Liminalities Atlas

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The Liminalities Atlas shares the work of the wonderful students who have collaborated with us on an exploration of liminalities over the past few years. We have had the pleasure of working with our University of Universities (UoU) community through a sequence of short workshops focusing on process; thinking through making. The UoU workshops offer the space to step outside of familiar contexts and evolve ideas through collaboration. These short workshops continue to offer far richer experiences than the short timespans might suggest. The results are not final pieces but ways thinking and of understanding.

The paragraphs that follow share the questions asked and the speculative processes explored.

DRAWING SPATIAL MOVEMENT

We came together to run the Drawing Spatial Movement workshop in 2021/22 to begin to ask how we might evolve drawing methods that respond to an understanding of space as continual performance. This began an engagement with a view of our world as a folded mercurial space of constant flux and event. We began to see ourselves as embodied companions, all moving through time within unfurling narratives.

The workshop aimed to challenge traditions within architectural representation that tend towards a promotion of permanence and of static space. We began a critical engagement with our movement and experience as we walk. This formed the foundation for explorations which questioned the nature of dynamic spatial experience.

The work began to unearth embodied spatial experience, such as perceptual border zones of spatial vagueness. Individual drawing tools evolved from these findings to tease out a design process embedded in an engagement with movement and embodiment.The process we followed is shared below within Karolina’s exploration.

Fig.1-5 Author: Karolina Małota.

EMBODIED DIGITAL LANDSCAPES

In 2021/22 and 22/23 Sarah collaborated with Marcus Winter, a human computer interaction specialist at UoB, and our UoU cohort, to speculate on our evolving relationship with the digital landscapes we inhabit. We entered a world where stories can construct and reconstruct themselves at will, time can be reversed, and mirror worlds echo Borges fiction. We challenged notions that an increasing engagement with the digital must deny physical embodiment with all the dystopian and problematic environmental consequences that might bring. We explored the potential of emerging technologies to extend our limited anthropocentric perspective, asking if we might create architectures that blur the boundary of the physical and digital to enhance our embodiment. The workshop was two pronged and also focused on the design process in the context of emergent generative AI. The emphasis sometimes placed on a final glossy image can lead to

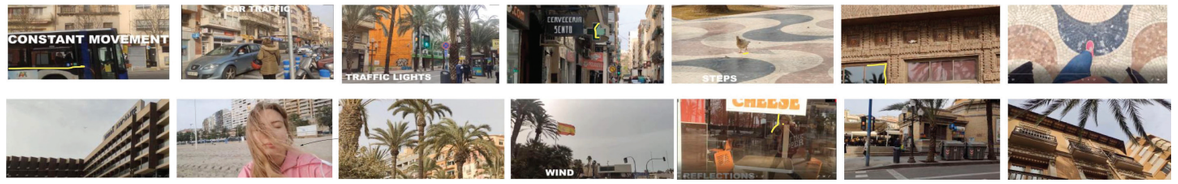


Fig.1 - Karolina Małota: Record of the initial walk, collecting reflections and experiences.

Fig.2 - Selected frame for experimentation.

Fig.3 - Exploration and identification of a method. Exploration of the experience of moving past a reflective shop window.

Fig.4 - Exploration of the experience.

Fig.5 - Exploration of the experience.

misunderstandings that this is what design is, the output of image generators can therefore be equally misread. Rushing to a final generated image is to abdicate the huge responsibility we have for the design of spaces that inform and enrich our lived experience. Marcus gave a talk demystifying machine learning and AI, and I offered a perspective on the nature of design as process through the lens of the critical position. We then pitted AI tools against our usual design process. International groups evolved speculative proposals through a considered design process drawing on a clear critical position.

The original ambitions for the project were then typed into an AI image generator. The results quite starkly revealed how the roughest of sketches were immensely more valuable than a glossy AI render. The process work held layers of thought and a depth of richness from the exploration of site, embodiment and critical position that the AI tools had nothing to offer to.

The process work of one of our teams is shared below.

Fig.6-10 Authors: Sergio Cabanyes de Benito, Clara Mata Garcia, Francesco De Pretto, Mattis Castro Prado, Jaei Jung, Hyunju Woo, Julie Huertas, Tekle Gujabidze, Anna Borkowska.

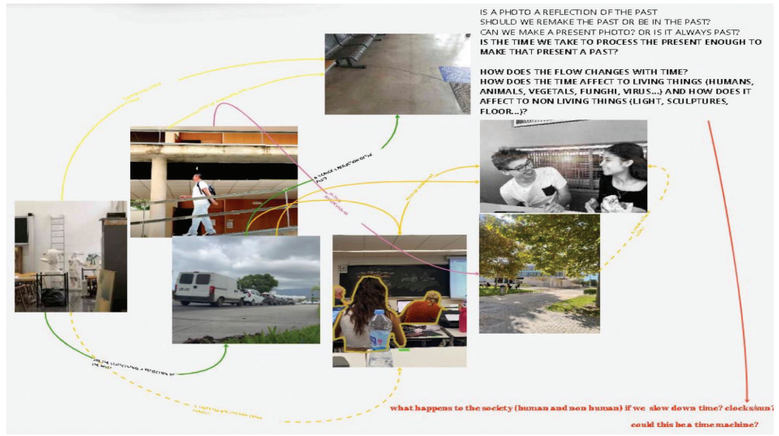
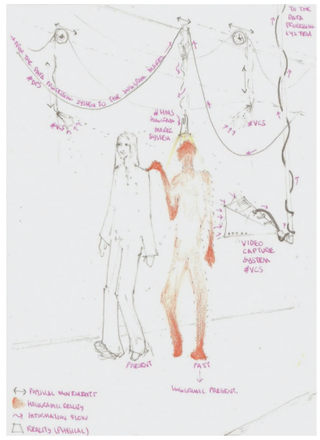


Fig.6 - Initial exploration of ideas and concerns.



