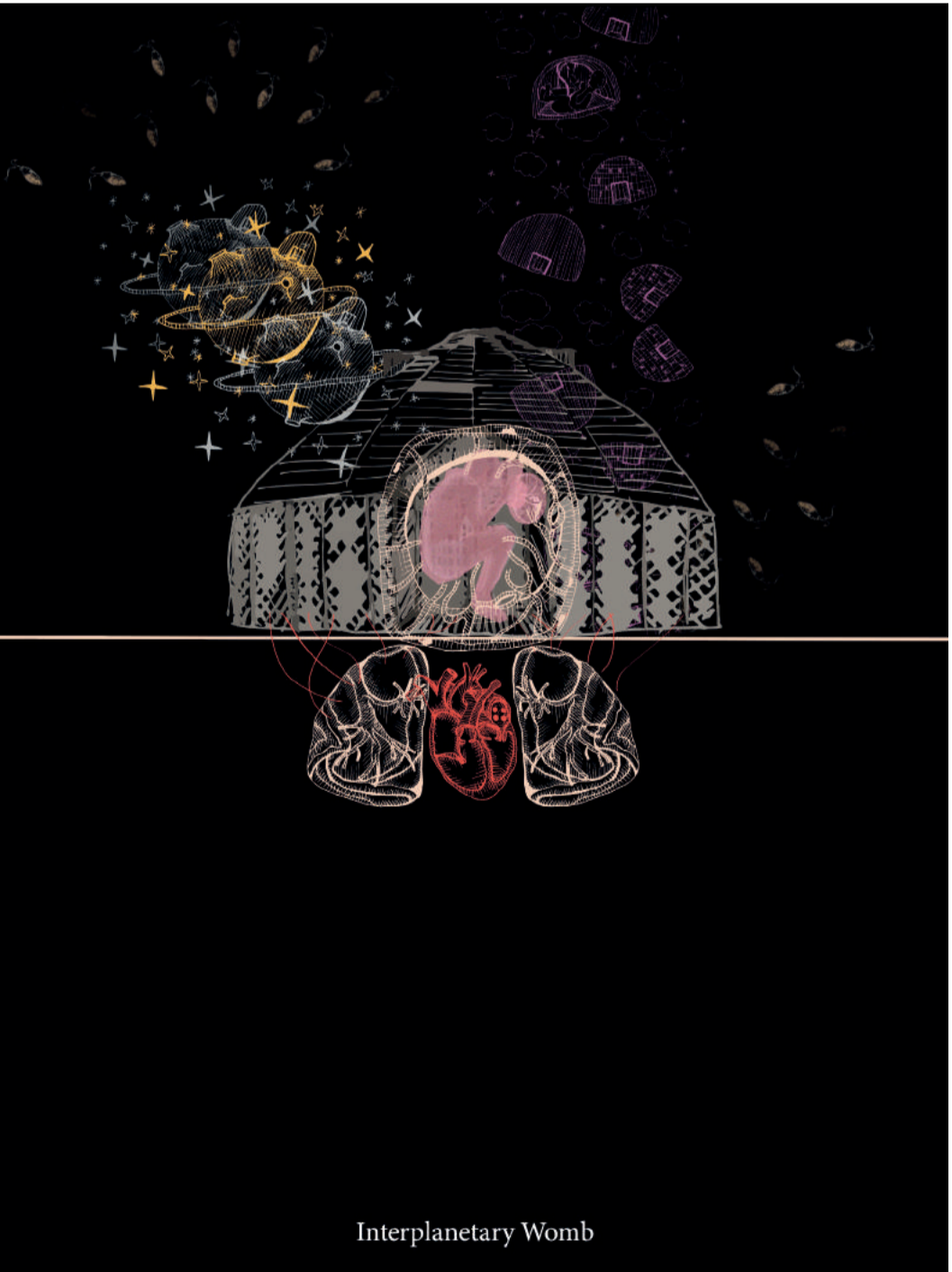


The Interplanetary Womb
by Ruby South Moffat

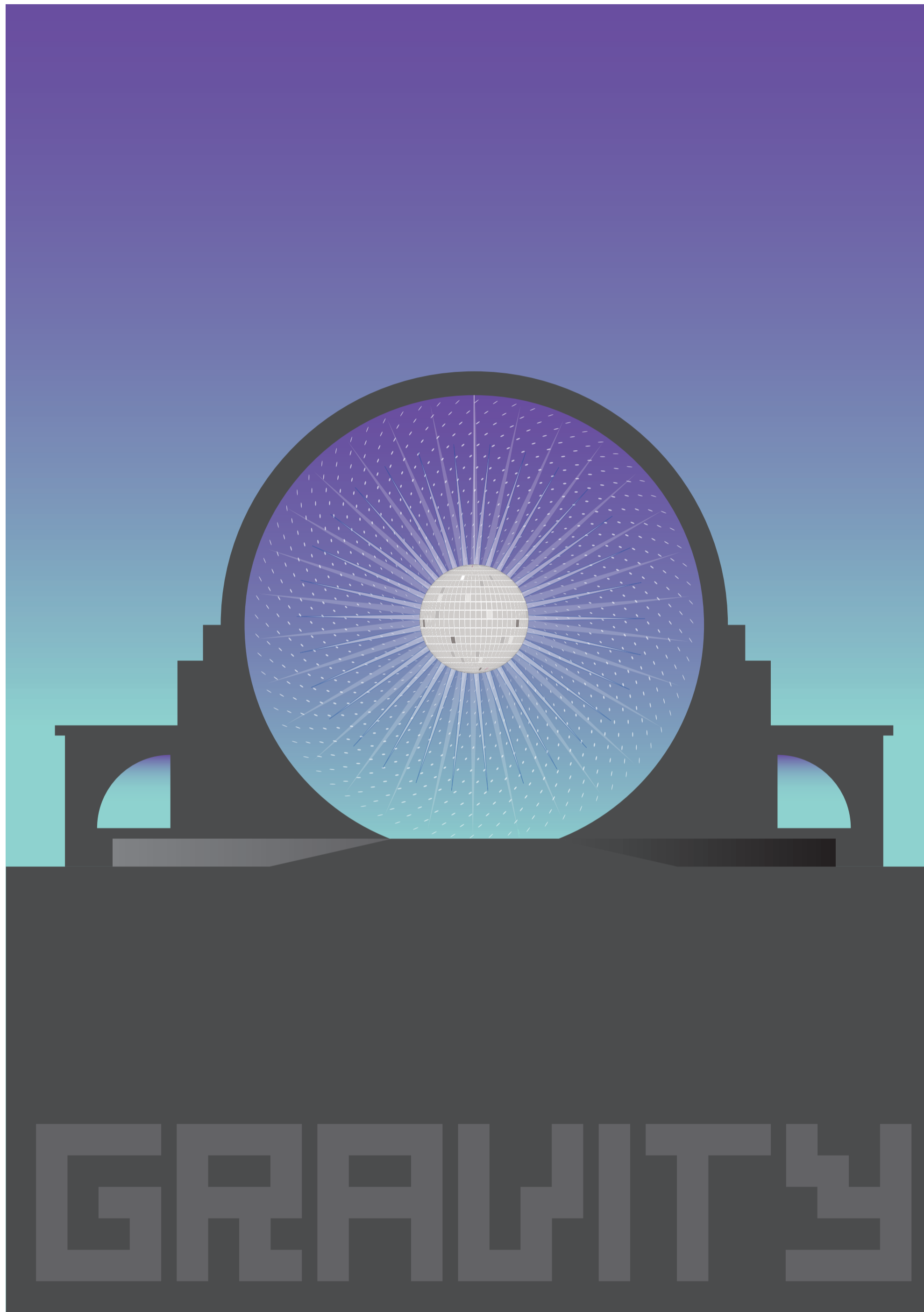
The Interplanetary Womb is a speculative design which proposes an artificial womb situated on Mars. I combined up to date with my own imagination in order to come to a finalised design proposal, throughout the project the themes of transhumanism, gender and patriarchy are explored.

The building acts as a deconstructed female body which is reflective of the overall concept which dismantles the patriarchal positioning of women in society. The female body is reclaimed through the design as the building takes on the role of a woman, thereby liberating the bodies of physical women.

Womb Pods are grown within the space which act as portals to the Womb World. The Womb World is a dimension outside our own where time is altered and reality is blurred with imagination. Inhabiting the Womb world is intended to enhance parents(s) connection to their baby as well as provide a metamorphic, symbolic experience.



Interplanetary Womb



The Mirrorball and the Deckchair

SpaceKraft (Thomai Pnevmonidou and Patrick Macklin)



The facilitative constructions which constitute infrastructure—gasometers, salt domes, weather stations, motorway gantries and water towers—find an echo in these images of unbuilt objects, two familiar silhouettes, a section revealing half of a monumental spherical chamber set alongside a snapshot of a skeletal, sprung-helix.

Eschewing the signature, subtle washes and characteristic pen-marks of their historic sources in favour of a brash, flattened and posterised representational style, these revisions seek to obliterate the temporal distance between original moments of creation,

opting instead to segue between out-of-context contexts, bathed in perpetual twilight or the hazy glare of a kitsch and supersaturated high-noon. In this place the towering iconography of infrastructure is alternatively channelled into a type of remixed utopian idealism, an armature for the impossible... or the improbable, bearing the legends 'Gravity' and 'Sun', the interface between their simultaneously earthly and cosmic ambitions reduced to mere headline.

Gravity and the Sun (2021) forms part of an ongoing series *defused-utopias*.



G4-30 Survival Tower
by Wei Yan

