INFRA -STRU CTURE SPACE

a collection of works

2017/ 2018

CONTENTS

KIRKWALL, ORKNEY

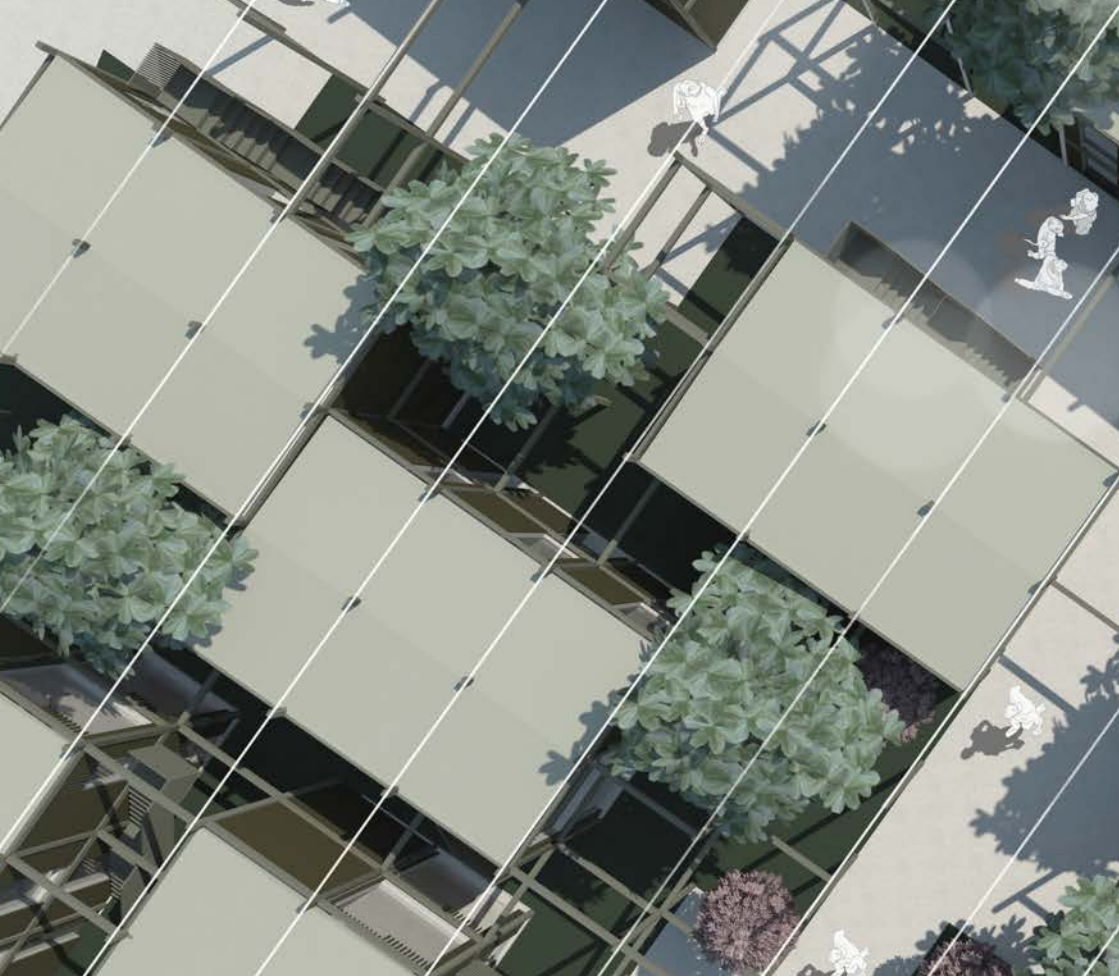
INDIVIDUAL PROJECTS

M Arch 05

Dillan Anadkat

THE THERAPEUTIC VILLAGE

The Orkney Isles have the highest concentration of Multiple Sclerosis patients in the world. This project examined the consequences of the condition on existing housing stock, and aimed to provide more affordable and appropriate architectural solutions for said patients. From research, it became evident that current practices create largely homogenised responses to the condition. In many cases forming overtones of isolation and loneliness. The rigid existing response to housing went against the idea of the condition varying from day-to-day. The proposed scheme aimed to address the above issues whilst simultaneously creating a malleable living space that nurtures the patient without constant reminders of their illness. Housing units were designed to adapt to the patient's daily condition, through their modular form and fluid spaces. The scheme sat within a 'Therapeutic Village', comprising of care facilities, a communal garden and a public spa, inculcating interaction between patients, carers, medical specialists and visitors. The project could be the basis of further study into the suitability of housing typologies for patients of Multiple Sclerosis.



Samuel Buckley

ORKNEY RENEWABLE TRADING NETWORK

Orkney Renewable Trading Network aims to tackle the ever-increasing issue of an ageing population existing in a renewable energy utopia. Through analytical research of Orkney's current energy stock, it was found that the island's renewable energy production was set to increase by 2000% by 2040. The Orkney Isles however have an ageing pop¬ulation. The opportunities of higher education are sparse and as 16 to 18-year olds leave the island to enrol at more prestigious Scottish and UK Universities, their eyes are opened to the possibilities and culture beyond Ork¬ney and they most often don't return. So how can a sustained number of 16 to 24-year olds be established on the island? New renewable energy infrastructure will ultimately produce a surplus in production and in turn, a surplus in the certificates accredited to every Megawatt of power produced. A trading network can then be formed, allowing the island's surplus Renewable Energy Certificates to be traded by graduates on a global network. The generated income will aim to draw young graduates back to the Orkney Isles, whilst simultaneously utilising the islands surplus energy to create sustainable infrastructural growth on the island.

Adrianna Gilert

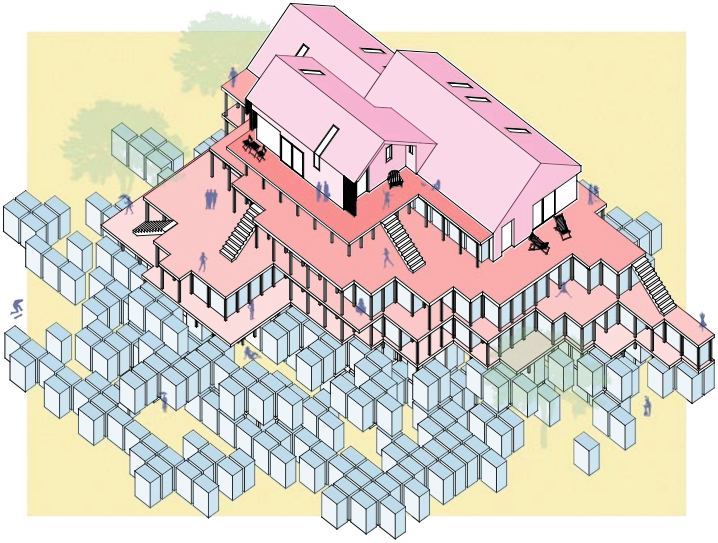
LIVE & KNIT

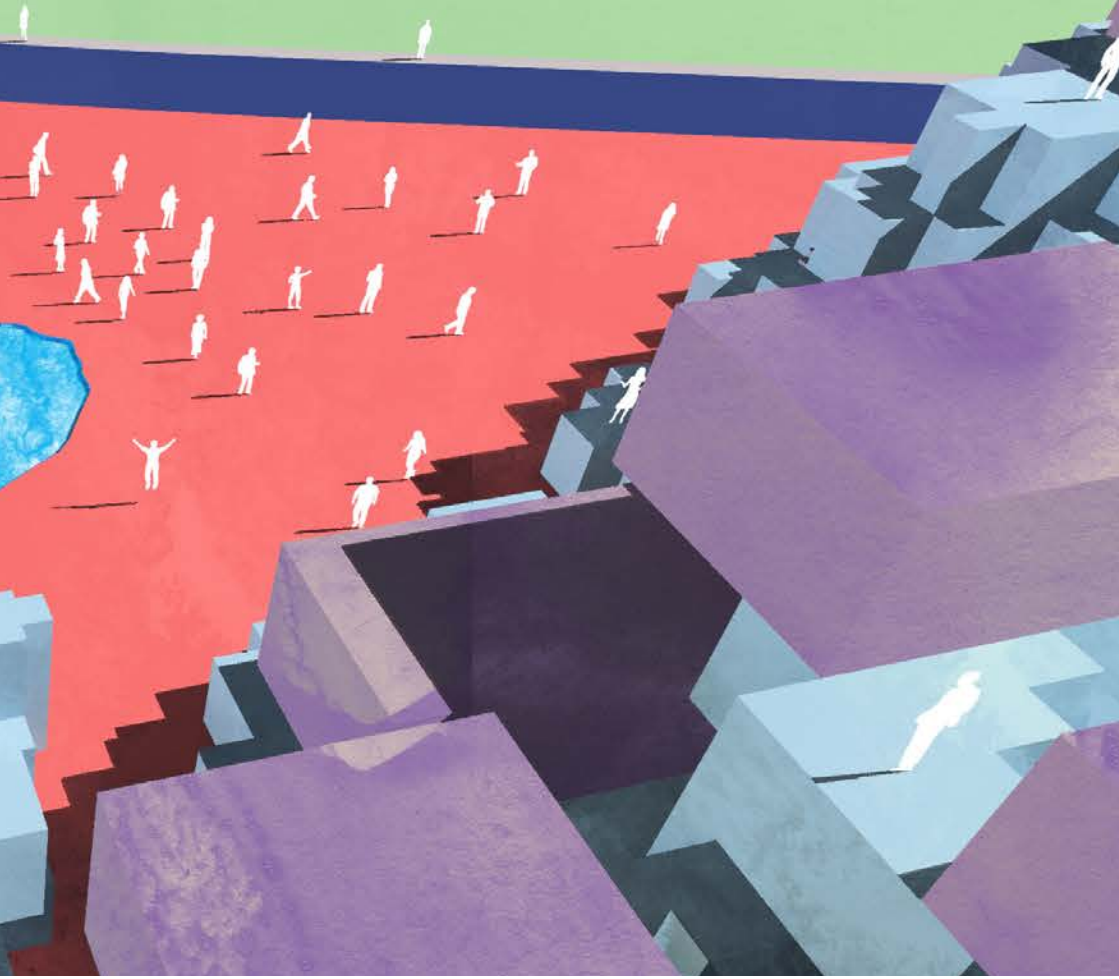
The Live & Knit project is focusing on living spaces, looking specifically at new housing typologies that can engage with alternative economies to facilitate a new approach to live-work spaces. The methodology used within the atelier assumes exploring, testing, and shaping the space through research-based design. The project should uncover the influence of digital and physical networks on people's lifestyles, with focus on spatial patterns and architectural typologies. To examine the proposal, scenario analyses of anticipated performance are to be conducted. In order to examine the condition of the study area, an in-depth research into the topics of demography and housing structure in Kirkwall was conducted. Social isolation and lack of suitable accommodation among the older population of Kirkwall were identified as the areas of key concern. In light of initial findings, the situation of senior population in Kirkwall needs to be reconsidered. Creation of new housing opportunities joined with production of local products addresses the problem. Senior people would be reconnected with the community and through their work – the identity of Kirkwall would strengthen.

Rebecca Hazard

THE MECHANIC DUTHCHAS

The project was first approached with a look at a highly buildable scheme, based on the findings of the local housing stock as looking carefully at site-specificities such as the high winds. However this gentle and un-radical approach is what has made the suburbs of Kirkwall what they are today- an uncharacteristic sprawl. Deeper investigation into data regarding smart technologies led to the conclusion that the island needed an energy hungry system to use up surplus electricity, which is predicted to increase. A complete ban on cars forces this to happen, instead of introducing them and hoping they will be used. The technology exists for autonomous electric vehicles, but they will not be adopted unless a population is forced to- in this case the Local Council is helping reduce carbon emission by physically making their populous do so. This also hopefully provides a high-tech/eco village nature to the islands that could help gain tourists looking at living this lifestyle, and be an exemplar to the rest of the country and the world. The demands of making a bus station/garage underneath a housing development have driven the tectonics of the scheme: 32% site coverage made me look at the site in a level by level approach, and provide a hidden, dirty, oily bus community and a contrasting light, visible, community garden area.

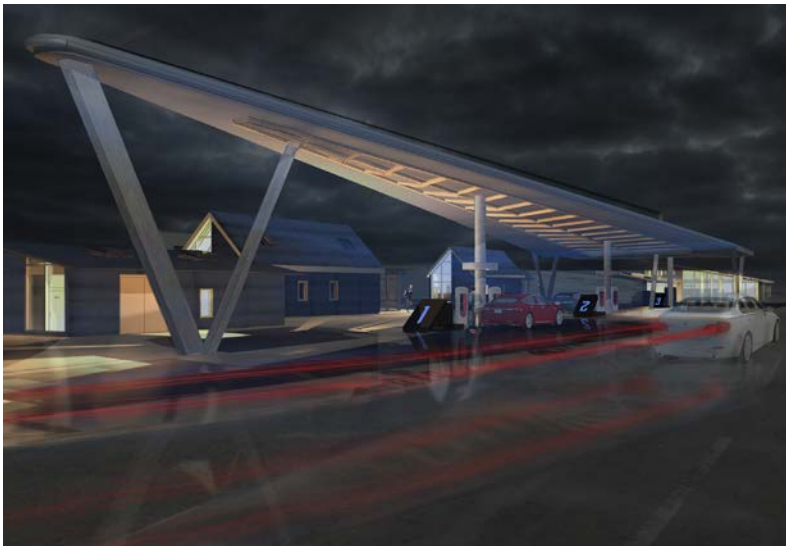




Andreas Leonidou

MOUNTAIN 59N

Mountain 59N is an understanding of Orkney Islands' current renewable energy context and its huge potential in energy generation. Curtailment of wind turbines and the low energy capacity of the sub-ocean cables that export energy to Mainland Scotland are some of the issues that the Islands are facing. The proposal responds to these constraints and reacts as a paradigm shift in the way we perceive, install, use, experience renewable energy sources and adds new ways to interact with them by implementing them in our everyday lives. The idea is simple: buy cheap energy when demand is low, store it and sell it back at a higher price when demand is high. The amount of energy storage units within the site correspond to the number of households that can be provided with a bridge in the Gross Domestic Income shortfall, between the Highlands and Central London, of £7,000. The Tesla Powerpacks do not only store and release energy but also create public subspaces and provide heating for the houses placed on top of them. The proposal can be replicated anywhere and adapt around local climatic conditions, socioeconomic factors, politics and local topography. This is how £7,000 of energy storage looks like.



Tsun Fung Yeung

SMART HOUSING PROJECT

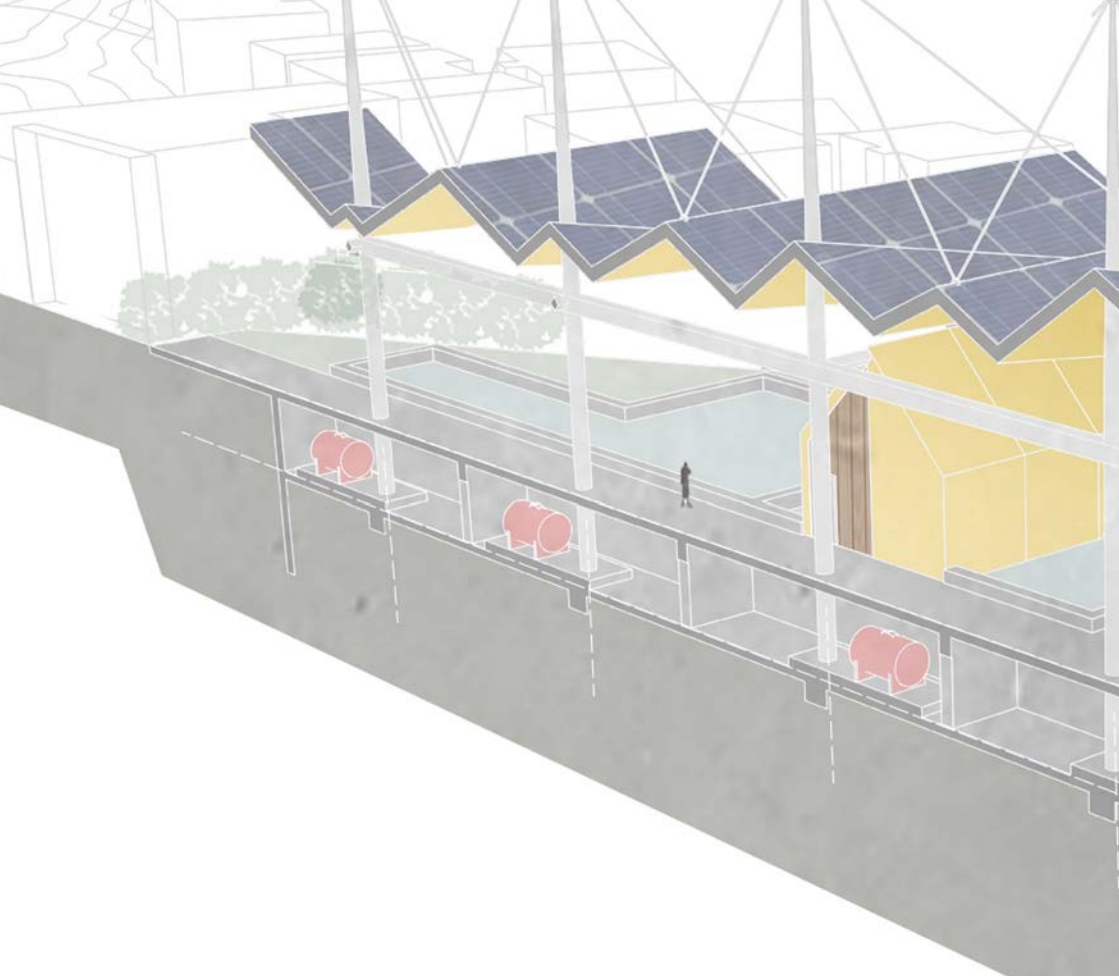
The Smart Housing Project or The Leudachadh air Lùths gaoithe Taigheadas (Excess Wind Energy Housing in Scottish Gaelic) The objective of the project is to provide affordable housing and fill the level the income disparity between Kirkwall and London.

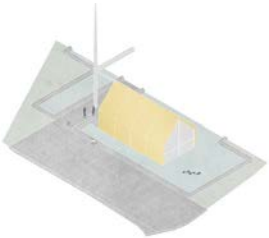
I focused particularly on the energy aspects on the Islands. The Orkney Islands are potentially the powerhouse of European green energy. Despite that, it also has the highest levels of fuel poverty in Scotland and the electricity grid regularly has to be curtailed, meaning the energy is dissipated or wind turbines are turned off when supplies of renewable power exceed demand from the local grid.But by providing the ability to utilise this energy changes the game, First it could potentially minmise the fuel poverty problem in Orkney. Secondly, the project mainly targets to provide financial support for young, elderly and low-income households.As a result, my solution is to utilise this excess renewable energy and subsidising it for energy bills for low-income households. Furthermore, it provides an electric car recharge station on site as an public infrastructure and electric car promotion. The project will be used as a test-bed, the results and data will be collected for potential future expansions on the Islands.

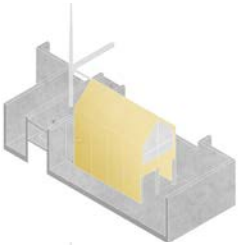
ISLE OF SCILLY, CORNWALL

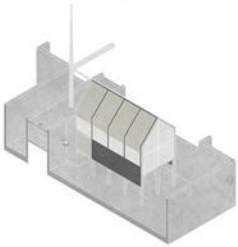
INDIVIDUAL PROJECTS

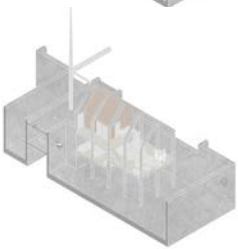
MArch 05

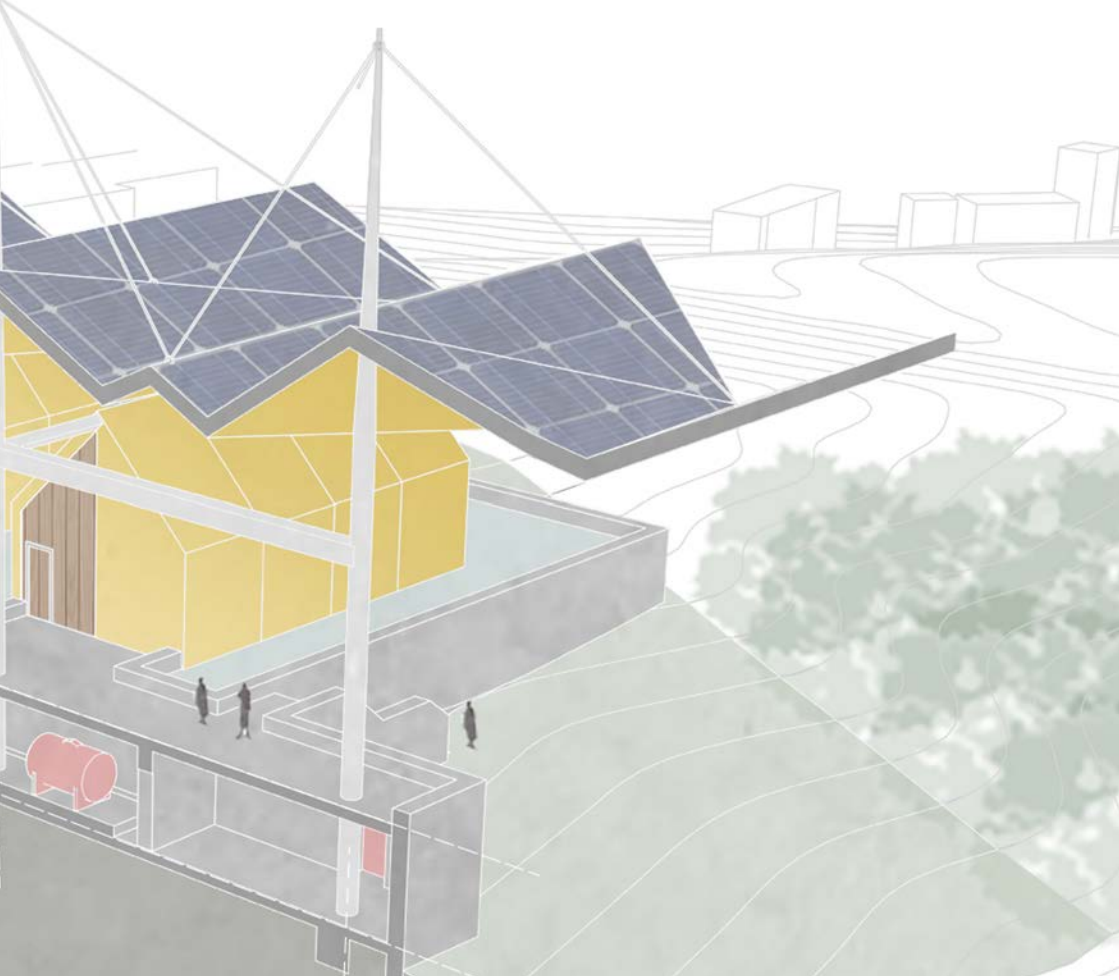








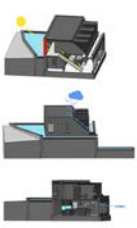


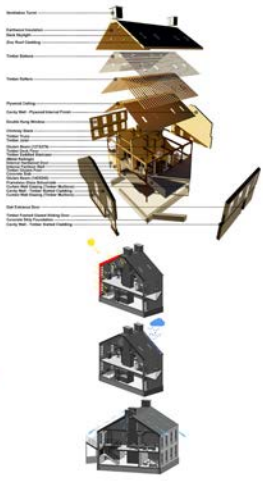


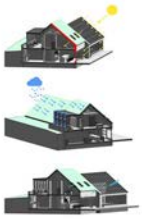
Nathan Edge

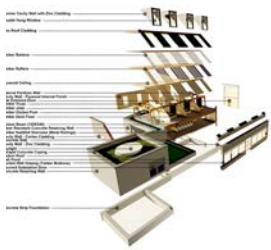
SATELLITE CITIES

Satellite Cities proposes a future housing model that sees standard building components utilised as small-scale energy generators where by using only naturally renewable sources available to a specific to context enables the house (or houses) to be completely self-sustaining. In this particular instance, a small community of houses share an energy harvest of the notorious Scillonian sun generated by a bespoke solar canopy suspended above pools of sea water. Custom designed mirrored facade panels act as an electrically charged envelope that wrap around a familiar housing typology and are submerged into the pools of sea water. The solar charged facades' contact with the water begins the electrolysis reaction, producing hydrogen gas, allowing the community of houses to profit from the sale of the highly combustible resource to the urban mainland, forming a hypothetical shared infrastructure of clean energy for the future metropolis' predominantly powered by hydrogen.









Joshua Griffiths

THE ELEMENTS, HOUSING TYPOLOGIES.

This project seeks to provide a unique learning experience for the younger population on the Isles of Scilly and give them a reason to stay on the island rather than migrate to the mainland to study or work.
The scheme is to be funded by three Michelin Star chefs and consists of three dwellings in a courtyard setting offering residential training courses in the art of Michelin star food and restaurant hospitality.
The kitchen, as the heart of each 'home' will become the tool of engagement inspired by the building typology. Adopting the local vernacular of timber construction for the super-structure for each dwelling became an ecological approach to the design process and development of these three typologies. The Earth dwelling is designed to be integrated into the landscape like an earth-scraper, it will be constructed with locally sourced materials and will involve growing fresh produce in the greenhouse and cooking vegan and vegetarian food. The Fire dwelling is located next to the road for easy emergency access in the event of a fire. This typology is designed around the chimney stack, where the users will spend their time cooking locally sourced meat on the open grill with two prominent ventilation turrets. The Water dwelling is a housing typology influenced by boats floating on water, a small pool is situated in front of the south elevation and gives the impression that the building is floating, the pool is also used for breeding freshwater fish and as a large-scale drainage system.

Shared flat interior

Shivani Gunavardana

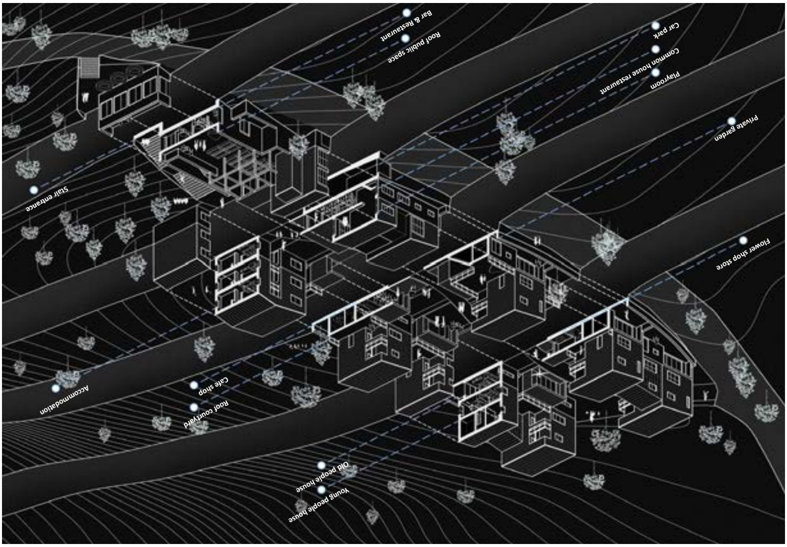
GROWTH OF A RURAL ECONOMY

This project looked at the effects of tourism on the Isles of Scilly to aid in designing an appropriate housing solution. While the subtropical climate on the islands have made them popular holiday destination, the tourism industry has had a negative affect on the quality of life of locals by resulting in fluctuating incomes during the summer and winter period. The solution put forward by this project looks at a way to prolong the peak tourism season in order to stabilise income fluctuations. It does so by merging two programmes; housing and market stalls. The houses are to be rented by young travellers for periods of 1-2 years. Each individual will have a bedroom, a shared living space, an individual work space and market stall. The market street allows the long-term tourists to sell their goods and services to the locals, thereby integrating them into the existing society.