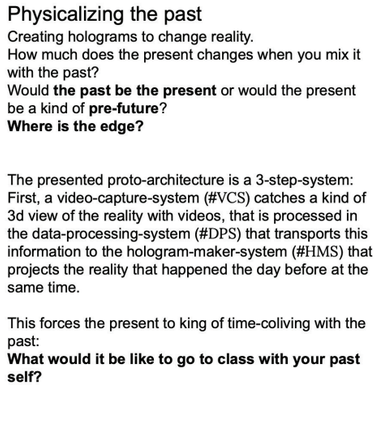


Fig.7 - Explorative sketches for thinking through ideas.

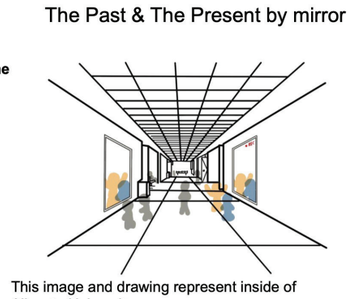


Fig.8 - Proposal for a mirror which returned the past to the present.

Fig.9 - Filmic exploration of the inhabitation of place by the shadows of past times.

Fig.10 - AI image generation produced by typing in the initial ideas at the end of the design process which hold nothing of the richness of the proposals..

MEDIATING SITES: THINKING THROUGH DRAWING

In 2022/23 we furthered our joint exploration to explore how we might think through our drawings. The workshop explored drawing as a means of extended cognition, looking at how this might be applied as a tool for furthering site exploration. Embracing an understanding that we extend beyond the perceived boundaries of our bodies to occupy the tools we use, we explored how the action of drawing might act as tool for evolving understanding as opposed to merely representing.

Challenging ourselves to extend into our drawings we began to think through them to more fully understand spatial conditions. We experimented with the potential of site drawings to act as tools to explore situated project concerns, evolving potential methodologies. These became tool kits for the application of drawing as an extension of site investigation and the design thought process. We used Rhino as a shared tool for this exploration, uncovering how we might otherwise deploy its capabilities within a process that offered space and time to evolving and uncovering thought.

We share below this process as explored by Julia.

Fig.11-16 Author: Julia Schritt: Collaging, layering, montaging a site from photographic recordings. Drawing construction sequence within Rhino 3D software.

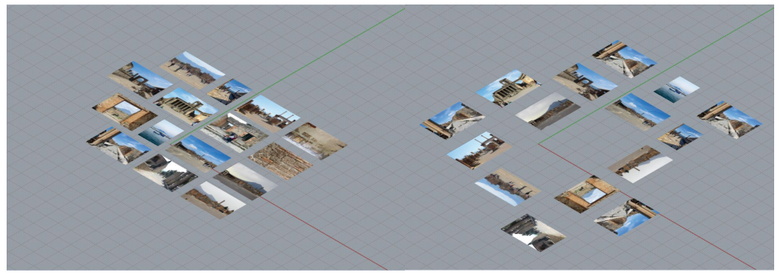


Fig.11 - Initial exploration of ideas and concerns.

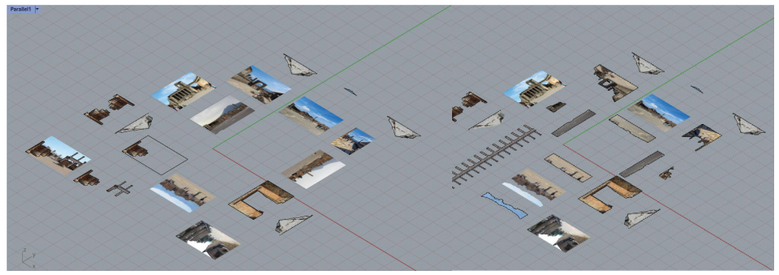


Fig.12 - Step one and two: photographs imported into Rhino.

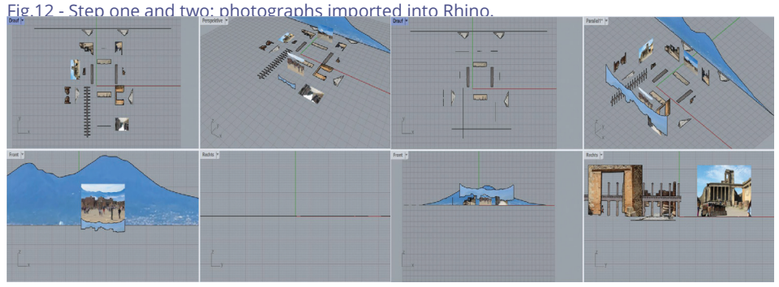
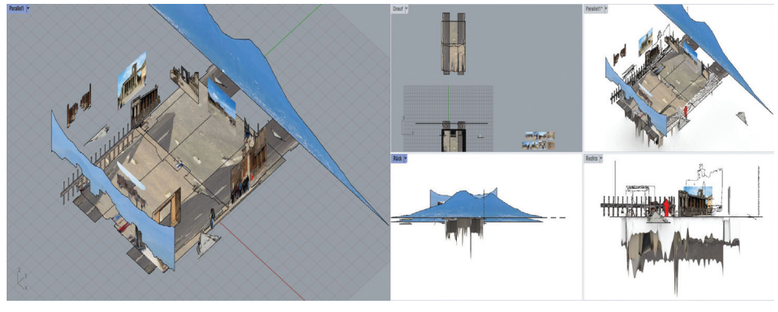


Fig.13 - Step three and four.



