ESALA 2022 Master of Architecture

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SOUNDINGS: SPACES/ARCHITECTURES OF TREIASSURANCE 7)

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SUZANNE EWING ANDREW BROOKS JONATHAN LYNN





This catalogue is part of a collection published by the Edinburgh School of Architecture and Landscape Architecture (ESALA), Edinburgh College of Art, University of Edinburgh. It documents student design work produced in the Master of Architecture (MArch) programme in 2021-22. Each catalogue describes one of the following five design studios in the MArch programme. The full collection is available to view online at issuu.com/eca.march.

Catalogues 2021-22:

Conversations Through Making [PLZEŇ]. Countryside [Inside] Architecture. Crossing Panamá. island territories vii: Mont-St-Michel Island Temporalities. Soundings: Spaces/Architectures of [Re]assurance.

COVID-19

In September 2021, we welcomed a full return to campus following two years of remote and hybrid teaching imposed on us by the COVID-19 pandemic. The benefits of a return to faceto-face teaching were immediately apparent. The subtleties of communication, an ease of humour and gesture often lost through the digital interface, were restored to us. The process of remembering how to work together and embrace the social and academic benefits of a shared studio space and workshop, perhaps understandably, was rather more gradual. By the second semester however, we found ourselves once again able to witness the natural exchange of ideas, the discussion of thesis projects, the conviviality of practice at work well beyond the formal timetable. Studios in Minto House and 7-8 Chambers Street were busy. We reclaimed the culture of material research and creativity for which the ESALA studios are famous. The work presented through these catalogues serve to register a particular creative transition from the isolated meditations of digital space to the visceral world of the physical. the precision of the former learning perhaps for the first time to fully embrace the distractions of the latter.

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SOUNDINGS FOR/THROUGH ARCHITECTURAL DESIGN

2021/22 has been a transitional year of adjustments and reckonings of practices of everyday life, of hybrid work formations, and of individual and collective architectural practice, production and education. What do we choose to value and work with after the pandemic pause? How do we re-focus our attention and attentiveness to context, to site-specific practices and to the multiple, entangled and encoded spatial, material and environmental registrations and possibilities of designing architecture in place?

In this rare opportunity to re-set pedagogic ambitions and practices, our outset for the studio has been informed by what was most missed in the past two academic years. Both field-site/work and in-person collaborative practice are again possible. There is a refreshed sense of the importance and complexities of the aural dimension of inhabited experience informed by repeated online zoom events and long spells in (usually) domestic indoor spaces. Aural textures, sonic boundaries, 'illuminations' and horizons do not precisely correlate with visual or spatial ones. The quality of digital audio in on-line exchanges and viewing-listening experience may be limited or supported by hardware technologies, software interconnectivities. Sound modifies our experience of time and includes emotional registers that embody a listener's social, cultural and personal meaning and experience. Meanwhile the possibilities and practices of non-representational mixed-mode methods and time-based media for architectural design are being freshly explored and inflected.

The first 8 weeks of the studio concentrated on collective field/site work. An initial short exercise, baselines, asked students to respond in pairs to "5. The distance a shout carries in the city; 6. The distance of a whisper". Sorkin's sound, video, documents and encounters with 1790 Edinburgh were transposed to the Matthew Gallery for collective immersion. Preoccupations and practices informed subsequent group formations for 5 Sounding Out inquiries over the next 6 weeks. Returning to work individually, in pairs or small groups, the speculative design of a House for an Actuarist was a micro-architectural test of site and concerns which concluded the first semester. Returning in January, a 'Calibrations' exercise critically re-set programmatic and site concerns for the main design project and 'Resolutions' of Semester 2, an Institute/Hall of Assets. In-person and online reviews and conversations with talented and engaging visitors: architectural practitioners, educators, researchers, a filmmaker, sound designer, sociologist and actuary have enriched the studio environment for the 23 projects presented here.





The testing ground and context for the Soundings studio is the infrastructural remnant of the Forth & Clyde Canal in the central belt of Scotland, an ambitious late eighteenth century project entangled with global trade, financial flow and many scales of commercial building. Much of Edinburgh and Glasgow's solidified urban fabric was constructed during, and facilitated by, the operational period of the Canal (1790-1962). Architecture institutionalised, advertised and embodied trust in this commerce and in the financial and servicing industries that accrued around it. The Scottish life assurance industry was actively fabricated in the ensuing period of Empirical expansion, with architecture employed to embody and convey prudence, propriety and security in the tumultuous and risk-riven realities of sustaining a growing global shipping trade with its interconnected regional distribution infrastructures and exchange nodes.

Acknowledging the abstracted financial webs and risk-based modelling of depreciations, growth and extreme events that continue to set the context for architecture and planned development, studio design briefs aim to explore, critique and extend formulations of assurance and (re)assurance. A House for an Actuarist seeks to establish a protagonist who might define and calibrate particular contemporary futures, the 'not-yet'. An Institute/Hall of Assets aims to settle these in a defined social, collective and site context: including a public 'hall' for storing or keeping something safe in the medium and long term (+50 and +200 years). This might be financial (cooperative society funds), material (public resources, food stores) and/or social (community ritual, legal agreements, resolutions). Projects respond to a broad premise that if architecture has capacity to legitimise and offer assurance for abstract, projected financialised futures, what are spaces/architectures of (re)assurance that creatively and rigorously materialise, spatialise and sound out alternative futures – such as planetary care, equity, interdependency, and mutuality?

Three areas of the Forth & Clyde Canal were explored collectively in the first semester's baselines and Sounding Out exercises: the bounded flows and fissures of the engineered cut, riverine topography and Roman wall near the mid-point of the canal at Croy: the sea locks, estuarine settlement, industrial and social sediments of Grangemouth; the spatial interior ordering and institutional petrification of nineteenth and twentieth century life assurance buildings in central Edinburgh and Glasgow. Sir Lawrence Dundas, the instigator of the FCC, also smoothed the way for the building of Edinburgh's New Town, constructing his private house in St Andrew's Square, now the Royal Bank of Scotland, between 1771-74. Visits to London's estuary and selected sites of commercial/institutional assurance in mid-October echoed Forth Clyde investigations - the London Irish Centre in Camden, Limehouse Cut, the Lloyds Building, the Mithraeum embedded in Bloomberg's headquarters, and Lincoln's Inn Fields. Territorial connections are made with Forth Ports' current ownership of Grangemouth, Rosyth and Tilbury Docks – strategic nodes in contemporary entanglements of physical and financial global flow.

Field visits, recordings and associated spatial and material documentation contributed to a mixed-mode mapping of the Forth & Clyde Canal. Anchoring points of soundart and installation concerned with choreographies of sound and place included the work of artists such as Maryanne Amacher, Alvin Lucier and Bernard Leitner:







Amacher's relocations of live sound from one location to another in the City Links series (Boston, 1973- 1976), Lucier's 'song' I am Sitting in a Room (composed 1969) and Leitner's exploration of implicit bodily hearing in Sound Chair (1975) offered prompts for spatialised, materialised imaginings of site-specific understanding and modification. Natural history sound recordist, Chris Watson's context-based work was another reference point, discussed by David Chapman through J. Gibson's theory of ecological perception as an attunement to the environment, and Gernot Böhme's 'aesthetics of atmospheres' asking how sonic work communicates something about space and place. He identifies a tripartite approach to the layering of sound in Watson's work: a foundational layer of general ambience, a secondary layer of more detailed specific habitat, and a top sonic layer foregrounded as species-specific. Blesser and Salter differentiate soundscapes- a combination of spaces and sourcesfrom 'aural architecture' - more intentional, designed experience - where similar sounds and their sources serve only to illuminate the space.