In my project, time is my host. My building is a survival tower after the flood. It was originally used as a survival tower by people after the disaster because of the advantage of electricity. However, with the passage of time and the ageing and decommissioning of wind power equipment, this survival tower has gone to its doomed decline. During this process, the residents in the tower came and left, but only time domains.



Post Cyberpunk Lives
by Caiwei Yang

What kind of relation will we have with our exoskeleton if we are living in a post cyberpunk world? How would this relation have an impact on our life and the form of our living space? Are we the one that hosting the exoskeleton, AI system, and the space that we live in?

TOWER OF NIGHTMARES
by Yijun Xing

The Tightmare Tower is a disturbing place, a prison and a playground, where Host's world is part dream, part nightmare.

The wind turbine has a white exterior but a dark atmosphere inside. Through the design of the interior space I wanted to represent the nightmare world of a dancer consumed by five desires. The Tightmare Tower distorts the soul as well as the architecture, it magnifies the desires of the human heart. The world in the Tightmare Tower is full of excessive temptations for man, in which he develops feelings of despair, achieving the effect of the opposite of what is desired, and thus reflecting on the nature of desire. The only way to successfully escape from the Tightmare Tower, from a life wrapped in desire, is to pass through the many obstacles, to see the true nature of the temptations and to let go of the obsessions.

Renewal
by Zhihan Zhao

This project takes the Anthropocene as the background, puts forward an idea of the future of artefacts, and considers the relationship between artefacts and the earth's environment from a non-human perspective. Through the analysis of the art works related to the Anthropocene, the concept of Anthropocene and Object Oriented Ontology theory are philosophically considered, and the event of "planting lichens" is used as a medium to create a fictional future. I try to bring the audience into a post human narrative by storytelling, considering the functions of artefacts and space from the biological instinct, hoping that in this way people can reflect on their own needs and pay attention to the impact of those anthropocentric human activities on the environment.