14 - Step five and six.

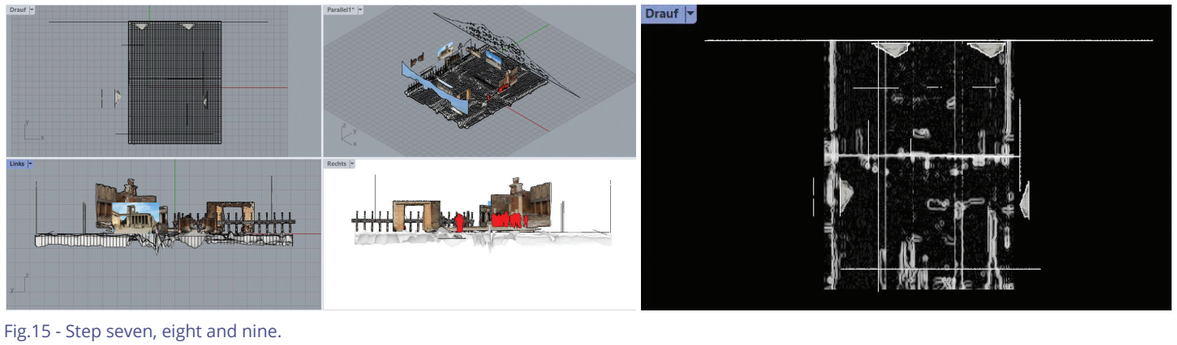


Fig.15 - Step seven, eight and nine.

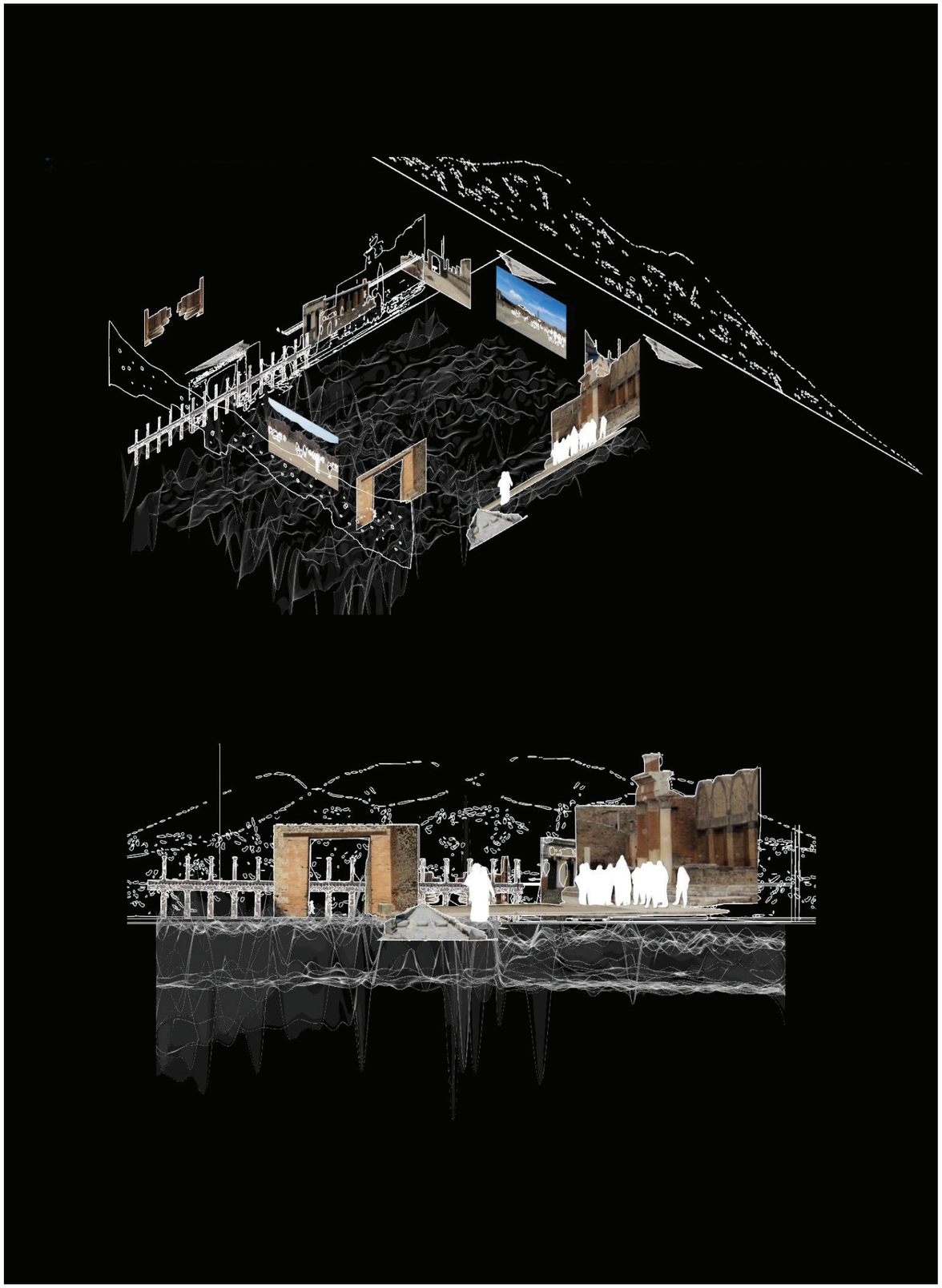


Fig.16 - Step ten.

