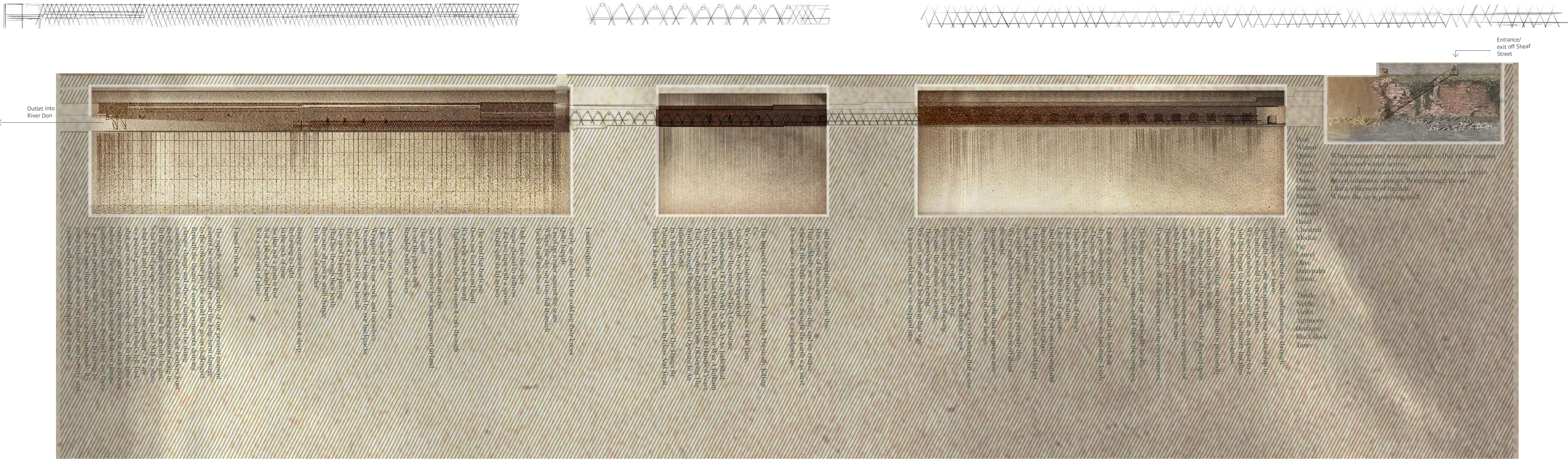


What lies beneath?



Sectional drawing through megatron with lyrics from sound piece transcribed and superimposed.

“

Climate change is the symptom of failure of our ability to govern ourselves.

Indy Johar

What is 'sustainability' and what does it actually mean?  
The traditional definition of the term describes the strengthening and maintenance of the natural balancing process called homeostasis.

How can a singular noun be used to illustrate such a complex and entangled process?  
What are we infact trying to sustain? Resources for human consumption and industry?

Author Timothy Morton makes the analogy that when trying to become ecologically aware, it's like being on a mobius strip - in an attempt to get over to the other side of the loop, you realise you are already there, but you have no idea of when or how it happened. The resulting epiphany is that there is no other side, the twist is infact all around. It dovetails into his ideas of hyperobjectivity and other analogies of entanglement and interrelation.

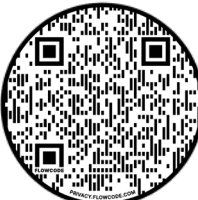
Through researching and developing this project, I found myself in numerous rabbit holes - in my very attempt to design in the most sustainable and least damaging way (through considering and reducing every environmental risk factor possible) I was almost perpetuating the very problem I was seeking to solve by promoting this thesis of 'us' and 'them'.

Climate justice runs so much deeper than the materiality of our constructed world and this project is heavily inspired by the work of practitioners who seek to untangle these complexities.

CONCEPT

A multi-sensory, multi-dimensional experience journeying below the surface-level of Sheffield City centre into *what lies beneath* - a series of arched river culverts, known as the Megatron.

Born out of an interplay of ideas relating to the causes of disconnection between man and his environment it intends to evoke a deep transitional journey into the human psyche, providing portals of access to realisations and profound learnings of interrelation and interdependence.