Measuring undersea depths, scoping an archaeological dig or subterranean voids, bodily probing, airing ideas. Taking soundings is a precursor to and generative part of activity or action - for safe passage, for stabilising excavation and construction, for precise medical intervention, for shaping the nuances of a project or practice. Attentiveness to particular soundscapes, hearing devices and listening practices in studio field/work has been an experiment in how these may affect, inflect or disrupt normative design practices, the formation of projects and an ethos of practice. There is no claim to be aural architects, or to construct aural architecture, although the studio has emphasised time-based media for design - audio and video footage, curated folio guide films, performance and installation - which fold together questions of representation and experience. How architecture appears may also encompass attunements of inquiry through practices of making and communicating.

Five Sounding Out installation were presented in the studio and Matthew Gallery in the first Semester. They began to distil thematic and conceptual foci, constructed sites of resistance and latency for interventions, adjustments, projections to act on and with. What is at stake or unearthed? What does asset, measure, value mean when designing in/with this site? How do you probe, measure, represent, work with moments, duration, time-scales, lapses, synchronicity, disjunction/ discord of what might be found or heard in different ways? How might qualities be calibrated aurally, materially, spatially, temporally or otherwise? Assets and spheres of concern in this work traverse social, interstitial, material, flow and land values.

With the asset-value laden Forth & Clyde Canal territory as the organising armature for design testing, specific phenomena became pertinent to design operations and the House for an Actuarist's material and spatial intervention and occupation at 1:50 scale – the depth of a lock gate, the curve of a canal basin, the distance between Roman forts, tidal ranges, the elevation of a birdhouse, traces of workers' cottages, the sonic reach of church bells.

As a way of further defining programmatic and spatial calibrations, we detoured to Diderot & d'Alembert's Encyclopédie (1751-1772), an extraordinary documentation of eighteenth century industry and life, which radically positioned the 'mechanical arts' as part of a reoriented philosophy of human knowledge. Knowledge in and through making, whether of 'humbler trades' or the more elite activities of engraving

and printing, were represented systematically in a number of volumes. In each plate, components of the activity/industry/arts are isolated and itemised, alongside a linebased illustration of these components in use, often in an interior perspective setting or shown in place in a cutaway section. Existing spaces of institutionalised (re) assurance and highly calibrated spatial occupation were also studied, such as The Bank of England, Threadneedle Street, London (Sir John Soane 1788-1827).

> Resolution, n. an official decision that is made after a group or organisation has voted a promise to yourself to do or not do something determination the act of solving or ending a problem or difficulty the ability of a microscope, or a television or computer screen, to show things clearly and with a lot of detail the act of separating or being separated into clearly different parts (chemistry) the process of finding out the direction and strength of a vector (physics) the point in a literary work at which the chief dramatic complication is worked out

Resolutions are embedded in institutional life and culture, active practices of institution building and imagining, ways of assuring stability, community, status, agency. They are also essential to the development of [architectural] projects or multi-modal pieces of work, encompassing a specificity of decision, detailed action and the 'working out' of 'dramatic complication' through orchestration, composition, design. Design practices have been encouraged which remain open to the imprecise correlations and temporal dissonances of the aural in combination or interplay with the visual/spatial, a 'sounding out' which David Toop has referred to as "a sense of outer movement counterbalanced by cautious ingress, which is to listen and investigate with openness, not knowing quite where the listening will take you".

The range of projects for a contemporary Institute/ Hall of Assets developed in the second semester of the studio are located on individually identified sites across the full reach of the Canal, from Bowling on the Clyde Estuary to Grangemouth on the Forth. Outlying sites in Edinburgh, Fife, the Highlands and London were found through first moves of the Actuarist's House, exploring the infrastructural condition, resource, effect and context of the Canal. Detailed programmatic propositions are organised as calibrations, assets and resolutions. They variously promote social assets, draw attention to interstitional situations, re-value matter over time, question limits and flows, and expose and negotiate alternative land values. Foundational field-site work and collaborative practices are curated as a contextual studio soundtrack. Spaces/ architectures of [re]assurance that have been explored embody a stilling and augmentation of site and spatial durability poised in relation to responsive – and responsibly positioned- fluctuations of use.

Suzanne Ewing Andrew Brooks Jonathan Lynn















SOUNDINGS: SOUNDTRACK

BASELINES: LISTENING TO LOOKING FOR 1790

[21-28 SEPTEMBER 2021, EDINBURGH]

"5. The distance a shout carries in the city;6. The distance of a whisper".Michael Sorkin 'Two Hundred Fifty Things An Architect Should Know'.

- 01 Directional tests New Town, Edinburgh 1.49min [Ruth Hamilton, Sigi Whittle]
- 02 Vaulted spaces: Back to back, chirp, clap, go in opposite direction, stamp [Yuan Kang, Tianyu Wang]
 - 02.1 27 King's Stable Road, Edinburgh 2.25min
 - 02.2 Cowgate, under North Bridge 0.51min
 - 02.3 Cowgate, under George IVth Bridge 0.50min
 - 02.4 Interior, Bannerman's Bar, Cowgate 0.41min
- 03 Isochrome 1.39min [Mario Madrid Rodriguez, Marion Wibaux]
- 04 Traces and Markers of Power and Influence, George Street, Edinburgh
 - 2.27min [Adam Cornhill, Carys Marshall, Kevin Tse]
- 05 Trainline Traces and Tempos, King George V Park to Princes Street
 - 1.37min [Rachael Burleigh, Katie Munro]









"The difference between hearing and listening is defined by the attention to which we give a sound. To hear something, we must only exist and have the ability to perceive it, whereas to listen to it we must prioritise, negotiate and direct ourselves towards something. Listening induces questions such as to what and who should we give our attention".

Ruth Hamilton, Sigi Whittle. Sounding Out – Listening Practices film, 2021.

SOUNDING OUT: THE FORTH & CLYDE CANAL

[30 SEPTEMBER - 7 NOVEMBER 2021]

06	Field Notes 2.09min [Edward Haines]
07	Material Listening Practices, Croy 7.49 min [Ruth Hamilton, Sigi
	Whittle]
08	I am Sitting by the Canal 2.50min [Catherine Jones, Yuan Kang, Mario
	Madrid Rodriquez, Marion Wibaux, Mark Woulfe]
09	Armatures: Charcoal Drawing Practice 2.00min [Catherine Jones, Yuan
	Kang, Mario Madrid Rodriquez, Marion Wibaux, Mark Woulfe]
10	Obsolescence – Degradations and Negotiations, Limehouse Basin, London
	2.02min [Catherine Jones, Yuan Kang, Mario Madrid Rodriquez,
	Marion Wibaux, Mark Woulfe]
11	Croy Artifact Photogrammetry Sonification 1.01min [Rachael Burleigh,
	Adam Cornhill, Charlotte Cummings, Carys Marshal, Katie Munro,
	Kevin Tse]
12	Found Object Electrode Sonification / Site Edges and Boundaries 2.02min
	[Rachael Burleigh, Adam Cornhill, Charlotte Cummings, Carys
	Marshal, Katie Munro, Kevin Tse]
13	Capacities, Signals, Limits 5.54min [Aaron French, Alice Loudon, Lara
	Gueldner, Lucy Potts, Ryan Mortimer, Tianyu Wang]
Coda	

Rain on leaves, Bar Hill Fort 0.48min field recording, 29 October 2021 [Joseph Barnes]





Installation, 7-8 Chambers Street studio, November 2021. Photographs by Joseph Barnes (left) Assets: Regent's Canal, London. Photographs by Ruth Hamilton (right) Assets: Clyde Harbourings. Drawing by Yapin Xu (adjacent)



assets

How is an asset valued and to whom is it valuable? As a process of repair takes place all along the formerly derelict canls, who and what is being listened to and learned from? What does it mean to add value in relation to health, leisure, infrastructure, transport, environment, housing, history, culture and work? How do we ensure rights of access are maintained as this process of repair and regenration takes place?

