



UNIT 1

HAPTIC (Agnieszka Glowacka & Dimitris Argyros)//Vasiliki Kourgiozou//Anderson Inge
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Dp2-Dp3

Urban Acupuncture

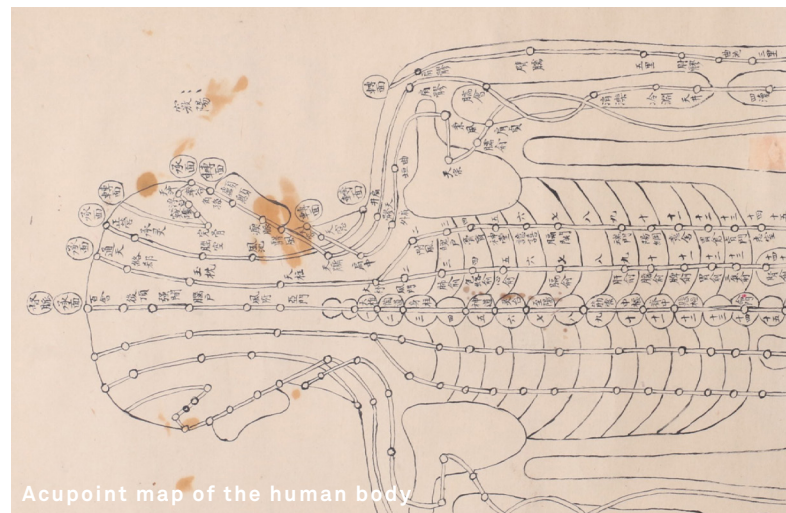
Healing and regenerating the city through hyper-local buildings of 'care'

Unit 1 will continue to explore the themes of adaptive re-use and the associated environmental benefits; this amongst the context of climate crisis which this year in particular the UK has witnessed first-hand.

This year the unit will focus on the philosophy of 'urban acupuncture'. The word "acupuncture" derived from two Latin words: "acus" which means needle and "puncture" means prick or penetrate.

Drawing from the metaphor of the Chinese traditional medical practice, urban acupuncture refers to the improvement of social and urban issues through precise interventions that revitalize areas of the city, improve accessibility and consolidate urban planning strategies.

An alternative to conventional development processes, urban acupuncture represents an adaptable framework for urban renewal, where highly focused and targeted initiatives help regenerate neglected spaces, incrementally deploy urban strategies, or consolidate the social infrastructure of a city.



First coined by Catalan architect Manuel de Solà, the concept circumscribes projects with a high degree of reversibility, allowing for corrective measures and improvements.

It is about moving away from the top-down 'masterplanning' and development strategies and seeing the city from the human perspective, engaging with the need of diverse communities and individuals who may struggle to feel included in and to navigate the city. Urban acupuncture can provide a way of way of healing divides in the physical and emotional fabric of the city to make it more connected, inclusive and equitable. The margins become the centre.

Whilst the strategy lends itself to small interventions at public realm; the philosophy is transferable to medium and large developments.



Zorrotzaurre Island, Bilbao

Zorrotzaurre Island - an acupuncture point in Bilbao

Unit 1 will travel to Bilbao in Spain. The largest city in the province of Biscay and in the Basque Country as a whole, Bilbao has a rich industrial history which is evident in its urban layout. River Nervión has been used for industry since the 1870s and as with last year at Wapping project, it will form the basis of our investigation.

The site for this year is Zorrotzaurre island. Located within the Deusto district of Bilbao. It was first formed as a peninsula during the 1950s and the 1960s, when a canal was built to facilitate navigation in the estuary of Bilbao. The site has a myriad of existing industrial buildings, many unused and open space in between with opportunities for development, whilst there are also still buildings being used both in permanent and temporary state.

A plan was approved in 2012 to renew the neighbourhood with residential and business uses, a Master Plan designed by Zaha Hadid. The project looks to demolish most of the existing building stock and introduce new towers.

Working under the philosophy of urban acupuncture, the unit asks students to re-examine how the site can be developed and new programs be introduced but under a mantra of Re-use/Re-enforce/Revitalise/Re-connect. Students will be asked to develop small and large buildings and should aim to use as many of the existing structures as possible to form their architecture whilst also proposing new additions / new builds.