INTERWEAVINGS

Sarah continued an exploration of embodiment within digital landscapes in 2024 collaborating with Edward Crump of Kingston University, Karina Rodriguez a specialist in digital representation and Marcus Winter a human computer interaction specialist from UoB, and our UoU cohort in the Interweavings Workshop. We speculated on how we might harness a thicker, interwoven understanding of digital and physical space to extend embodiment. David Attenborough said "No one will protect what they don't care about; and no one will care about what they have never experienced." We therefore explored speculative proposals interweaving augmented reality into our urban spaces to entwine our experiences with those of our non-human companions, drawing them to our attention in order to enhance all our futures. We furthered our exploration of the design process in the context of the continued evolution of AI tools. We discussed the role of the critical position in evolving meaningful design, Marcus updated us on advances in AI, illustrating possibilities and limitations, and Karina introduced us to the world of augmented reality. Technologies are neutral, it is the ideas with which we weald them with that determine outcomes. So with our approach and ambitions clear we then released AI tools to really learn through doing. These tools are undeniably here and undeniably powerful. We either critically engage them within teaching, or they are encountered anyway without full understanding and potentially derail the design process. Within the workshop frustrations with the limitations of AI tools when working within a meaningful design process quickly turned people back to working with methods that had the power to capture, and crucially evolve ideas, such as collages, sketches and animations. Below we share the work of three teams exploring these tools within the evolution of an AR project. At first glance they appear to be effective at illustrating ideas, but although fast and visually impactful their use acts to shortcut a potentially rich design process which had more to offer. See our exhibition web site here: https://uouinterweavings.wordpress.com

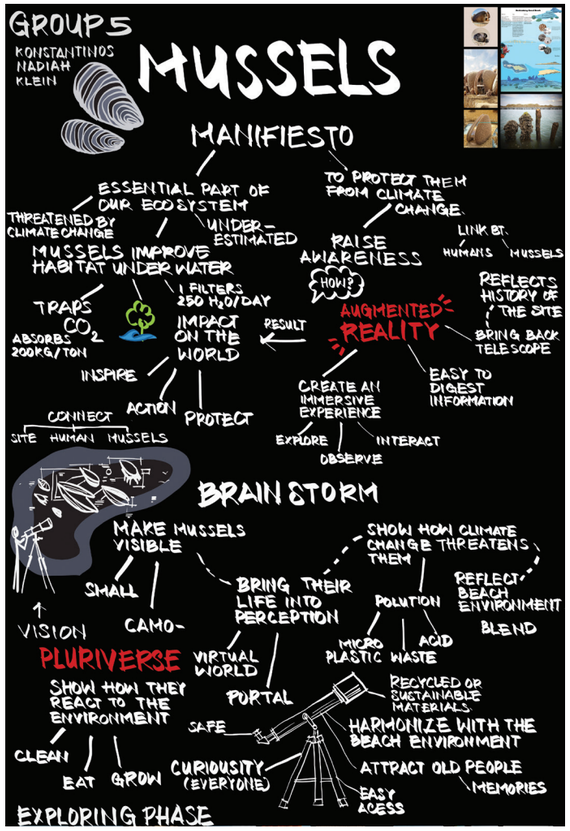


Fig.16 - Klein, Huseein, Tsamis: Development.

Fig.17 - Yasemin Sanal, Arthur Connolly, Tiffany Marianne: AR app disclosing the squirrels role in planting trees and regenerating forests.

Fig.18 - Yakin Adel Ben Aghil, Barry Leigh, Kamali Srinivasan, Leon Garamow, and Elisabeth Nesporova: Proposals to both identify and bring to attention insect life offering habitat within the city.

MA STUDENT WORKS

We are indebted to our students who have creatively and innovatively explored the concerns of liminalities at both the University of Brighton and the Bergen School of Architecture. This engagement was initiated with the Moving Through Course we ran together in 2019/20 at Bergen. Students since have evolved these concerns within both schools and a small handful of their work is shared below.

Embodied Affect

Moeini, Ashkan[1]

[1] MA, Architectural and Urban Design, University of Brighton, UK

In the quiet embrace of Madeira Terrace, where the whispers of history meet the roar of the sea, a vision was born—a dance of light and shadow, of art and advocacy. This hallowed ground, with its weathered stones and cast iron grace, was chosen for its solitude and its story, a perfect canvas for an immersive symphony of human rights and the homeless.

The journey began with dreams of transformation, where video mapping turned stone and steel into living murals. This magic, known as projection mapping, brought forth a metamorphosis, as surfaces breathed and moved, telling tales of justice and dignity. Light and color wove together, crafting illusions that played with reality, making the mundane sublime. Holographic wonders joined the dance, their three-dimensional forms hovering in the air, ethereal and profound. No special lens was needed to see these phantoms of light, only the open eyes of wonder. This seamless blend of physical space and spectral image whispered secrets to the night, deepening the enchantment of Madeira's shores.