Matthew Hykin

THE ISLES OF SCILLY PRODUCE PORT

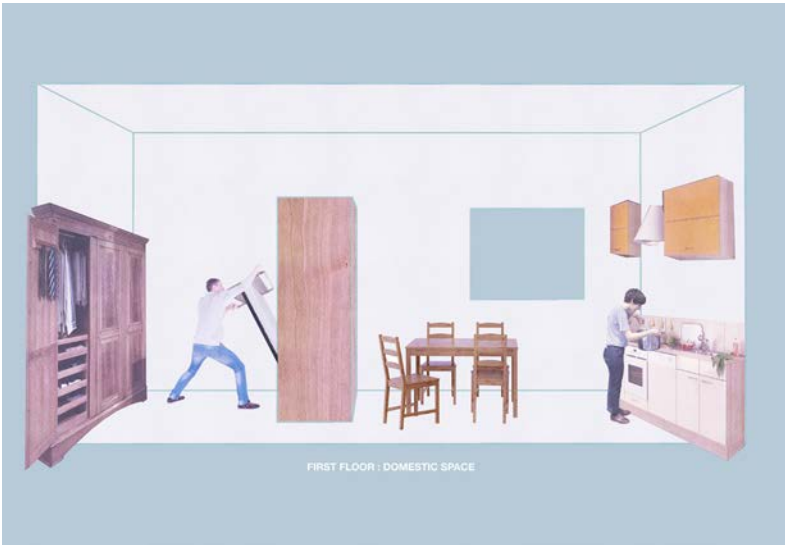
During my first term with Infrastructure Space I learnt a new dimension to design. Design became not just about immediate site and aesthetics or even the architecture itself but a larger scale of infrastructural ideas that provide an overarching strategy for the future and sustainability of a larger area. Through the collection of data, the biggest anomaly shows that the Isles of Scilly are mainly farmland with small towns but have a very poor infrastructure of local food production, with majority of their food imported at high costs. Whilst the largest agricultural export is the Narcissi flower due to Scilly's warm climate, it is detrimental to the arable and pastoral farming on Scilly despite having good routes to market. Local food farming is underdeveloped and neglected in comparison. I combined this problem with the potential for young farmers and lack of affordable housing on the islands to improve the agriculture and connect the farms to the towns. My farmer's market housing scheme aims to connect the singular isolated farms, with struggling routes to market, to the retailers and high consumer demand of the towns. I will provide a place of anchorage and exchange between the two industries, not only physically but digitally.


Bar & Restaurant
Roof public space
Car park
Common house restaurant
Playroom
Private garden
Stair entrance
Flower shop store
Accomodation
Cafe shop
Roof courtyard
Old people house
Young people house

Guangbo Liu

RETAILING CO-HOUSING

This project is located on an island called St Mary's which belongs to the Isles of Scilly in the south of Uk. The methodology of this project is to analyze the data information of the island and local people and then create a community to solve the questions found in data. For my project, the questions are how to provide a living space for the increasing aging population on island and also find a way to reduce the young generation loss situaltion. the main strategy of the design is to have a co-housing community for the old people and young working age people and also create a retail space to attract tourists, the most important economy source on island, to visit the community. By designing this multiple functional community to create a positive asmophere for the occupants living here.


FIRST FLOOR : DOMESTIC SPACE

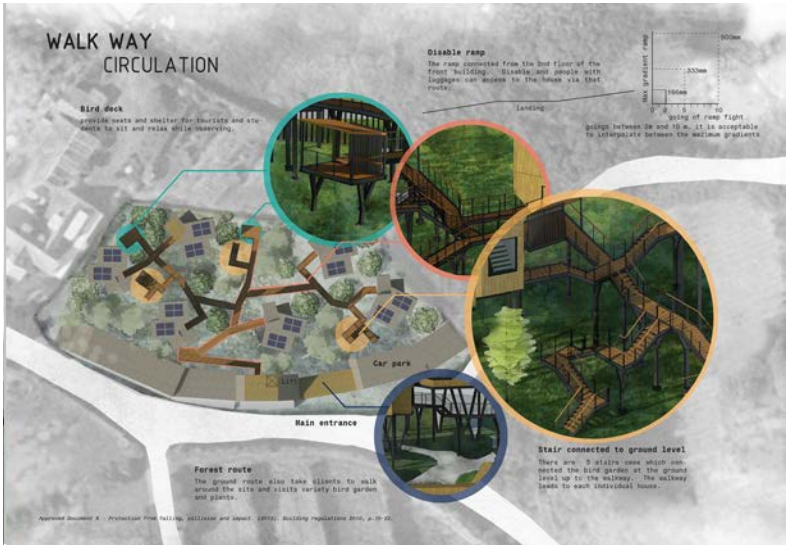
Jaemin Shin

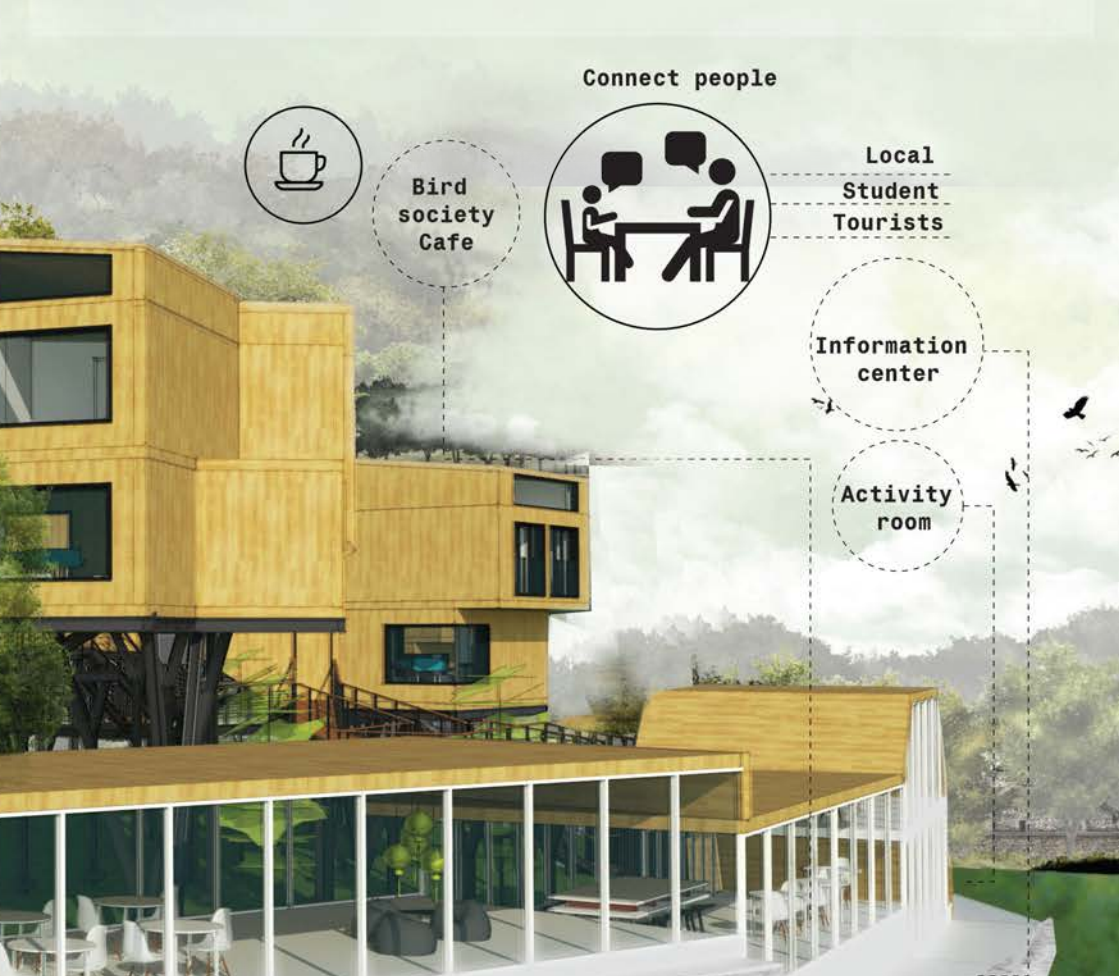
COMMODIFIED HOUSE

This project starts with a research question. Could an idea of sharing economy balance the disposal income between self-employed population in Isles of Scilly and the UK by maximizing their properties and space usage? Following the research question, the project focuses on sharing economy business that can be ran by self-employed population in Isles of Scilly. This is based on thorough research on self-employment and business factors in Isles of Scilly. Moreover, a writing called 'The commodification of everything' by Dan Hill inspired this project how shared economy will change how we live and how we work. What is demonstrated in this project is an idea of mixing a building function of house and a function of potential business. Therefore, the project shows Airbnb and Shared office as the business side of function as an example of commodified house. Also, the project is trying to minimize the footprint of the building as much as possible but maximizing the usage by making spaces with dual or triple functionalities. This small house unit can be multiplied and manipulated that it can spread out in Isles of Scilly and change the people's ways of living and working.

Provide escpectially for students to do their research and group study

Common room
Meeting room
Study area





Rossarin Ungrangsee

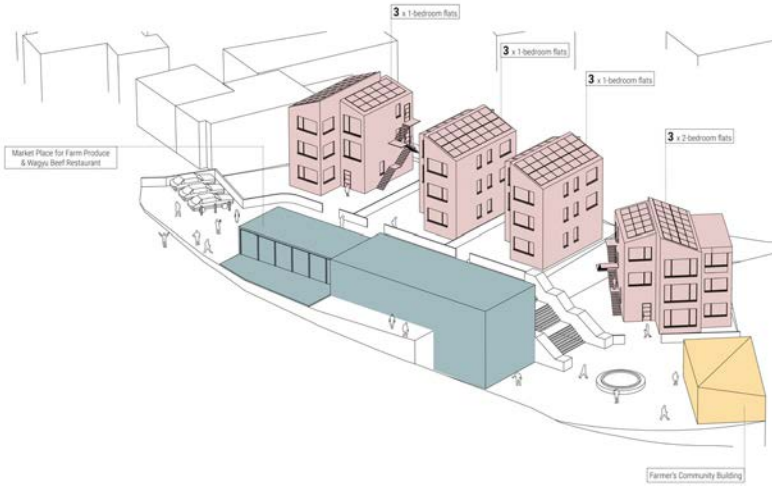
THE BIRD BOX SMART HOME

The Bird Box Smart Home is located on St'Mary, the Isles of Scilly. The project allows more tourists to come to the site and generate better Scilly's economics especially at peak-season; summer and spring. The lack of tourist in winter creates economical downturn on the Scilly, therefore, the project transforms into students accommodation; provides knowledge to the youth and brings more ecological students to the isles. The shift of the program during the year allows the project to function and generate income all year long. Beside the accomodation provided for youth allow them to have education on the Isles of Scilly and create more opportunity for the youngs to live and stay on the Scilly after. This will slightly change the aged structure of the Isles of Scilly. The project will also use efficient energy system likea the solar panels since Scilly has the best sun, and friendly materials like timbers that can easily find on near the site.

Amy Whitmore

PROCESS INNOVATION: A NEW TECHNOLOGY FOR HOUSING

Surrounding the theme of affordable housing and looking specifically at the Isles of Scilly, this project began to explore the ability to use offsite construction forming modular solutions paired with sophisticated manufacturing capabilities provide a housing solution with the capacity to defy conventional home value systems. Using the island's geographical difficulty off the coast of Cornwall, the idea was to minimise construction costs using offsite, mainland construction forming a kit of parts and following a 'design for manufacture and assembly' approach to construction. The idea sprung from a quote by Urban Splash "Buy space not rooms. First decide how much space you want, then decide how to use it" paired with the "Start from Blank" campaign by Adidas. The idea of pairing the two lead to the idea of a network of housing parts, where plots could be bought, with the kit of parts bought/sold as it was needed giving island residents a way to purchase only space they need, and recycle parts to generate money as the special needs decrease.


3 x 1-bedroom flats
3 x 1-bedroom flats
3 x 1-bedroom flats
3 x 2-bedroom flats
Market Place for Farm Produce & Wagyu Beef Restaurant
Farmer's Community Building

See Ting Dawn Wong

WAGYU

My project taps into the possibility of Isles of Scilly developing a new industry of high value beef production as a solution of boosting the local economy. The proposal of a multipurpose farmer's village seeks to provide supporting infrastructure for the new industry through affordable quality housing, social community facilities, as well as tourist-attracting restaurants. It is a scheme that targets to attract young farmers to join the declining field.The problem of poor hygiene in traditional farm houses was considered. In every house of the village, a designated cleansing zone separated from the living areas was introduced as a welcoming space for farmers to take off their sweaty clothes and muddy boots after a day of hard work. Generous south facing windows had been prioritized in the design of bedrooms and living areas to address the importance of external connections with the nature. On the other hand, the community hub building enable spaces for knowledge exchange, tool sharing and relationship fostering between farmers groups on the island. To establish a better branding for the quality beef produced, new restaurants and market places were anticipated to generate more tourism income to the Isles of Scilly in the future.

Guang Yang

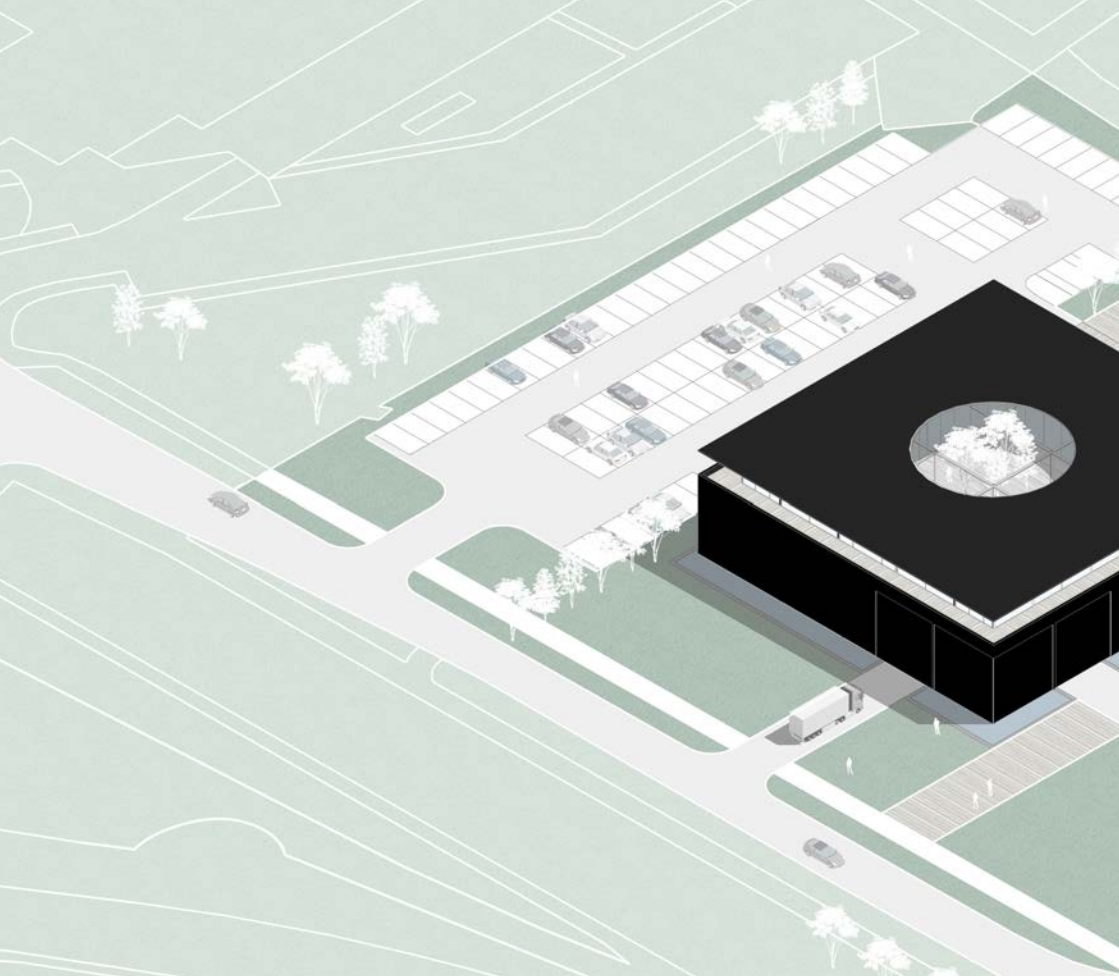
MIXED-AGE COMMUNITY HOUSING SCHEME

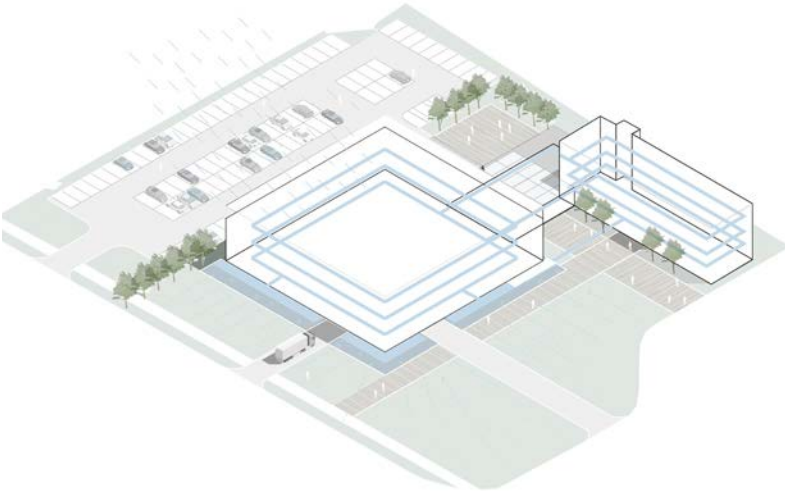
The mixed-age community housing scheme was a proposal addressing ageing population and affordable housing problems in the Isles of Scilly. Hugh Town is the largest settlement in the Isles of Scilly that is an archipelago off the Cornish coast, in southwest England. Scilly is a remote island off the southernmost coast of the UK with 2,203 population in 2011 and great ageing population. The proposal focuses on the ageing population on the island and there are four aspects of it: the ageing local population, greater ageing population, retirees migrating in and the younger generation moving away. Regarding of the local services, the only care home has been closed since last June and there is only one health centre and one hospital with three registered GPs. Therefore, it works in this manner that local hospital provides spare rooms in their houses for discharged senior citizens and supply meals to create mix-generation community. The elderly people and local residents with wide age range connected together aiming to elimination the isolation and loneliness for the old people and compensate for housing prices for local residents.

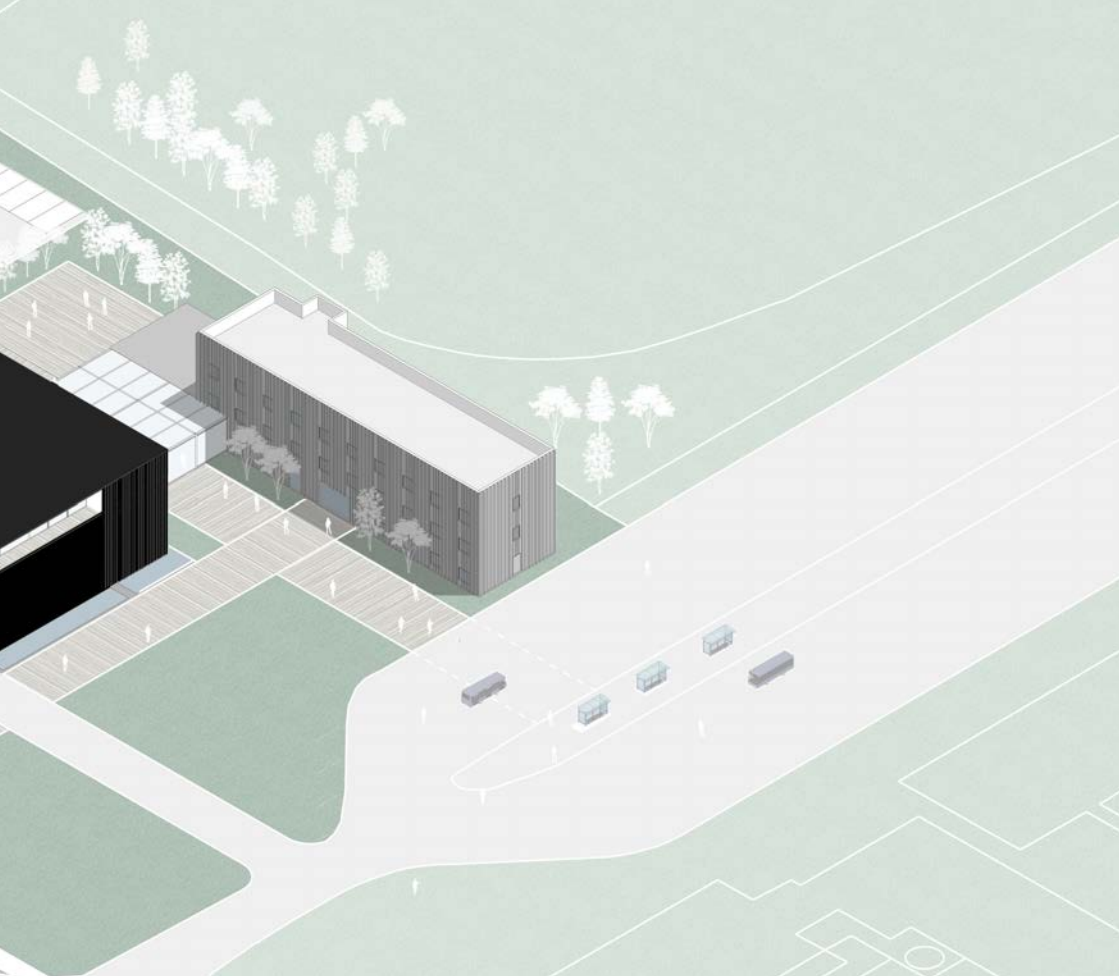
HARWELL

GROUP PROJECTS

MArch 05



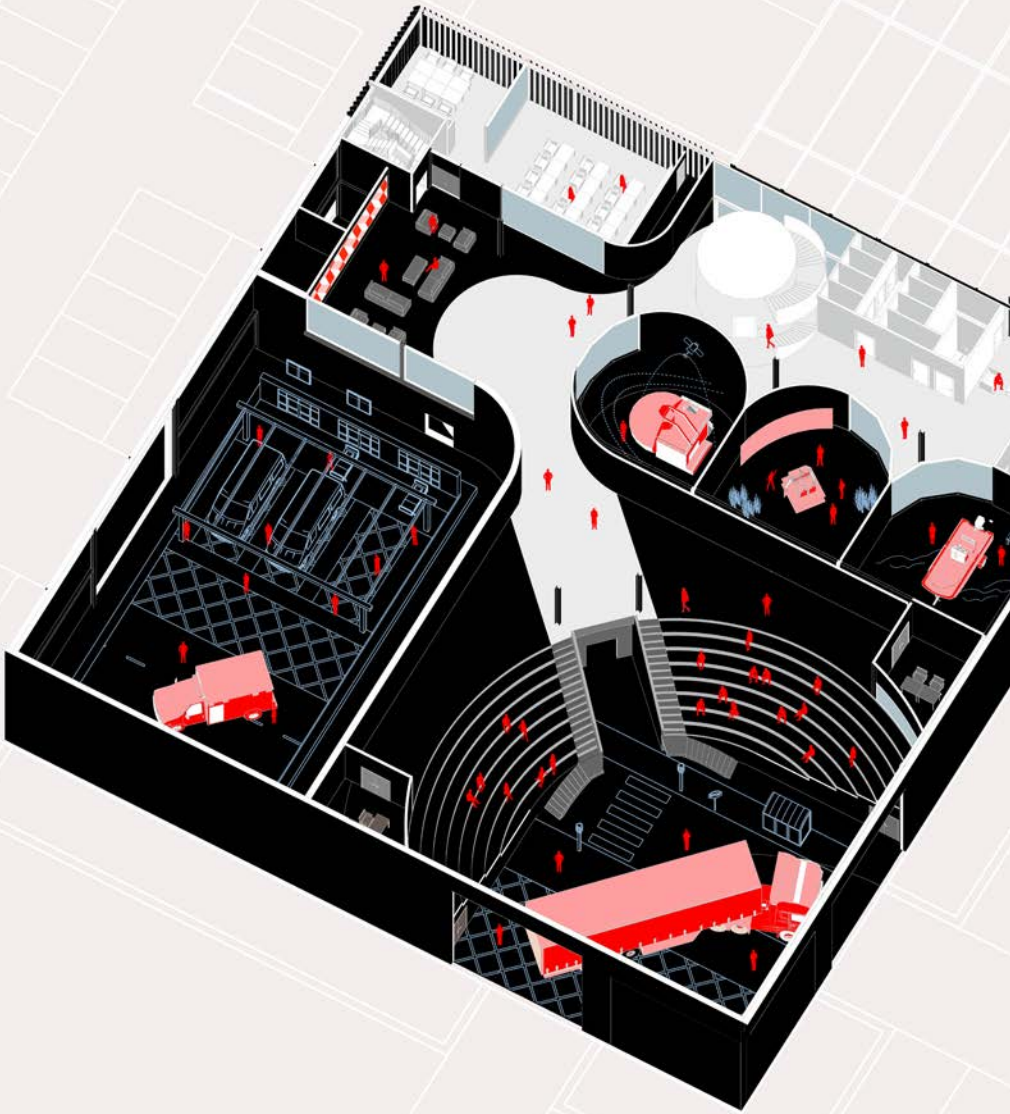


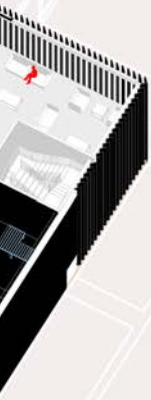


Adrianna Gilert
Nathan Edge
Rebeccaa Hazard
Tsun Fung Yeung

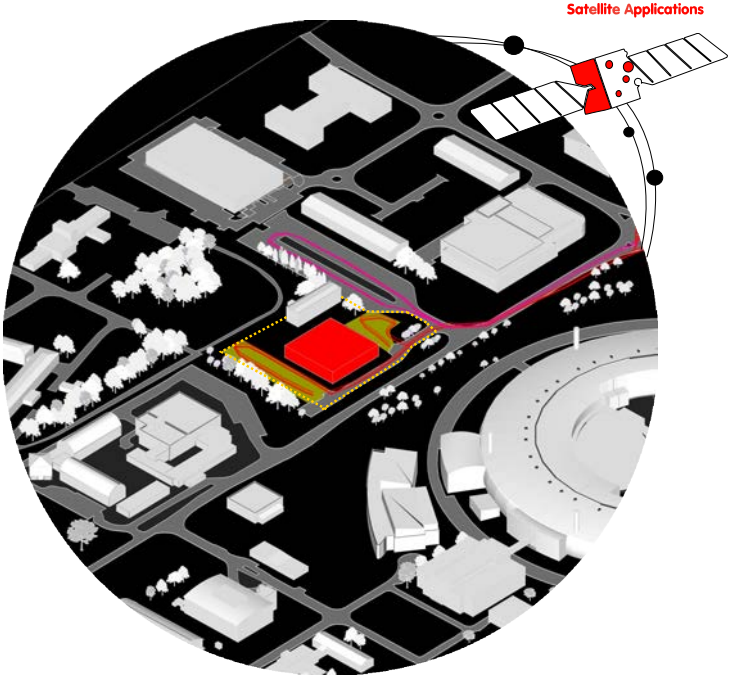
VIRTUAL TESTBED BOX

Crucial to the UK's leading role in today's 'race for space' is the investment, research and development of new technologies that enable public and privately funded companies to be at the forefront of these advancements. Establishing a central collaborative working environment that harnesses the acceleration of these technologies relied on the introduction of office spaces that match the levels of technologies being developed. The Virtual Testbed Box takes Satellite Applications Catapult's (SAC) existing building facilities and converts them into a centre for virtual and physical testing, visualisation, and demonstration. The black cladded box hides away the technological advancements inside to create an external mystery and internal curiosity for visitors and investors. Awaiting them inside is a journey of purpose sized virtual and augmented reality visualisation suites that are used as tools for the digital and physical testing of technology within real life simulated scenarios. Amongst these are digital data processing and satellite control observation facilities, all intertwined within a controlled networking spaces that enable investors, businesses, and scientists to meet and collaborate with there ideas.