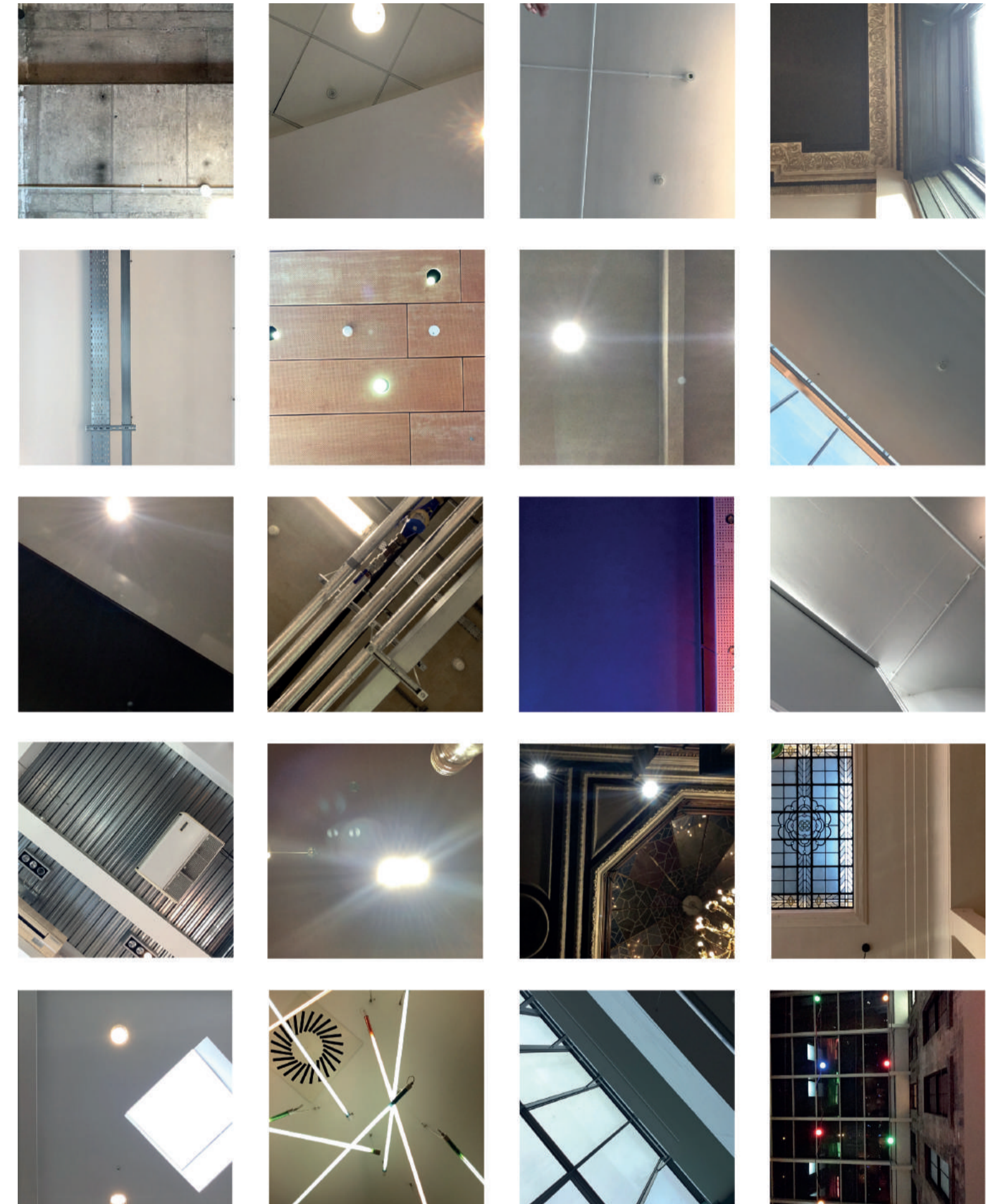


Enjoying the second year interior design students presenting their workplace projects to staff at clockwork offices down the road from the studio on Renfrew Street Glasgow.	Visiting a friend in hospital, feeling anxious.	acoustic plaster white painted conduit PIR occupancy detector smoke detector sprinkler pipe hand	Morning cappuccino and perhaps a croissant, daylight streaming in through the window and the sound of Italian talk radio mixed with the milk being steamed fill my ears.
painted plasterboard ceiling cable tray cable trunking steel channel	perforated birch plywood shadow gap recessed led spotlights smoke detector PIR occupancy detector	painted plasterboard downlighter concealed beam	acoustic plaster smoke detector sprinkler pipe suspended fluorescent lighting glazing
painted plasterboard downlighter	concrete smoke detector cable tray fluorescent light fitting water pipes various cable trunking steel channel	painted plasterboard threaded bar cable tray recessed downlighter	Staff meeting, squeezed around a flimsy coffee table, squinting from the daylight even with the blind lowered.
A moment to pause while exploring the sites of final year interior design students, having traveled across the city it is time to pause, enjoy a coffee, and ready ourselves for the next site.	surface mounted downlight glass water bottle	A moment of reflection and quiet on a first year study trip enjoying the dark sky on the other side of the leaded glass.	leaded glass rooflight wooden moulded trim comice ceiling rose
Plasterboard rooflight recessed lights PIR occupancy sensor	Spending time with family, exploring an exhibition, supporting a recent addition to Scotland's tourist map.	acoustic plaster shuttered concrete smoke detector sprinkler pipe suspended fluorescent lighting glazing	night sky reflections glass roof external wall brought inside

Real-life Rituals and Social Media: Co-opting Infrastructure

Digger Nutter

tongue and groove timber ceiling lighting track Par16 lampshade ceiling rose candelabra	Meeting up before the interior design christmas party 2019.
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#WTTTS (What The TableTop Sees)

When I sit down at a table I put my phone on it, screen up. I use the front camera to take a shot straight up at the ceiling, taking in the often unintended aspects of an interior. It's a subverted snapshot, a counter to the glossy staged image we're all so familiar with. It can often be a revealing moment about infrastructure, materials and design decisions, looking in the direction that you are not expected to look.