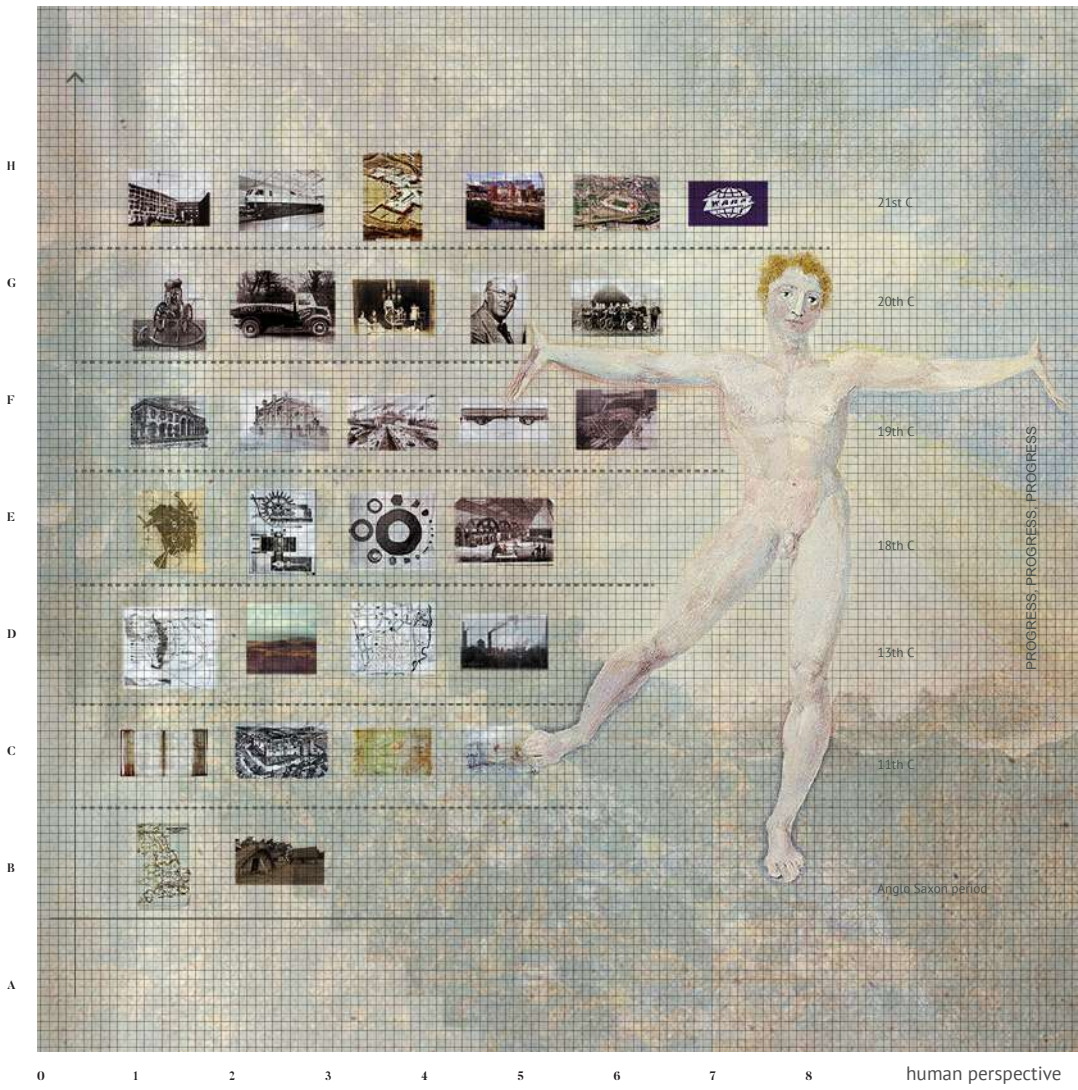


23' SOUNDPIECE

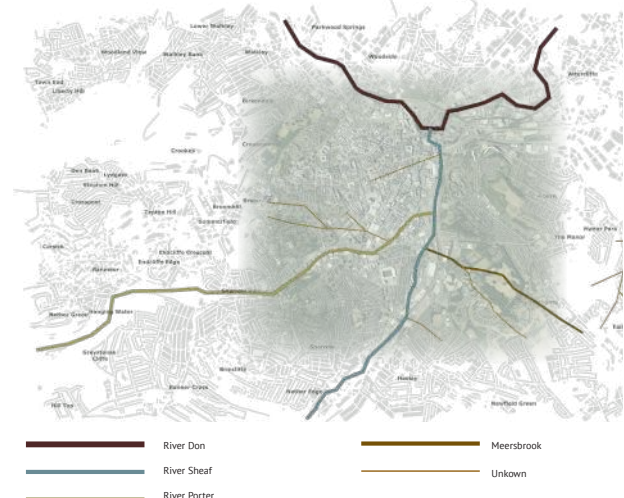


2.5' ANIMATION

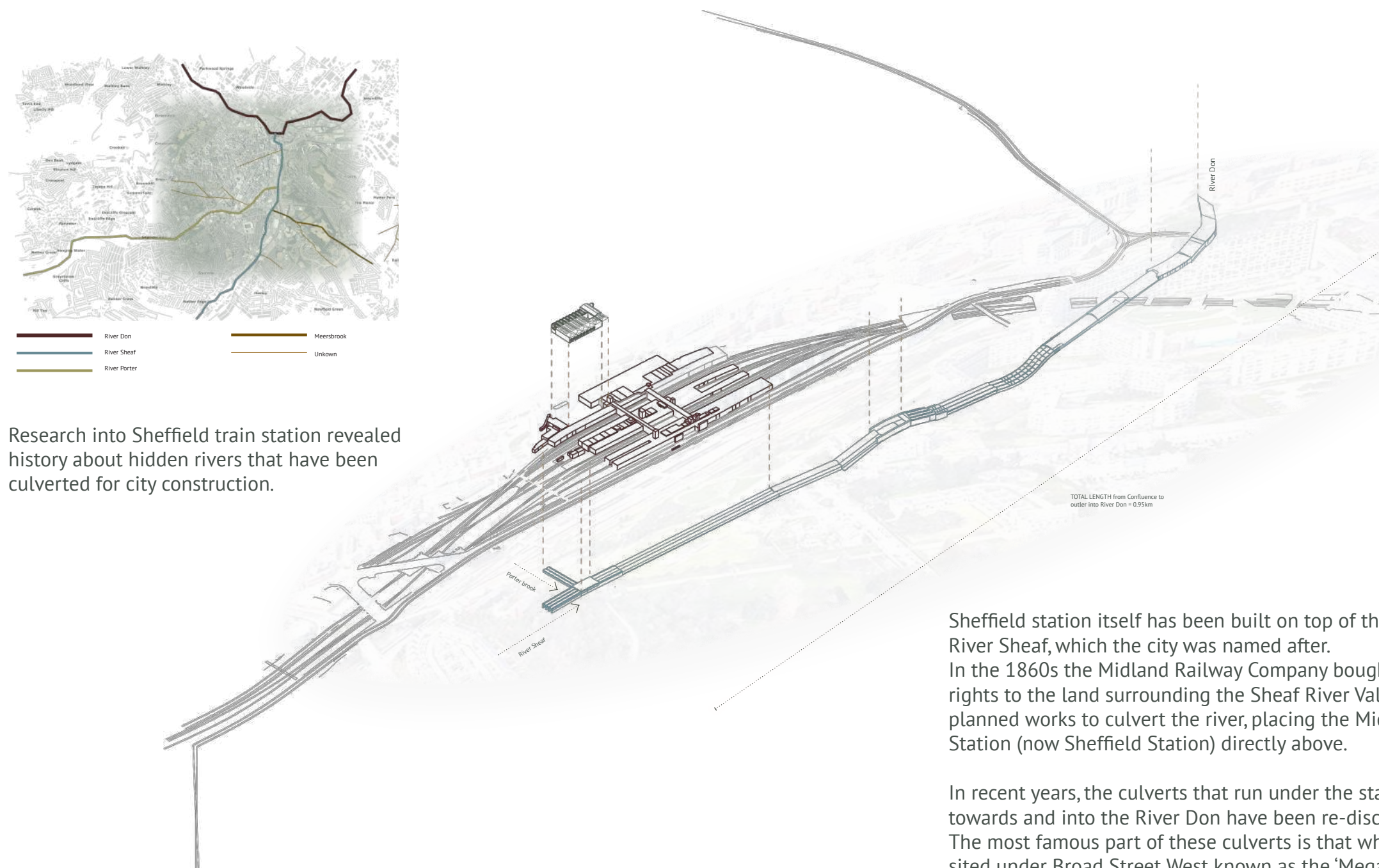




As economic and social theorist Jeremy Rifkin has pointed out, climate change is the disruption of water cycles, such that, human damage to the environment knocks the water cycles out of kilter, resulting in more frequent freak weather events. Since Sheffield is so frequently impacted by flooding, I thought it important to highlight Rifkin's comments in site analysis drawings.