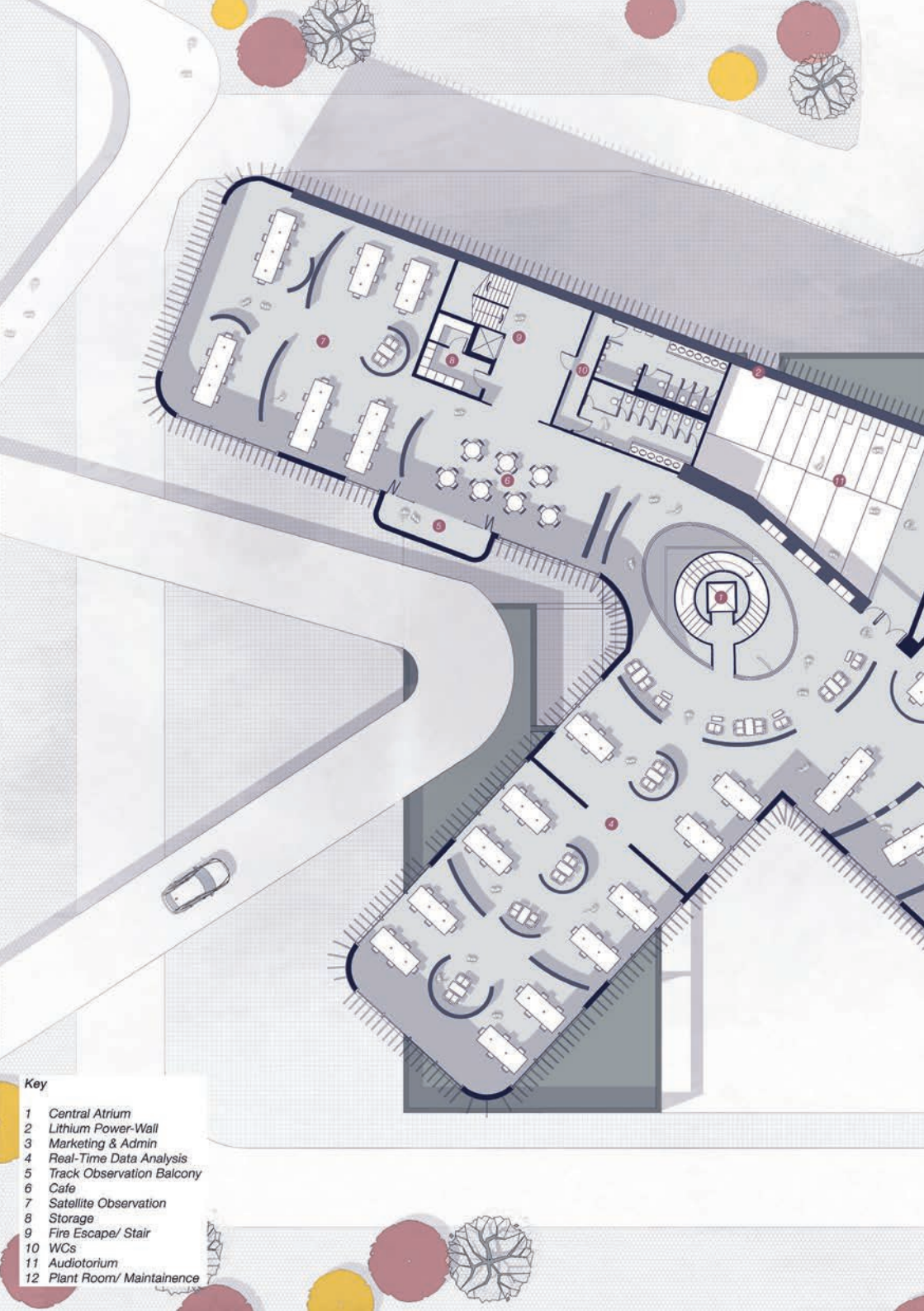
CATAPULT
Satellite Applications



Yang Guang
Samuel Buckley
Sophia Major
Dillan Anadkat

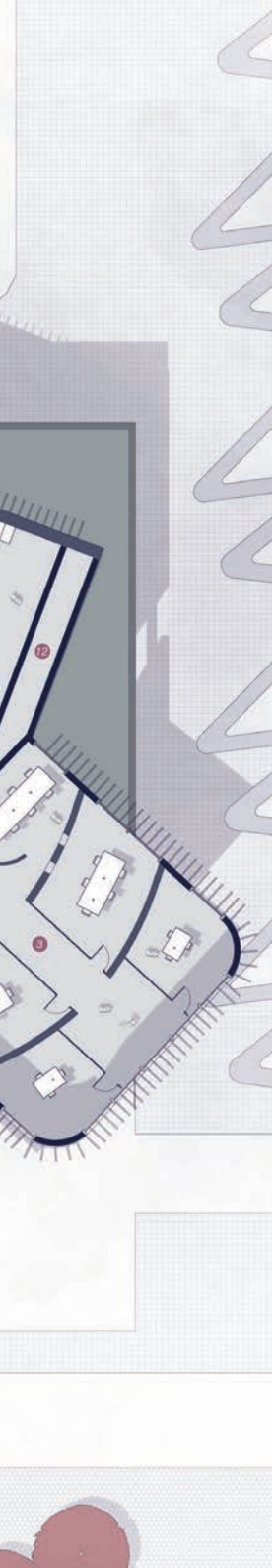
LI-TECH

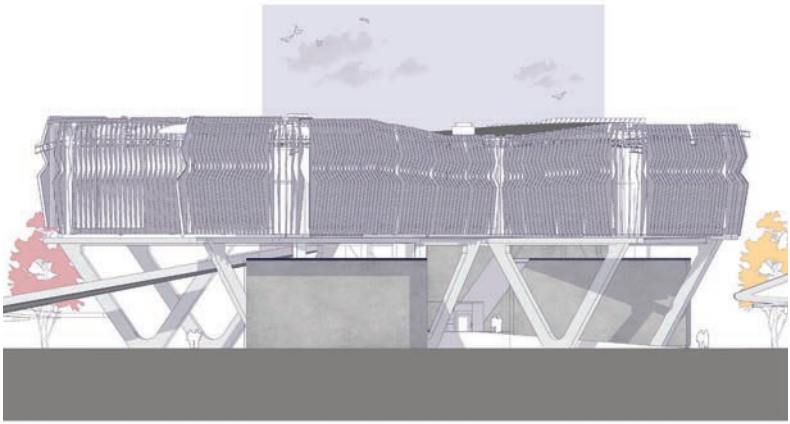
The Lithium Applications Hub was a group project aiming to develop the notion of the 'modern working environment'. It did so in a unique manner, addressing architectural form through the emergence of a single material – Lithium. This capitalised on the increasing demand for the material, and its growing significance to Satellite Application Catapult's research, as well as the wider economy. Through the re-use of the existing building in Harwell, Oxfordshire, we proposed to create a holistic process of utilising and testing lithium. This entailed vertical engagement between the experimentation and research processes that formed, in order to create faster responses and realisations of data than those that presently exist. The output created a cradle-to-grave process whereby lithium could be tested extensively. Simultaneously, is challenged existing models of co-working, to create more appropriate, practical and flexible office environments. Collectively these spaces also formed ubiquitous connectivity between lithium specialists across the UK and further afield. An overarching theme of the building evolving around lithium's growing (or shrinking demand) was paramount to the design of spatial form.

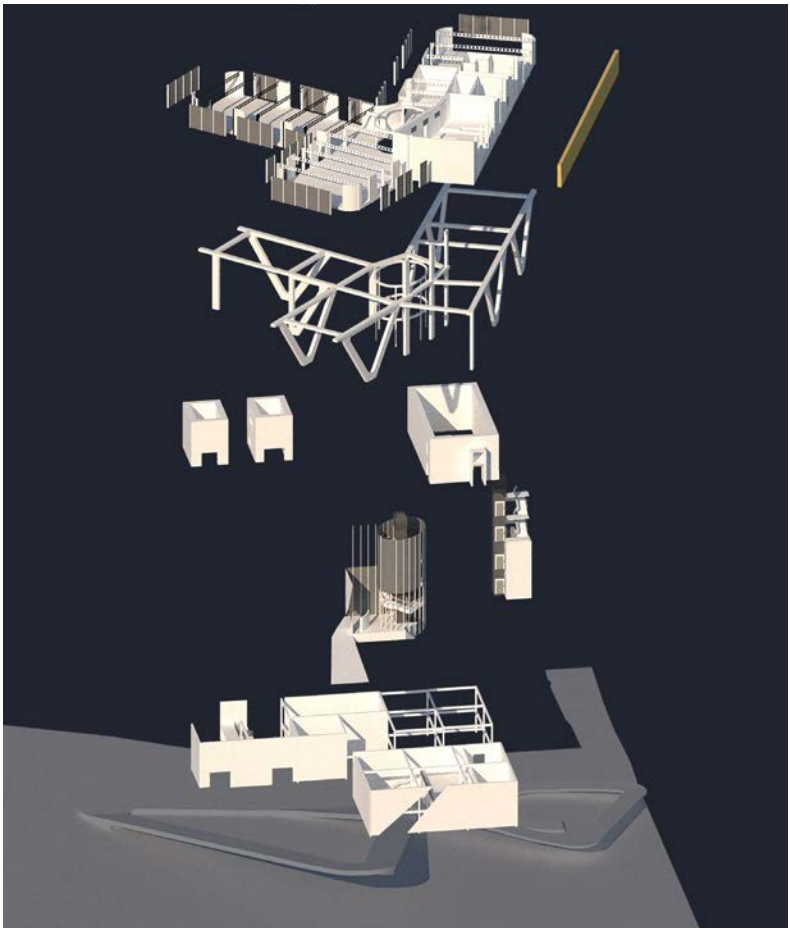


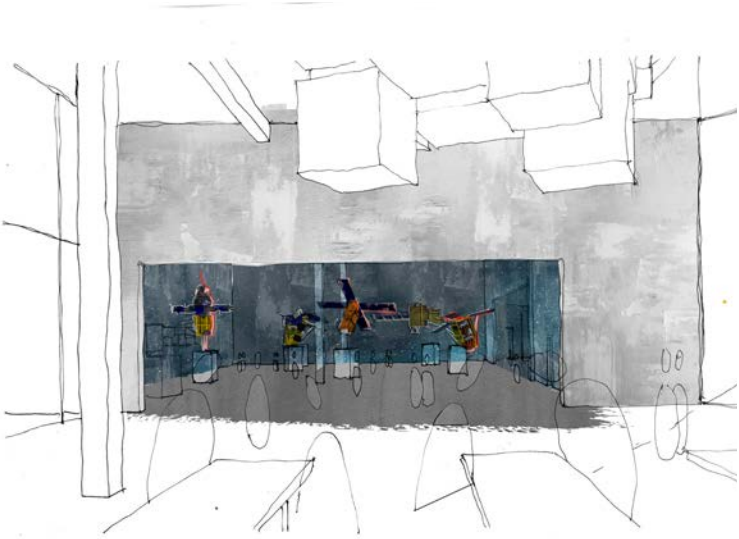
Key

1 *Central Atrium*
2 *Lithium Power-Wall*
3 *Marketing & Admin*
4 *Real-Time Data Analysis*
5 *Track Observation Balcony*
6 *Cafe*
7 *Satellite Observation*
8 *Storage*
9 *Fire Escape/ Stair*
10 *WCs*
11 *Audiotorium*
12 *Plant Room/ Maintainence*





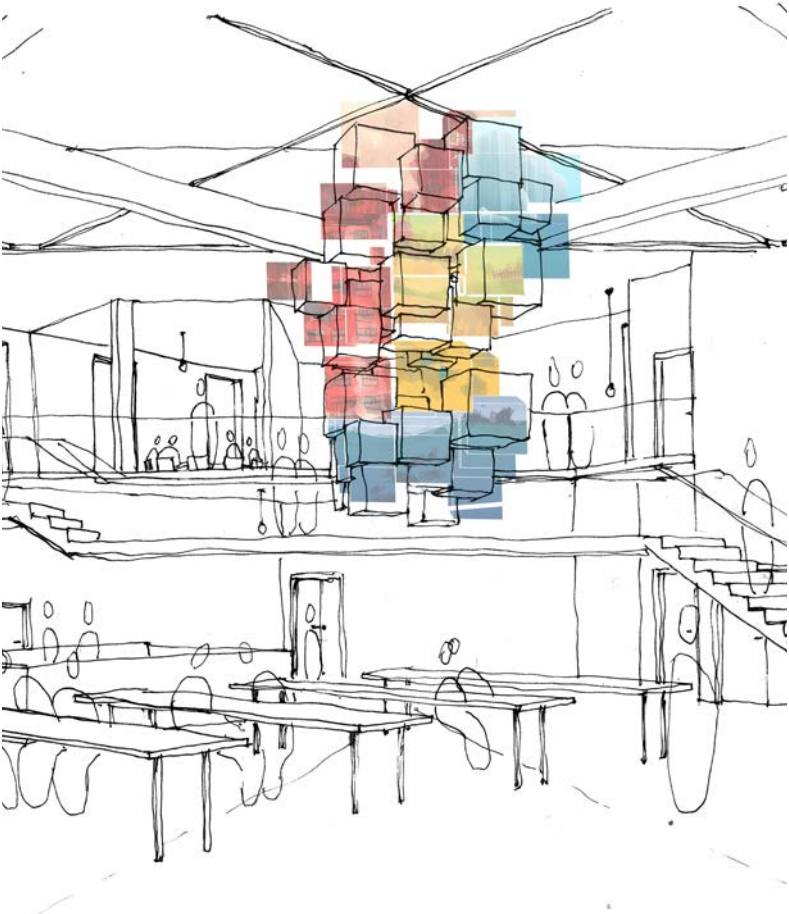


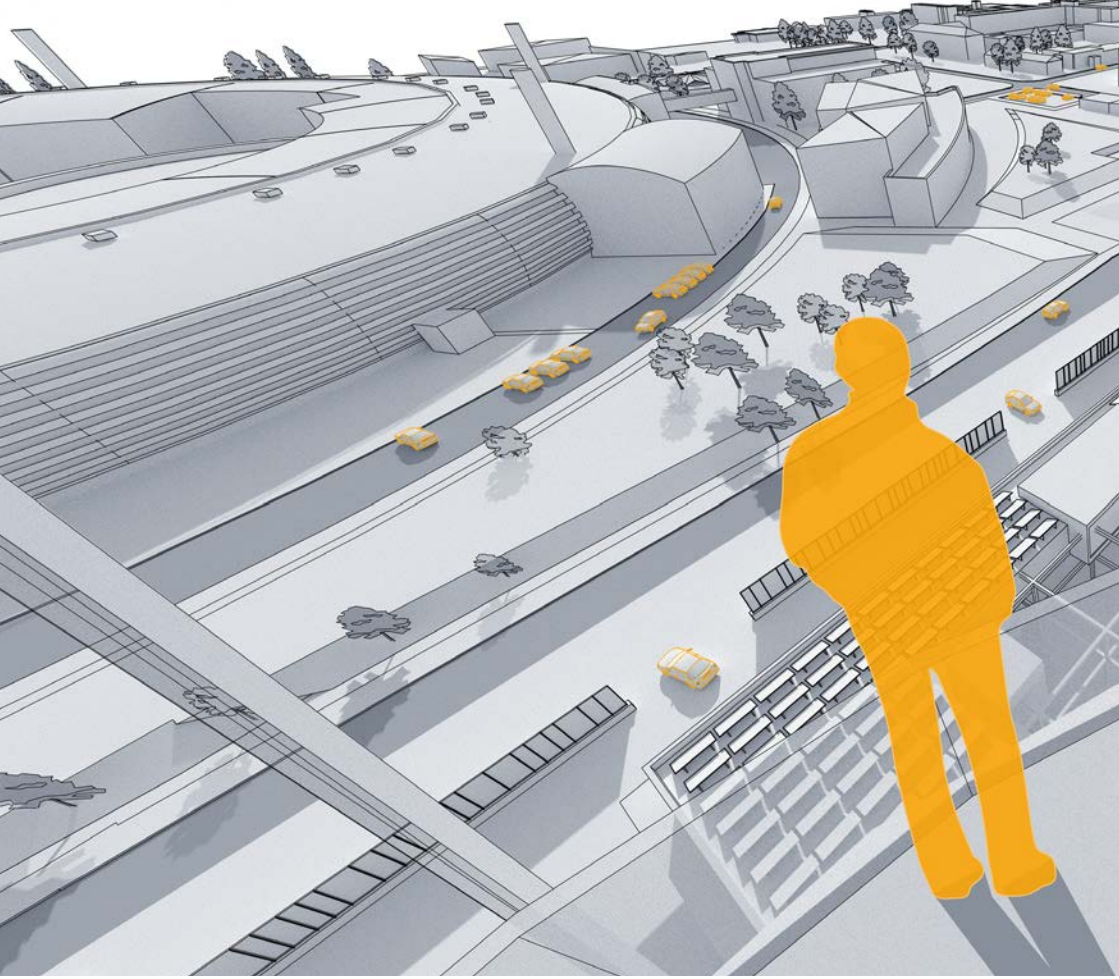


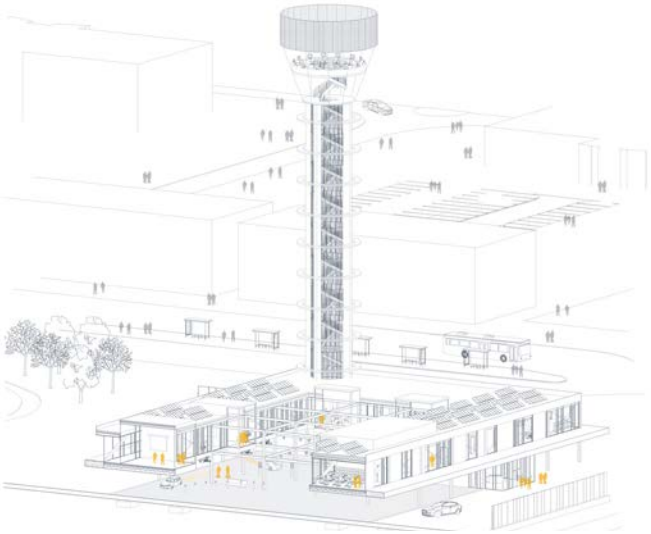
Matthew Hykin
Guangbo Liu
Ashif Shafi
Shivani Gunawardana

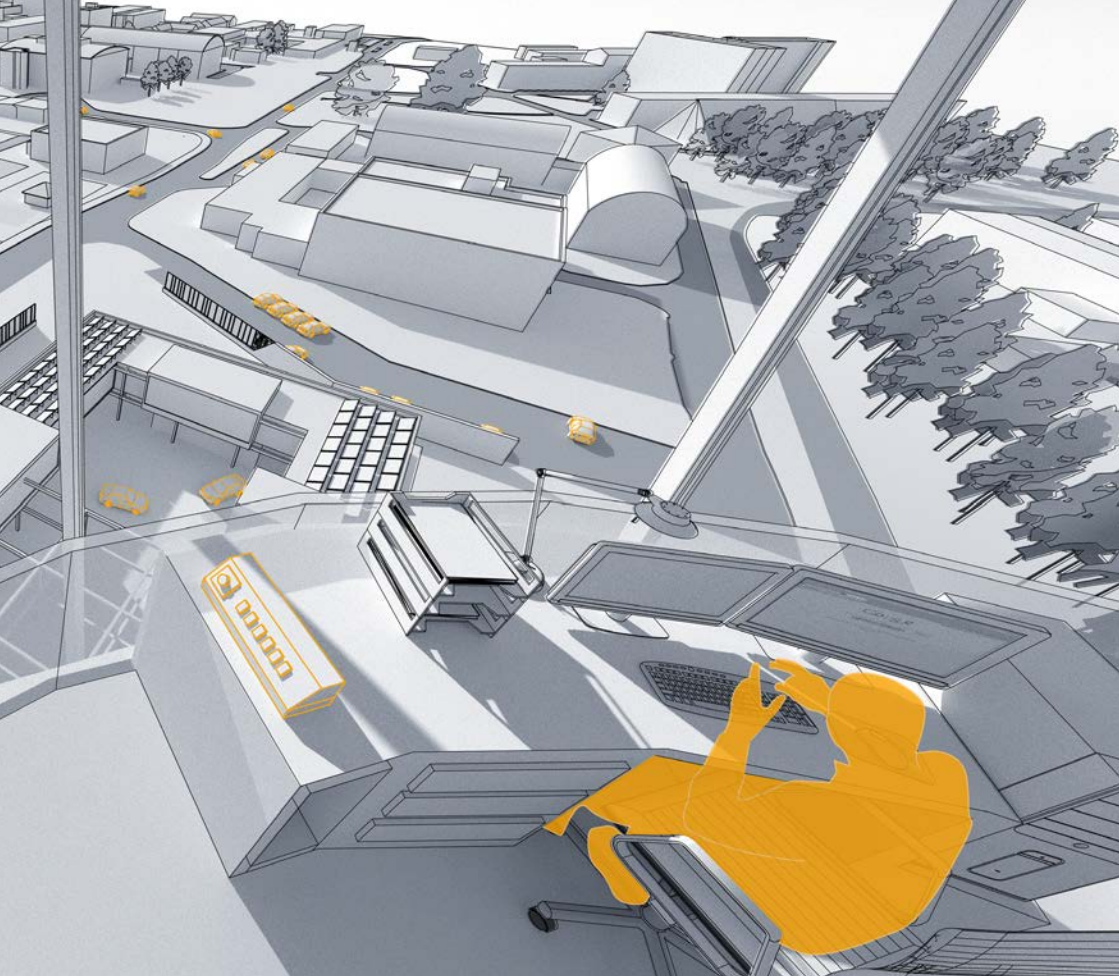
SME LINE

Our project this term looked at the re-use of an existing office building in Harwell near Oxford. The existing office building is used by a company called Catapult. Catapult is a networking company focussed on creating relationships and collaborations to improve the UK's industries. Satellite Applications is a branch of the company that envisions the future empowered by satellites. Our proposal is to focus on an important process of Catapult: the working alongside young, aspiring Small Medium Enterprises and allowing them access to satellite data, develop richer ideas based on the more extensive and accurate data and finally demonstrate the resulting products and concepts to potential investors.Our building provides a collaborative environment for the SMEs, Catapult employees and clients within a futuristic co -working office space and a central space connecting it with a demonstration room. The spaces are positioned around a central cut through volume that offers direct view to the space satallite. Through many iterations, we developed the key spaces. Initially designing programmatic strategies and then testing the human scale and considering the experiential moments and optimum collaboration within the design. The demonstration room uses augmented reality technology to create experiential demostrations of ideas and technology related to satallite data.





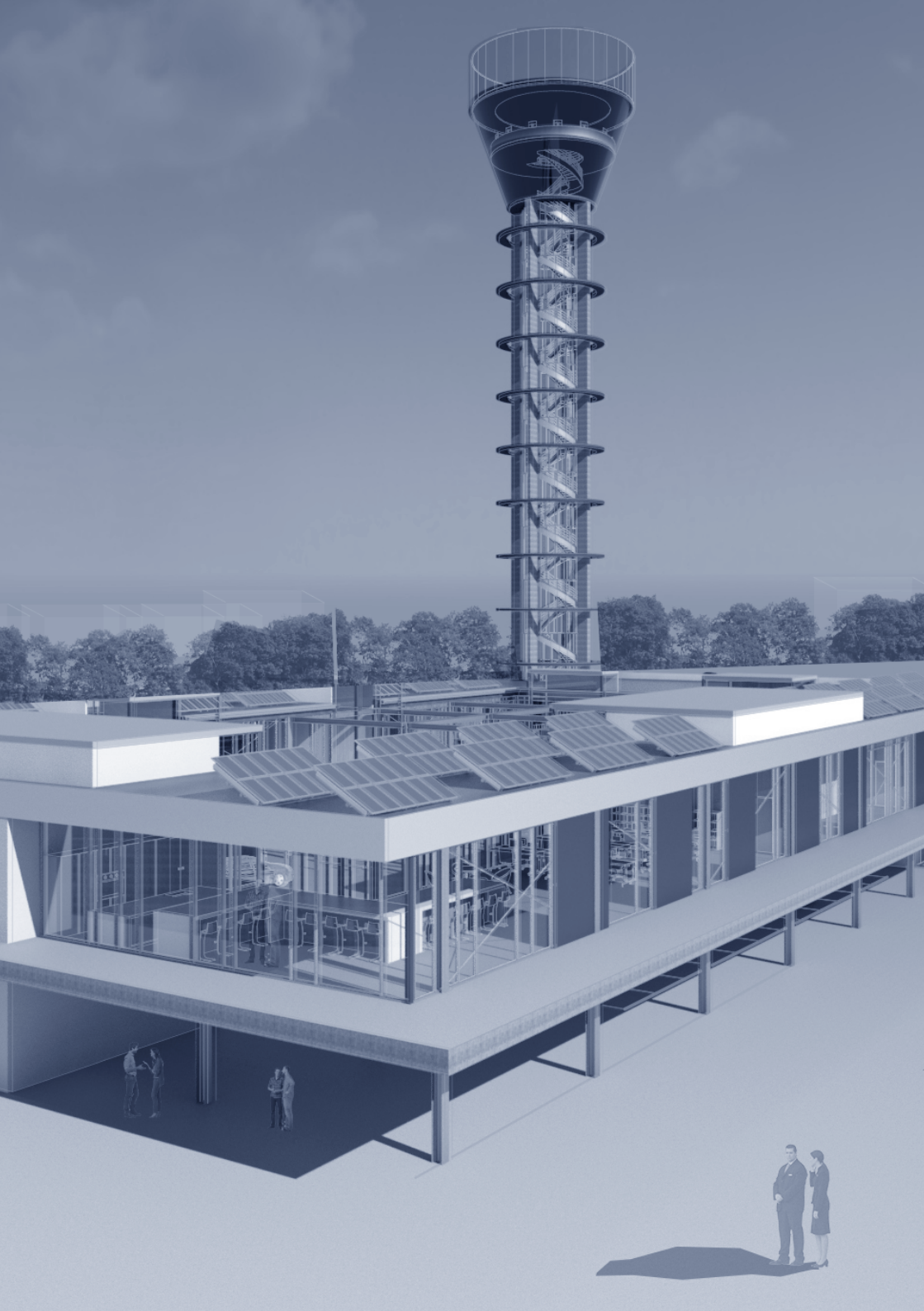


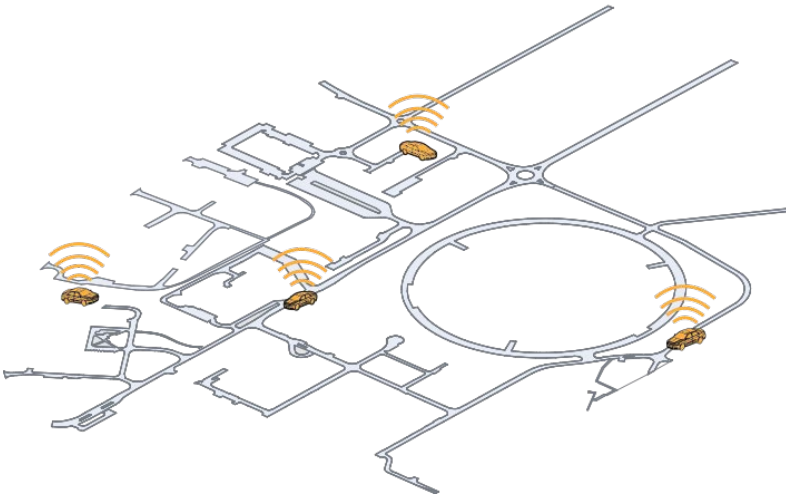


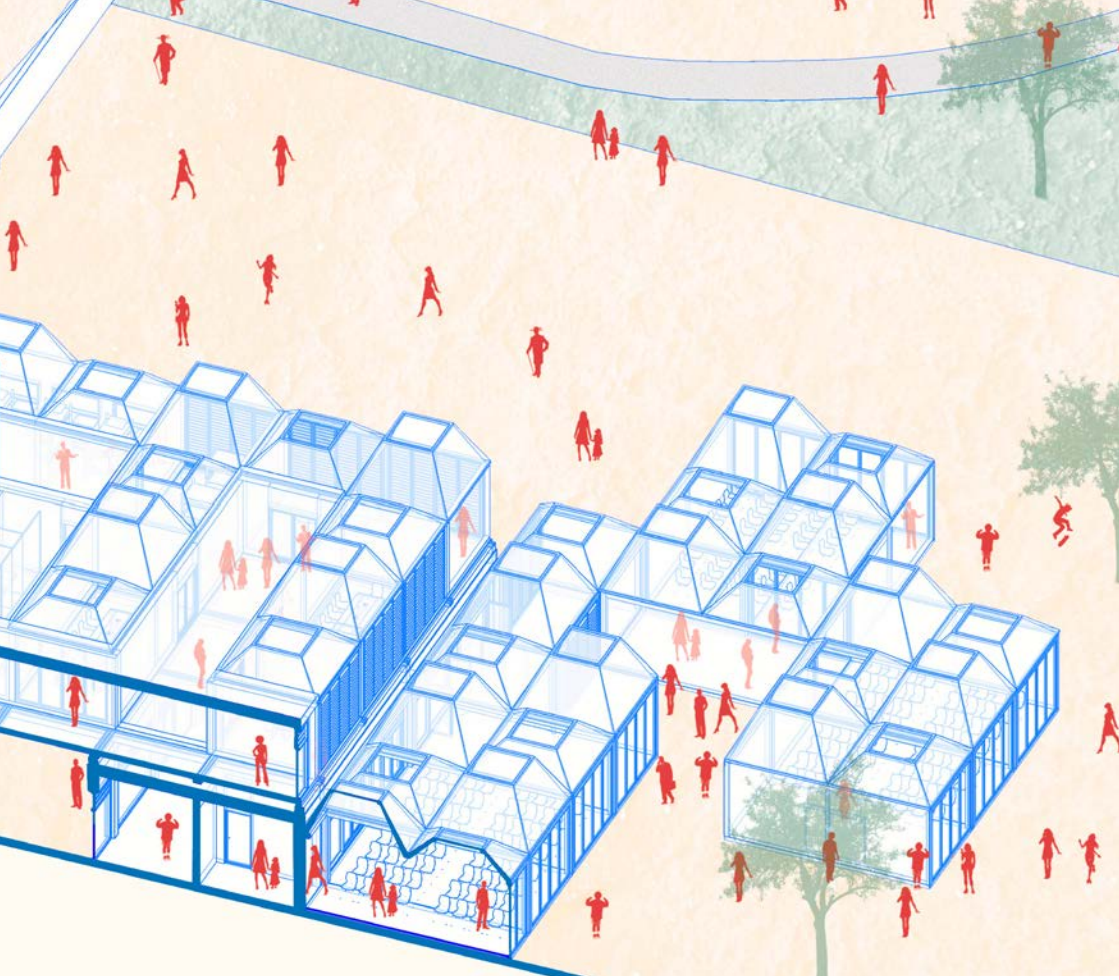
Amy Whitmore
Jaemin Shin
Aditya Vairav
See Ting Dawn Wong
Jack Seymore