For me it is a fortuitous moment to consider the place that I'm in. Acknowledging to myself that I'm in a physical place and doing a physical act, reminding me that I'm interested in looking at the spaces that I occupy.

I use the ritual of taking the photo in the same way each time as a reminder, as a physical act to engage in considering

the place I'm in. Sometimes this act of engagement lasts only for a few seconds. Maybe I'm in a discussion, I'm involved with other people, my coffee arrives or I'm busy in the place. At times it acts as a way to give me more time to speculate and think about the design decisions made within that interior.

I share the images on Instagram to create a collection of these fleeting moments.

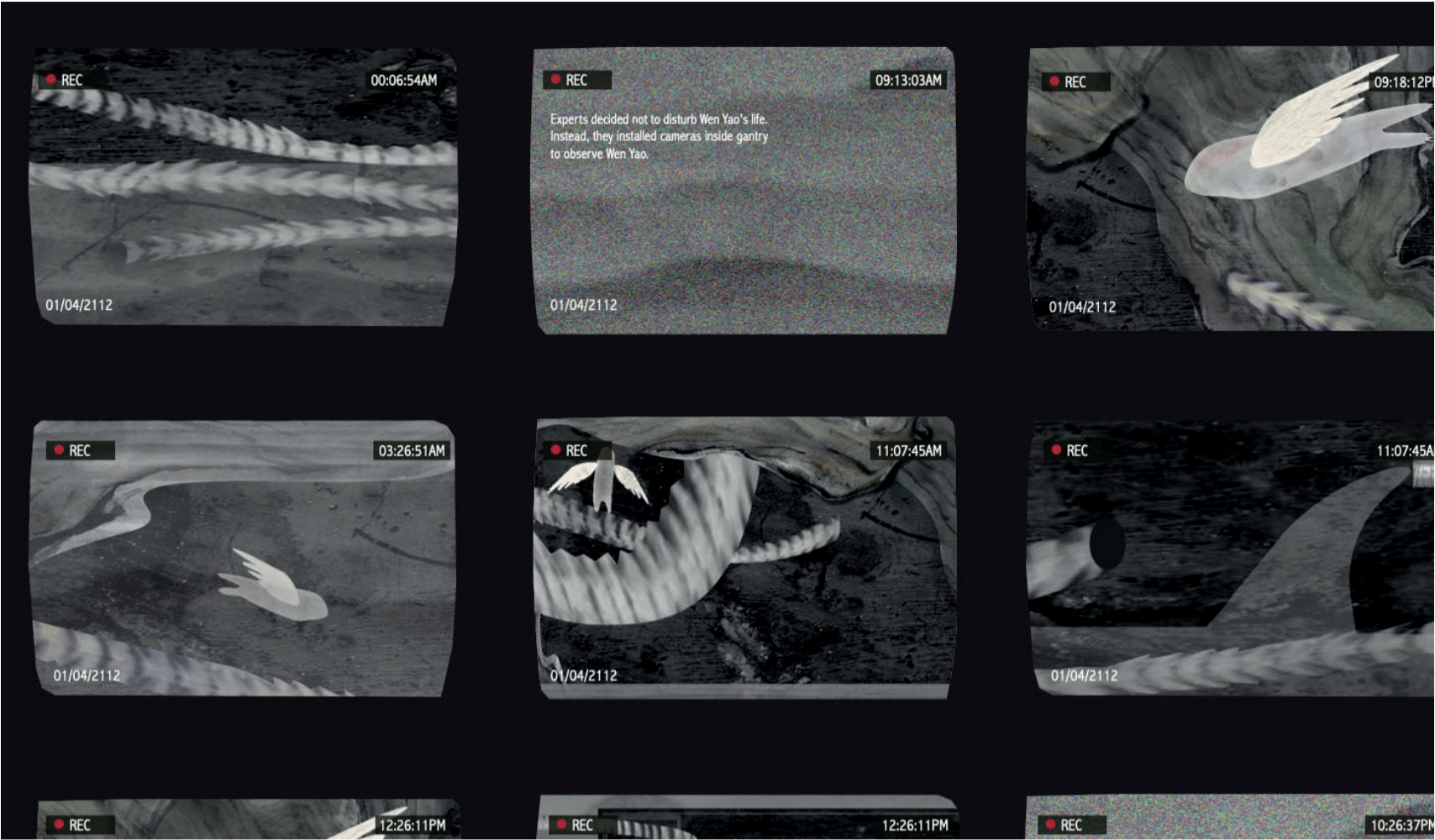
By making a ritual of taking and sharing these pictures, I can use it to make myself consider the decisions that other people have made in each place. I try not to consciously curate, just to let whatever falls within shot to exist in the frame. To allow myself a moment of unanticipated focus.

What The TableTop Sees is a tool that I use to make sure I'm looking. Reminding me to consider and process what I'm looking at.

I hope you can take a moment to look up.