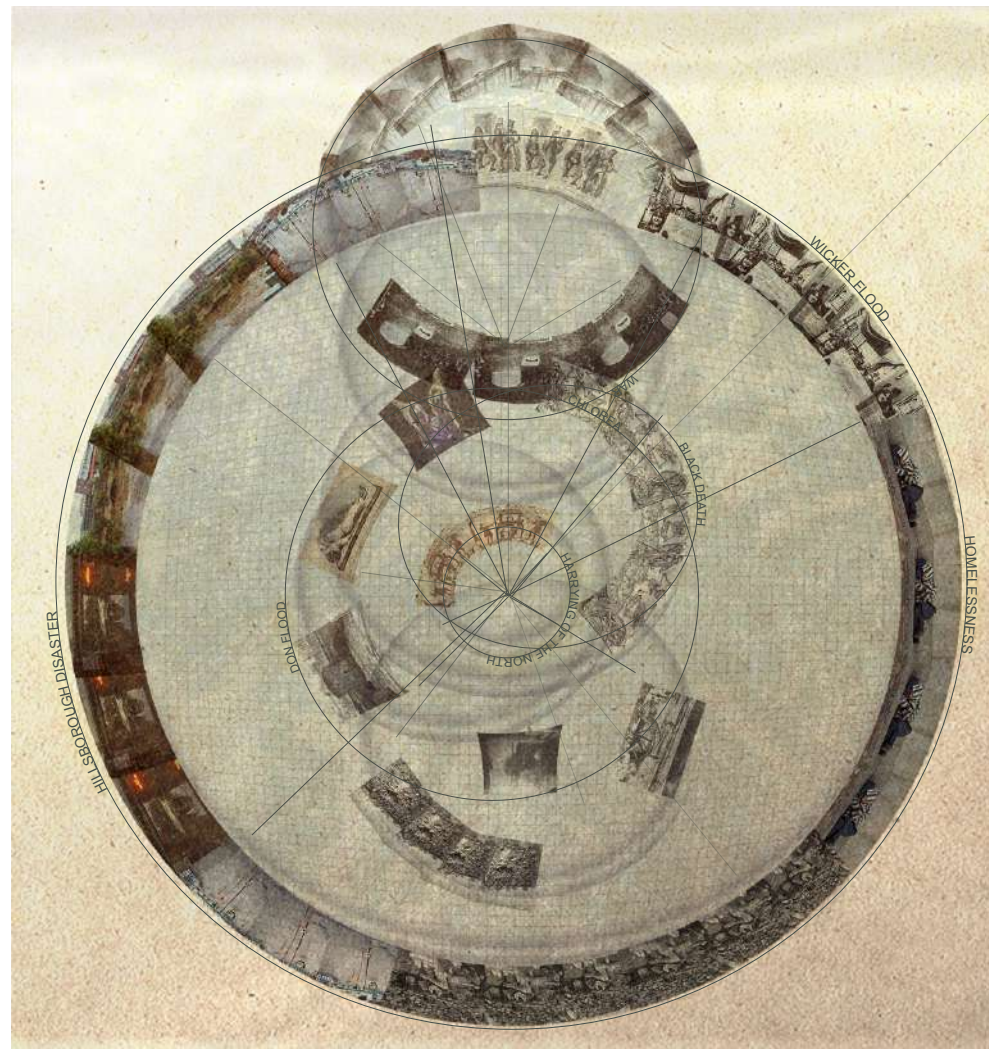


Research into Sheffield train station revealed history about hidden rivers that have been culverted for city construction.