HARWELL CAMPUS OF AUTOMATION

The Harwell Campus of Automation aims to aid the integration of autonomous forms of transport into society by developing the legislation that informs its use. Through a series of investigations into the uses and applications of autonomous technology, we found that the physical technology has far surpassed the legal boundaries that determine its use. As a branch of Satellite Application Catapult's 2030 visions, they will use their GPS technology to control autonomous vehicle with the campus as a test bed. This will allow for more natural interactions to occur between vehicle to vehicle, and dual interaction that need to be tested.



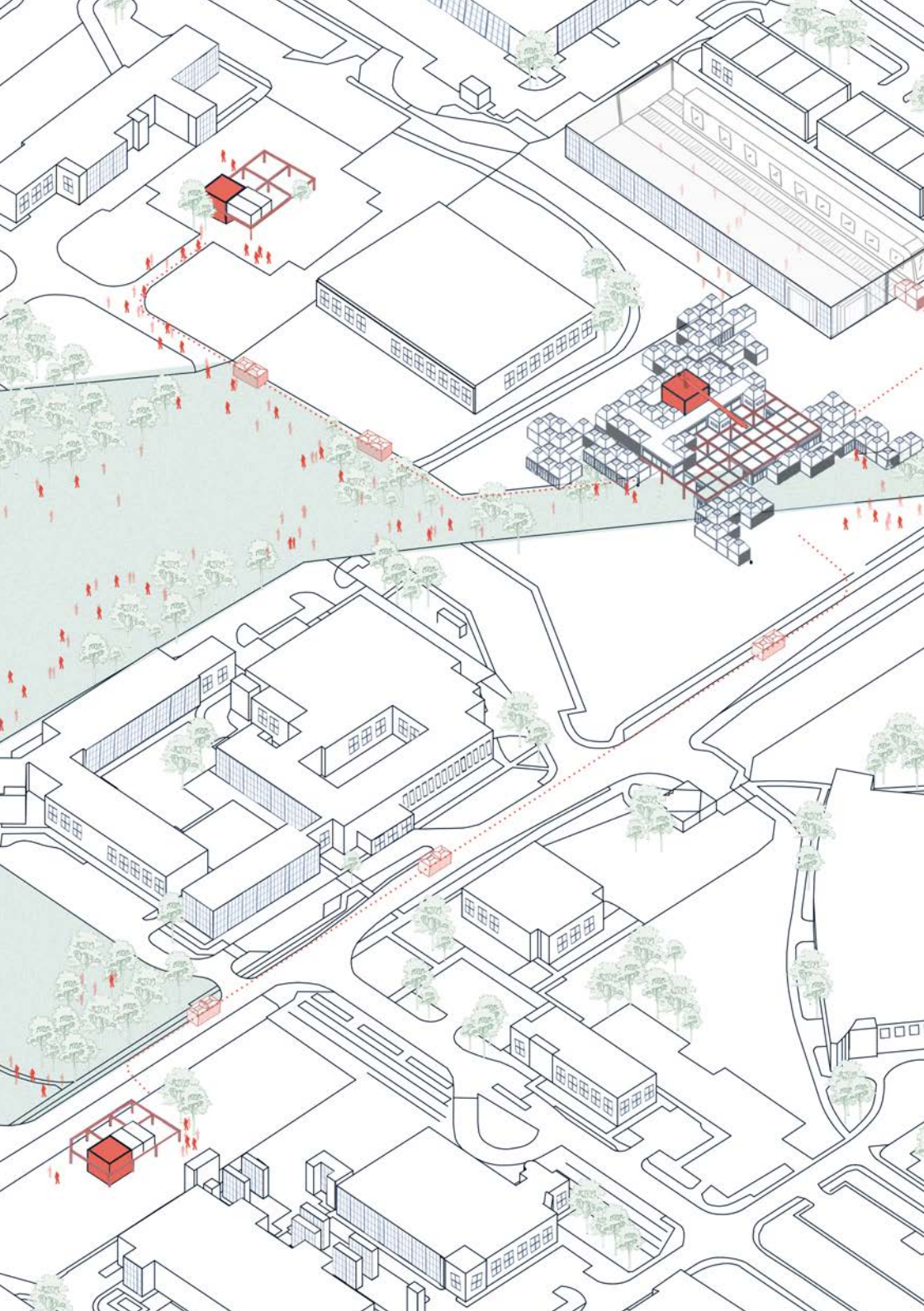


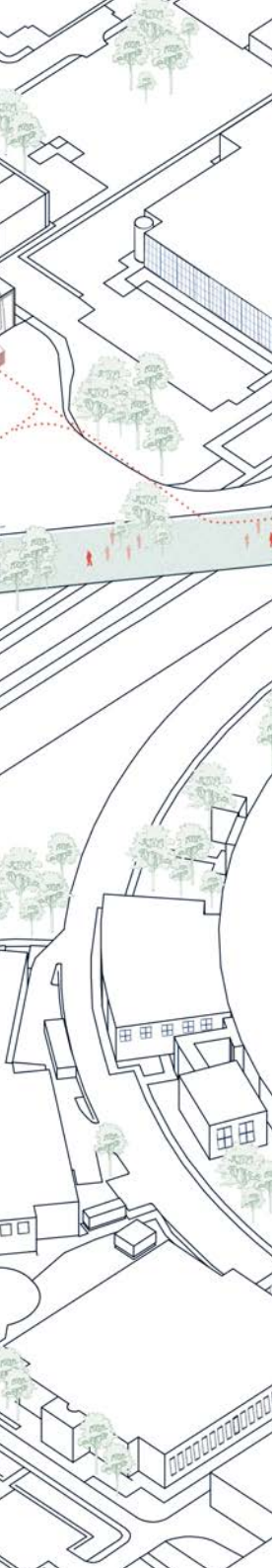


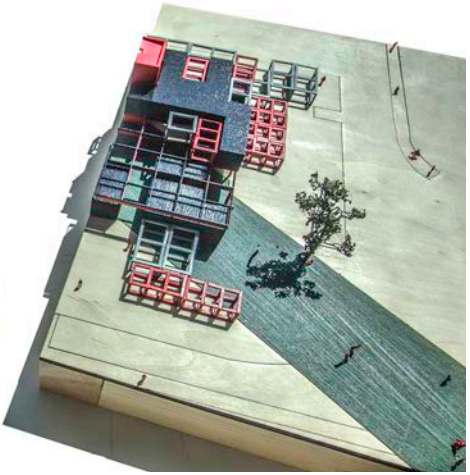
Andreas Leonidou
Joshua Griffiths
Reshmy Easwaran
Rossarin Ungrangsee

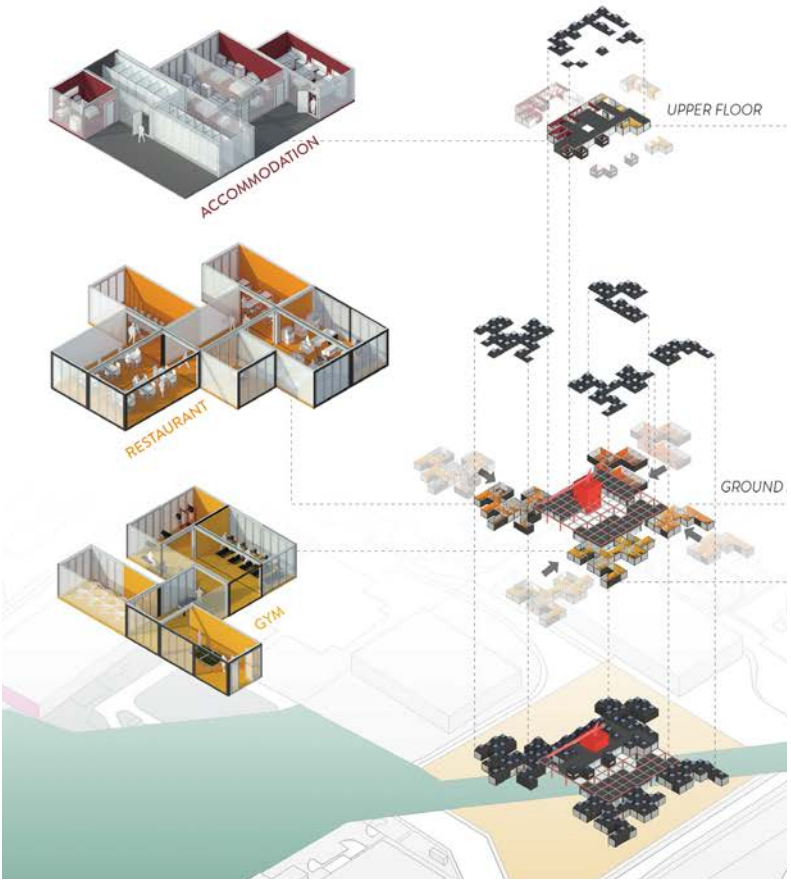
SCATTER CLOUD

This project understands and unpacks what the modern office typology, and proposes an office model for the future, influenced by practices of digital mobility and connectivity. The proposed office model is situated within the rapid growth and expansion of the UK Space Industry, and proposes a digital expansion for SAC, which is then translated into physical contraction. With all employees working digitally and from a distance, there is no need for physical office space.Scatter Cloud aims at engaging the wider community and acts as a mediator within the campus.The project takes on a holistic approach on both the current and future masterplan of the campus and its vast expansion. By stripping out the modern office typology, its physical remains are scattered across the campus. The steel structure of the existing building is disassembled and reproduced on sites around the campus. The campus then takes on a more dynamic approach, better suited to the needs and requirements of places of work of the future. Modules move from one site to another according the spatial needs, making The Cloud, the new centre for the campus, is a living breathing machine, flexible and adaptable to specific events and conditions. The office does not need rethinking. It needs a format and reboot.








ACCOMMODATION
UPPER FLOOR
RESTAURANT
GROUND
GYM











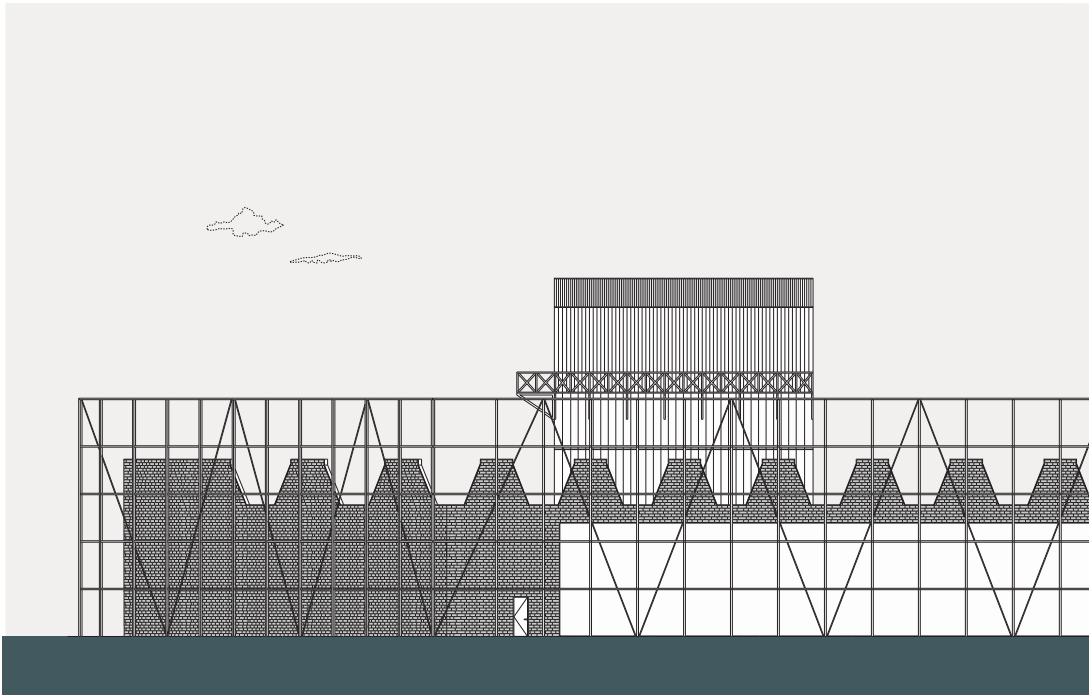

Connor Armitage
Peter Bell
Tom Fantom
Stanley Ka Wing Fu

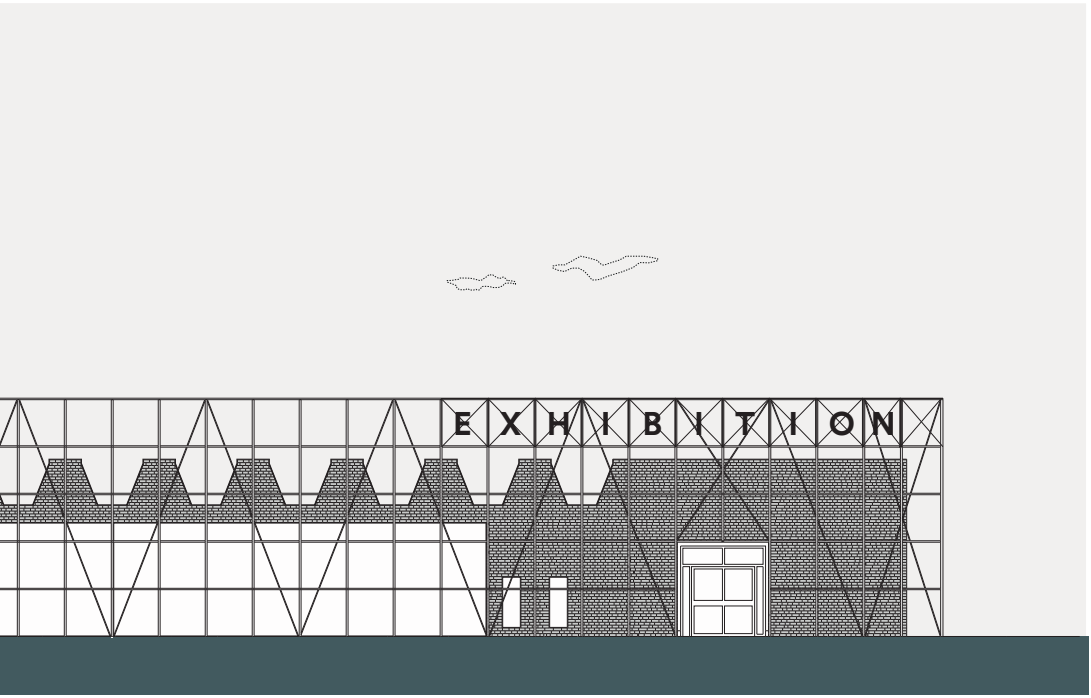
Jonathon Heyes
Jack Hines
Rob Makey
Cristina Martinez Iborra
Robin Morgan

Stephen Morris
Eva Nella
Bethan Nelson

INDIVIDUAL PROJECTS

MArch 06

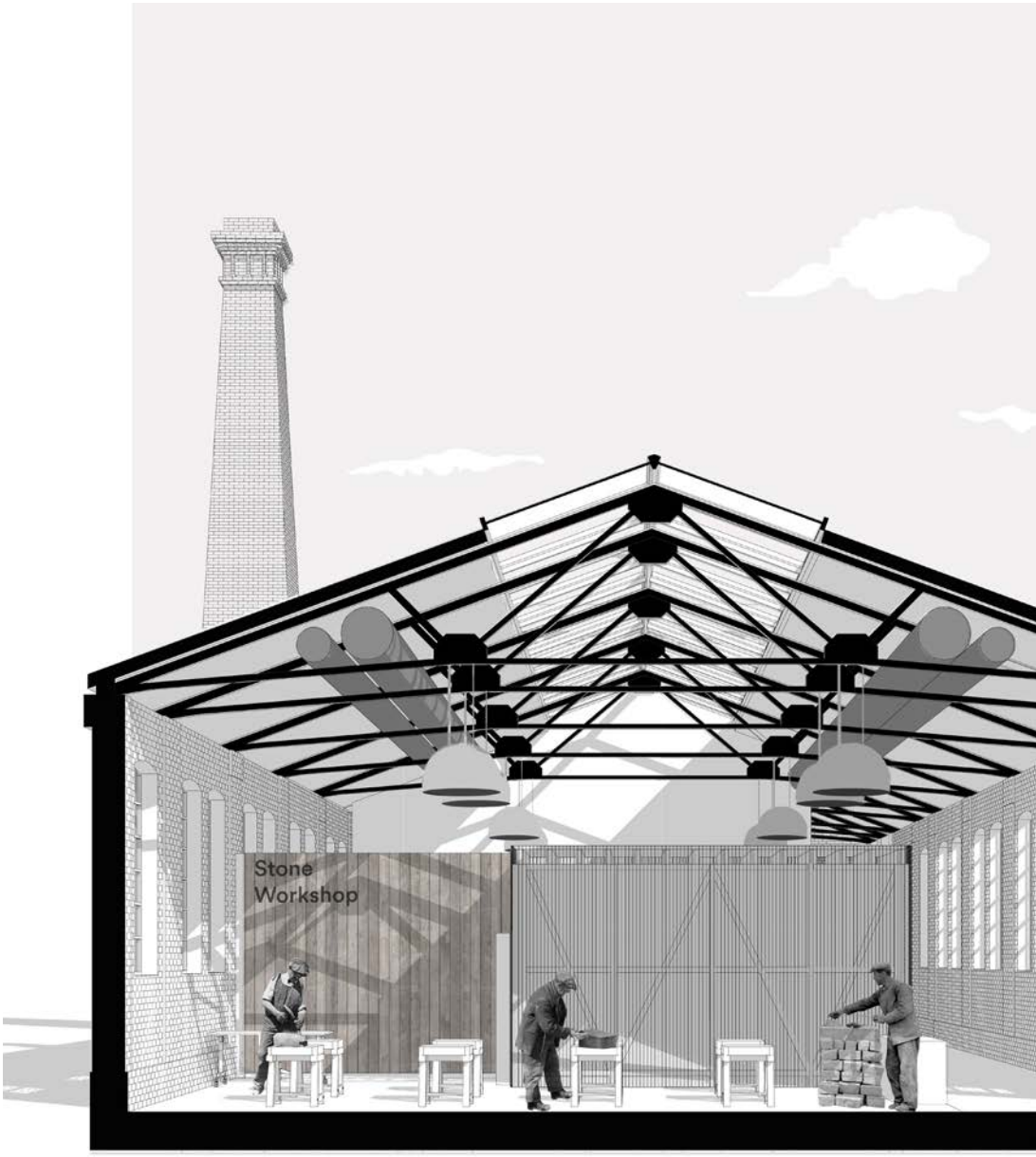


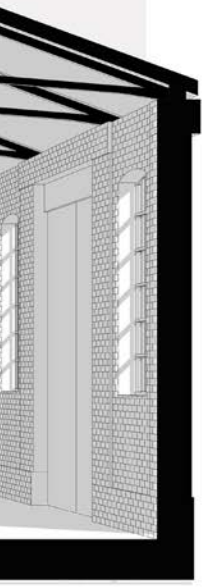


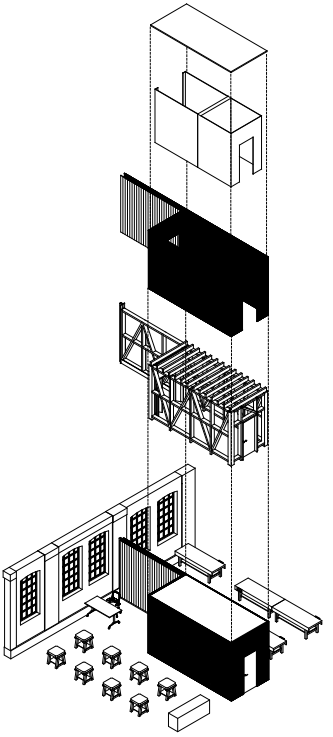
Connor Armitage

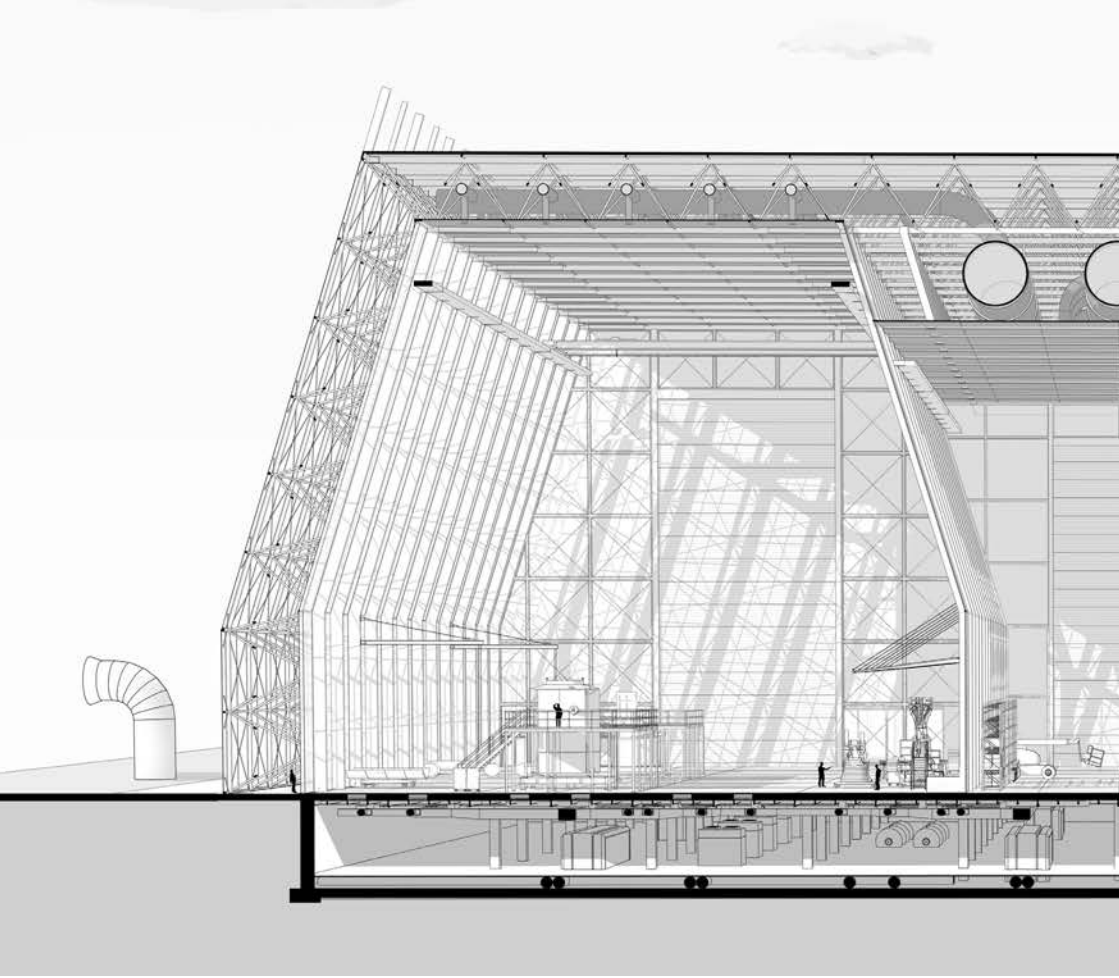
INSTANT HERITAGE FACTORY

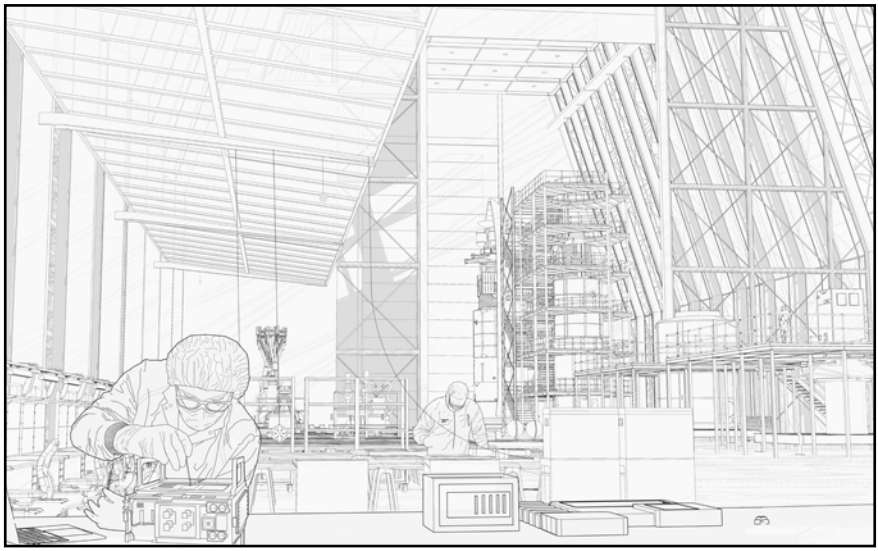
By utilising new 3D printing technologies could architects redefine current approaches to heritage and create a new approach that is visually accurate but blurs the boundaries of true authenticity? The instant heritage factory becomes the site for an 'Instant Heritage Factory' a test-bed for developing and testing of 3D printing technology and an exhibition of the physical and digital preservation of the heritage built environment in Cornwall.