Installation, 7-8 Chambers Street studio, November 2021.

Support structure drawing by Ruth Hamilton & Sigi Whittle







01

ASSETS AFLOAT

INSTITUTING PRINCIPLES

RUTH HAMILTON SIGI WHITTLE

What does it mean to float an asset? Our reparative research vessel seeks to traverse the Forth & Clyde and Union Canals, engaging with local community experts, questioning how Scottish Canals can repair and develop its assets in a sustainable and engaged manner. The reparative researcher-designers act as site-listeners, drawing attention to multiple and overlooked uses, identifying their social and physical aspects, what might be at risk and in need of repair, to define strategies and instituting principles.

Having docked the boat in Port Dundas, Glasgow, the project explores this listening-design approach in detail. The site is deemed derelict in Scottish Government records but is very much in use with a DIY skatepark and Scottish Opera storage. The surroundings are subject to multiple masterplans with 3000 housing units proposed for the area. In this noise of dominant development frameworks, it is the new and demarcated that are valued. We take an incremental approach to explore how a series of architectural responses might value the existing use and material of the site. How might design engage with and be tolerant of not only planned additions but also the material of in-use content? Reclamation and re-use of waste and excess from surrounding housing development and often disregarded post-1950s building materials forms the main impetus for the project. It aims to nurture activities such as opera performance or skate space that may be considered 'more than necessary'.
















Sing (above) 1:200 Install (bottom right)





WATERWAY HIGH-STREET

THE UNION E-CANAL CATHERINE JONES

Stemming from an interest in infrastructural, social, and economic armatures across the central belt of Scotland, this project interprets the 'fetch' of Edinburgh's Union Canal, spanning from Tollcross to the Slateford Aqueduct, as an example of a more intense urban condition. A series of interventions occupy the edges and crossings of the canal: new bridges, the infrastructure for new electric barges, a farmers' market, and a new residential marina. Existing rowing, walking, and cycling communities which inhabit the canal and its towpath are augmented with a separate rowing channel and new boat house, aiming to improve the sustainability of development in the area and reinstating the connection of the canal to the city.

The Forth & Clyde Canal and the Union Canal are reinstated as a vital e-logistics trade route between Edinburgh and Glasgow. Lock-keeping becomes part of finely calibrated digital signalling logistics. The Waterway High Street is supported by this new technological armature, which provides the impetus for a network of local production, transportation, and consumption. The institution of the Canal as both a renewed armature and an intensified urban condition cultivates a new and sustainable canal-side community.





Depicting a Block Section (previous left) E-canal Rest stop and the Farmer's Market (previous right) Harrison Park Boathouse: Configuration of Materials (top left) Traversing the Waterway High Street (middle left) The Fetch of the Waterway Highstreet (middle) The Canal Signalbox: A Configuration of Materials (right)	





UNREAL ESTATE

COMMON SPACE AND THE CIRCULATION OF UNCLAIMED GOODS

Bowling is a small settlement where the Forth & Clyde Canal meets the River Clyde Estuary in the west of Scotland. A community and built environment grew around this terminus and point of interchange. Now a small, hollowed-out post-industrial town on a commuter train line, it falls outwith usual property development attention. The project questions whether the conventionally seen narrative of 'liability' around places like this might be re-imagined through both responsiveness to everyday life, and a new rationale as a networked node.

With a rapidly increasing volume of goods ordered online, Bowling train station becomes an extended site that stores and lends unclaimed parcels. The increasing flows of goods along the existing train and canal infrastructure perhaps exceeds the flows of people. The 'lost and found' hub becomes a community asset- a reading room, gallery, meeting spaces, providing space to linger, to collect material and memories. More everyday time spent moving between the estuary edge, through the town, and to and from the train station, offers a re-valuing of the connective and environmental qualities of the immediate neighbourhoods over property and demographic economics.



Calibration plates (previous left) Unreal Estate, Index drawing (previous right) Site calibrations (above left) Parcel arrival, model and section (middle) Glimpses of arrival (adjacent above right) Traces of everyday life (adjacent bottom right)

Clyde River

4

Railway

a mia 3, 3, 3

Hyde Canal

To Clyde bank

Bowling





INTER-TIDAL AVIARY

YUAN KANG

The Forth & Clyde Canal terminated in sea lochs near where the River Carron meets the River Forth estuary. These sea lochs are now subsumed by the overwritten road and train infrastructure of the port at Grangemouth. The expansions and contractions of different industrialised networks and vessels have resulted in significant environmental disjunction and dissonance. An abandoned dock shore now abuts a nature reserve. Paths through the reserve meet port security fences and disused industrial artefacts. Rather than assuming that designed infrastructural value and human occupation always supersedes, the project prioritises the development of the nature reserve as an extended wetland area that increasingly infiltrates and affects the town and port edges.

Working with the relatively abandoned and inaccessible situation which is conducive to bird-life, the project imagines a new inter-tidal aviary - a series of designed structures, connections and habitats that support waders and warbles and their study, paying attention to spatial, constructional and environmental symbiosis. The series of structures include a visitor centre, bridge and research centre. A combination of raft and pile foundations and material choices anticipate different ways that the wetlands may encroach and settle, between tidal flows of fresh and salt water exchange. Roofs are designed to augment irrigation systems and the buildings incorporate designed garden/aviary environments for more dedicated care.











Aviary / visitors interface (above)



POST-CARBON TOWN INSTITUTES

ENVIRONMENTAL EDUCATION AND MYCELIUM RESEARCH NICOLE (KE) LI YUQIAN OUANG

The Forth & Clyde Canal was predicated on the era of carbonization. Tracing historic production chains from Croy coal mines and stone quarries in the west to Carron Iron works and Grangemouth in the east, it was found that many labouring communities served these extractive economies. From coal mining to processing and transport terminals, each carries a series of stories and more or less built traces- often completely erased. Contemporary industrial activity centres on the oil refinery industry and port logistics. While few traces remain of the social infrastructure of the Forth & Clyde Canal, the town of Grangemouth has existing communities living near or dependent on these industries. Throughout these histories, the topic of environmental justice is always present, often women and children experiencing higher risks and greater burdens, whether living adjacent to polluted air and water, or with the collective volatility of the impacts of climate change.

The project therefore seeks to actively value and make visible the social and material support structures, stories and rhythms for contemporary community life. Seeing Zetland Park and Incyra park as isolated assets, the projects for new Town Institutes – Environmental Education and Mycellium Research - seek to reconnect and enhance the east and west edges of the park.





The design is informed by studies of a collection of central belt mine typologies which have become detached from context and experience. Emptied or displaced in some way, like the Mithraem in London, they offer a spatial typology to occupy time/history in a non-linear way. Visual experience and emotional resonance is foregrounded. The building has a sunken entrance. The underground space which is paved with cinder blocks, is used for exhibitions and workshops and expresses the memory of the past coal mining industry. The observation tower combines the past forms of surveillance and the housing patterns of coal miners. Spatial flow and the visual penetration of different angles informs the design of the leisure and communication space. A small library contains a variety of local history books and memorabilia, providing a more equitable opportunity and occasion for learning for all group of people. The whole building has bridge connections looping back over the entrance.















Post-carbon town institutes index (page 45) Opera of Croy installation (page 44) Environmental education institute index (previous right) Acturist house light studies (previous left) Quarry site assets, cast models(adjacent left) Sunken entrance into exhibition hall (adjacent right) Environmental education institute (adjacent bottom) Exploded building use (top) Calibration layering (bottom)



MYCELIUM RESEARCH POST-CARBON TOWN INSTITUES YUQIAN OUYANG

The project endeavours to create a testbed for exploration of different mycelium applications. The proposal is a catalyst to encourage the current construction industries to re-think the way buildings are made and allow the collaboration between the innovators, fabricators, communities and the public. The primary typology and the programme of the project is a mycelium research and innovation facility (with a cleaner production line), providing access to the public and local communities for education and spread of knowledge of mycelium.