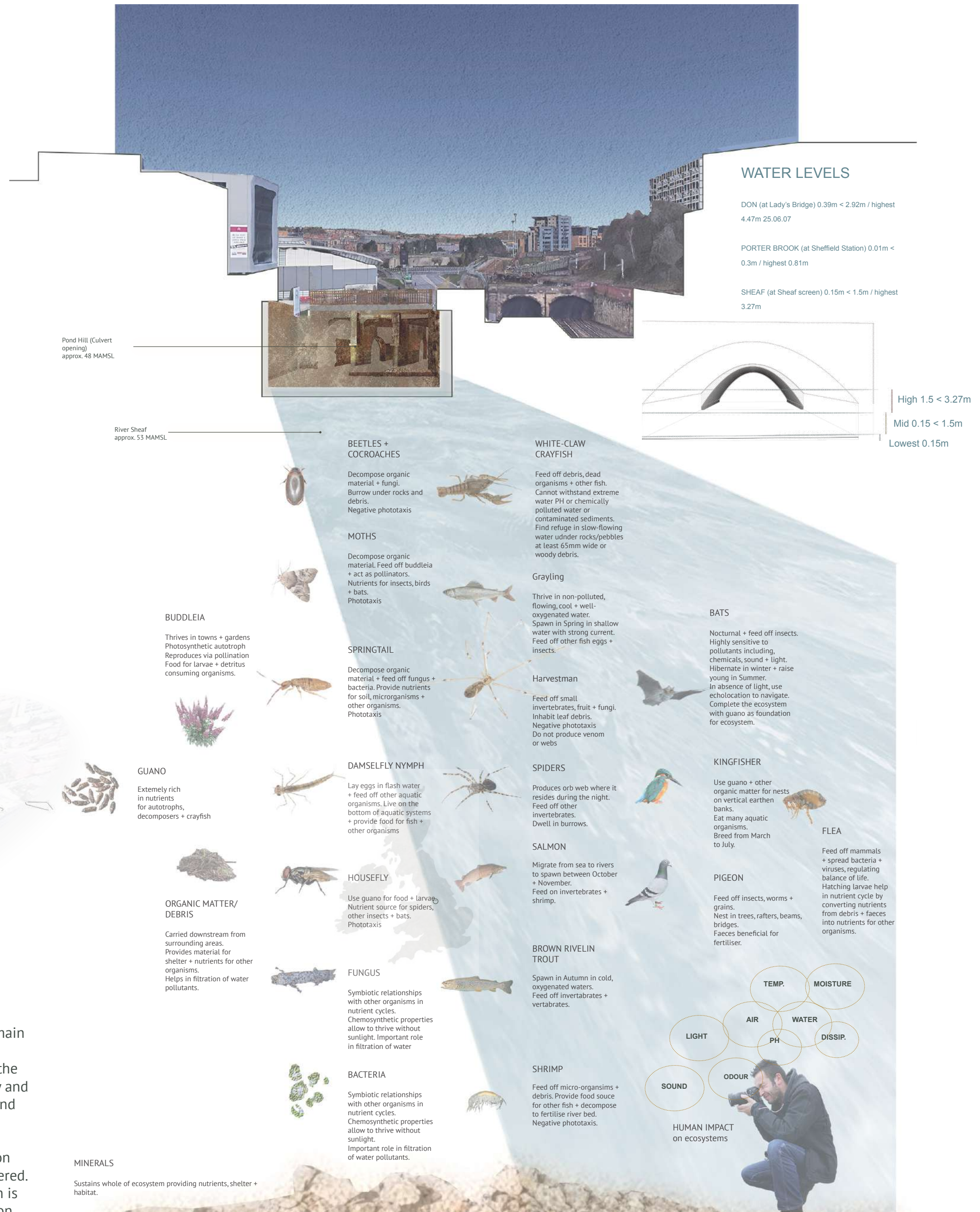
Sheffield station itself has been built on top of the main River Sheaf, which the city was named after. In the 1860s the Midland Railway Company bought the rights to the land surrounding the Sheaf River Valley and planned works to culvert the river, placing the Midland Station (now Sheffield Station) directly above.

In recent years, the culverts that run under the station towards and into the River Don have been re-discovered. The most famous part of these culverts is that which is sited under Broad Street West known as the 'Megatron Cathedral'.