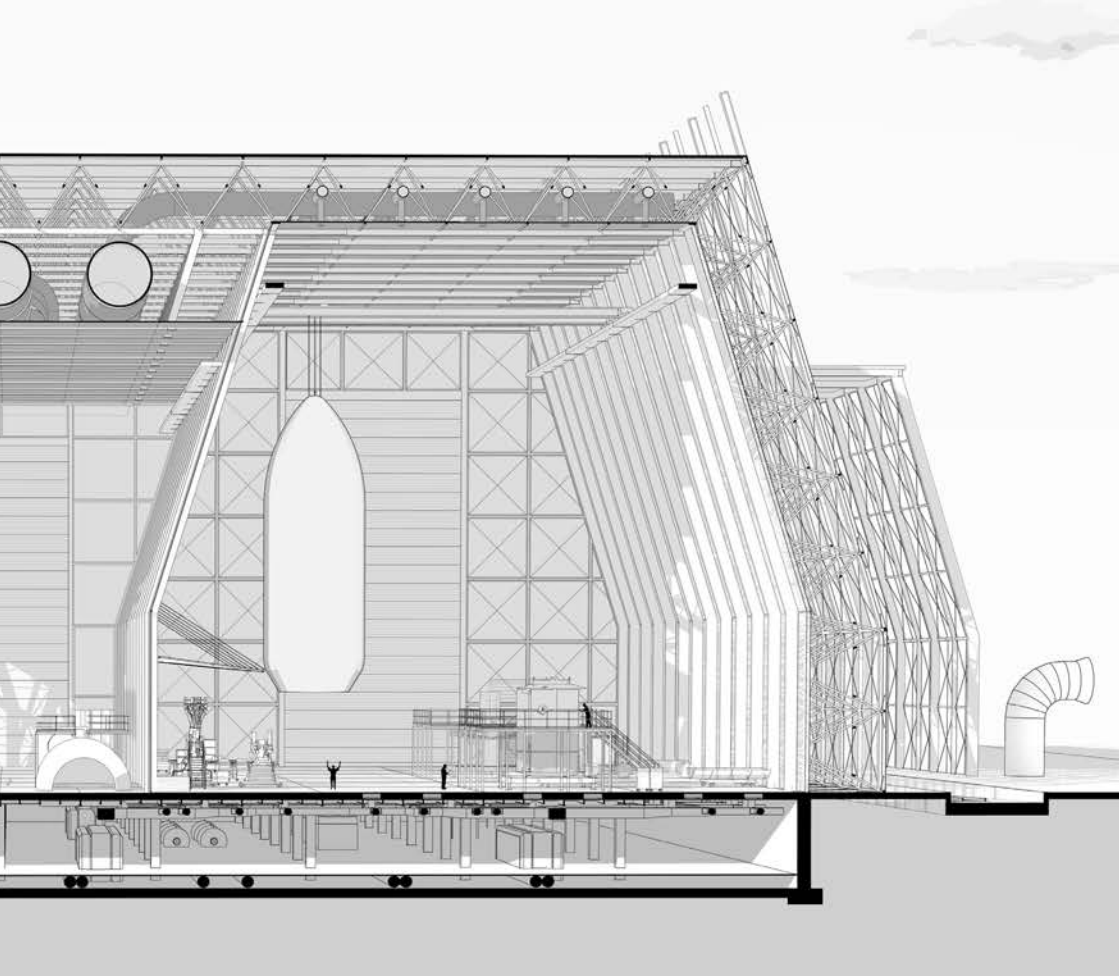

Stone
Workshop







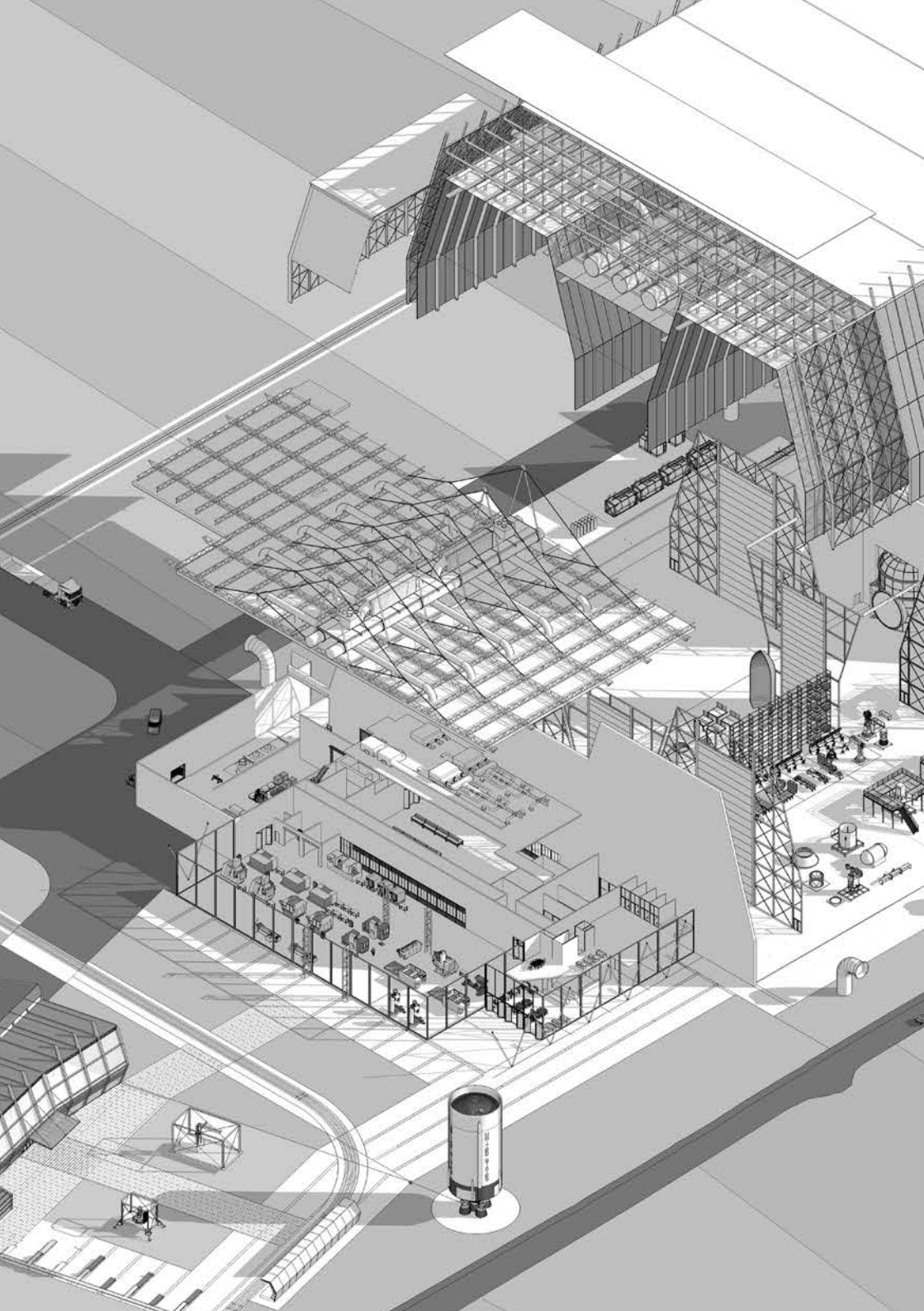


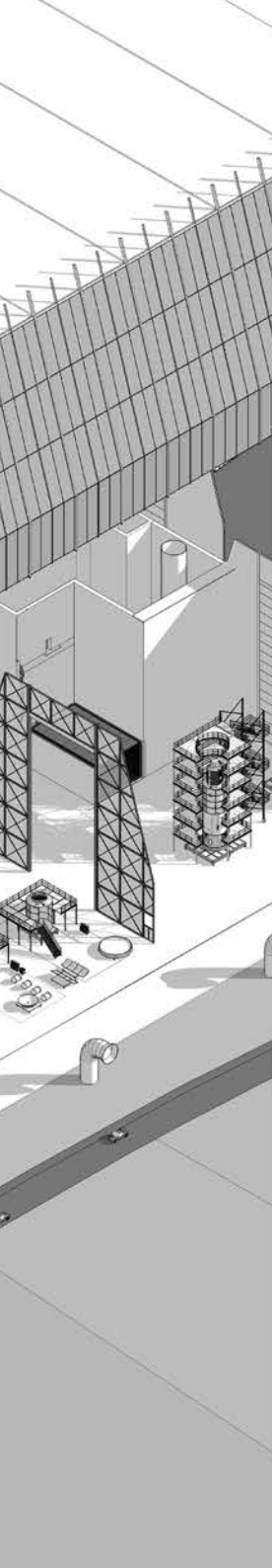


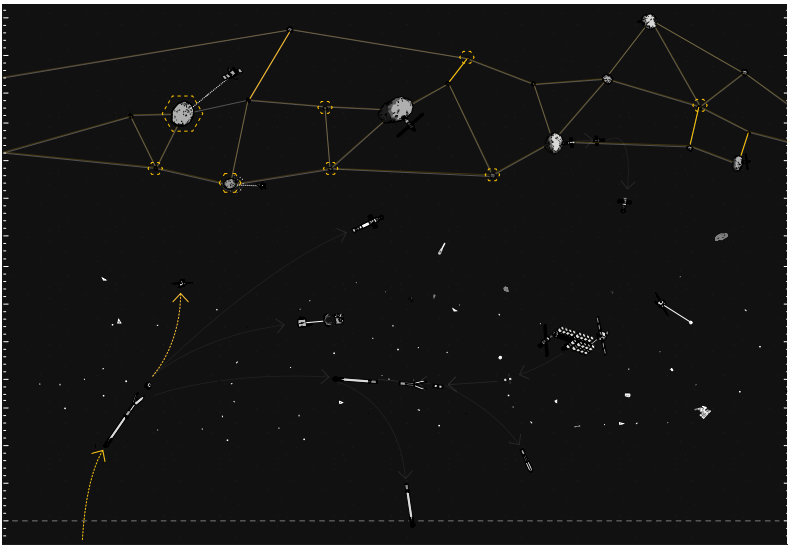
Peter Bell

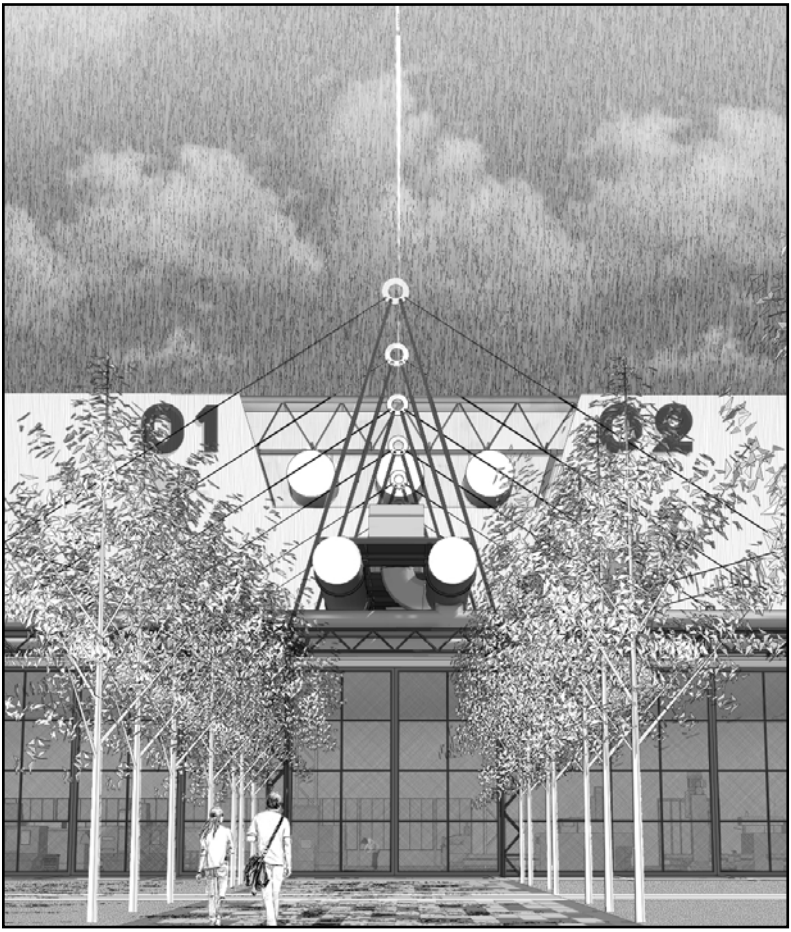
SPACEPORT LIZARD

In recent years there has been a growing interest in space travel, both for the colonization of planets within our solar system and for space tourism. This project explores the vertical connection between the ground and space and how it can be used as a resource. These resources include, asteroids containing large quantities of precious metals and growing volumes of space junk. My thesis explores the potential opportunities of a spaceport located on the Lizard Peninsula in Cornwall to research, develop and launch rockets which can mine asteroids and recycle space junk. Lizard spaceport is a facility intended to question and explore how Cornwall can utilise its space launching capacity to establish it as a major player in the future space industry. Therefore, bringing jobs, investment and a new identity to Cornwall beyond a tourist destination. The spaceport has 3 primary programs; manufacture, launch and categorising, processing and recycling of items from space. These items are processed through a series of facilities including a large processing plant, medium processing plant, metal shop, radioactive waste store, waste facility and a space junk archive. These images illustrate the manufacture facility.





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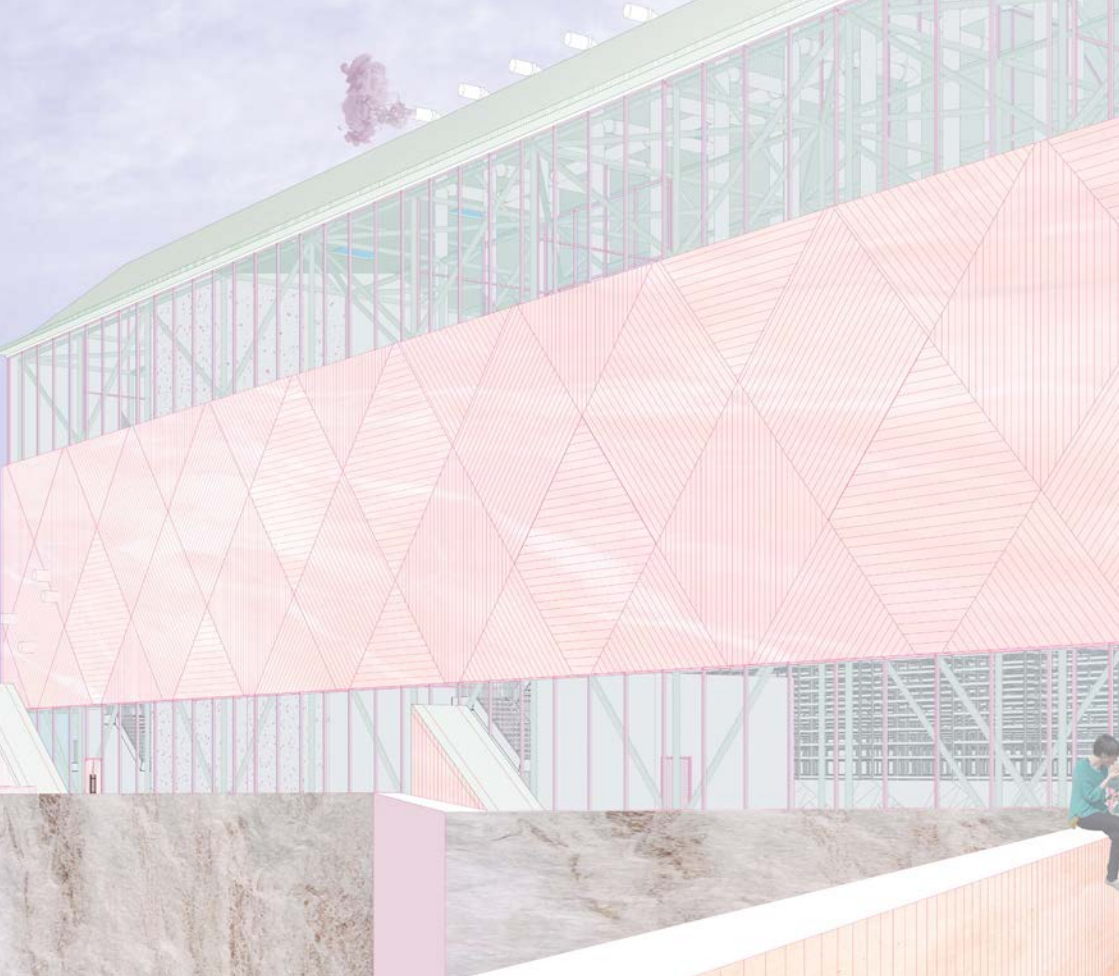
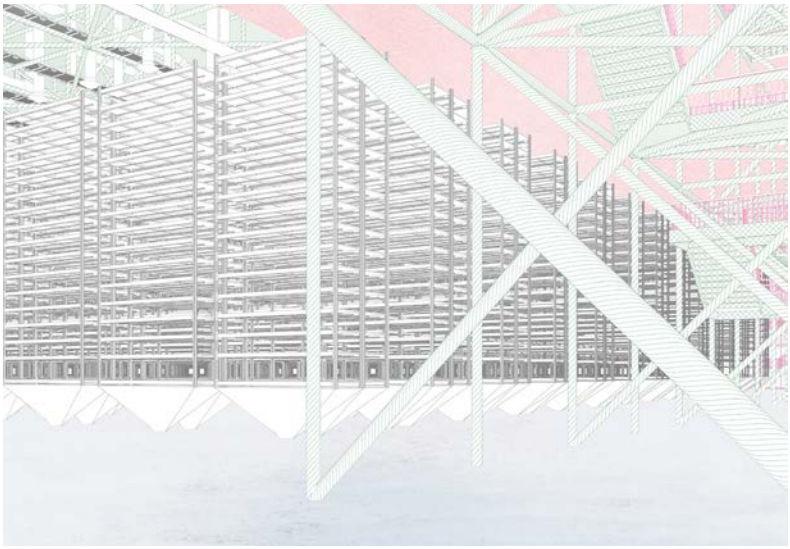
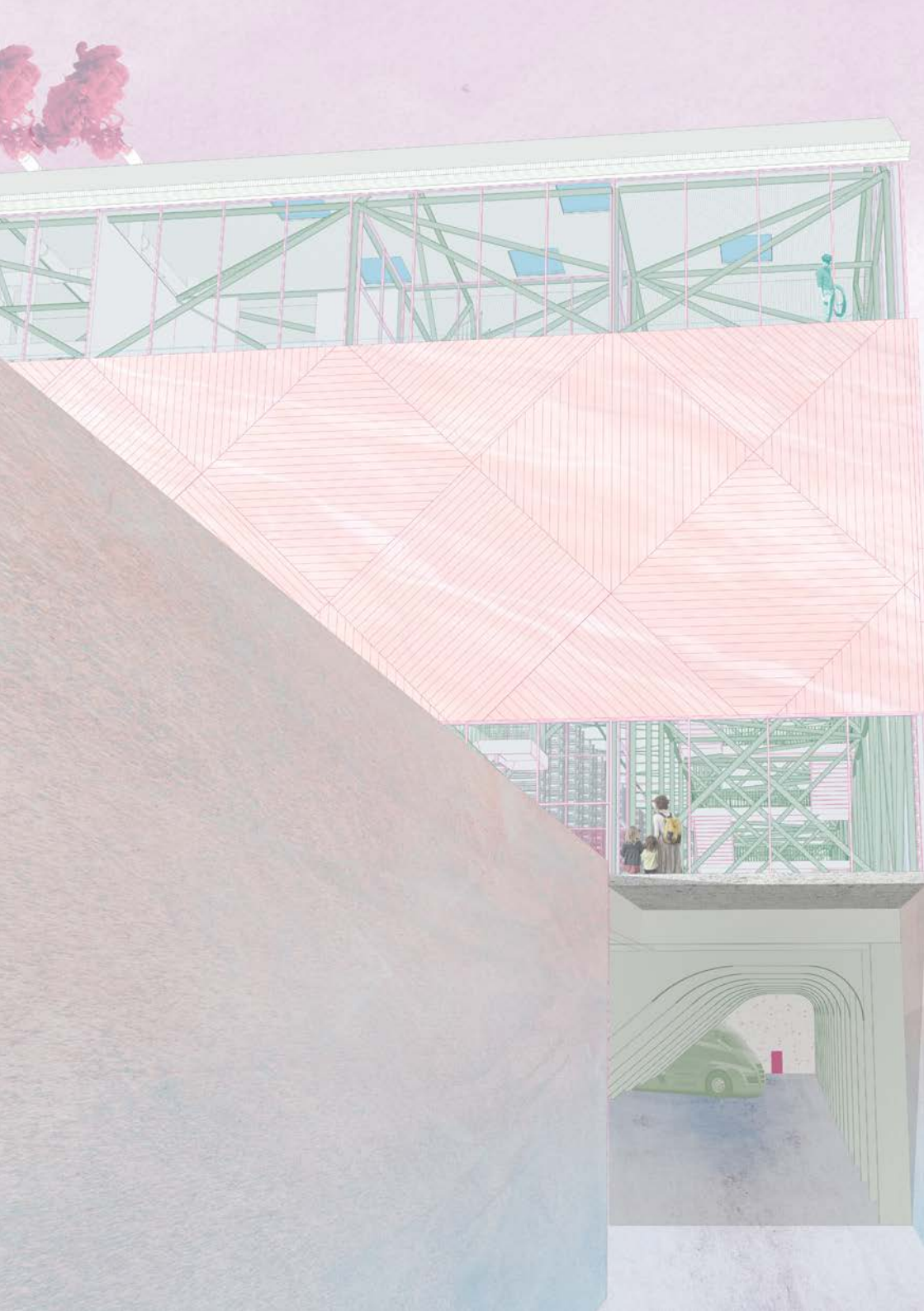


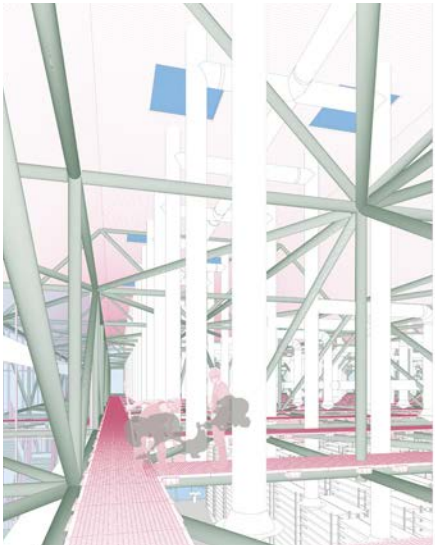


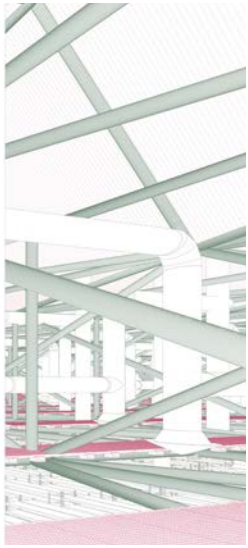
Tom Fantom

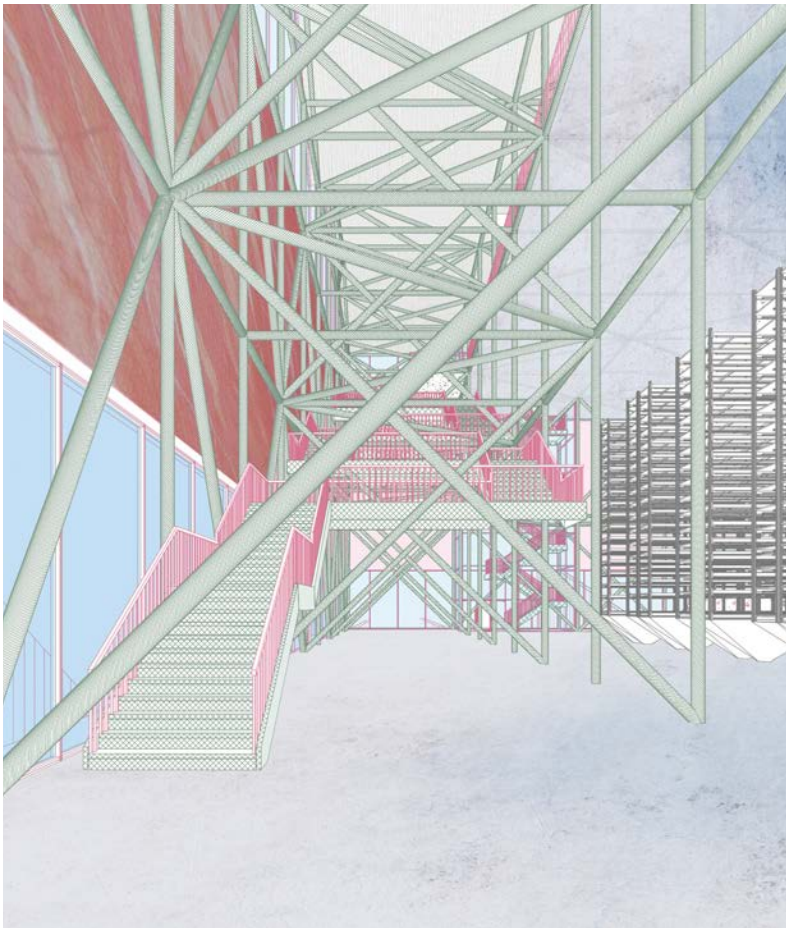
SYFIH

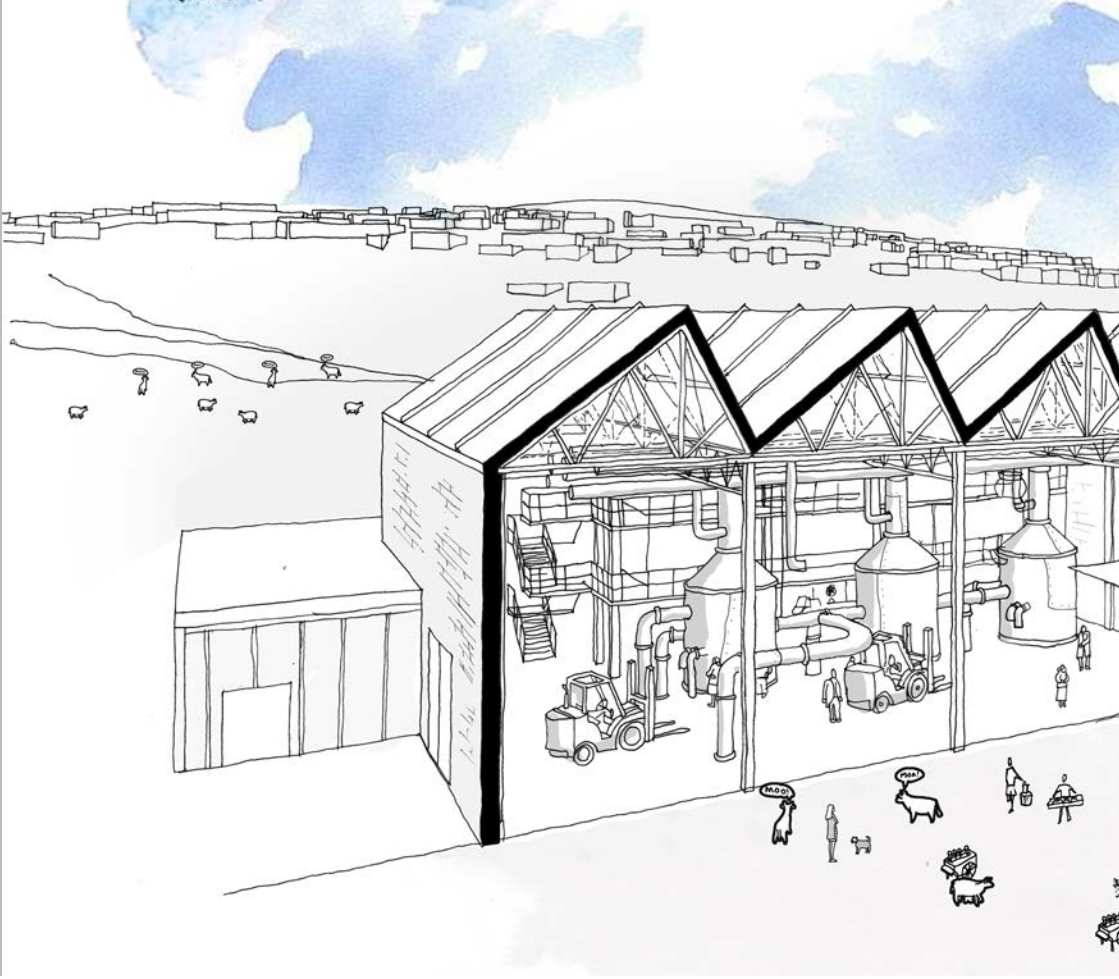
Sy_FIH [Science Food Innovation Hub] explores the Post-Brexit agricultural landscape within Cornwall and challenges the idea of self-sufficiency within the county and country as a whole. By streamlining efficient foods, producing its own energy and water, and processing its own waste, SyFIH has the ability to provide the country with all of its fruit and vegetable consumption through precision farming methods. For Cornwall, Brexit could mean boom or bust. With issues such as European seasonal labour, import tariffs and poor connectivity, the county is in a perfect position to explore non traditional agriculture to its limit to ensure its survival. The facility therefore houses its own bio-laboratory and agriculture school to train the next generation of farmers. The site itself is a productive landscape in terms of organic matter and energy, encouraging the public to interact and learn themselves the real nature of food production. Social and environmental sustainability are key themes throughout the site, with Ancient Woodland and hedgerows preserved, and rare native flora introduced in the wetlands to create habitats and nesting sites.