The old industrial site at west Grangemouth is used as a testbed for researching into mycoremediation and exploration of different applications of mycelium. The brief of the site aims to retain the industrial identity of the area, but to invert its historically destructive character and to re-invent it into creating a manufacturing process which simultaneously decontaminates the site and manufactures sustainable materials.

"Like the flushes of mushrooms that come up after rain" attempts to explore the new possibilities of ruined industrial landscapes in this era of economic recession and globalisation.



Siting the acturists house (previous left) Mycelium research index (previous right) Couryard experience (adjacent top) Mycelium research centre siting sections (middle) Research experiential route (bottom) Calibrations layering (adjacent bottom right)















SOUNDING OUT

(ship

IN TERSTITIAL VALUE

YUAN KANG CATHERINE JONES MARIO MADRID RODRIGUEZ MARION WIBAUX MARK WOULFE

Armatures and obsolesence.

(

Film montage by Yuan Kang, Catherine Jones-Mario Madrid Rodriguez, Marion Wibaux, Mark Wighte

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Armatures and obsolesence. Soundings from Croy to Limehouse Film stills and model by Yuan Kang, Cather

Film stills and model by Yuan Kang, Catherine Jones, Mario Madrid Rodriguez, Marion Wibaux, Mark Woulfe





1 HOUR

15

7 HOURS

2 HOURS

14 HOURS

Armatures and obsolesence. Soundings from Croy to Limehouse

Film stills, photographs and drawing by Yuan Kang, Catherine Jones, Mario Madrid Rodriguez, Marion Wibaux, Mark Woulfe



DETERMINING OBSOLESCENCE /Using charcoal as means of representation, this aims to analyse each armartures' obsolescence in terms of travel time through the lense of an isochronic map./



SHORING UP RELICTS

SERVING A RESIDENTIAL CITY

EDWARD HAINES

Caught in the ever-changing City of London, the Church of St. Stephen Walbrook sits as a relic. A relic(t) of the institution it represents, of the community of which it was the nucleus and of an architectural artefact of the City of London Great Fire. The Church was designed by Christopher Wren in the 1670s, the spire added later by Nicholas Hawksmoor, and buried somewhere within the vaults is John Vanburgh. The church was badly bombed in 1941 and is once again in need of structural repair as the construction of the adjacent Bloomberg Headquarters has caused the steeple to crack and tilt. Not only has the church's structure undergone damage in recent years, but the church's community is damaged – congregations are limited by the predominant commercial demographic and post-Covid working from home arrangements.

This design project thus seeks to return residents to the City of London through providing support – institutional, cultural and physical - to a complex urban and subterranean condition of caught relicts of the City of London. Bringing forward the values of the Church of St. Stephen Walbrook and the work of its Christian community to take in the displaced and support the needy, a new shelter and support-hub for the homeless and those in need of refuge will be based in Walbrook as a new shored-up nexus.






Walbrook and the City of Relicts - proposed and existing ground floor plan (adjacent left) Structural propping strategy section (adjacent top right) Forth floor plan of propping strategy (bottom right) Churches of the City of London (top right)



CRÉVICES DÉTOURNEMENT

YULIANG CAO

07

Regent's Canal Basin near the northern train stations in central London is an unexpected eddy amongst conflicting swirls of walls, wasteland and technological apparatus of the canal, the railway and surrounding roads. Within a large urban area stretching from St Pancras International to King's Cross to Camden town, the city appears to be bipolar, essential layers of different heights hidden in two dimensional maps. Drifting down the Regents' Canal like a situationist is to follow a crack in the city, to find alternate places for resting, dreaming, wandering. The project aims to remake a psycho-geographical city where people and city are drifting with each other.

Marking those cracks, building up spatial frames, cutting the linear site, dividing into three solid blocks, interconnecting levels, are moves to offer still places in such strong stream-flow places. Providing shelter for a period of time - residential rooms for the homeless, night café, computer room, mailbox, and document centre - as well as places to be able to sit down to play chess or to practice parkour more fleetingly, to catch views over the canal, encompasses a range of use from the most stable to the most energetic. The flow of parkour, staff, therapist, city dweller, sometimes crossing, sometimes separate, makes this linear site slow down, the vertical angle building on a crevice in the site. The project asks how to make a diverse community in those cracks, whose the thinnest part may be only three metres?





- Calibration plates (previous left)
- Linear cracks massing (previous bottom)
- Proposal deconstruction (previous top)
- Calibration plate (right)
- Canal communities (bottom)
- Linear cracks (adjacent top and middle)
- Shelter proposal (adjacent bottom)























OCCUPYING OBSOLETE GROUNDS

THE BANKIER CREMATORIUM

The Bankier Crematorium is located on the remains of an old whisky distillery on the banks of the Forth & Clyde Canal. Lock no. 20 is the highest point of the Canal, once a contested site of water and spoils as the production processes of a local Distillery toxified more established agricultural processes. Only a few material traces can be found of these obsolete endeavours and conflicts. The site is on the edge of a designated area of future housing expansion by Falkirk Council. An initial design test, situated on the path of the old rail line that connected the distillery with the Canal, uncovered hidden stories and prompted siting strategies on remains of walls and floor screeds.

Keeping an original axis of the Bankier Distillery and its central chimneys, the Crematorium comprises a series of paths, white ashcrete walls, framed views, chapels and administrative functions that offer a place of civic dimensions to the expanding commuter communities. Underground spaces connect the two ceremonial chapels with the furnaces, to choreograph the visible and hidden movements of coffin and mourners. There is also a chapel of remembrance, waiting rooms, staff facilities and staff accommodation on site.









FORTIFYING THE RIVERINE

COUNTERACTING OBSOLESCENCE

MARION WIBAUX

An initial study of ground transportation infrastructures crossing from the east to west coast of Scotland identified: the Roman Antonine wall (border), the Forth & Clyde Canal, inter-city railway and M8 motorway. All broadly follow the riverine topography of the central belt of Scotland. Each has been superseded in some way, yet remains fixed in place. While the erosions and accumulations of rivers shift materially over time, the logics of decay of designed armatures of wall forts, Canal basin, rail lines and road verges solidify and can become obstacles and risks to each other. A flooding of the River Carron did breach the rail infrastructure in 2016.

An initial design for an installed structure monitored water movement and saturation in air, ground and disused building, in a flood-risk area of the Canal. This project further sets out to build a fortifying armature along the River Carron, protecting it from risks from other armatures, paying attention to supporting both local industry and marine life. Three main components- a fishing club/ boat house, biological research centre, and a fish market, with the Actuarist House - are seen as catalysts for an riverine framework. This not only pays attention to and replenishes slowly disappearing water ecosystems, but offers social spaces in the provision of local fishing huts. The fish market brings both fresh and salt water fishermen together on common grounds, positioning the market where the River Carron meets the urban edge of Grangemouth.







MARION WIBAUX | FORTIFYING THE RIVERINE

Isochron, the shout and the whispers. (previous top left) Exploded Isonometric of Fish Market (previous top left) Tracing floods, scales of power (previous bottom) Monitoring flood risk and the four armatures (adjacent) Armatures model (above right) Research centre (above middle) Landscape intervention (bottom right)

EPHEMERA AND MARGINS OF IMMOBILE INSTITUTIONS

RACHAEL BURLEIGH

The urban block of institutions in the east end of Edinburgh's New Town has a 250 year history of stored records. Documents of the everyday working life, timetables and conditions of trainline workers across the Forth & Clyde Canal region lie hidden within the existing walls of the Register Houses and Sasine offices, one of the oldest functioning Record sites in the world. The streets behind Dundas House and between the Register buildings are difficult to wander. The original 'home' and symbol of 'being seen' in the city belonged to Lawrence Dundas, a key Forth & Clyde Canal financial investor in the late eighteenth century. Urban edges and thresholds are controlled and controlling. Margins and serviced spaces are only visible and discovered through turning corners, navigating around, above or below rather than 'through' the site.