Inspiration flowed from the hands of masters—Bill Viola's serene sanctuaries of sight and sound, where viewers could lose themselves in meditation and reflection. The bold innovations of Refik Anadol, weaving artificial intelligence with data, showed how technology could birth new realms of immersive beauty. And the boundless vistas of Van Gogh: The Immersive Experience revealed how 360° art could envelop and transport, turning spectators into participants in a living gallery. Artificial intelligence became the brush in this digital renaissance. Tools like DALL-E read the words of the Universal Declaration of Human Rights and spun them into visuals—symbolic, interpretive, and profound. This dance of human intent

Fig.1 - Experimentation with projection mapping using Resolume software.

Fig.2 - Visualisation of projection mapping proposals / 1. Video available at this link: https://telegra.ph/Echoes-of-Dignity-05-27

Fig.3 - Visualisation of projection mapping proposals / 2.

and machine creation was one of trial and iteration, refining and redefining until the visions matched the dream. Runway's alchemy then breathed motion into these still images, turning them into brief, breathtaking videos. Each frame a step in a story, each second a brushstroke on the canvas of time. Resolume software acted as the maestro, conducting the symphony of visuals and music, synchronizing them into a harmonious whole. This tool, in the hands of the artist, transformed modest spaces into portals to another realm, testing and perfecting the art before it met the grand stage. And then, under the watchful eyes of the stars and the sea, the final performance took form. Projections danced across Madeira Terrace, holograms flickered to life, and the music swelled in perfect harmony. It was a tableau of light and sound, a call to empathy, a beacon of awareness shining bright against the dark canvas of night. Madeira Terrace, once a silent sentinel, now spoke with a voice of light and sound, telling stories of human rights, of those unseen and unheard.

This project, a union of past and present, of technology and heart, showed how art could transform, enlighten, and inspire. It stood as a testament to the power of creative vision, to the magic that happens when history, art, and advocacy collide. In this luminous display, Madeira Terrace was not merely a site but a symbol, a place where the past whispered to the present, and together they painted a future filled with justice and compassion.

Merging Particle Spaces: Particle realities

Hidalgo, Leon; Linker, Gittit[1]

[1] The Future Soft House Master Course, Bergen School of Architecture, Norway

Particle realities is a project that was developed in The Future Soft House Master Course along two lines of inquiry. On the one hand it explored the physical and spatial property of particles and their space-forming abilities and on the other hand it investigated the representation of reality through different media and the potential of new realities formed by point clouds as a result of 3d-scanning.

In order to uncover the flow of fragments, the project sets out on a series of strategies such as observing a ray of light or revealing the dust floating through our rooms. These triggered an impulse to look at the interrelationship between light, particles and movement. Each experiment revealed the existence of additional agencies such as wind patterns, revealed by the falling snow, revealed by the street lights or as an experiment shows: fog particles and their turbulences revealed by a laser beam (Fig.1).

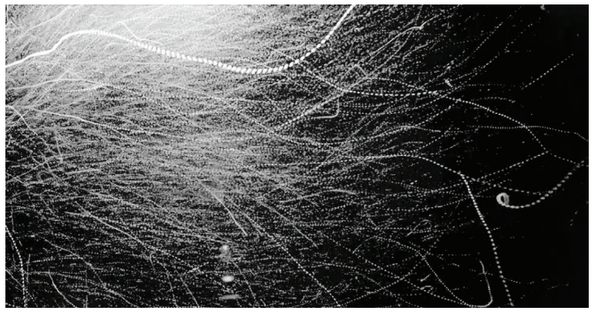


Fig.1 - Tracking particle movements with video editing software.

By exploring the behaviour and potential of particles as spatial com¬posers, the project started to form spaces using tools that guided, accelerated and bounced of the particles. By asking when can time-fragments be stopped and spaces revealed, the experiments suggested that movement was crucial to suspend particles and to bring them into their seemingly antigravitational state. It became the motor for controlling particles as spatial agents in two performances that created ephemeral particle spaces through e.g. a rotating plate catapulting sawdust in a rotational manner to form a temporary particle curtain (Fig.2). They are inspired by sprinkler systems, where water hits a metal plate to form an umbrella of rain or in water parks where mushroom shaped fountains create a round curtain of water (Fig.3).

Fig.2 - Particle Curtain.

The inconsistency between the spatial experience of these moments and their representation in video and photography opened up for a search into other potential media to explore this topic. Working with representation and analysis tools as perspectives, different spaces were revealed and concealed. Using photogrammetry on a suitcase showed a spatial image

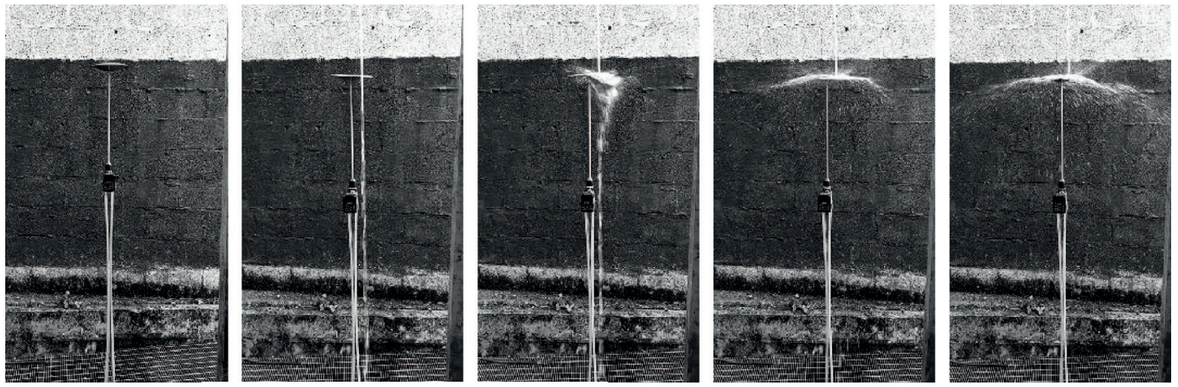


Fig.3 - Sprinkler Drawing

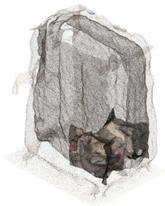


Fig.4 - Revealing the suitcase through point cloud representation.