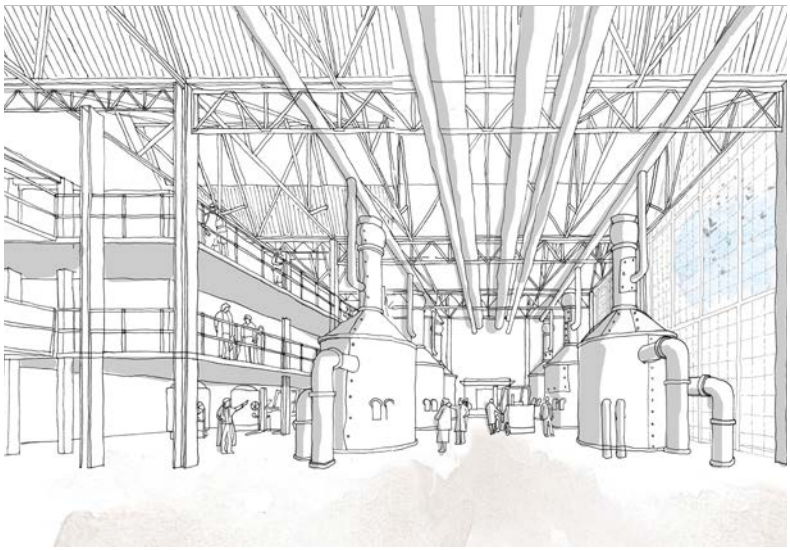


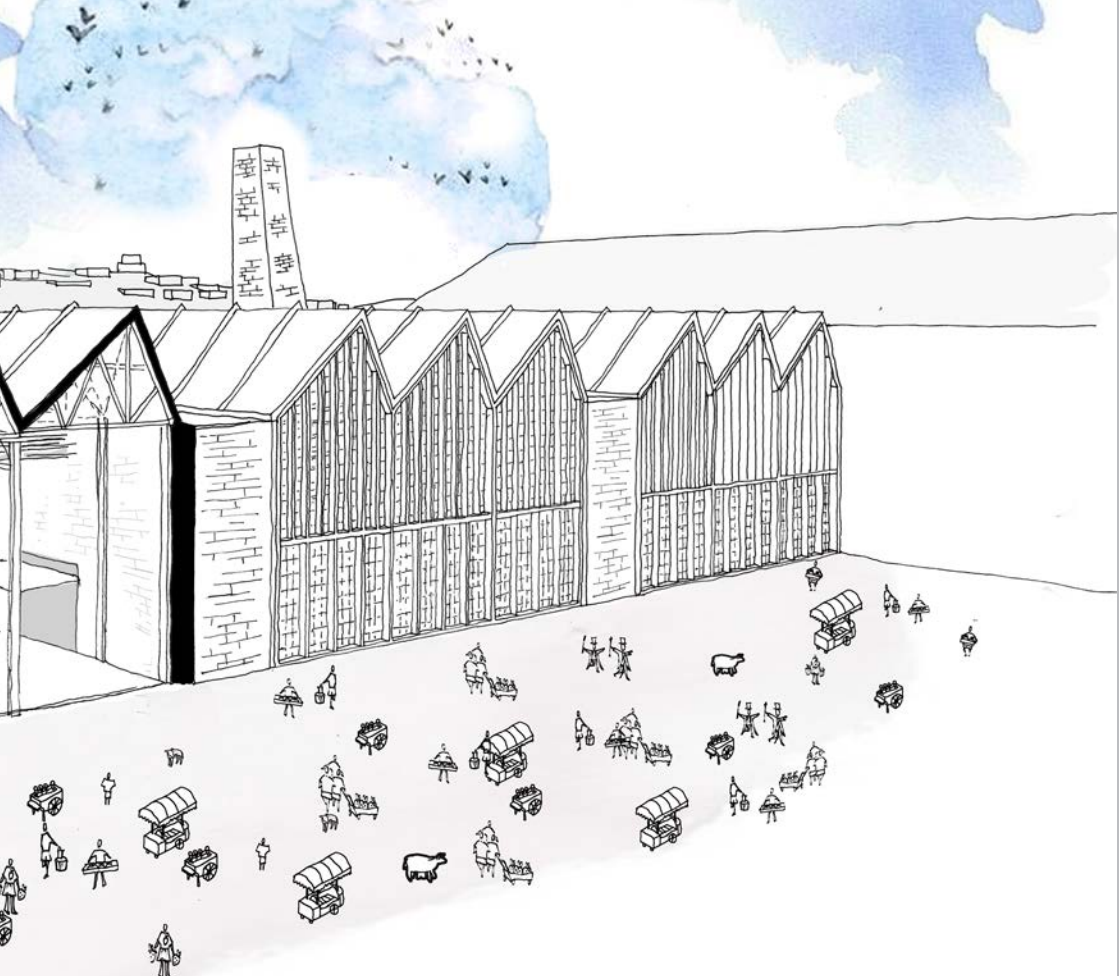







MAAI!
MAAI!



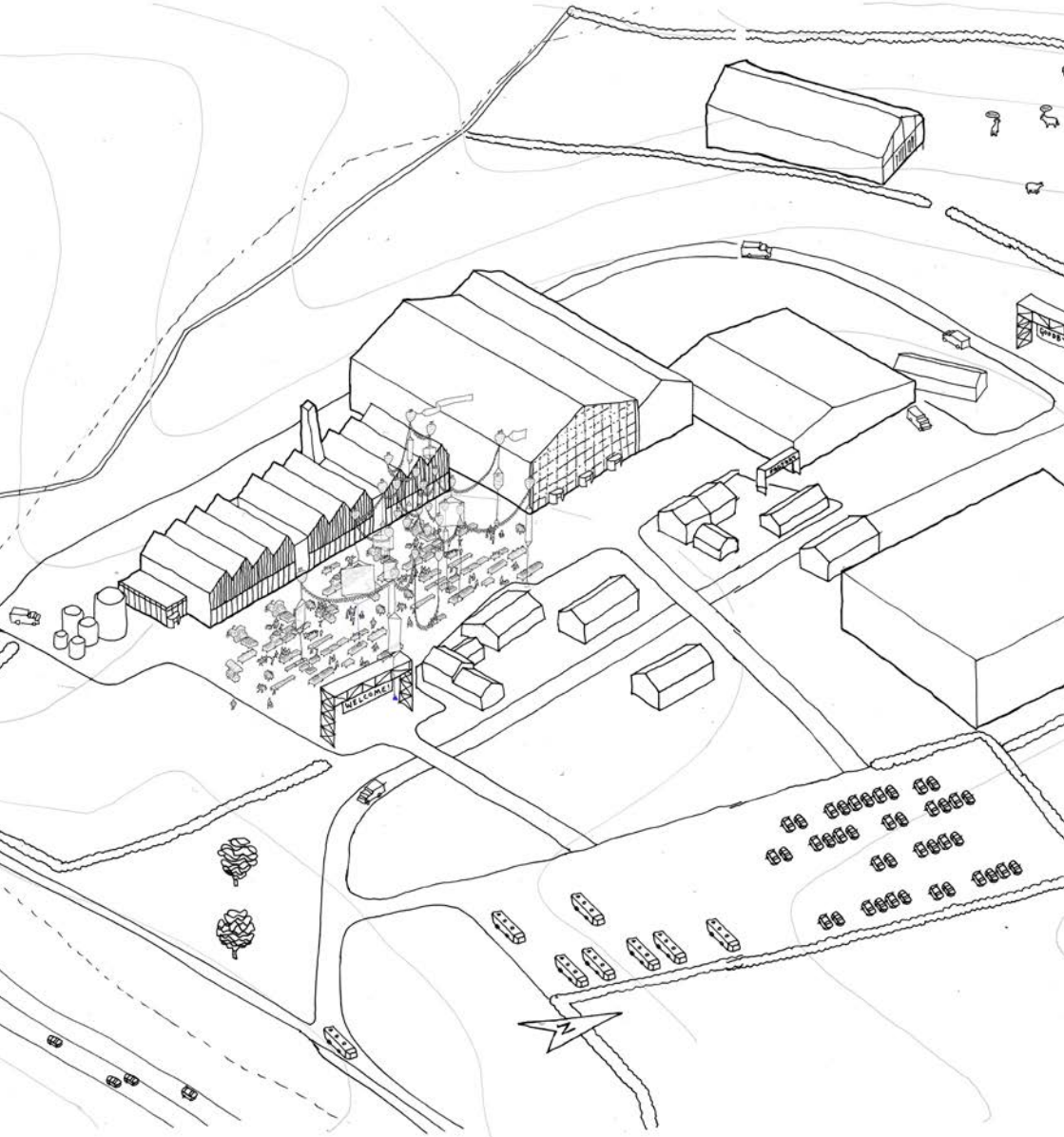


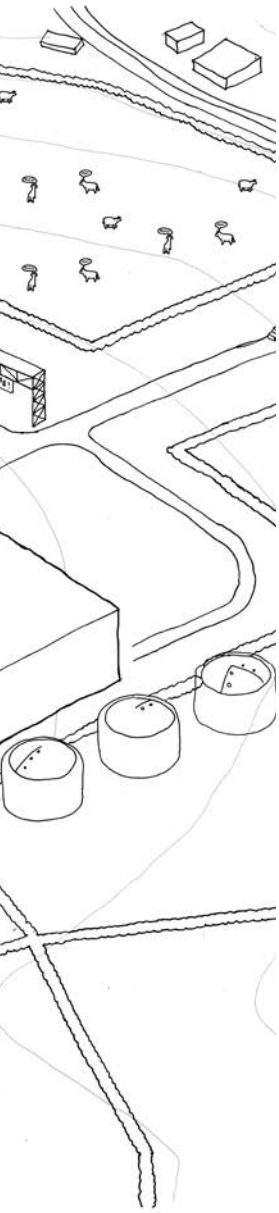
Stanley ka wing Fu

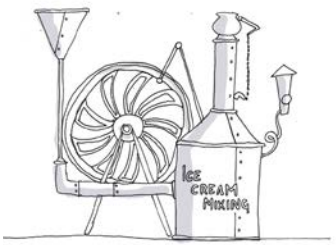
LET'S ALL SCREAM FOR ICE CREAM

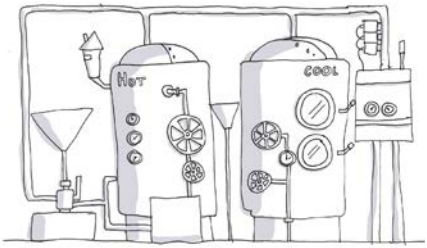
The thesis research focuses on tourism and its effects on Cornwall. Highlighting Cornwall's dependency on tourism, the project looks to create a closed loop system which would benefit from the tourism industry, whilst producing a product to put back into the local economy. The project is an ice cream to energy factory which sees a closed loop system of ice cream production and using the waste as an energy source to provide power for town of Launceston. Focusing on a more touristic aspect, the project looks at creating a modern industrial landscape which turns the process of creating ice cream into a pseudo tourist attraction. The project is split up into several smaller buildings each with their own typologies reflecting the process of ice cream making.

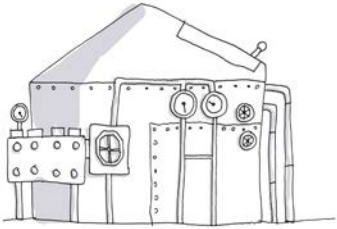
Located at the edge of Cornwall, Launceston is the first village you arrive to when travelling down the A30 (one of 2 major roads into Cornwall). My project uses Launceston as a gateway and entrance point into Cornwall, welcoming visitors into the county.

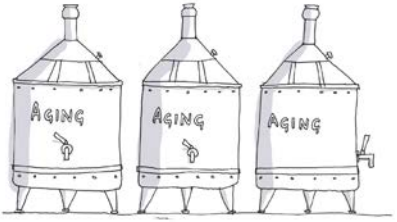

WELCOME!
N

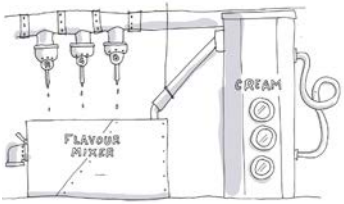



ICE
CREAM
MIXING


HOT
COOL

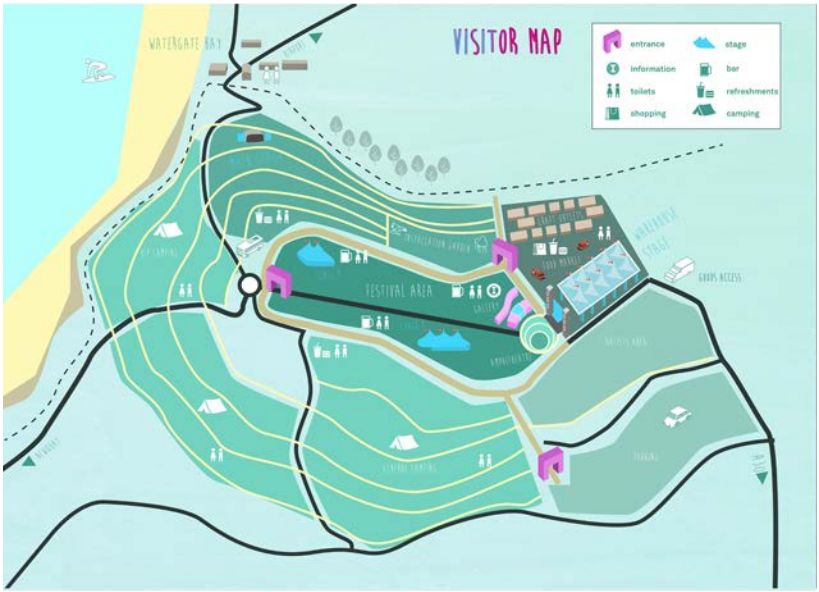



AGING
AGING
AGING


CREAM
FLAVOUR
MIXER


MIXING
MACHINE

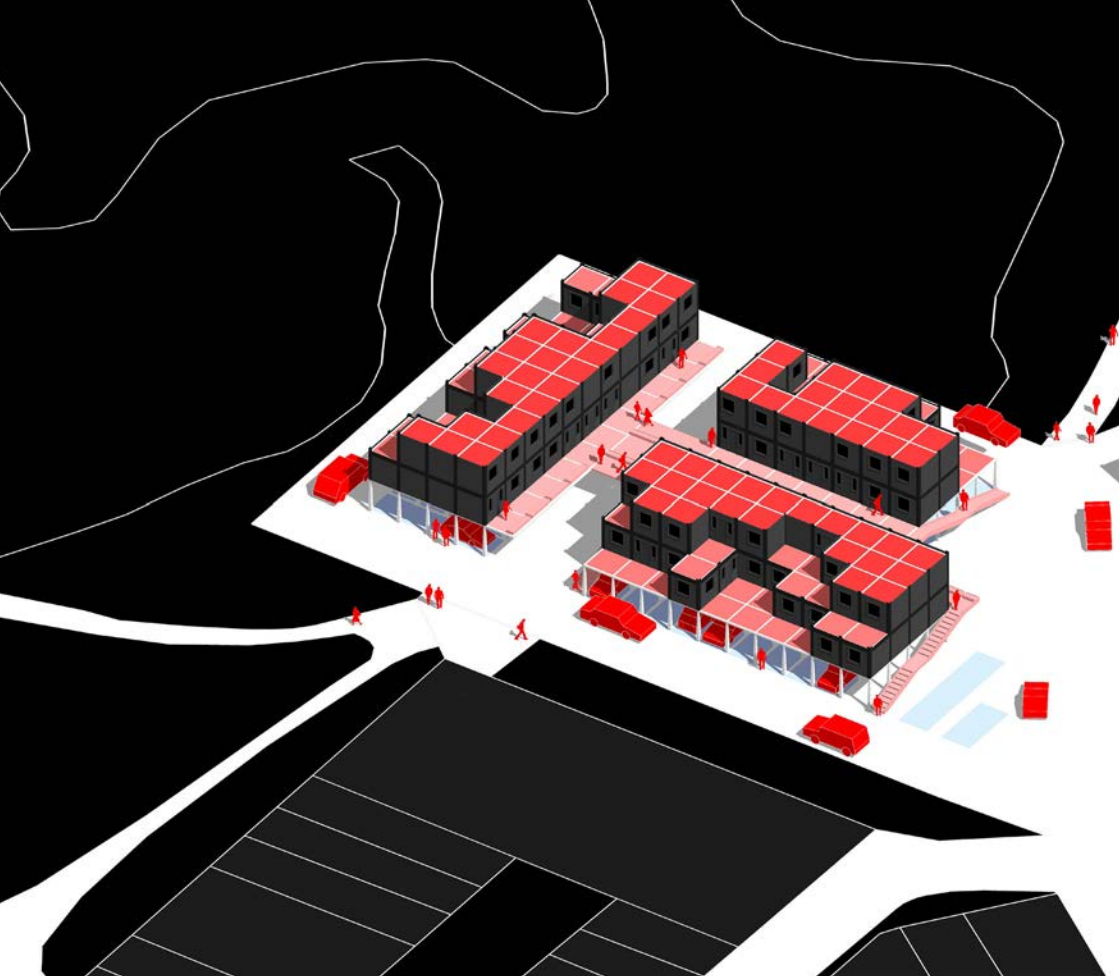

BOX

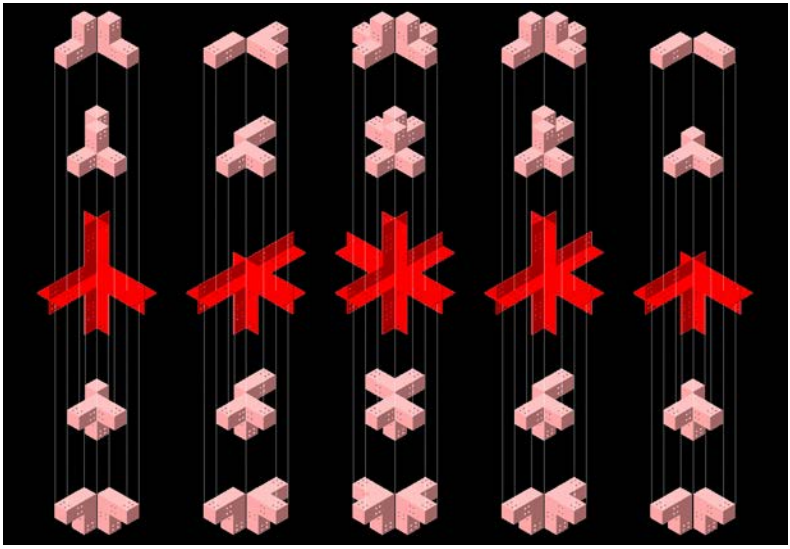

VISITOR MAP
entrance
information
toilets
shopping
stage
bar
refreshments
camping
FESTIVAL AREA
GROUPS ACCESS

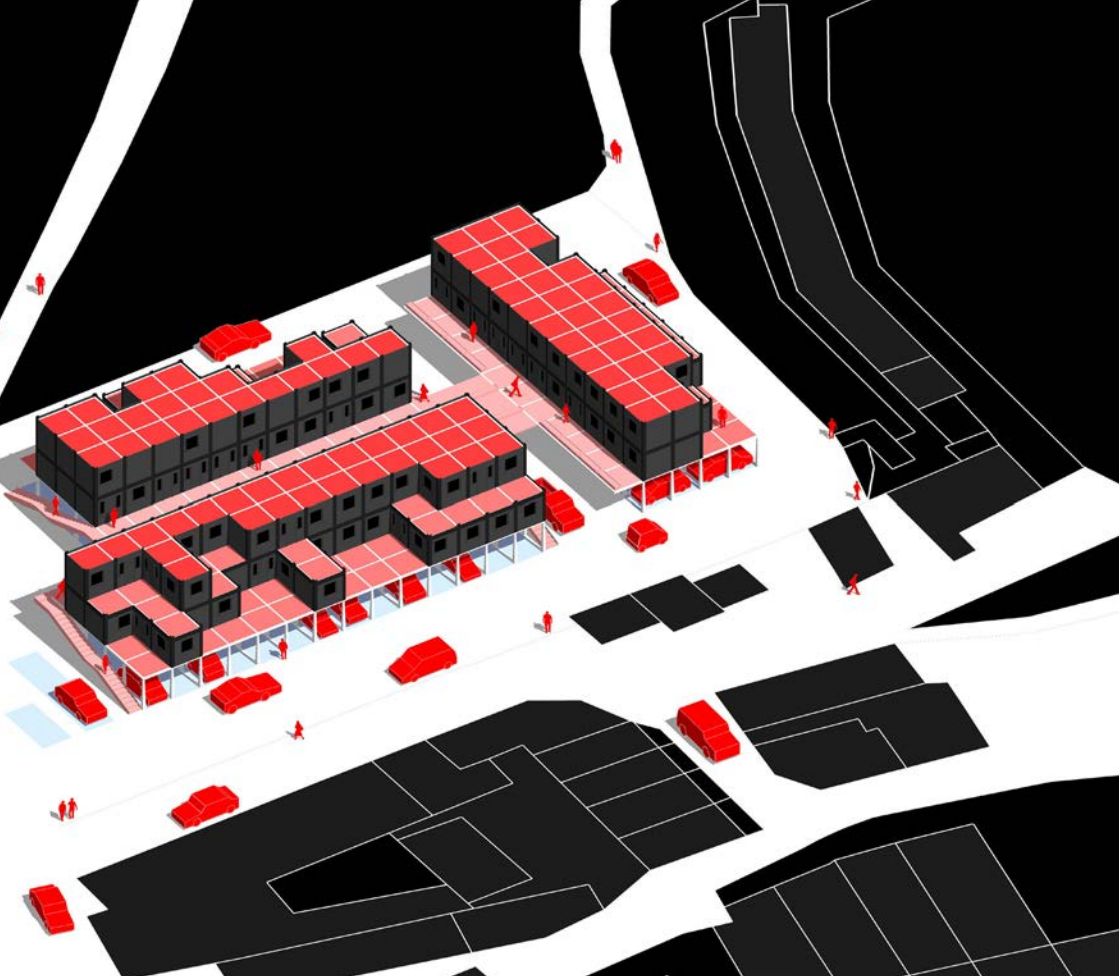
Jonathon Heyes

TIN VALLEY

Mobility is the ability to move freely, which includes the ability to progress socially and succeed. Cornwall has inherent issues of seasonal and part-time employment, leading to serious problems of deprivation and inequality. A lack of opportunities creates an exodus of youth to universities and places with greater industrial mobility. Cornwall also lacks the density required for small businesses to develop collaboratively. Tin Valley is a semi-autonomous startup campus, spawning the critical density for success. Watergate Bay offers a well-connected (virtually and physically) beach paradise for surfers and professionals alike. The incubator is a new public forum, to exhibit, learn and test ideas, with a café and coworking spaces for cross-pollination. A series of lightweight PEMBs create a lean, dynamic system of rentable office, media and maker spaces of varying size, which are built over time. To encourage a circular economy, these inhabit a shared infrastructure to reduce upfront costs and enable collaboration. The festival halts the site as a bastion of production, creating one of consumption. The 50,000 strong population of Boardmasters Festival, makes the site Cornwall's largest city once a year. An 25,000m2 events space is used to attract consumption and ideas exchange, and host a the inaugaural Tin Valley Festival for Makers and Shakers.