The project asks how and who inhabits margins? In a world – and inherited Georgian spatial ordering - of rectos and verso, what becomes a back street and what becomes a frontage? While the planned integration of the Dunard Centre of Music 'folds in' on the site, the project performs a 'folding out' dialogue. Printmakers who translate documents into music performances and poet laureates are accommodated within new proposed architectural corners. The musical connotations within 'Four Scottish Dances' by Malcolm Arnold (1957) inspires the rhythmic moves. Existing walls and underground rooms work with and against existing grids. Structures of glulam timber and steel echoe a contemporary language of exposure and provides scope for future architectural marginalia.













SOUNDING OUT

JEMIMA FASAKIN GREGOR HUGHES HAMISH JACKSON NICOLE LI MIRANDA LYLE PEREZ YUQIAN OUANG

(left) The Opera of Croy, performance and Post latic Photograph by Hamish Jacksc (right) London Mithraeum. Photograph by 221 re (right) Elemental Soundings. Drawing and plaster in and Miranda Lyle perez

ma Fasakin, Gregor Hughes



Intervisibility of the Antonine wall

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(B)





The Opera of Croy

Film still and support structure drawing by Jemima Fasakin, Gregor Hughes and Miranda Lyle Perez





FORESTERS' GUILD EMOTIONAL DURABILITY, MATERIAL ECOLOGIES ADAM CORNHILL

The Forth & Clyde Canal facilitated urban development in Scotland as well as global trade. Supplies of materials and labour for buildings and designed spaces was accompanied by the supply of coal for fuel and timber for construction. Less visible was its role in the industrialisation of agriculture and expansion of managed land for resource yields. The project questions paradigms of 'productivity': of land, timber and associated organised labour, proposing a move towards an understanding of land and its connected labour as a palimpsest of material ecologies rather than measured assets.

The Foresters' Guild is imagined as a national institute and associated administrative activity that supports and protect arts and sciences of forestry in Scotland in the context of further changes to agriculture prompted by climate change. Working with significant landowners such as Scottish Canals and Scottish Forestry Commission, histories, models, cultures and ecological studies of post-industrial afforestation are pursued towards new paradigms of land planning, carbon sequestration, material use, and the reconsideration of our food production and consumption. Jeffrey Street is a site of craft and timber trade. Cabinet makers, present on the site from 1880-1940, prompt workshops for material productions of the urban realm. The project advocates for a radical shift in the way we value objects, by re-calibrating consumer culture for a material culture that has emotional durability.









Something in the middle, Moments of Encounter (previous right) Urban Palimpsest (above left) Open, closed, ajar (above right) Urban grain (middle) Forestry Agriculture (bottom) Urban cabinet (adjacent top right) Foresters Guild South West axonometric (adjacent top left) Cafe, Inner sanctum, Cabinet works (adjacent right) Material moments, Cabinet works (adjacent bottom)



ADAM CORNHILL | FORESTERS' GUILD





INSTITUTE OF RECYCLERS

12

(RE)CONSTRUCTIONS: CYCLICAL MATERIAL INNOVATION JOSEPH BARNES

Fountainbridge, at the urban end of the Union Canal, was a place of much material industrial production. From silk mills to rubber works to a brewery, it has served as an industrial output since the early 19th Century. With financial and spatial assets now dominating this city site, the planetary and local costs of material use is out of sight and mind. Taking circular material economies seriously, the project makes visible the processes, constraints and limits of material recycling. As one of the largest producers of CO2 and largely inaccessible to the general public, this proposal aims to make the processes of experimentation and decision within the construction industry more transparent.

The Institute of Recyclers becomes a locus for material storage, experimental construction methods and site testing. An Actuary is present within the Institute to develop protocols of assurance of construction methods with insurance providers, and Engineers facilitate on-site testing providing specification guidance and certification. Craftspeople working with a range of materials are also accommodated. As a place of experimentation and production, close to Edinburgh Printmakers, there is also space for artistic exploits using reclaimed materials. Collaborative workshop spaces for different material types have a public dimension for education, exhibition and retail. It is anticipated that over time the building will evolve with the expertise developed from its own workshops. As construction methods evolve, the buildings' fabric will do so also, to reflect the work within.









The Lothian Materials Exchange provides an interchange for material reformation, re-valuation, and re-use. As an Institute it structures the means for receiving, storing, documenting, re-purposing, and re-distributing material assets. Histories, toxicities, and specificites of these assets are evaluated, managed and mediated, establishing recalibrated limits and ranges for re-use.

Situated in Leith Docks at a confluence of material, fluvial and public movement, the Exchange negotiates between these three flow conditions, interpreting this dockland topography as an area of material intervisibility. The Alexandra Graving Dock was used for the construction, maintenance, and repair of ships, now resting static in its fluvial and maritime environment. Building from the stepped stone section, the Exchange re-values the dock itself as well as the material passing through it. Storage spaces enable stocktaking where material assets can be 'held up to the light', their existing histories and properties recorded and quantified for future reference. The Exchange includes material workshops with crofting quarters above. The stable dock boundaries protect spaces for cleaning, treating and resting: working with sandstone dust or lead paint, captured, condensed, and mediated via rainwater solvents or fresh air movements. The Exchange Hall facilitates the arrival and departure of re-formed assets via a tide of public commercial negotiations in a calendar of open-outcry auctions.







Found stone assets, Croy, cast model (previous left) Lothian Materials Exchange, Index drawing (previous right) Re-valuing the dock edge and material movements (adjacent) Lothian urban material intervisibility (top) Open-outcry exchange hall and rasied material workshop (above middle) Confluence of material, fluvial and public movement, Leith Docks (above right) Open-outcry exchange hall plan (above)



TRE VOCI: THE GAIA SURVEY

FINDING GAIA IN THE FORTH & CLYDE CANAL

JEMIMA FASAKIN GREGOR HUGHES MIRANDA LYLE PÉREZ

> The Forth & Clyde Canal signalled and sluiced the mineral resource wealth that lay under the hills of Scotland's central belt. The canal remains a register of the environmental legacy of an industrial extractive age: the Anthropocene of ferrous pollution in waterways from long-abandoned mines to poor soil and air quality, meteorological unpredictability. Three Actuarists' houses were proposed: imagined as sampling stations dotted along the Canal's territories, serving as architectural tools to measure, and collect samples and divinings of elemental factors.

> Using Bruno Latour's Gaïa Global Circus as a framework, our architectures notice and exaggerate discordances between the realities of global climate change and its public perception. Latour positions the artistic desire to narrate world events through performance, coinciding with the scientific interest in measured evaluation of environmental disasters. The Anthropocene Survey is sited on a land remnant between Canal and Clyde estuary at Old Kilpatrick encompassing both scientific and intuitive means. Empirical survey methods of the "-ologists" (scientists) overlap with the mirrored (musical) work of the "-mancers" divination in a public Forum, an operatic synthesis of distinctive acoustics, the sequencing of spaces and scripted organisation that inform the Survey Institute as a "redefined assemblage of values".








ARIA OF WIND TRE VOCI GREGOR HUGHES

Air samples from thirteen sampling stations are transited along the Forth & Clyde canal to the Meteorological Survey. Meteorologists test the samples to assess the level of particulates and pollutants in the air, resultant data packs are then taken by Aeromancers who divine the information into an array of aeolian harp strings relating to the pollution levels across the canal network each day. Aeolian harp installations throughout the institute make use of the natural wind currents through the coastal site to "sound out" the information into the canal region and the Stasimo Secondo.