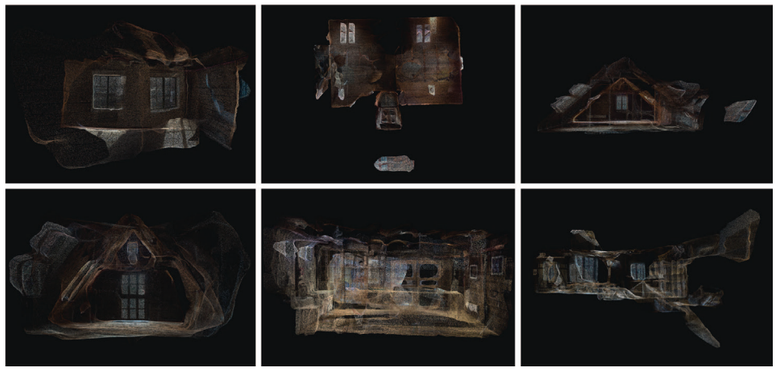


Fig.5 - Point cloud from 3d scan of a historic site in Bryggen, Bergen (Norway).

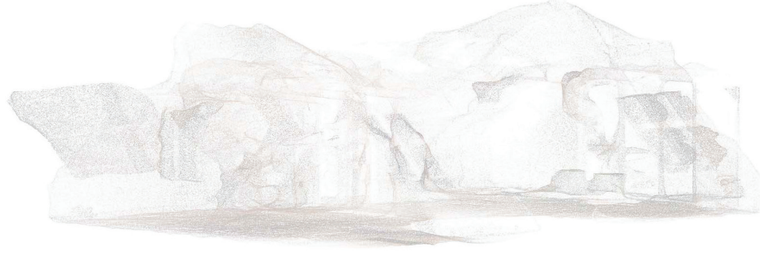


Fig.6 - Point cloud landscape with bulging of Window Spaces.

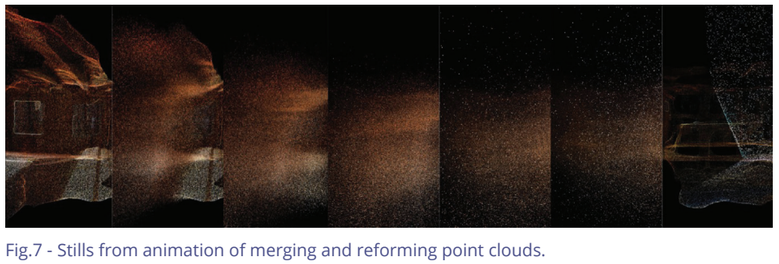


Fig.7 - Stills from animation of merging and reforming point clouds.

of the object, not only did the tool show different aspects of an object, but the space was used to reveal the tool of photogrammetry (Fig.4).

Using this abstraction as a case study of a unique world heritage building in Bryggen, Bergen (Norway) led to dissolving it into a landscape of particle boundaries pleasantly misrepresenting reality, asking the question how to diffuse physical boundaries How can speculation and accidents create new realities? (Fig.5). One of the pleasantly misrepresenting aspects of the 3d-scanning was the bulging window spaces in the point cloud scans, that fail to perceive glass as matter. These bulges were imagined as new spaces, where the window and the view merges into one space (Fig.6).

The idea of the mechanical creation of particle spaces and the digital point cloud realities were combined in an animation showing different scans merging into each other, dissolving and reforming in a sandstorm of particle matter. For this we designed the EP-SC (Electro Magnetic Particle Spacemaker), a speculative device, that is able to shape space by directing particle flows through a magnetic field (Fig.7).

NOTES

The Future Soft House Master Course was held in Spring 2022 at Bergen School of Architecture (BAS). Main tutors: Charlotte Erckrath (Associate Professor BAS) and Phil Watson (EEL_ extraordinary. experimental. Laboratory.)

Tissue cloud. Fog landscapes

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[1] The Future Soft House Master Course, Bergen School of Architecture, Norway

If we could activate building environment to become organism, could we imagine new applications, new practices?

Fog awaited me above a mountain lake. The cloud was constantly changing in response to the environment and filled with wind currents. Up to this point, I imagined the fog as something calm and constant, but after visiting inside, I had to realize that I was very mistaken.

The project “Tissue cloud. Fog landscapes” starts from the first question of The Future Soft House Master Course “What can be a split-site?” and delves into the exploration of the natural forces, feelings and spaces created by fog environments. The project is a series of questions, experiments, photographs, installations, drawings and reflections through which the author tries to observe, capture, recreate, or catch this ever-changing environment of fog and reflects on what kind of space it could be.

When I think about a split-site, I started thinking about an environment which is in-between, conditions close to evaporation, condensation, clouds formation – fog. Which touches the ground but still not grounded. I find it fascinating how these natural phenomena create its own enveloping space. I’m interested in the feeling of fluidity and the feeling of time slowing down when you get inside.