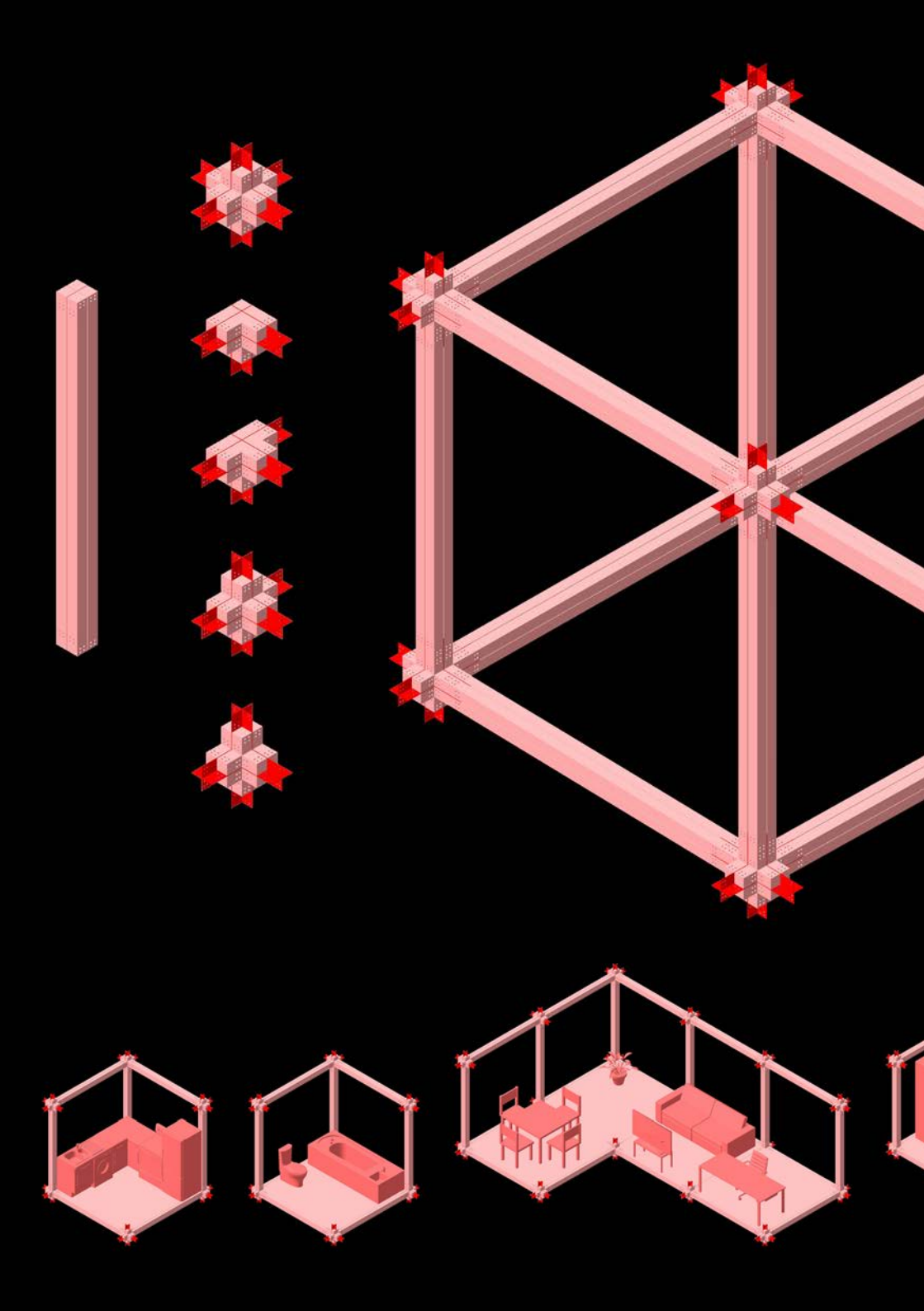


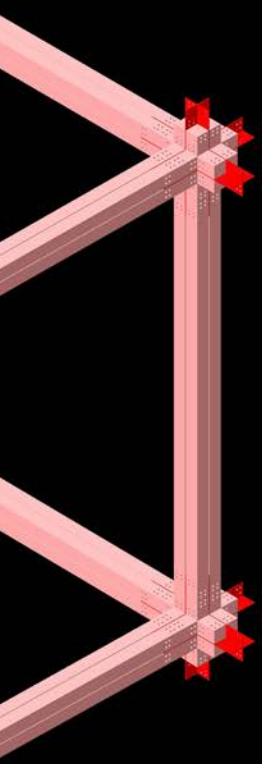


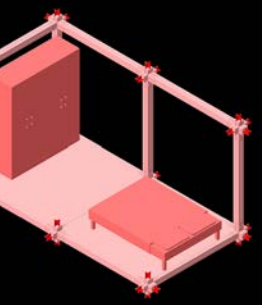
Jack Hines

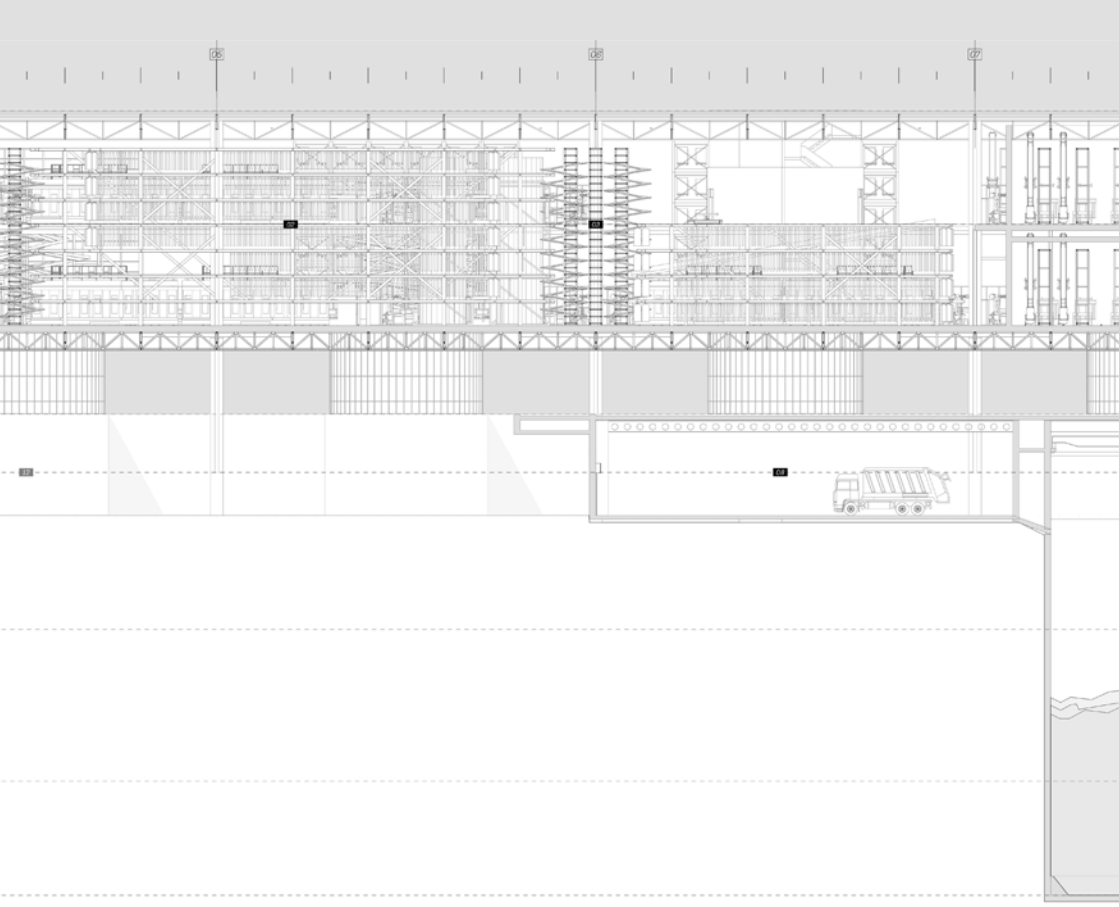
AFFORDABLE CORNWALL

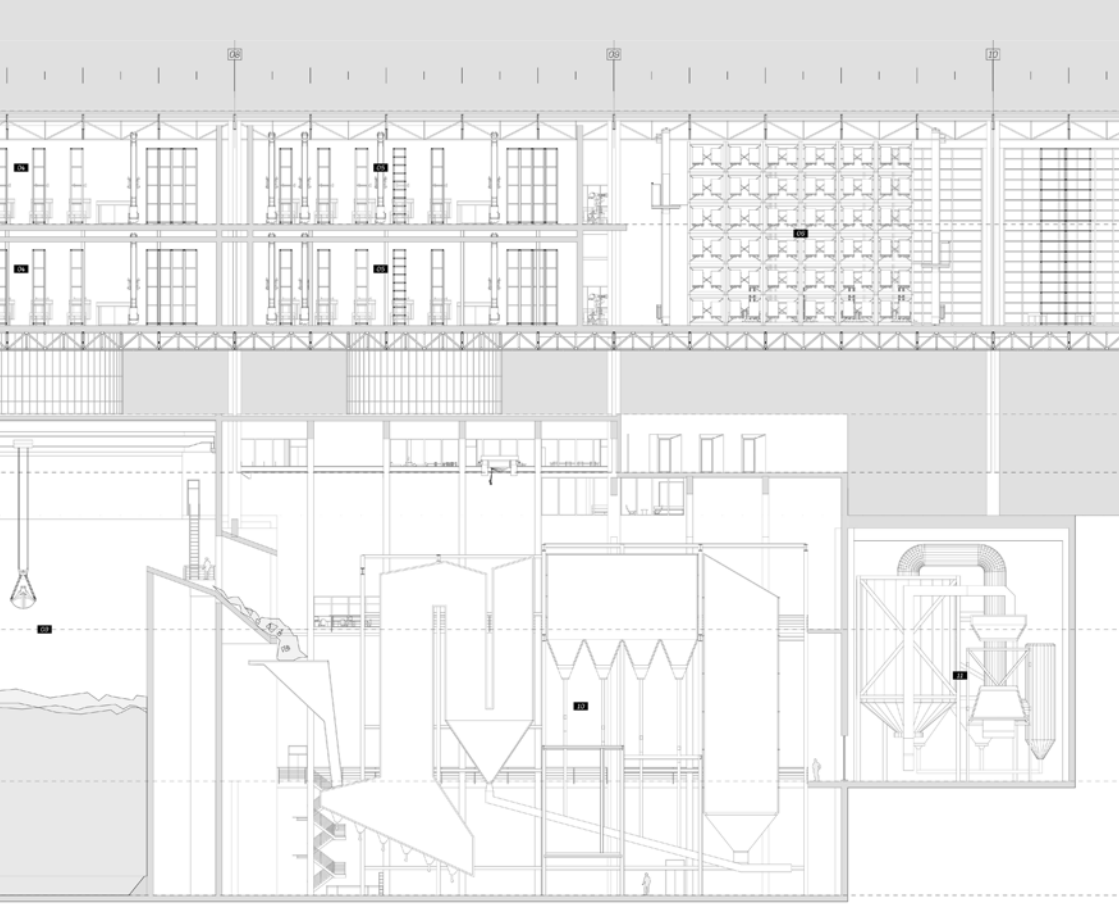
Affordable housing is a key challenge for St Ives that has been exacerbated by rising property prices, limited supply, and increasing demand. The town has become trapped in a socio-economic system that supports tourist but neglects the local residents, new developments overlook what is necessary for the native population thus preventing social mobility. This project aims to rectify the issues in St Ives by producing a scheme that integrates temporary tourist groups with the permanent local community. This is achieved by incorporating tourism infrastructure, a beachside car park, with affordable housing. Residents would be given greater control over the infrastructural facilities of the town and tourism will be directly paying into affordable housing. This alleviates the high housing prices caused by the tourism industry and second home ownership, thus creating a balanced system that integrates and connects tourism infrastructure with affordable housing. The housing is a co-living, co-working and co-producing scheme that facilities people from all generations. Residents have the ability to create a community that improves their lives both socially and economically. A grid of housing above the car park is constructed from a prefabricated modular glulam kit of parts that is adaptable, repeatable and most importantly affordable.







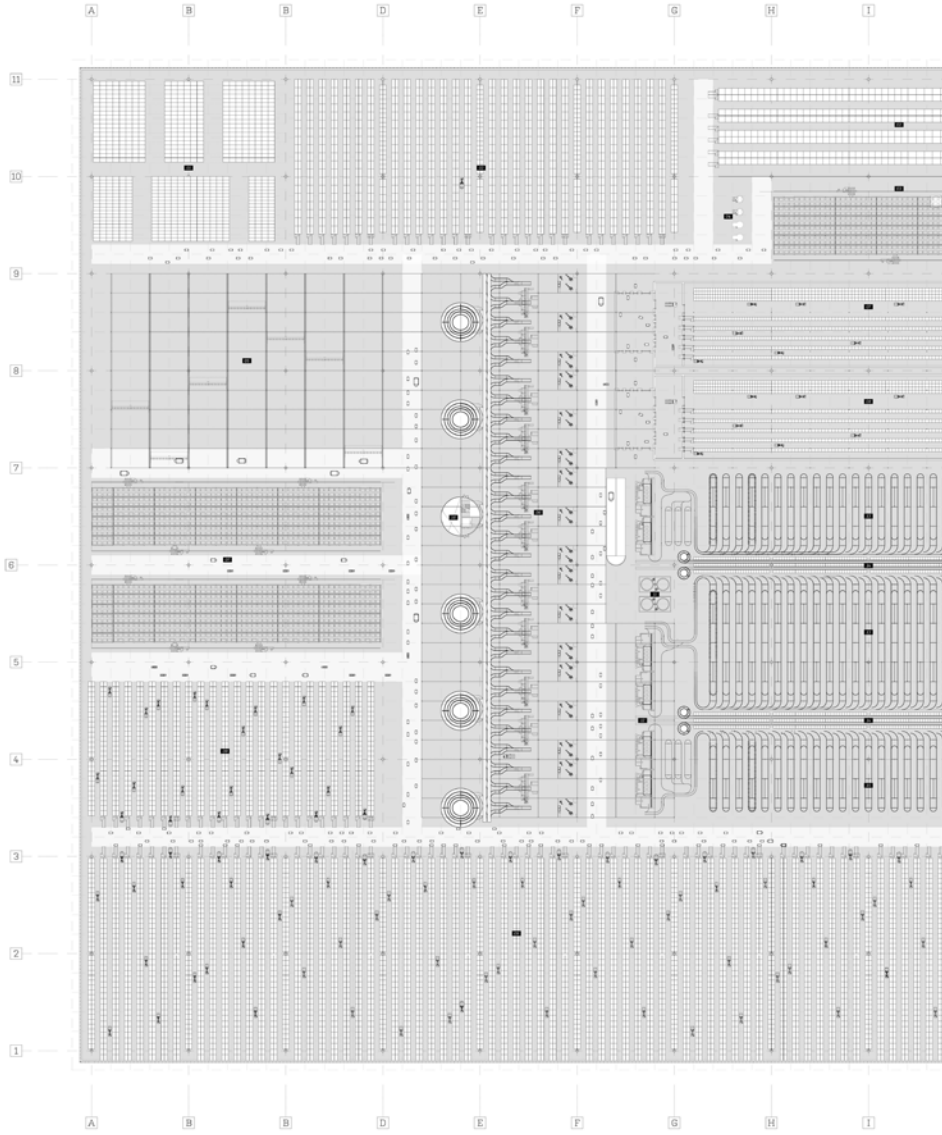




Rob Makey

LANDSCAPE OF FULFILMENT

Using theoretical research into the new geographies of information and the history of corporate towns, could Cornwall capitalise on its data capacity to reverse the counties trend of bad health, low wages and aging population. Using Amazon's HQ2 as a test bed, the project looks at its corporate agenda to speculate on a new digitally driven region of Cornwall. The landscape of fulfilment explores the frictionless business model of Amazon, removing all mundane and menial tasks from residents lives. The project starts with social reduction; a process on an Urban, domestic and aesthetic scale, removing all unnecessary interfaces within the society. This creates a uniform simplicity, a space for a critical density for the project to work. Whilst the proposed fulfilment centre creates a new landscape of fulfilment, a utopia of hyper scale low definition architecture which tries to detach itself from the urban context. The scheme is played out in contrast to the existing Truro Cathedral which stands as historical, ephemeral and spiritual model of fulfilment. The two adjacenent are developed using their own theme, apposing to each other as well as the urban context. The results question the typology of the industrial warehouse, suggesting a new continuity with traditional architecture.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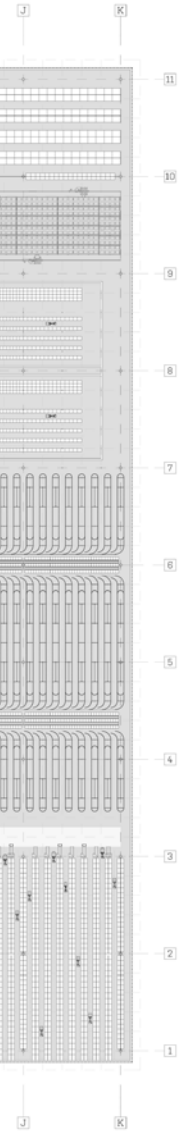
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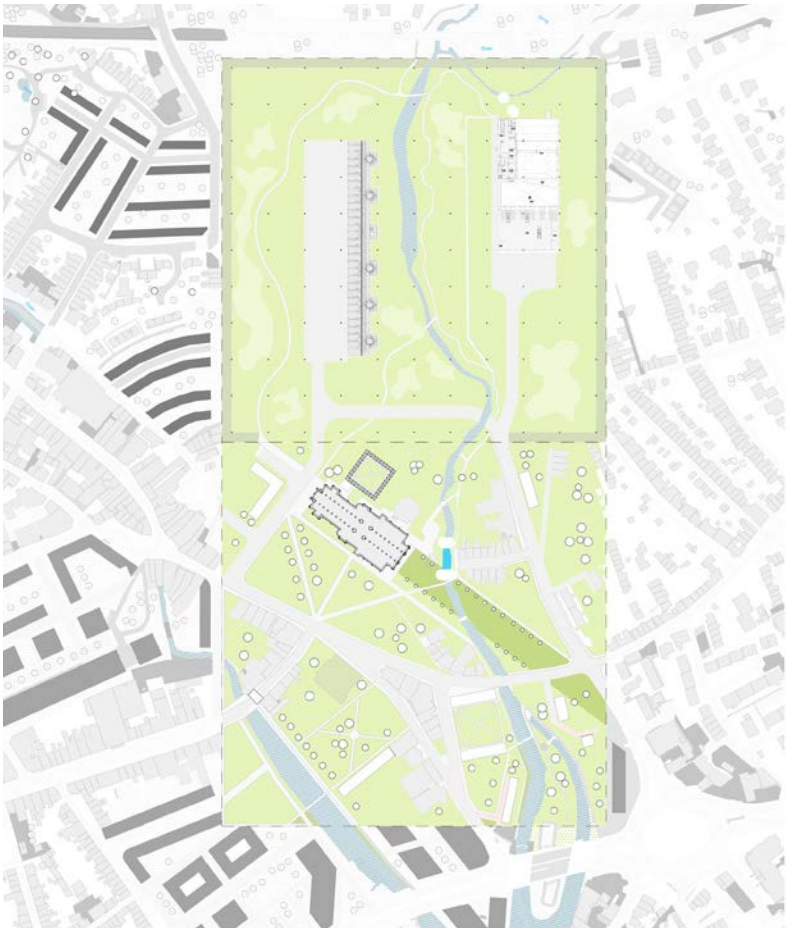
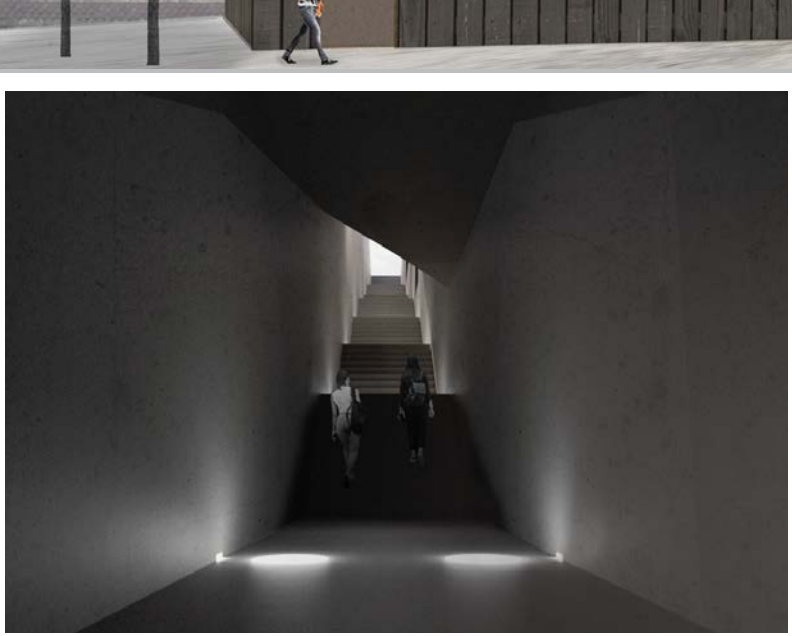


Cristina Martinez Iborra

THE NORTHERN WAY

The Northern Powerhouse scheme aims to boost the Northern region of the UK, this thesis proposes a management entity to deal with the data produced by the future dispersed city of The North. The project takes on board the ideology of an interworking region and is contextualised in a near future where the data produced by such a large territory becomes too much and too irrelevant if not processed. The project proposes a set of spaces where this data is gathered, processed and delivered to the public to produce 'usable' data, improving city management and taking into account the citizen's views on matters. These spaces include a public virtual platform and the physical manifestations of data processing as; a data centre (to store and gather information), an office building (to process it) and a visitors centre (to present said information in an understandable way).The thesis supports the idea that future management of cities is driven by its citizens' voices and political decisions are largely determined by the digital footprint of the program. This system questions the current administration of cities in a virtually driven era and promotes new ways of doing politics and socially managing large infrastructure systems through technology.

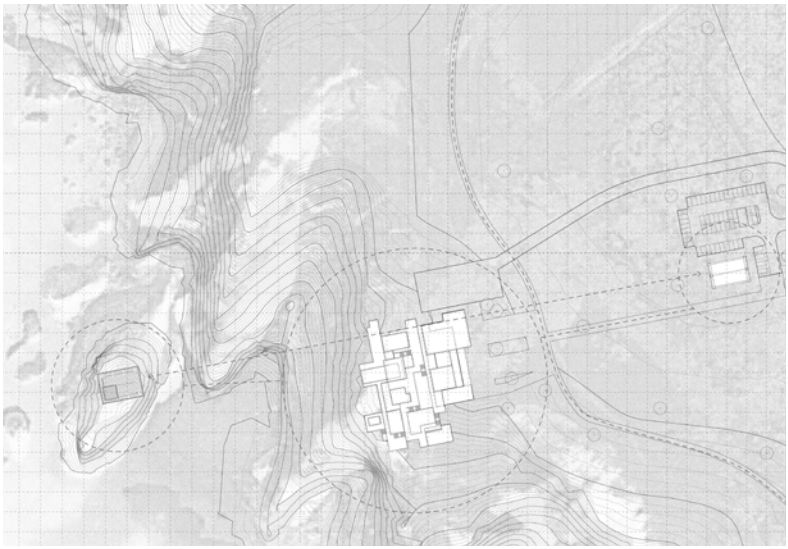


Robin Morgan

ST.IVES TEMPORAL ART UNIVERSITY

The following project is for a temporal art university and gallery in St.Ives that term times would coincide with the tourist seasons, meaning that during low season the additional students would help to reduce the change in population between the seasons and mitigate the effects on the town and during high season the building could change into an art gallery which would help to attract more visitors to the town as well as encouraging them to explore more of St.Ives. As well as to introduce three new routes through the site in order to increase the walkability of St.Ives.

The university buildings sits on slope that has a twenty five meter gradient, the initial design that stepped down the slope began to resemble an old Cornish mines which lead to using mines as presidents for the design in order to pay homage to Cornwalls mining history. This lead to designing a dramatic passage through the site that resembled a mine shaft as well as the buildings charred wood cladding.

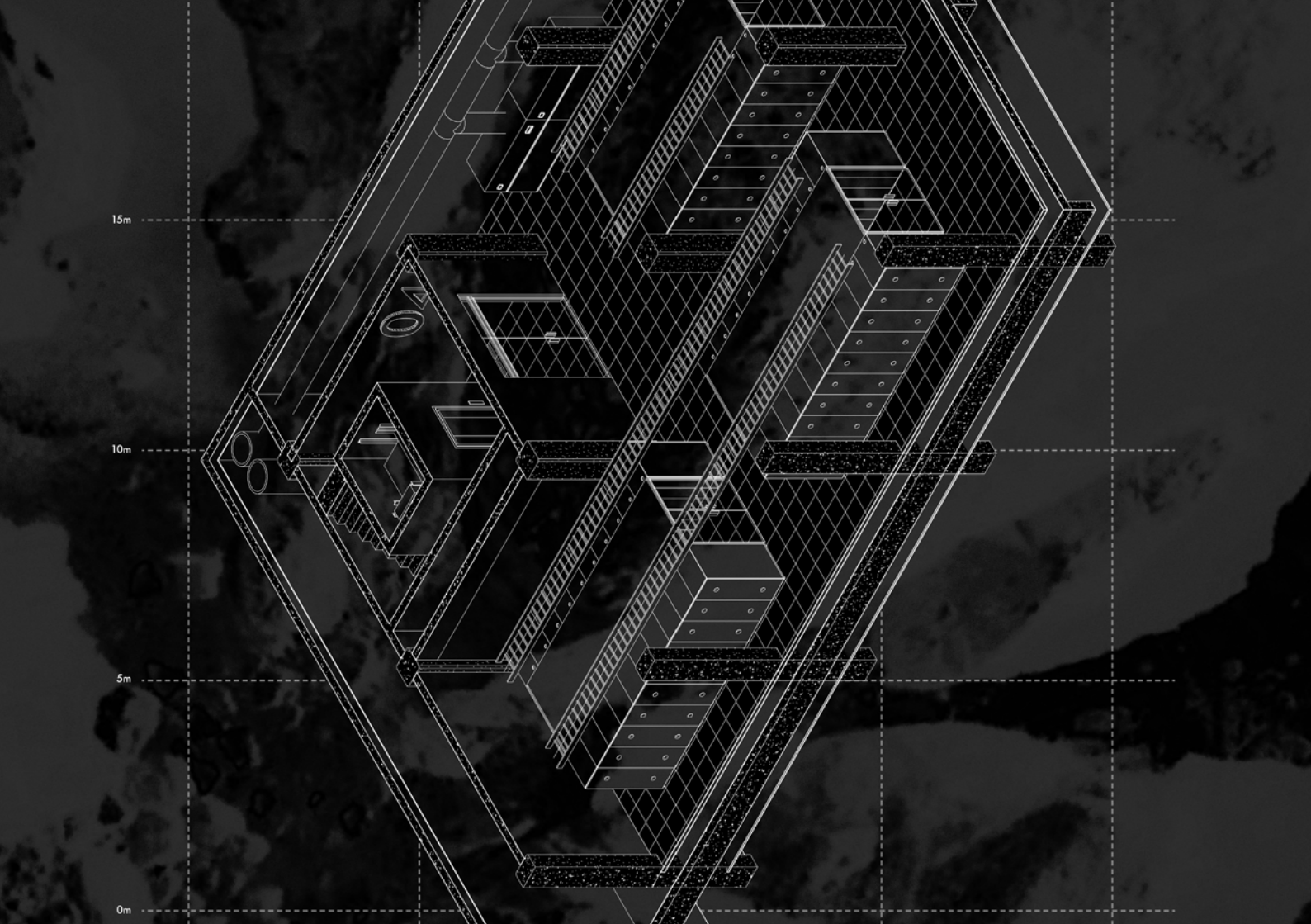


Stephen Morris

THERMAL EXCHANGE

Cornwall serves as the British gateway to the internet, with almost all of the UK's transatlantic landing stations being situated within the county. This led to my own research into the value of time and perceived notions of time. In an uncertain post-brexit Britain, Cornwall sits prized to use this existing digital infrastructure to coax investment banks out of London with the incentive of gaining time and therefore money.