MOTORWAY GANTRY

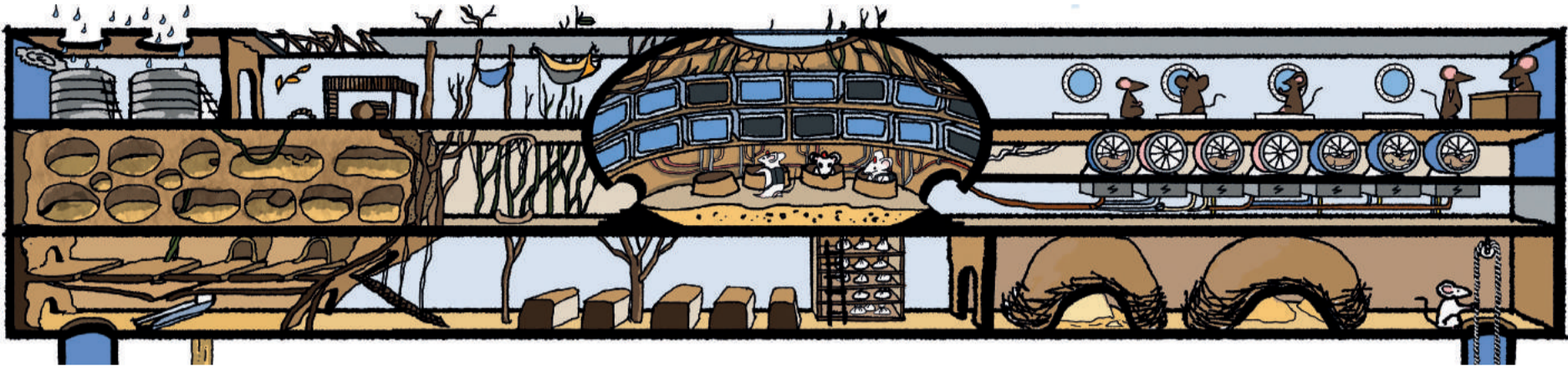


Wen Yao Grotto
by Yun Liu

Wen Yao first appeared in the book Shanhaijing of the Warring States period, which is the oldest book of myths and legends in China. After the Tang Dynasty, they disappeared, because they had been hunted and killed by human due to its nutritional value and efficacy. They had to hide in the groundwater to continue to breed. During that time, they could only feed on industrial waste. Until 2038, groundwater reduction, Wen Yao reappear on the land. At the same time, people use motorway gantry to add the function of storing and purifying industrial waste, which attracted Wen Yao to come here. They build their homes in gantry and create the culture of their own time. People observe this ancient creature after they are found.

This project discusses the fusion and conflict between Chinese traditional culture and modern industrial civilization, and explores the expression of myth in narrative space.

MOTORWAY GANTRY



FREE LAND
by Ying Chang

Due to the iceberg melting, viruses that are lethal to human beings are also released. The residents of coastal cities are forced to move inland, and San Francisco has become an empty city. During the evacuation, two cages of lab rats were accidentally blocked down and left on the road when passing through the motorway gantry on the I-280 highway. This project is a speculative design for a new function of motorway gantry, the Rat take over the control and become the character live in the Host. In this scenario, I want to show how the rat will decorate their space when they occupy the motorway gantry and create a living environment where each rat performs his duties and has his own value.

Office of Synesthesia - Sense Loading Procedure
by Xin Yu

The motorway gantry in my project is a host computer connected with various nodes constituted by multiple senses, called 'Office of Synaesthesia'. It proposes a stimuli strategy to rouse and blend the density of senses, where the boundaries between the physical world and the human body start to overlap and interact with each other. This project is particularly focused on the notion of 'synaesthesia'. That is, how synaesthesia can both mean 'to provide a view of' and 'a sensibility of making arbitrary links between seemingly unrelated perceptual entities'. The awakening journey of multisensory perceptions in OOS allows general people to develop connections between all senses. It's meaningful for enjoying, knowing, and creating, which enable the construction of high-level perceptions. I advocate that synaesthesia is a personal ability that can turn from a slumbering state of being half-awake to a sudden full, bright, conscious awareness.



Existence or not?
by Jenny.Z

The story takes place in 2050. This is a world dominated by gods. Motorway gantry has become a medium for passing the instructions of the gods and a church-like existence. People's lives depend on God's instructions in their daily life. In such a mode of life, there is a guy John who started his pilgrimage because of his worship of God. He visited every gantry, and his piety finally allowed him to see "God" – a person who living in gantry was answering the prayers' questions on the screen instead of God. John suddenly realized that God might be controlled by these people in the control room. However, John didn't know that he only guessed half of the truth. In the remote control room sits the real ruler of the world. He controls the information that God gives to people in each gantry, and the people don't know that God is actually a tool and image created by the ruler to control people. This makes his rule more rationalized in the name of religion.



Endless Verse
by Wonder Wang

Our earth is round and the road is flat (and curved, but we don't often remember that). We move a little further each day in a particular trajectory. Countless times we pass by a certain place we must pass through, but very few of us will look back at these paths that have been trodden in our footsteps. Until one day, what we expect to happen happens. These familiar paths, these surroundings, disappear in a loud bang, echoing from the distant past, and we don't see how far away these echoes reflect and disappear. But we know they have not disappeared, caught between the contradictions of the faction and the fiction.



The Home as Infrastructure

Dave Loder

The domestic home is traditionally considered a refuge from the world, a place where one can be 'at home with oneself' and express the Self in the most intimate of spatialities. Notwithstanding feminist and Marxist assertions on the importance of home and domestic labour for the reproduction of capitalism, the home is viewed as a sanctuary from work, a place to rest unlabouriously. However, the Covid-19 pandemic has radically reconfigured the intimate spatiality of the home, where under the itinerary of 'Working from Home' the domestic and the institutional collapse into each other, and the threshold between public and private is agitated.

These spatial disturbances of the intimacy of the home have a distinct digital condition, sustained most directly by webcam and screen-based communication platforms. While the presence of digital portal might be a small and discrete artefact within the home, its presence expands to fill the home. Most crude is the zone of vision projecting from the webcam, capturing intimate details of domestic spaces for distribution across an institutional horizon. But the impact of the screen-camera hybrid is much more textured, troubling the psycho-spatial dynamics of when and where one is or is not 'in work', with not only

space but time leveraged very directly by forces beyond the traditional confines of the home.

However, it is essential to contemplate such spatial reconfigurations as part of much broader infrastructural impulse of the domestic situation. This can arguably be located under 'platform capitalism' and the 'Uberisation of everything' in which dispersed private goods are reorganised and centralised as public commodities and services. These ever more complex and extractive infrastructure are contingent on the ubiquity of screen-based technologies in everyday experience, and give the technology platforms access to both producers and consumers of any particular service in the 'sharing economy'.