In the project, Fog is a natural phenomenon of condensation and a place at the same time. Also, it mixes natural forces, creating its own enveloping space - strong, intense, powerful, fluid and dissolving.

Fog has no boundaries - why do all human constructed places have boundaries? No dimensions, just a coincidence of conditions, flows, particles. Intense currents inside which build the shape - wind, gravity, humidity, atmospheric - what are these relations?

Being inside fog provokes a strong feeling that environment and time work differently in this fluid substance and questions arise: Is the fog taking away complexity? Is the fog the landscape? And the following question is, does fog transform landscapes?

Fig.1 - Documentation of the fog.

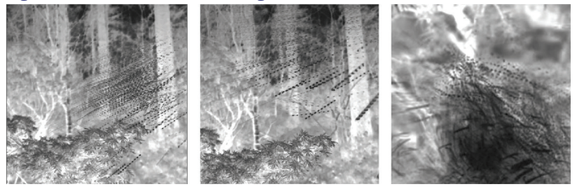

Fig.2 - Fog investigation. Inversion of the flows and speeds inside.

Fig.3 - Fog investigation. Experiment with visualising cloud particles.

Fig.4 - Who lives in the fog?

Fig.5 - Material experiments in the landscape.

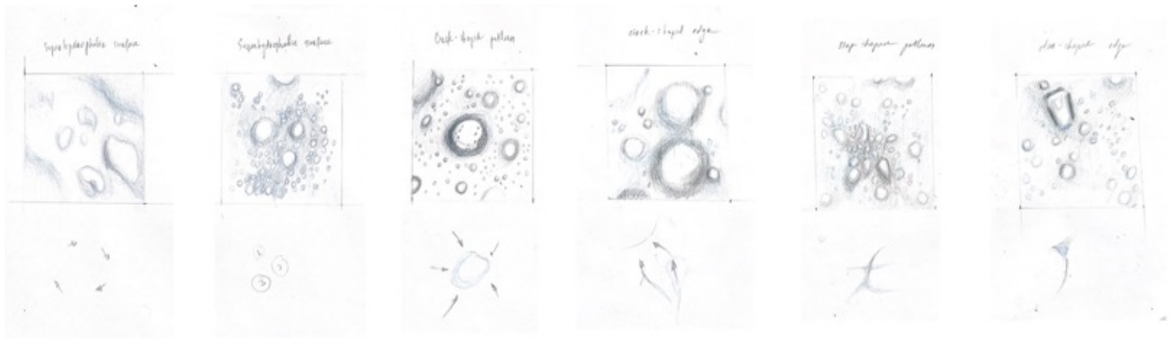

Fig.6 - Identification of condensation patterns

Fig.7 - Tissue cloud. What does it carry?

Fig.8 - Evolution cycle of droplet tissue cloud. Collecting flows - condense memory and emotions - connects with the landscape, erupting and forming the space.

Fig.9 - Taking parts - converting landscape.

Fog constructs its own narrative of showing objects. Invisible things clean up. You cannot predict this sequence and your path through it. Landscape and human stories combine in the space. Space of memory and moments in time. The natural flows are getting slower and reverse inside, leaving you alone with yourself, which begins to be a start point of the reflection.

How does a person get involved in these relationships? Let's imagine that fog condenses and brings down not only water cycles, but also emotions? Is fog able to cut out spaces from time or saved prints? What kind of space could this be?

I envision the fog like a variable density tissue structure which collects flows and condensates emotional memory.

My discovery is ongoing and continues to evolve.

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Fig.10 - Travel story of the cloud. Installation in the landscape.

Adventures in Time and Space

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[1] MA, Architectural and Urban Design, University of Brighton, UK

I will share below two projects. The first was the culmination of my MA in Architectural and Urban Design at the University of Brighton, from which I graduated in August 2023. The second is a recently opened public art project funded by Arts Council England and The UK Shared Prosperity Fund, which grew out of my MA work. My work evolved concerns through the MA for memory, temporality, and an exploration of how emerging technologies like augmented reality (AR) can transform our relationship with urban environments, evoking a sense of personal and collective embodiment.

RELATIVE CONSTRUCTS

"Time is just something we invented to make motion seem simple" Albert Einstein

Humans are programmed to march to the rhythm of a particular drum and live according to a standardised method of measuring time; however, it is well accepted that time itself is relative. Dr. Kevin Healy, an evolutionary biologist at the University of Galway, has observed that the capacity of different animals to perceive time varies significantly (Healy et al, 2013, 685-96).

Humans typically have a temporal resolution of approximately 60 frames per second, whereas the fire beetle can see rates of up to 400 frames per second, indicating that they would find our experience to be extremely sluggish. Yet at the opposite end of the spectrum, the starfish has a temporal perception rate of approximately one frame per second.

Among humans, temporal perception can also vary; for example, studies suggest that football goalkeepers perceive changes at a quicker rate, and pilots and surfers can react to their environments more quickly than the average person. Our sense of time can also depend on our environment and situation, and psychologists have discovered that as humans age, their subjective perception of the passage of time tends to quicken. I wonder what we might notice if we were to modify our own temporal resolution. Could enhancing our senses to see beyond the boundaries of our current perspective reveal new types of beauty? By manipulating and displacing time in urban spaces, might new ways of experiencing the human body in space be revealed?