With the invention of algorithmic trading came the death of the trading floor, machines now process transactions faster and faster and the need for human input is declining. The Thermal Exchange allows its exclusive consortium to trade at their leisure, putting the workload on the digital infrastructure and freeing up time for the user.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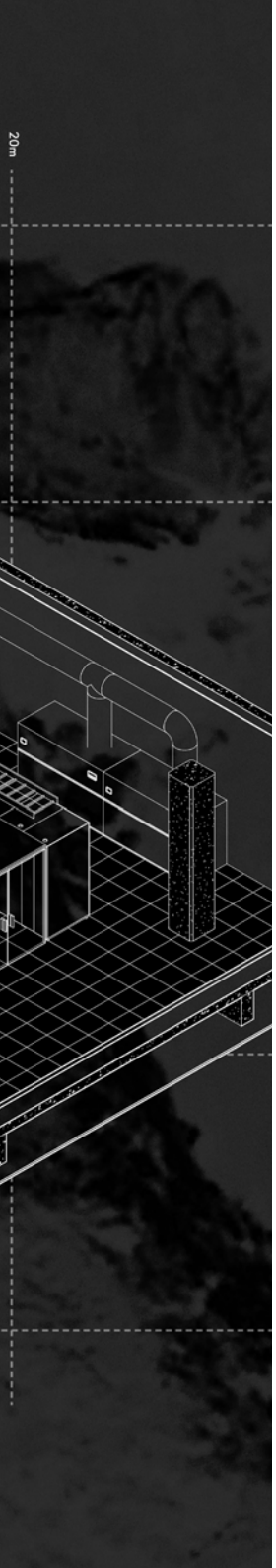
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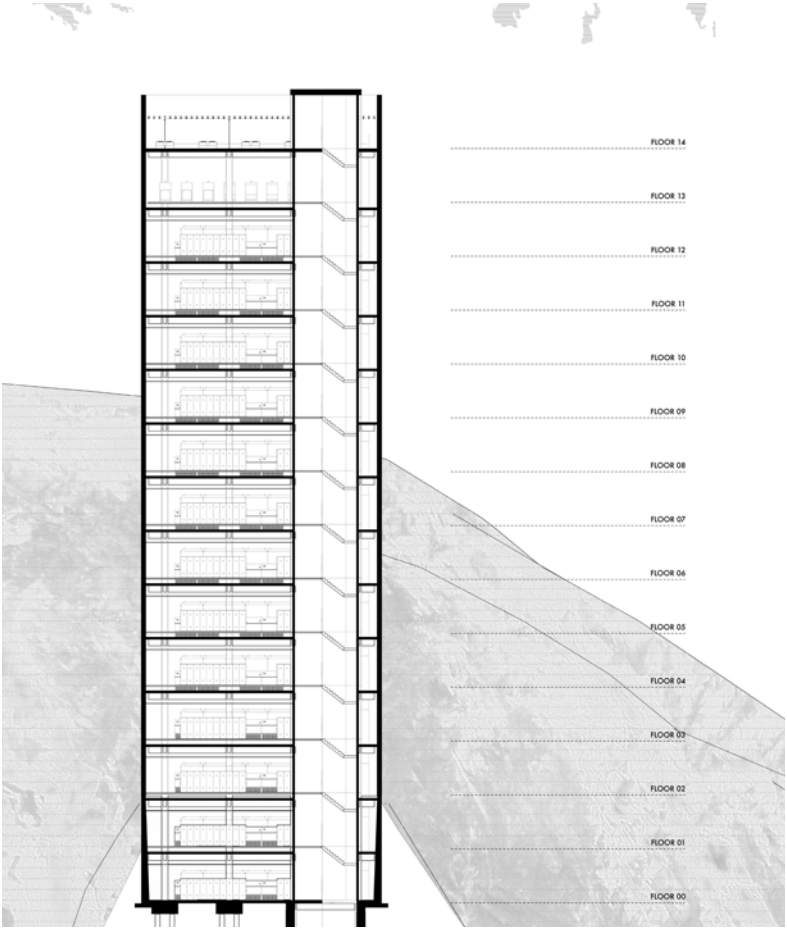
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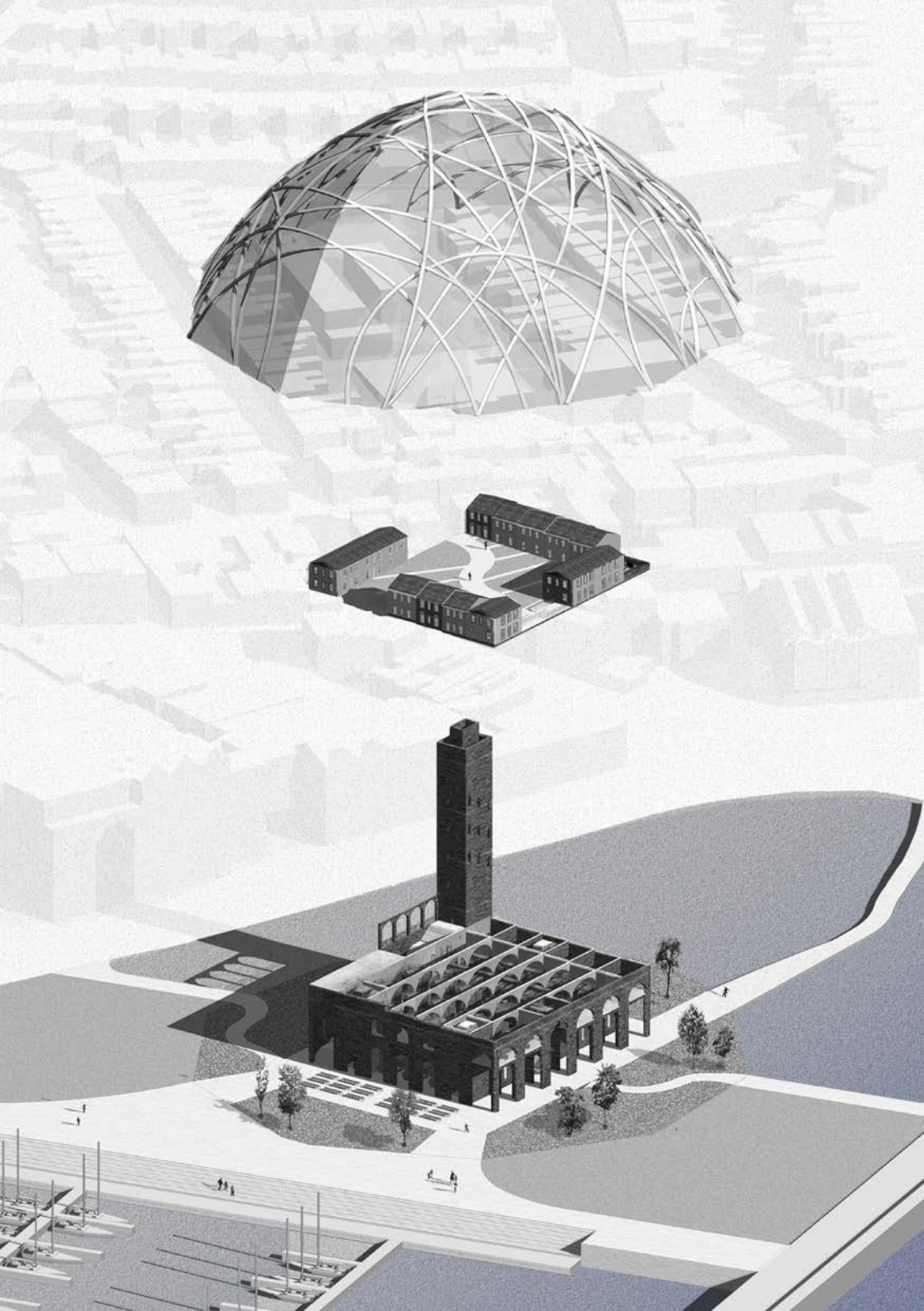
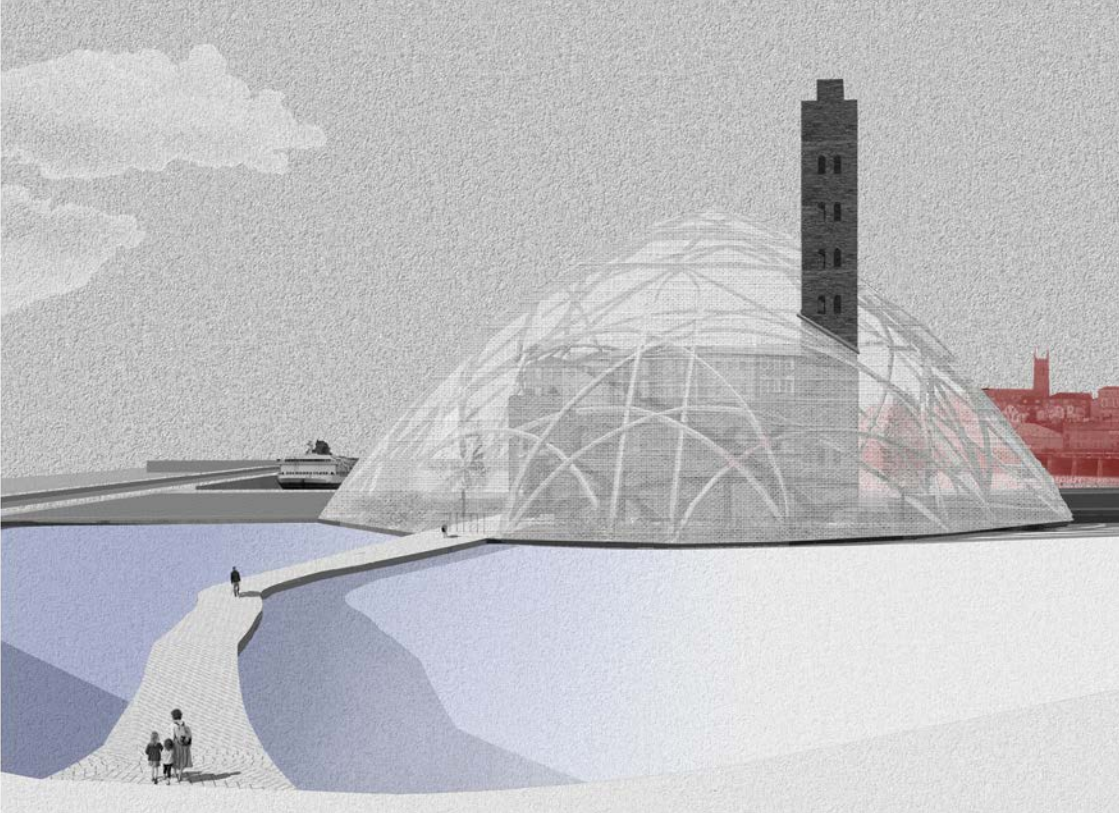




Eva Nella

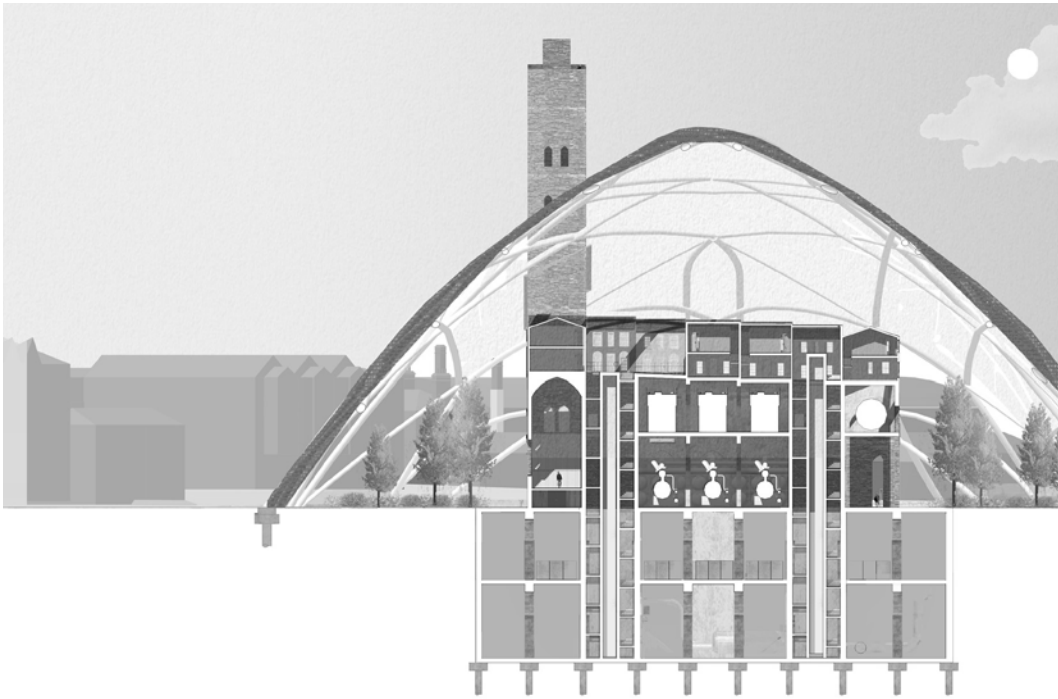
PATTERNS OF POWER

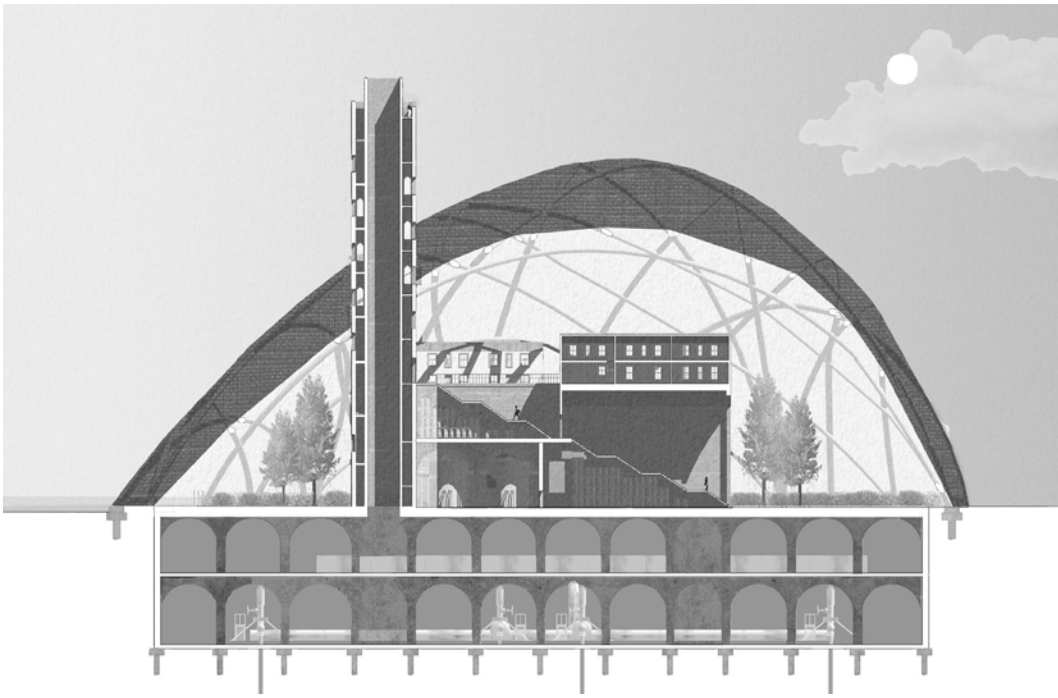
This scheme challenges the typical 'eyesore effect' of power plants. It looks at how the industrial can be integrated within an urban setting and form a coherent progression of the cultural landscape.

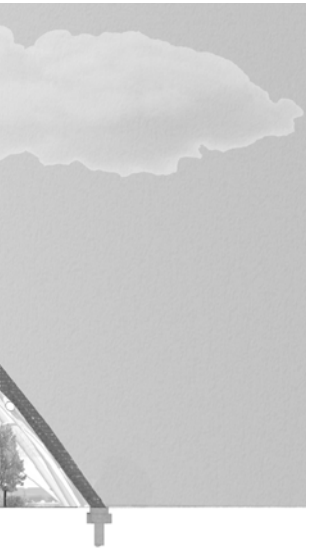
The thesis uses Christopher Alexander's pattern language theory and applies it to the development of energy infrastructure. Using pattern methodology is meant to interpret new infrastructure development as part of a wider web of the cultural landscape. Instead of viewing infrastructural buildings as isolated objects placed on the landscape, viewing them as patterns focuses on their contextual correlations. The aim is to prevent new infrastructure from acting as an overlay onto the territory.

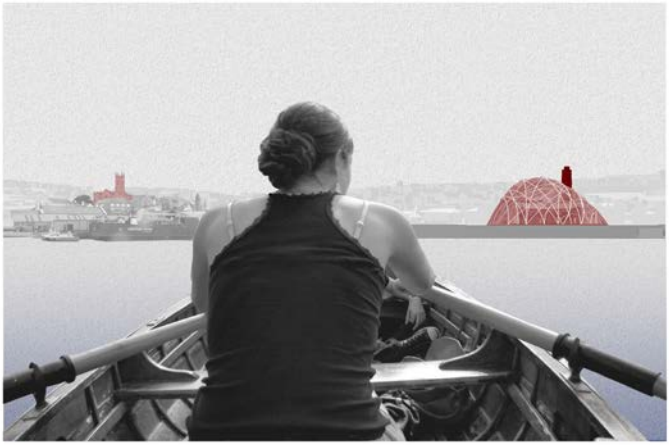
The three main identified patterns, St. Michael's Mount, St. Mary's Church and Regent Square, each represent a different scalar relationship; to the region, the town and the neighbourhood respectively. By creating a contextual relationship to both the distant and immediate environment, a holistic integration is endeavoured.

The scheme's prime coastal position in Penzance, presents an opportunity to regenerate the city's underutilised harbour. Energy is combined with public gardens, a ferry terminal, food court and employment hub. This multiplicity makes the site respond to diverse demands of the area simultaneously, attempting to ensure resilience for the proposal over time.









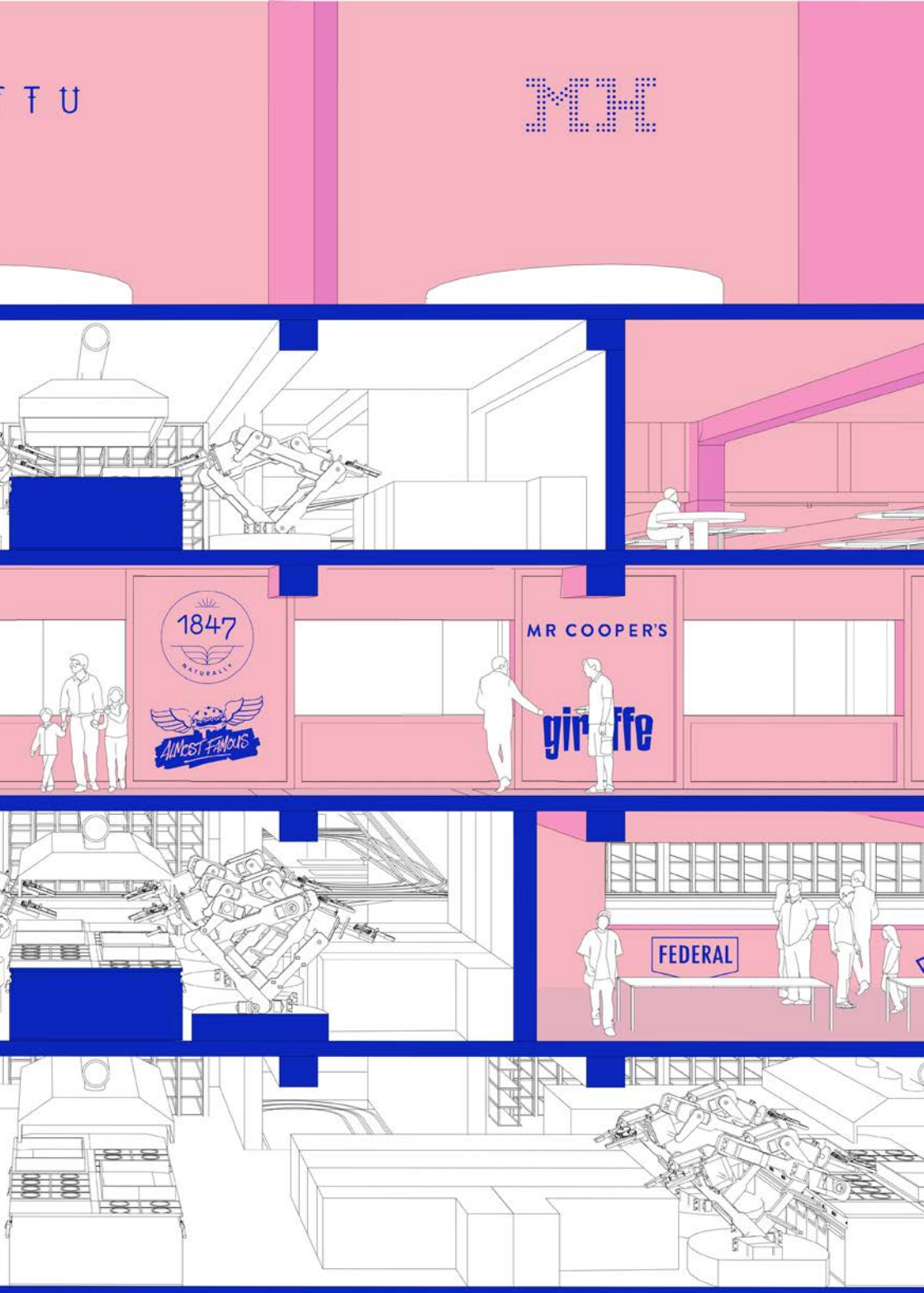

amazon
Google


amazon
KFC
TACO BELL

Bethan Nelson

PHANTASMAGORIA

Phantasmagoria is a glitch in the space of consumption and spectacle. Defined as a shifting complex succession of spaces seen or imagined. Aiming to establish a fluidity in the governing of the city and questioning the spatial and experiential consequences. In 2040, the UK is in urgent need of a financial hand out as it is bleeding money post-Brexit. The UK looks to the social banks: Apple, Amazon, Google and Facebook. Manchester is offered up to big four as a city to own and govern, in a bid to keep the UK out of financial crisis. The big four buy up Manchester in terms of its infrastructure relative to their business models. Twenty-two infrastructures with the potential of becoming obsolete are placed on a monopoly board and acquired as you would in the game. I seek to question how Amazon would implement their business model within the urban realm using such infrastructures. The prototype I'm suggesting is Amazon Living; centralising the kitchen, optimising through automation and offering a variety of spatial preferences in which to dine and live. Amazon Living is an adaptive and personalised subscription service, where you only pay for and acquire the products you want and need.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ALMOST FAMOUS
MR COOPER'S
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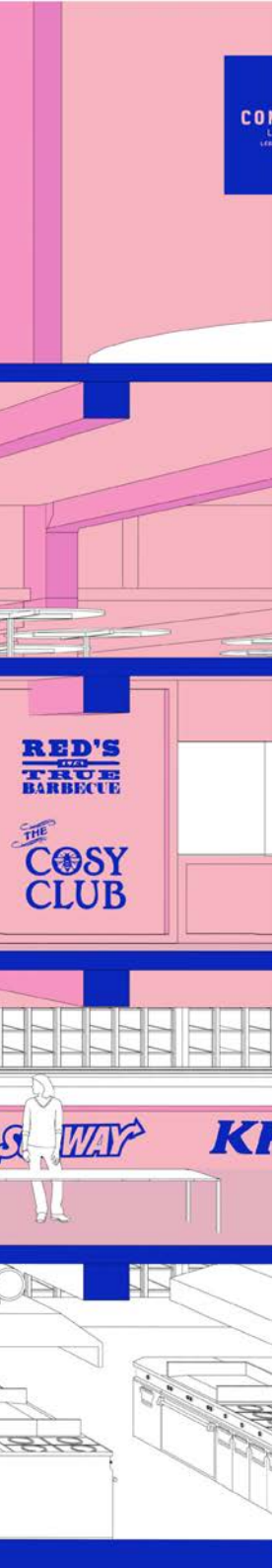
RED'S
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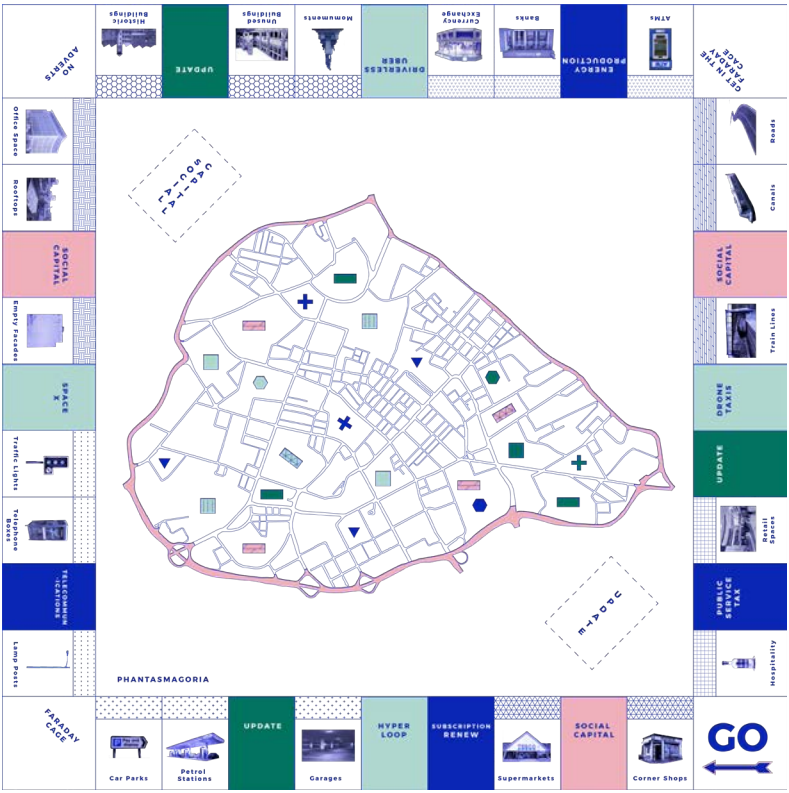
PHANTASMAGORIA
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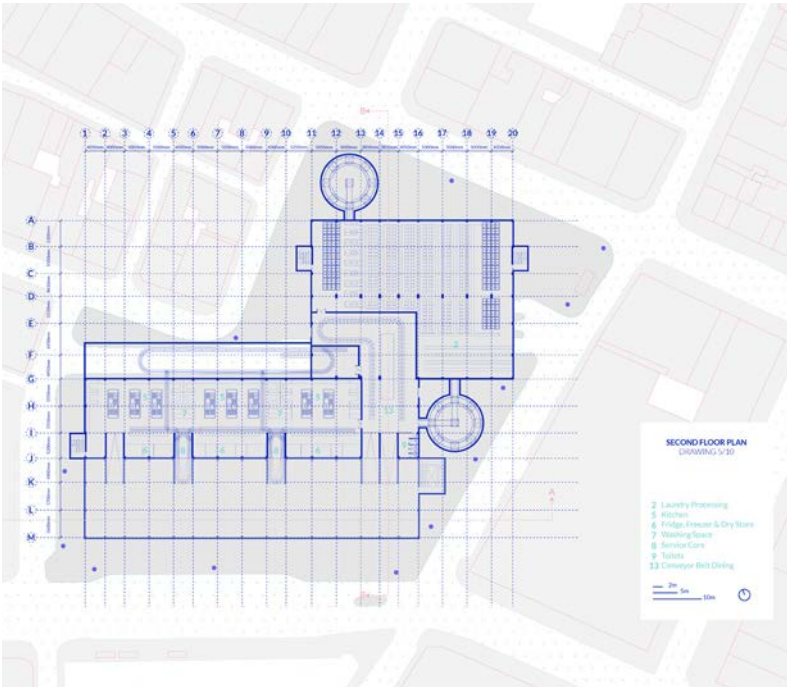
SOCIAL CAPITAL
SPACE X
TELECOMMUNICATIONS
HYPER LOOP
SUBSCRIPTION RENEW
ENERGY PRODUCTION
DRIVERLESS UBER
PUBLIC SERVICE TAX
DRONE TAXIS
GO
FARADAY CAGE
NO ADVERTS
GET IN THE FARADAY CAGE
Car Parks
Petrol Stations
Garages
Supermarkets
Corner Shops
Hospitality
Retail Spaces
Train Lines
Canals
Roads
Lamp Posts
Traffic Lights
Empty Facades
Rooftops
Office Space
ATMs
Banks
Currency Exchange
Monuments
Historic Buildings


SECOND FLOOR PLAN
DRAWING 5/10