Of particular significance for the domestic context is the Airbnb accommodation sharing platform, in which private dwellings are commodified and notions of individuality, personality and privacy become experiences for consumption. In comparison to intrusions of the order outlined above, there is a distinct intentionality in reconfiguring one's domestic property and inviting a guest. However, it is the screen-based mediation of domestic interiors as the key mechanism for Airbnb's operation that resonates directly with

the screen-camera hybrid's role in #WFH. Equally, these infrastructural procedures contribute to the age of the mass image, with the everyday use of screen-based technologies and image-sharing practices. Any domestic home not only has the potential to be plugged into the sharing economy, but the imaging of the home becomes complicit with further and potentially more extractive conditions of data-collection and analysis by the technology platforms themselves.

With the aim of exploring these concerns, practice-based research was undertaken that engaged the process of photogrammetry, a machine vision procedure that constructs a 3D model from 2D images, using datasets of images from Airbnb interiors. To directly question the extent to which technology platforms extract surplus value from our private experiences, images of interiors where subjected to the extractivism of photogrammetry, and for discrete intimate moments to be (re)produced for inhabitation by others. The fabricated artefacts deliver a specific sensibility of 'digital intimacy' and query what additional infrastructuralism is at play in the domestic interior.



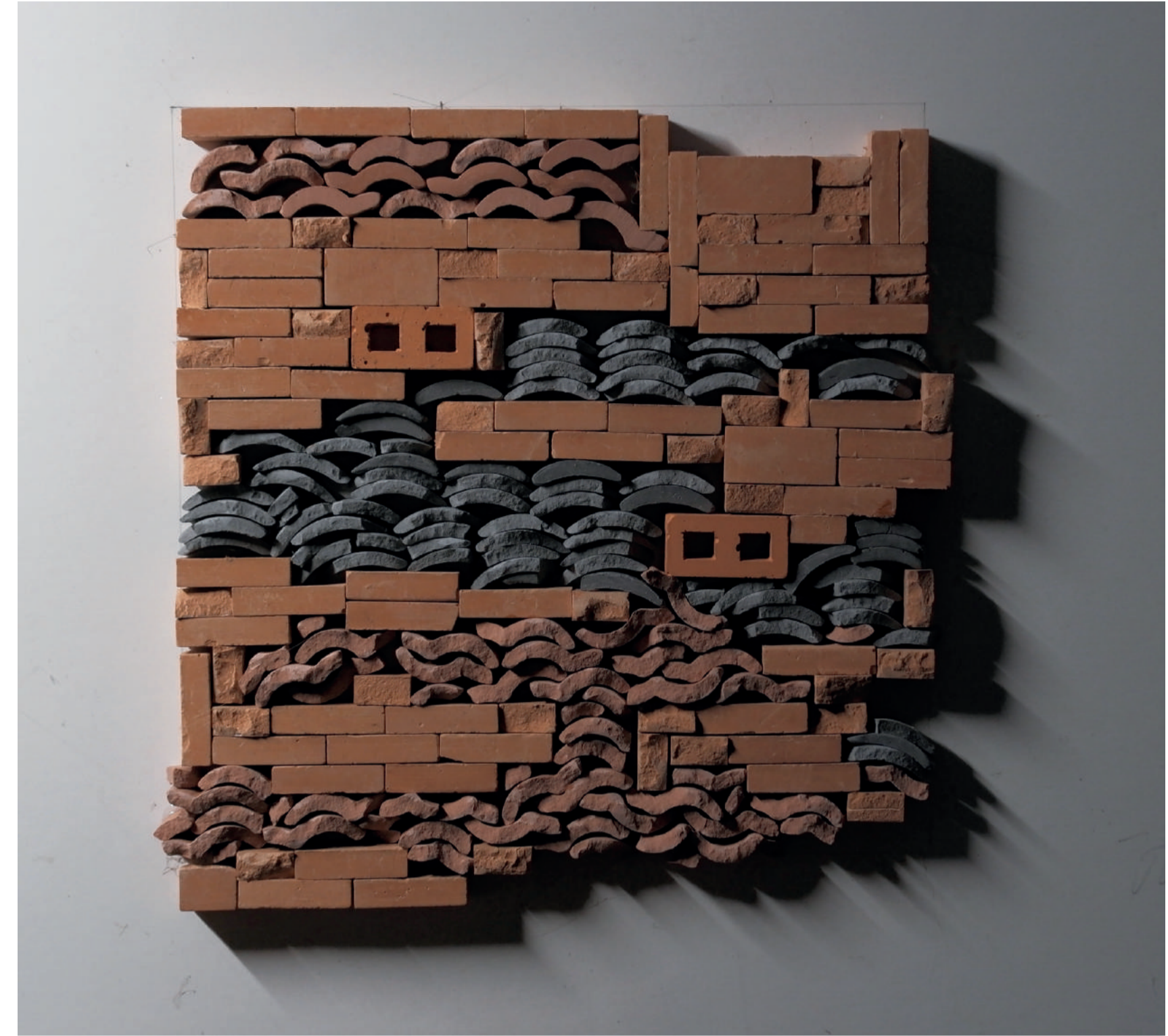
Post-Pandemic Sanatorium
by Dennis Lum

Post-Pandemic Sanatorium is a healing space through a revamp adaptation for a decommissioned water tower building in Scotland. By redefining the identity of the host, I established a mystical tale that binds a post-pandemic narrative for this project. This new form of inhabitation aims to provide a healing space to serve the community around it. Paying homage to the water tower when it was built during the post-war period to facilitate the fast-growing prefab homes that aided the homeless crisis faced after world WWII in Scotland. The building acts as an extension to their home and responds to the crisis drawback which has drastically damaged us internally.

'New Memory' Community Centre
by Wenhan Li

My building is a water tower, which is located in an abandoned meat processing factory area. Specifically located at the junction of the factory and a residential area. Like Heidegger's "hammer" example in Being and Time, when the factory was closed, the original operating state was broken, so the workers noticed this state and began to use some materials in the factory. As time went by, abandonment became the norm, so the whole area now remained silent. Therefore, the focus of this project is how to break this silence.