Warm Up Project - Acupuncture tools

We will start the year with a 1-week study where students will be registering existing external spaces and building components in London to develop their tools for Urban Acupuncture in Bilbao.



Zorrotzaurre Island, Bilbao

Students will propose ways in which existing building components can be adjusted to enable better public use and environmental performance, addressing programmatic and technical considerations and acting as the smallest scale of Urban Acupuncture 'needle'. Students will be asked to use a variety of digital and analogue recording techniques including drawing, photography, structural analysis and environmental recording tools.



Urban Acupuncture - Small scale



Zorrotzaurre Island, Bilbao

Project 1 - Amenity bridge

Students will take the learnings from the initial study to propose an inhabited bridge on Zorrotzaurre Island. This will be a four-week project.

The students will work in groups of three or four and chose one of the three planned footbridge sites that will connect the island with the mainland as part of the approved masterplan.

They will share their acupuncture tools and findings from their initial study and work together to register the immediate site and propose a small to medium sized building and foot and cycle bridge combined.

The collectively designed building will provide a public amenity that will cater for the health and well-being of the existing residents on mainland and also serve as a local catalyst for the development of the island.

Students will be asked to pick a user-group to cater for and chose a programme associated with that user group; programmes could include day-care nurseries, club house for a local community group, local gym, community café and kitchen.



Ponte Vecchio, Florence - bridge as an public amenity

The amenity bridge will need to provide a medium-sized congregation space and include a zone with special environmental control requirements.

This project be described through plans, sections, elevations or scale models appropriate to a schematic level of resolution.

As part of the project, students should also consider the relationship to the waterfront including the tidal changes, high-flood risk and future sea-level rises.



Zorrotzaurre Island, Bilbao



Urban Acupuncture - Large scale

Final project - An acupuncture point of care

For their final project the students will choose one of 3 preselected water-side sites on the island that provide the richest mix of existing building typologies and uses.

The site will include one or multiple of the existing buildings located on the island which the students will register and study during their site visit. This will include environmental and structural analysis to ascertain extent of potential re-use of existing structures and opportunities for additional development.

The detailed programmatic brief and agenda for the final 'care-full' project will be discovered by each student during the registration phase and during the site visit but should include a mix of community uses linked with the concept of care (for example health centre, spa, childcare provision, library, community kitchen).

The final project will be a suitably complex, medium to large sized building with a variety of different sizes of spaces, including at least one publicly-accessible, shared assembly space capable of holding a minimum of 250 people. It will include zones with special environmental control requirements, and be arranged over more than one level. Accessibility and inclusion for all users will be a critical part of the project.

Students will be encouraged to propose schemes that thoughtfully interface with the existing buildings and the space around the island, aligned with the philosophy of urban acupuncture. They will consider the public realm and landscape around the buildings and incorporate the lessons learnt from their P1 project on the waterfront relationship.

Environmental & Structural Agenda

Proposals will need to adopt an environmental sustainability framework to underpin their design affirmations and tangibly evidence the design serves the intent. United Nations sustainable development goals, the Living building challenge, World Green Building Council: Net-zero carbon buildings and others will be discussed during a unit workshop and students will select one to deliver against. This will also help to underpin and drive the brief for the building and modes of adaptation.

For year 3 students, your urban acupuncture proposal will focus on the use of energy and carbon efficient mechanical systems and for the 4th year students, proposals will need to demonstrate net-zero carbon performance in the operation stages of the proposal as a minimum, noting whole-life carbon explorations are encouraged in the context of adaptive re-use.

Structural, material and construction strategies should be integral to the design process. Each of these should be explored thoroughly and iteratively, in terms of how they can enable and improve end-users' experiences of the design. Students will need to be inventive when working with the existing fabric, as well as in their designs for new interventions and additions, whether on land or on water. Efficiencies and inventiveness should be deployed in the choice of materials and construction methods that support circular economies and reductions in environmental burdens.

This brief should be read in conjunction with the DP2 Module Descriptor for Year Three Students and DP3 Module Descriptor for Year Four Students.



Urban Acupuncture - Medium scale