Stasimo Secondo plan and fold out elevations (adjacent top) Aeromancy plaster tablets (adjacent bottom) Meteorological survey index drawing (above)









Meteorological survey sectional axonometric, sounding chambers and forum (left) Section through the survey, showing divining chambers, labs and sampling station (top right) Calibration plates (above)



The Forth & Clyde canal is used to transport water samples from sampling stations along its length to the Anthropocene Survey for analysis and interpretation. The hydrologists examine the polluting legacy of the mining industry within bodies of water, and endeavour to communicate their findings within the open Forum. Within the framework of Latour's Global Gaïa Circus, the hydromancers intercept the scientist's work by stealing their samples and divining the water. Their interpretations are recorded as an archive of hydrolophones, which are tested and performed across the Stasimo Secondo. Visitors, having encountered the scientific exhibition in the Forum, are met with the undeniable, urgent cacophony of the hydromancer's song.





Stasimo Secondo plan and fold out elevations. (adjacent top) Elemental tracings, carved plaster cast (adjacent bottom) Hydomancer's public interface in the Stasimo Secondo (above)











Hydro survey axonometric (top) Hydomancer's public interface in the Stasimo Secondo (middle) Parts of a whole, massing models (above)













Hydro survey planometric (top left) Facade studies, materiality and light (top right) Calibration plates (above)



ARIA OF EARTH TRE VOCI Jemima fasakin

> Serviced by the sampling stations positioned along the Forth and Clyde canal, the Geological Survey creates two different understandings of the earth with opposing methodologies. Core samples are pulled from these sampling stations and brought to the institution, where the geologists examine the ground quality of the remnants of the Forth and Clyde's industrial past. These samples are then transposed by the geomancers, creating a musical interpretation of these environmental histories. Their work is culminated in the Stasimo Secondo, a public sounding space between the institutions, where the sounds of the earth are heard, and the Third Island, a public forum where the findings of their scientific endeavours are presented.





Stasimo Secondo Plan and fold out elevations. (adjacent top) Aeromancy plaster tablets (adjacent bottom) Geological survey index drawing (above)





JEMIMA FASAKIN | TRE VOCI: ARIA OF EARTH

SOUNDING OUT

FLOW VALUE

AARON FRENCH LARA GUELDNER ALICE LOUDON RYAN MORTIMER LUCY POTTS TERRY WANG

Flow, capacity and signalling Model, projections and animations, Matthew Gallery, November 2021 A STREWINGS





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Flow, capacity and signalling

Drawing of Roman fort signalling by Ryan Mortimer. Photographs of sound tests by Ryan Mortimer. Support structure drawing with projected energy animations by Lucy Potts. Lloyds Building, London. Photograph by Suzanne Ewing

CARRIDEN





CIVIC SCALING OF MONUMENTAL INFRASTRUCTURE

LUCY POTTS

Scotland's natural resources have sustained its energy production for centuries. The Forth & Clyde Canal and industrial revolution were supported by the abundant coal fields across the country and the discovery of oil in the North Sea provided stable supply and healthy exports in the twentieth century. An early champion of renewable energy production, the dramatic landscape and plentiful water supply enabled the development of hydro-electric schemes in the 1950s, commissioned to act in tandem with then-new sustainable nuclear facilities. Cruachan Power Station in the Highlands is a pumped-hydro scheme, built (1959-65) to support Hunterston A nuclear station in Ayrshire and providing energy to the greater Glasgow urban area. A proposed extension to this listed infrastructure (2024-30) will more than double capacity contributing to the national grid.

The project straddles the existing and extended power station sites, exploring the infrastructural, institutional, monumental and mineral limits and registers of the new scheme. A sequence of devices and halls establish occupational scalings - of individual measure and monitoring, of communities of constructors, of civic visitors.









TRANSFORMING SOCIO-INDUSTRIAL MARCHLAND

RYAN MORTIMER

The predominantly disused cut of the Forth & Clyde Canal has left many peripheral yet deeply urban sites- land caught in a moment between industry and public use. The former Temple Gasworks in North West Glasgow carries toxicities of soil and air, alongside hard edges of canal, railway and road, near the bucolic flow of the River Kelvin. The project explores this seemingly inhospitable, redundant, contained land, its capacities for ground and structural re-production through enhanced connections, traverses and structured pauses.

The two remaining gasometer structures, ghosts of industry, become both foils and follies, intertwined with a network of lightweight raised paths that allow access to a series of buildings. A long term remediation strategy includes reeds, poplar and willow planting. Their placement is indicative of the next steps in the site's rebirth. Temple Gasworks becomes a precedent for change within the ribbon of socio-industrial marchland sites that stretch along the banks of the Canal and offers an opportunity for reconnection between them with barges delivering soil to be treated on-site. The Hall is a community asset for learning, developing and reconnecting to the wider central belt communities and the site's purification infrastructure caters for an array of potential futures. This project aims to make a successful environment of containment, connection and civic capacity for current and future generations with a performance that only improves over time, acting as a credible alternative approach to the regeneration of industrialised land.













In Dialogue with the Site and Strategy, index (previous) Approaching the House for a Photographer (adjacent) The Naumachia Theatre (above top)

The Threshold of Riverbed Spaces (above bottom)



FORECASTING, FORTIFYING, FUTURING

THE CRAFTERS

AARON FRENCH ALICE LOUDON LARA GUELDNER

The actuarist is a calibrator and modeller of futures, valuing crafting skills as assets. Acting as three crafters, we have set limits to what we can personally make, ensuring our making time is valued, as a method of exploring and critiquing scales and reach of production, consumption. What skills can a community of crafters hold, and in doing so how might new exchanges of productions be formed and extended? We value questionings and practices more seriously than instructions. Limits and potentials of sited architectural design are established as a series of moves rather than fixed end points.

The Maryhill area of north Glasgow benefited greatly from the introduction of the Forth & Clyde Canal, growing from farmland to an industrial centre. Lost industrial activity also meant loss of social and educational assets- trades work groups, industrial design academies, guilds- which has resulted in a desiccated demographic and high unemployment. The project seeks out robust remnants of the site of both River Kelvin and community- energetic, physical and social - to re-value and re-build from. Futuring at a local scale is explored through three thinktank generators and a cooperative working community that reassesses the value of labour. The programmatic principles of the project are based on the life essentials: housing, food and clothing. These have translated into selfbuild housing, a micro algae experimentation centre and a digital fabrication and innovation textile studio. We question social, environmental and economic assets, measuring through the exchange of time rather than money.



MICROALGAE HARVESTING STATION THE CRAFTERS AARON FRENCH

The Microalgae Harvesting Station is positioned and built upon the existing disused railway footings towards the south of the site. These found assets are extended to form towers that are integral to how the building is navigated and experienced, creating a new material asset within the landscape. The central tower is the main access point, another tower provides both the axis of stair circulation and a hollow courtyard. The final tower provides both circulation and a public viewing area of the microalgae production process.

The architectural language is experimental: manifesting itself through three core materials; brick, steel and timber. The proposal is also informed by the functional and communal clustered arrangements of buildings that previously occupied nearby sites. A bloated sense of capacity and actioning resonates with the microalgae harvesting programme, its bridged entrances and elevated circulation. An island in the Kelvin it anchors and hoovers over the sounds, senses and poetry of flow whilst joining in and providing its own poetic rhythm in site, architecture, engagement and purpose.









Baseline enquiry (adjacent top left) Entrance view (adjacent top right) Section through towers (adjacent bottom) Microalgae processing hall (adjacent far left) Existing site conditions/ existing footings (adjacent right) Perspective render of north elevation (top right) Generator table drawing (centre) Calibration plates (bottom right)

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SELF-BUILD HOUSING THE CRAFTERS ALICE LOUDON

The crafter becomes the self-builder, exploring self-sufficiency in building homes and adapting living spaces as the demographic of the area changes over time. This autonomy of working and providing locally brings forth the idea of the democratisation of production for building affordable homes.