Discarded bricks and tiles, which I call "one-dimensional" materials, are combined into a two-dimensional wall. With the increase of the material dimension, the material acquires a new state, attracts attention, and triggers their memories. This is my definition of HOST. Just like the server in computational semantics, buildings also store memories through these materials.



Cyborg Hospital
by Yang Shi

This is a cyborg remodelled hospital in 2600. In the beginning, the physical connection between humans and machines was to solve the problems of the disabled. But the future environment is not suitable for natural people to survive. It is necessary to transform human beings through technological means to adapt to the environment and survive better. Cyborg hospitals have gradually become popular.

In the hospital design, natural elements are introduced into the interior to break the boundary between the interior and the exterior and blur the boundary. This is a metaphor. In this process of transforming the disabled to cyborgs, it is also breaking the boundaries of human bodies and blurring the boundaries between humans and machines.

But in the future, there will be unlimited problems. The flow of identity, a large number of body templates, weakened kinship, loss of origin, and no end will be seen.

"The Lifeboat"
by Lyes Chikhoun

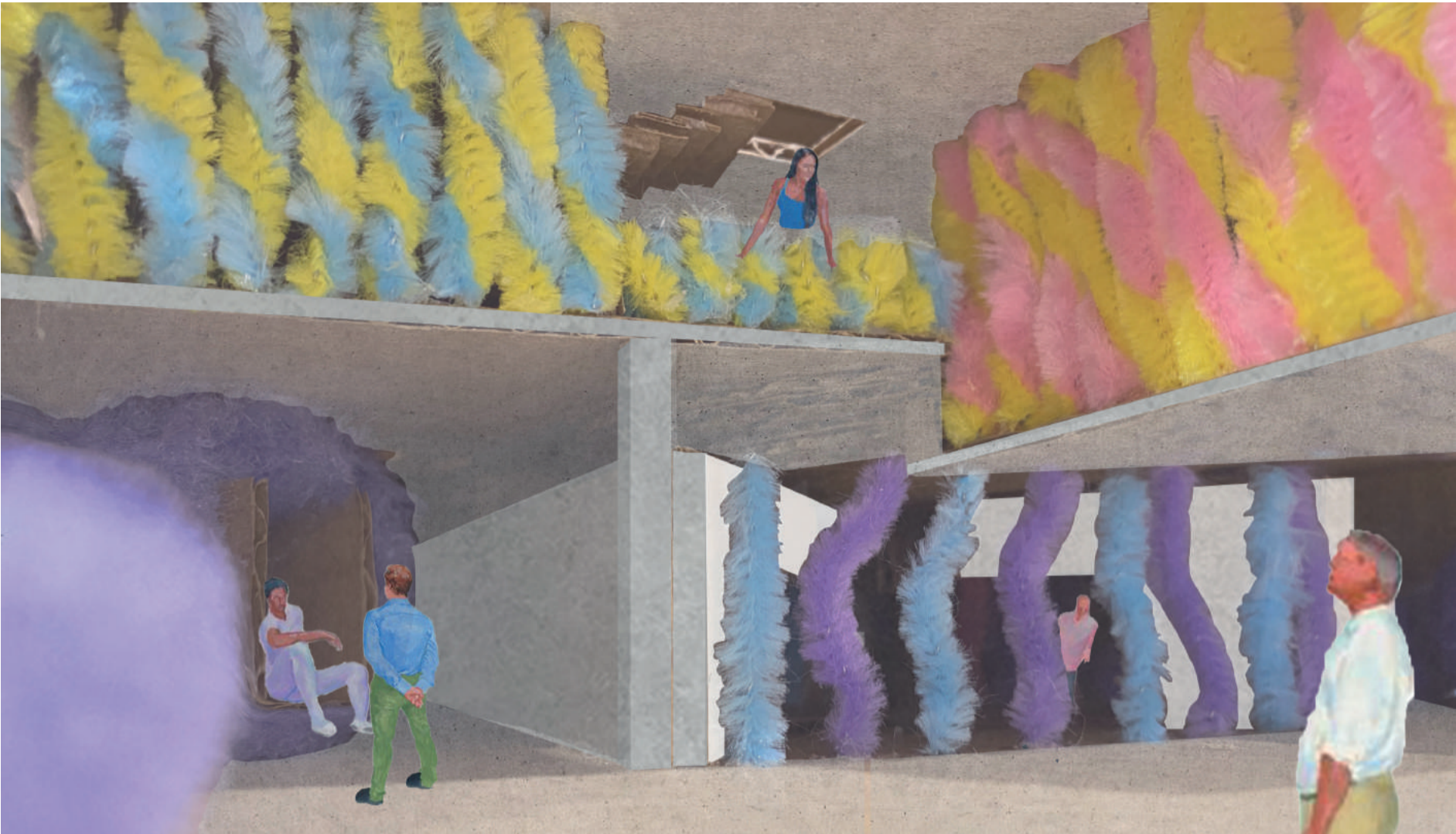
The water tower has never been a water tower, it's real use has always been a place to save humanity and other species. The building will have a different function from its original, where its principal role to save lives at the time of sinking planet and playing a huge role of a reborn of a new world.

The climate change is threatening our planet, therefore, giving the Host a character of a "Lifeboat" where skipping lives from the flood can climb into the tank of a water tower when they have been ordered to do so via the central element on which the tank stands. The "Lifeboat" reflects the same notion of Noah's Ark and it has been built awaiting to receive refugees and then float on the water, and give them the opportunity to live in and plan for a new life.