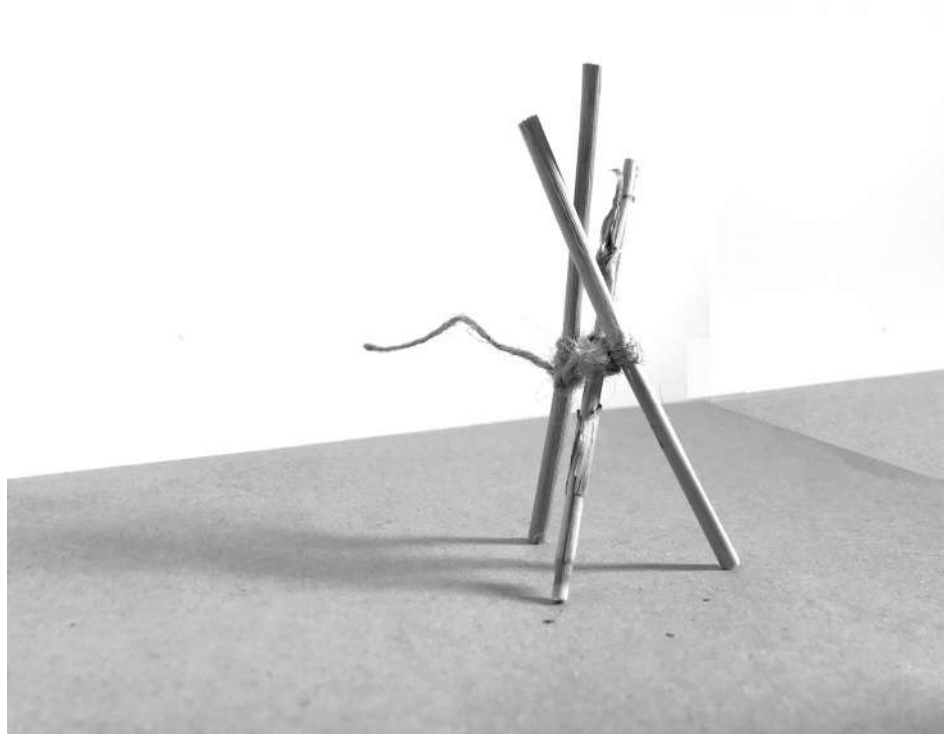
These two drawings sit side by side to compare the difference between the humanly perceived linear and 'rational' timeline of progress and innovation since the Anglo Saxon period (which is documented to be the time of which Sheffield began as a settlement) with a perspective, taken at a much wider planetary scale, where the linear, progressive and orderly is presented as more cyclical, chaotic and shocking.

Research into the ecosystems of the culverts revealed the abundance of life present, that is able to thrive without natural light. The designed intervention(s) had to be well-considered in order to respond to and co-exist with, rather than inhibit and control these ecosystems



site analysis + research

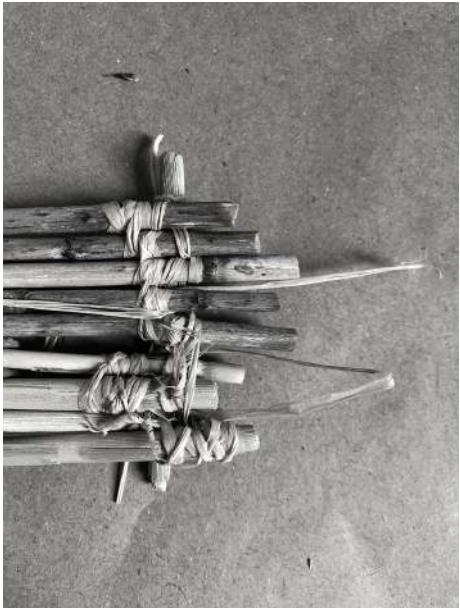




Material studies exploring traditional lashing methods for use in platform structure.  
Dried reeds, hemp rope



Material studies exploring traditional weaving methods for use in platform structure.  
Dried reeds, hemp rope, dried grasses.



Concept collage of William Blake's Albion man entangled in mobius strip.



Entanglement  
Dried reeds, grass and sticks weaved together with hemp rope.

The proposed structure is a 0.5km long platform serving as an elevated pathway through the megatron, stretching from below Pond Hill, to the megatron 'cathedral' sited under Broad Street West.

The structure consists of 4 different interventions - 1, 2a, 2b and 3.

Intervention no.1 is the only structure that will be built for permanence, whilst the remaining three are variations on each other according to the structural specifications of the tunnels in which they are placed.

Inspiration has been taken from 'low-tech' practices like traditional weaving and rope lashing techniques that use completely nature-made materials that do not pollute the ecosystems in which they are sited within. The temporary structures only use reclaimed/upcycled and natural materials and avoid the use of resins, chemicals and any invasive construction techniques.

Invervention no.1 uses reclaimed/upcycled, yet resilient materials wherever possible and is built for functionality over complexity, blending into the hybridity of the city backdrop and aquatic ecosystem.