The workshop has been developed with the principle of expansion and contraction of neighbourhood architectures at its core, with a roofscape reminiscent of that of the [forgotten asset] Kelvindale Paperworks on the opposite banks of the river Kelvin. Open workshops provide spaces for storage of tools and materials, CNC cutting bays and fabrication, with breakout spaces for workers and viewing galleries over the workshops. A bell tower provides a connection between the workshops, the aqueduct and the housing in the surrounding burgh of Maryhill, with the bell signalling for the tram when work is ready to be collected and fabricated on site.



[RE]CONSTRUCT - SITE 3 THE UNDERWOOD STABLES GENERATOR: A HOUSE FOR A SCULPTOR SITED IN THE PRESENT

ALICE LOUDON

THE HOUSE IS ON A SITE WITHIN AND AROUND A RUINED LOCK KEEPERS HOUSE AND STABLES CALLED UNDERWOOD STABLES.

IT IS FOR A CRAFTSPERSON THAT USES TRADITIONAL BUILDING CRAFT SKILLS IN A SCULPTURAL OR CREATIVE WAY IN THE CONSERVATION AND REBUILDING OF RUINED OR DILAPIDATED BUILDINGS ALONG THE FORTH & CLYDE CAMAL. CRAFT SKILLS INCLUDE STRUCTURAL STABLISATION AND STONEMASONRY (TECHNIQUES SUCH AS SPLINTING, WEIGHTING, CORSETING, THREADING AND [FOUNDATION] UNDERPINNING, ANCHORING), ROOFING (REPAIR OF SLATE ROOFS AND LEADWORK) AND JOINERY.

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THE ACTIVITIES THAT TAKE PLACE WITHIN THE HOUSE ARE: DRAWING/ENGINEERING AND PROTOTYPING (MAKING MAQUETTES FOR JOINTS, CONNECTIONS, OR SUPPORTS). THE SECONDARY STRUCTURE WITHIN THE RUINED BUILDING PROVIDES A PLACE FOR EXPERIMENTATION WITH FROTITIONAL TECHNIQUES IN A CONTEMPORARY MANNER.

THE MATERIALITY OF THE HOUSE IS INFLUENCED BY THE TECHNIQUES USED TO MAKE THE ORIGINAL CANAL INSTALLATION. USING BENT METALWORK. SLOTTING CONNECTIONS AND NUTS AND BOLTS AS WAYS OF CONNECTING METAL AND TIMBER. THE STONE STABLES ACT AS A BALLAST FOR SUPPORTING THE PLATFORM WITHIN THE STRUCTURE.

SOUTH EAST ISOMETRIC 1. 100


Site territories, plan (previous left) Workshop general arrangement (previous right) [Re]construct, The Underwood Stables Generator: A House for a Sculptor, Sited in the Present (adjacent) Generator table and sketches (above middle top) Workshop, south west axonometric (above middle) Calibration plates, A House for a Sculptor (above bottom)



DIGITAL FABRICATION & INNOVATION STUDIO THE CRAFTERS LARA GUELDNER

Situated in relation to two key points of the river ecology, the weir and syphoning channel, the studios augment the river Kelvin as a new environmental asset. The architecture of these studios is woven across the landscape of the site, anchoring on the remaining edge of the lost paperworks; bridging the weir and moving up towards the urban fringe of the Gairbraid estate.

This set of studios provide a range of spaces for both the generation of goods and experimental working. A traditional textile studio encourages the ideals of crafting which we have defined as a tuning of rigour and ritual of any activity. The fabrication studios are sited central to the cooperative work exchange. They produce woven solar panels and test the futuring of textiles as building fabrication materials. The innovation studio works in tandem with the fabrication studio while also experimenting with textiles outwith the frame of architecture and construction.



Crafting the site territory (previous top) Crafting the site, model image (previous bottom) Collective territory assets (above) Digital fabrication & innovation, plans (adjacent) A quiet crafting, internal render (adjacent, top right) Digital fabrication & innovation studio, north east isometric (adjacent, middle top) River ecology, site characteristics (adjacent, middle bottom) Calibrations, a weaver, plans (adjacent, bottom right)

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LARA GUELDNER | DIGITAL FABRICATION & INNOVATION STUDIO



18 DECONSTRUCTING TIME

INSTITUTE OF INFINITY

MARK WOULFE

Throughout history an Institution of Watcheries has looked on from the shadows, measuring the deterioration of society in hopes to calculate, and prepare for, the next Fall of Civilisation. Strategically located around the world over a scale of centuries these buildings rise and fall in accordance with their designated era's priorities. Constructed to deteriorate, lost ruins of Watcheries are re-discovered containing old knowledge of previous empires. In Edinburgh, Scotland, 2222, a Watchery is focused on observing the transition between the Age of Consumerism and the Age of Technology.

The monastic community of Watchers live an ancient, ritualistic lifestyle composed of measuring the architectures of deterioration. The fragile materiality of the facade is a temporal register, designed to tear and rust. Watchers live within this double-skinned environment, climbing through the walls of cloth and steel to calculate and repair. While the exterior registers the surrounding physical atmosphere, the interior calibrates the cultural and technological ethosphere. The measurements are all brought to a central gathering space which is inscribed with information for the next civilisation; a holy space of prayers and calculations.







Baselines sounding (previous top left) Prayer hall of soundings and shadows (previous right) Designing for deterioration (above left) Collecting time (top right) Obsolescence of architecture (bottom)







MARK WOUL

SOUNDING OUT

LAND VALUE

RACHAEL BURLEIGH ADAM CORNHILL CHAREOTTE CUMMINGS CARYS MARSHALL ~ KATIE-MAY MUNROE KEVIN TSE

Tracing edges of land and power-Programmetric overlays of photograph and



































Traces of land and power: Sounding out Grangemouth

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Drawing by Rachael Burleigh, Adam Cornhill, Charlotte Cummings, Carys Marshall, Katie-May Munroe, Kevin Tse F

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TOWARDS NEW SPATIAL COOPERATIVES

CHARLOTTE CUMMINGS

'Dirty work' runs modern day society: from abattoir workers to drone operators our society is held up by the people undertaking work seen as essential while also morally compromised. Throughout the pandemic dirty workers were largely pushed aside while workers in morally 'sound' professions received endless praise, but why? This project delves into the world of dirty work and questions spatial dimensions of social inequality that allows morally questionable work to be carried out by the most vulnerable in society while the rest of society gets to forget such work exists.

The project begins by witnessing the dirty work of the Central Belt of Scotland through a process of mapping within the categories of Monopolies, Commodities and Safeguarding. Amazon has become one of the largest entities and economic monopolies in the modern world. The company controls much of today's economy, boasts record-breaking energy consumption and has often come under fire for employment practices. The selected site is The Amazon Distribution Centre, EDI4, located north of Edinburgh. The project begins to imagine how the expansive, tightly controlled and itemised space may be loosened and re-valued. When the EDI4 factory is left vacant, a cooperative community, inspired by Jean-Baptiste Godin's Familistère de Guise, takes its place. Adjustments to the physical and spatial assets of ED14 are informed by imagining today's Dirty Workers as an empowered spatial cooperative who still provide essential work, but more visibly in the maintenance of society's robotic future.