RE-ENCOUNTER – The Covid-19 Pandemic Memorial Space
by Chuchu Liang

The host of my project is people who lost their loved ones during the coronavirus pandemic. The host may struggle not just with the bereavement, but with the impact of social distancing measures and the fact that he/she may not be able to say goodbye in the way that he/she would have wanted. And as a close contact of the infected person, he/she is likely to be discriminated against and isolated by others. It can be an extremely difficult and challenging time for people who lost their loved. "Re- encounter" aims to create a general and specific place, a place is education and healing, a place to remember not only the coronavirus pandemic, but its victims, hero, and the survivors, the memorial can be a valuable personal setting, and an integral part of the society as a whole. The project is not only a meeting of life and death, a remembrance of past events, but also an imagination of future life.



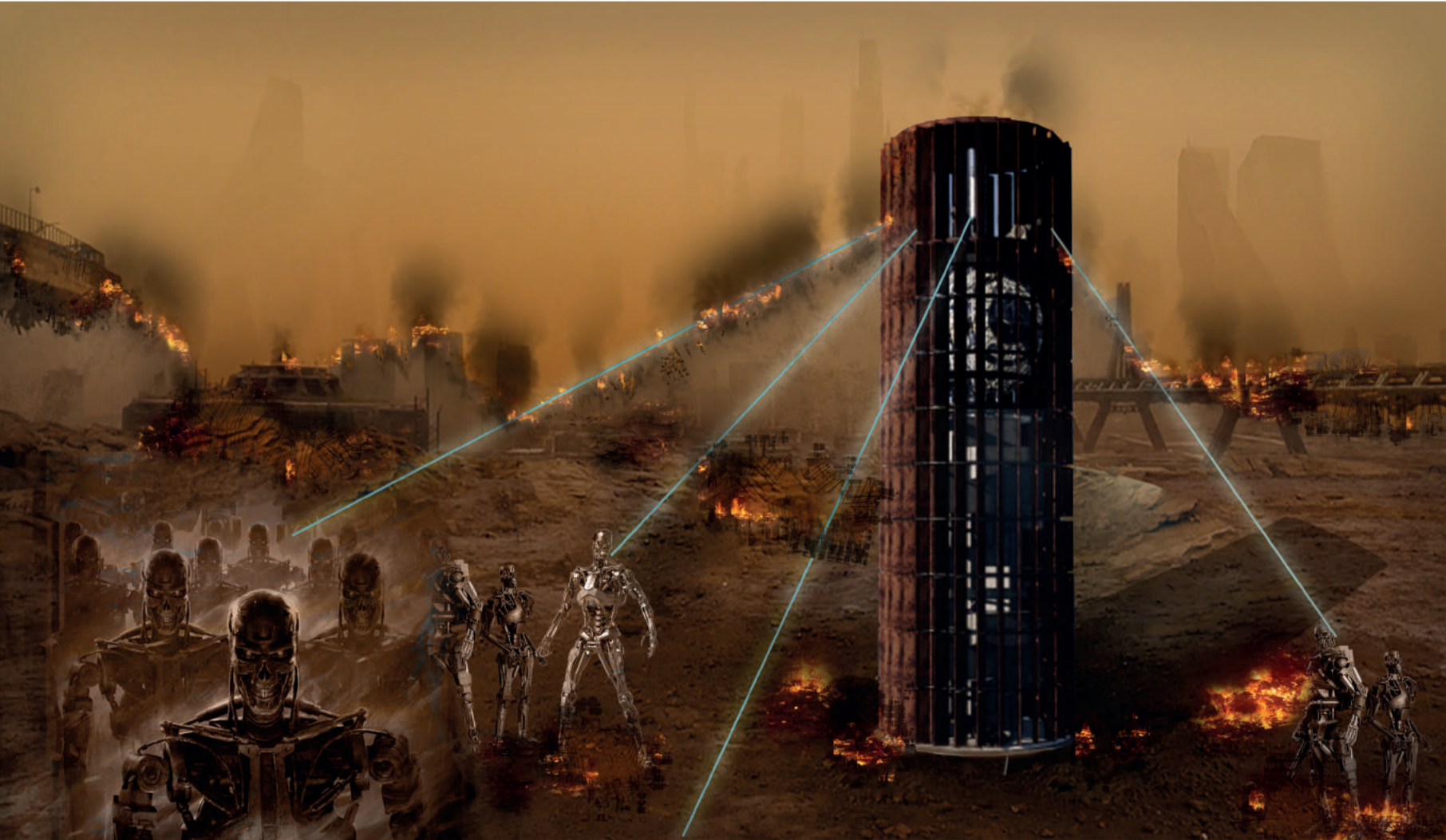
"λ" ISLAND – A journey of queer gender exploration
by Shanshan Jiang

Today we live in a world of duality, where everything has an opposing side, right and wrong, black and white, yin and yang, male and female. On the contrary, do people ever remember that there is a non-dualistic group of people in the world who belong to the grey zone of our time and live in their own isolated islands? As the water tower is a local landmark, my design theme is to break through the binary world and create a landmark for queers to carry the emotions they face when exploring themselves, using symbolic elements of emotions and colours of space to present them, while allowing the world to understand and feel and reflect on the current social environment.

THE ONE

by Mengyu Jiao

The modern vision of the future city is based on reality. In the highly developed technological life, does it bring benefits to people? Is the trend of future technology really within human control? After the development of science and technology, the series of problems and consequences that have arisen are worthy of reflection. The first stage is the investigation and analysis of the project background and designated building types. And the existing analysis and research on the reconstruction plan of the "water tower". And define the identity and concept of "Host". The second stage is site selection and initial space attempts. It is particularly important to select the location of the "water tower" and the relevance to the "host" after determining the "Host". The third stage is the design output stage. In this stage, the internal reconstruction is carried out in combination with the case and the existing features of the building.



Inhabiting Infrastructure is an exhibition and research publication presenting a variety of modes and strategies for the inhabitation of infrastructure by staff and postgraduate students from the Interior Design Department at The Glasgow School of Art

Exhibition and publication curated and designed by Dave Loder
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