Edmund Husserl, Martin Heidegger, Maurice Merleau-Ponty, and Henri Bergson offered insights into the relationship between time and consciousness. Their ideas discuss our understanding of temporal experiences, the intentional structure of consciousness, and the embodied nature of perception. Post-phenomenology expands on this to include the influence of technology on human experience and is particularly pertinent to my area of research.

I am interested in the role of technology in shaping temporal experiences, especially as new technologies such as spatial computing systems redefine our interactions with time and space.

At Project Female's dance space in Brighton, I captured the dancers' performances using a Kinect sensor camera, standard 2D video and photogrammetry. With this material, I conducted a series of experiments in the aim to reveal the inert sense of beauty of how the body inhabits space, expanding the sense of perception by altering how we perceive motion over time. I have attempted to comprehend how performing these tests and viewing the results in various spaces made me feel. By recognising and understanding my own emotions, I hope to be able to create spaces that evoke emotions for others.

Through my experiments I have been able to simulate the idea of different temporal resolutions, and experience their interaction in different locations. I wanted to try to understand how manipulating time and altering my own temporal resolution might allow me to see beyond the limits of my current perspective, but it was only really the beginning of a much longer investigation.

The subject of time is truly complex. Nobody fully understands the true nature of time, but these experiences have yielded intriguing results and, in turn, revealed aspects of an elusive beauty unseen. To read the full text go to: M.A. Master Work | Matt Reed Artist.

Fig.1 - The first experiment used physical photographic slides. The fragility of the material makes me think back to the idea of how our brains process memories and how those memories can fade over time.

Fig.2 - The image is first held on the screen but then passes through it, with the light being transmitted onto the background, creating a secondary afterimage. The full body image on the right-hand side allows a suspension of disbelief, as if the subject feels like a hologram floating in space, and the closer cropped images on the left and the central screens draw you back to the image. A video of the three projections on screens at night: https://youtu.be/69X-YEXkmrs

Fig.3 - A montage of the dancer placed into different locations using augmented reality with temporal disruptions. Note the passers-by, oblivious to the digital avatar in the same space. Video: https://youtu.be/w35kGdlx7KY

TIME TRAVEL IN POST-PHENOMENOLOGIAL SPACE

This work grew out of questions into whether we might be able to extend our own experience of time and memory and reconnect with the past through an engagement with the digital. I set out to adopt a post-phenomenological standpoint, a philosophical approach which focuses on how technologies mediate our interactions with the world and our own experiences with technology acting as an extension of ourselves.

'The Bognor Regis Time Portal' is a site-specific cultural heritage experience located on the south coast of England that opened to the public on March 29, 2024. It is free to use and will be in place for 18 months.

Using their smartphones, users can literally step back in time to experience aspects of life on the beach in the 19th century. In augmented space they will encounter digital twins of the wooden bathing machines that once lined the beaches, which allowed Victorian bathers to protect their modesty. Viewers also come face-to-face with a three-dimensional video avatar of a remarkable woman from that period. Mary Wheatland was a bathing machine proprietor, swimming teacher, and lifesaver who is credited with saving over thirty people from drowning in the sea during the sixty years she worked on the beach. The project was launched to coincide with the centenary of her death in 1924.

To initiate the immersive journey, users simply scan a QR code with their smartphone. This is the point where the magic of the experience takes place, with our time travellers ceremonially crossing the threshold of the portal structure to enter a hybrid world with digital representations of the past merged with the physicality of the present. This all takes place in the space that exists between the physical and digital realms, and somewhere between the temporal boundaries of the past and the present.

The time portal has the potential to reclaim history from museums and textbooks, reinstating it precisely at the location on Earth where those events originally took place, creating unparalleled historical context for the viewer.

At the time of writing, the portal has been open for just over a month and has already attracted around 7,000 visitors, far exceeding expectations. Bognor Regis, like many UK seaside towns, has suffered years of underfunding and my hope is that this work will act as a catalyst to challenge perceptions and assist in enhancing civic pride. More details can be found at: www.BRTimePortal.com.

REFERENCES

Healy,K., McNally, L., Ruxton, G., Cooper, N., Jackson, A. Metabolic Rate and Body Size Are Linked with Perception of Temporal Information. In: Animal Behaviour, 86, January 2013, pp 685-96. https://doi.org/10.1016/j.anbehav.2013.06.018.

Fig.1 - Avatar of Mary Wheatland.

Fig.2 - AR recreation of a bathing machine.

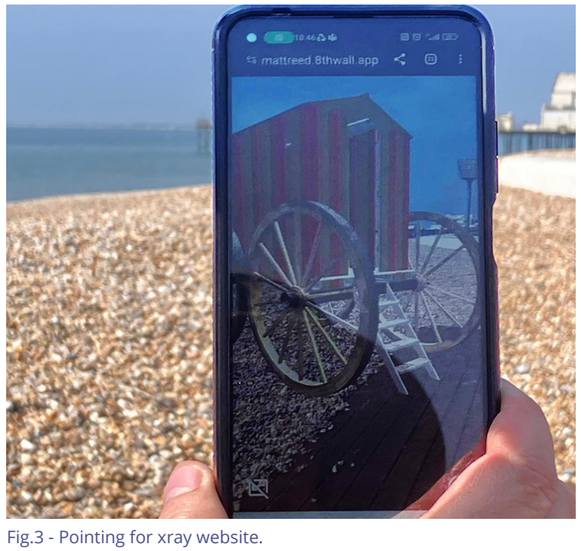

Fig.3 - Pointing for xray website.

Fig.4 - The Bognor Regis Time Portal.

Fig.5 - Opening day of the experience.