- Site concepts (previous top)
- ED14, site (previous bottom)
- Actuarist's house, staged (above top)
- Understanding workers (above left)
- Mapping monopolies (centre bottom)
- ED14 Towards new spatial cooperatives index drawing (opposite)









RITUALS OF WORK AND ACTION

20

INTENSIFYING GRANGEMOUTH TOWN CENTRE

Grangemouth is a locus of accumulated industries: the sea gateway to the Forth & Clyde Canal; processing and storage plants protecting petrochemicals; bottling, packaging and timber milling businesses. The project aims to re-value assets that are not only industrial but social, institutional and communal, re-activating Grangemouth's hinterland. 'Rituals of work and action' responds to the enclave condition that the town has become, fragmented from the surrounding area by the River Carron and the M9 motorway. Within the town itself, edge conditions further divide the town into sprawled and segmented areas of industrial activity, disconnected from the town centre. The proposed interlinked interventions include: a reinstated train station, bridge, and repurposed derelict theatre. It seeks to catalyse, to create an improved pedestrianised connection, an active and intensified town realm.

The interventions seek to re-gather community in spaces that support 'action' and 'work' (Arendt): the production of something that is durable, cultivating vita activa. The project re-gathers rituals of work from the past, tapping into specific rhythms, patterns and traces of places, to support shared conditions of urbanity within which those who work and live in Grangemouth can communicate and connect. Spaces are designed to provide the kind of 'work' they promote, harnessing craftsmanship and the use of natural materials to produce a tactile warmth that informs renewed bodily rhythms and encourages dwelling.







Exploring tactile warmth of hemp structure, perspective section (previous right) The site as edges. opportunities for strengthening connections (adjacent top left) Discovering the enclave condition of Grangemouth (adjacent bottom left) Holding the collective, Actuarist's house, model (adjacent top) Intensifying Grangemouth town centre (above top) Conditions of time, gathering and work in Grangemouth (above bottom)



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DUNDAS'S GIFT: UNPACKING ZETLAND PARK

TERRY WANG

The actuarist uses sound as a tool to understand and monitor city boundaries. During the expansion of the Bank of England in London, its borders were regarded as 'infinitely extended' interests. However the physical institution was constrained within urban walls and acoustic enclosures that served economic growth almost entirely within itself, creating an 'island of capital'. This project explores the design of controlled urban intensities interwoven with more open public conditions that might serve the interests and people around them more fully.

Grangemouth is home to Scotland's largest oil refinery, visible through a series of tall buildings and chimneys on the west side of the town, at odds with the less dominant low-lying residential areas. A flat greenspace, Zetland Park, was gifted to the town's residents by Sir Lawrence Dundas, and is understood as both an island or islands and a windswept open condition. The proposal is for intensified acoustic and spatial intervention at identified boundaries, from the scale of wind and cut-canals as well as the formal arrangement of sport. Boxing clubs, rings and training facilities are proposed at these mediated edges, relieving and releasing tensions and contrasts.



Entrance experience (previous left) Unpacking Zetland Park Index (previous right) Tectonic sequencing (top left) Community industry resolution (middle left) Division in Zetland park civic centre (left bottom) Entrance and training massings (top middle) Boxing centre experience (top right) Training and auditorium sections (middle) Entrance section (bottom right) Wind path massings (adjacent middle right) Entrance experience (adjacent bottom right)





















22

THE GLASGOW LAND COMMISSION

KEVIN TSE

The rapid industrial expansion facilitated by the Forth & Clyde Canal led Cowcaddens Quarry to become the main resource for building Glasgow until its exhaustion in the 1850s. The sandstone quarry was infilled for a bus station as the Canal fell into disuse and later backfilled to create Buchannan Bus station with the advent of motorway-building. This artificial stratification has resulted in a deceptive sense of solid ground resonant with social and economic deprivation that divides the city's urban landscape.

The Scotland Land Reform Act (2003) and establishment of the Land Commission empowers communities to reinstate and revaluate derelict lands in any location. The Land Commission Centre inhabits the composite ground of the reclaimed quarry, forming a new administrative base for its task force to carry out field work, research and consultation essential to enacting the Land Reform Act. The atrium space is a civic hall that facilitates debate and public consultation on the future development of derelict lands in and around Glasgow and the Forth & Clyde Canal. A series of civic spaces are positioned around the forum to offer grounds for social activities and community engagement. Workspaces situated above the atrium provide research and gathering space for the varied government bodies, with access to the derelict land registry embedded in the excavated ground of the former quarry.















Charting Cowcaddens strata (adjacent) Civic/consultation hall (top) Derelict and vacant land registry (bottom left) Geological drill core repository (bottom right)



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HOUSING SASINE:

FINDING PLACES TO SETTLE IN CONTESTED CARTOGRAPHIES KATIE-MAY MUNRO

Recognising dominant models of land ownership, exchange and their social support structures that underpin the construction and development of the Forth & Clyde Canal and its hinterlands, the project seeks out anomalies of land registration, unrecognised or contested ownership. Strategies of defining and building on, over and with unclear boundaries, histories of complex trading and overwritten claims are activated in design testings. Proposals are sited in the Sighthill area of Port Dundas, Glasgow, delineated by the M8 motorway, railway and looping canal. The project occupies gaps between words and maps, dialogue and cartography, the empirical and the abstracted.

The Sasine Register is currently being digitised, a written record of land ownership agreements in Scotland that evolved from oral arrangements. A cartography/surveying office attempts to correlate the Sasine data with urban sites under processes of exchange or land mediation. Administrative buildings are intended for planning organisations such as HES, Glasgow Planning and Regeneration Services, Glasgow Housing Association. Making the register and this knowledge public raises questions around who can state a claim or have right of access on, across and through spaces in the city and its development. How can alternative models of claiming, appropriation and use inform an architecture that enables the bridging of boundaries, protection of common land...? can you hear me? who calls the shots?



The Sasine Recorder, Actuarist House plates (previous top left) Housing Sasine, canal approach (previous top) Civic hal for maps and consultation, hand-drawn perspective (previous bottom) Contested Cartographies, land exchange at Port Dundas Basin (above) Interior light (adjacent top) Plan (adjacent middle) Housing Sasine index (adjacent right) Shifting boundaries, site model (adjacent bottom left) Canal facade, sketch perspective (adjacent bottom right)











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IMAGE REFERENCES

Cover

Territory of the watcheries (House for an actuarist). Mark Woulfe.

Inside front cover

Sounding Out installation, 7-8 Chambers Street studio, November 2021. Photograph, Ruth Hamilton, Sigi Whittle.

Opening

Inert ordnance 1. Forth & Clyde Canal near Croy. Photograph, Hamish Jackson.

Soundings: for/through architectural design

- 1-2 Dichotomous bookends: George Street, Edinburgh. Baselines study. Film still, drawing. Adam Cornhill, Carys Marshall, Kevin Tse.
- 5 Isochron map of Edinburgh's one o'clock gun and other field recordings. Mario Madrid Rodriguez, Marion Wibaux.
- 6 top: Directional sound experiment, Edinburgh New Town. Photograph, Ruth Hamilton, Sigi Whittle. bottom: Assets: caught artefacts, City of London. Photographs, Edward Haines.
- 7 Assets: mason marks. Photographs, Adam Cornhill.
- 8 The Sasine recorder. House for an actuarist. Katie May Munro.
- **9-10** Trade winds. Baselines. Film still, Aaron French, Alice Loudon.
- 11-12 Inert ordnance: the stone-cleaner's work. House for an actuarist. Hamish Jackson.

Soundtrack

- 14 Inert ordnance 2. Forth & Clyde Canal near Croy. Photographs, Hamish Jackson.
- 15 Aerial stock photo, 'a river' through farm fields near Cumbernauld. [https://www.axiomimages.com/ aerial-stock-photos/view/AX110_231.0000000F accessed 23.05.2022]

Closing

170-171 Socio-industrial marchland, Forth & Clyde Canal. Photograph, image, Ryan Mortimer.

Acknowledgements

- 174 Inert ordnance 3, re-valuing stone. Drawing, Hamish Jackson.
- 175 Croy extraction infrastructures. Drawing, Kevin Tse.

Inside back cover

Traces, tempos and trainlines. Baselines installation, Matthew Gallery, September 2021. Film still, Rachael Burleigh and Katie May Munro.

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