The conditions set for each intervention are as follows:

- Permanent  
Access from street level down into culverts  
Considerate of fluctuating water levels  
Reclaimed and resilient materials like corten steel and iron  
Easily maintainable  
In-keeping with surrounding landscape  
Functional as a controlled access point down into the culverts
- 2a + 2b.  
  
Temporary  
Easily transportable and buildable (in context of space available in culverts)  
As sensitive to surrounding ecosystems as possible  
Safe and stable - consideration of wet/ very dark conditions  
No resins, chemicals or invasive construction practices.  
Built to co-exist with surrounding environment.
- The same for interventions 2a and 2b  
Consideration of higher water levels - use of water for buoyancy and support



Rendered visual showing Intervention 1 - entrance/exit



Rendered visual showing Intervention 2b

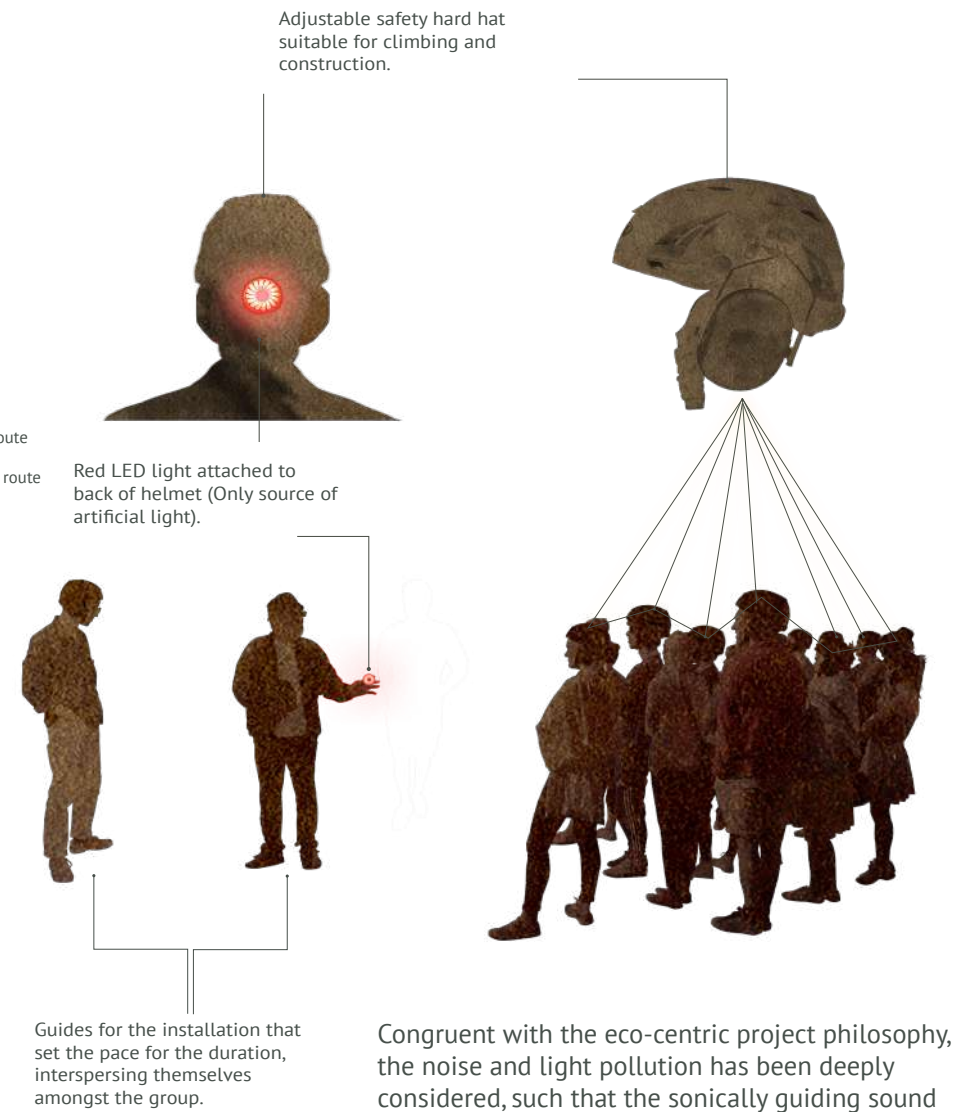
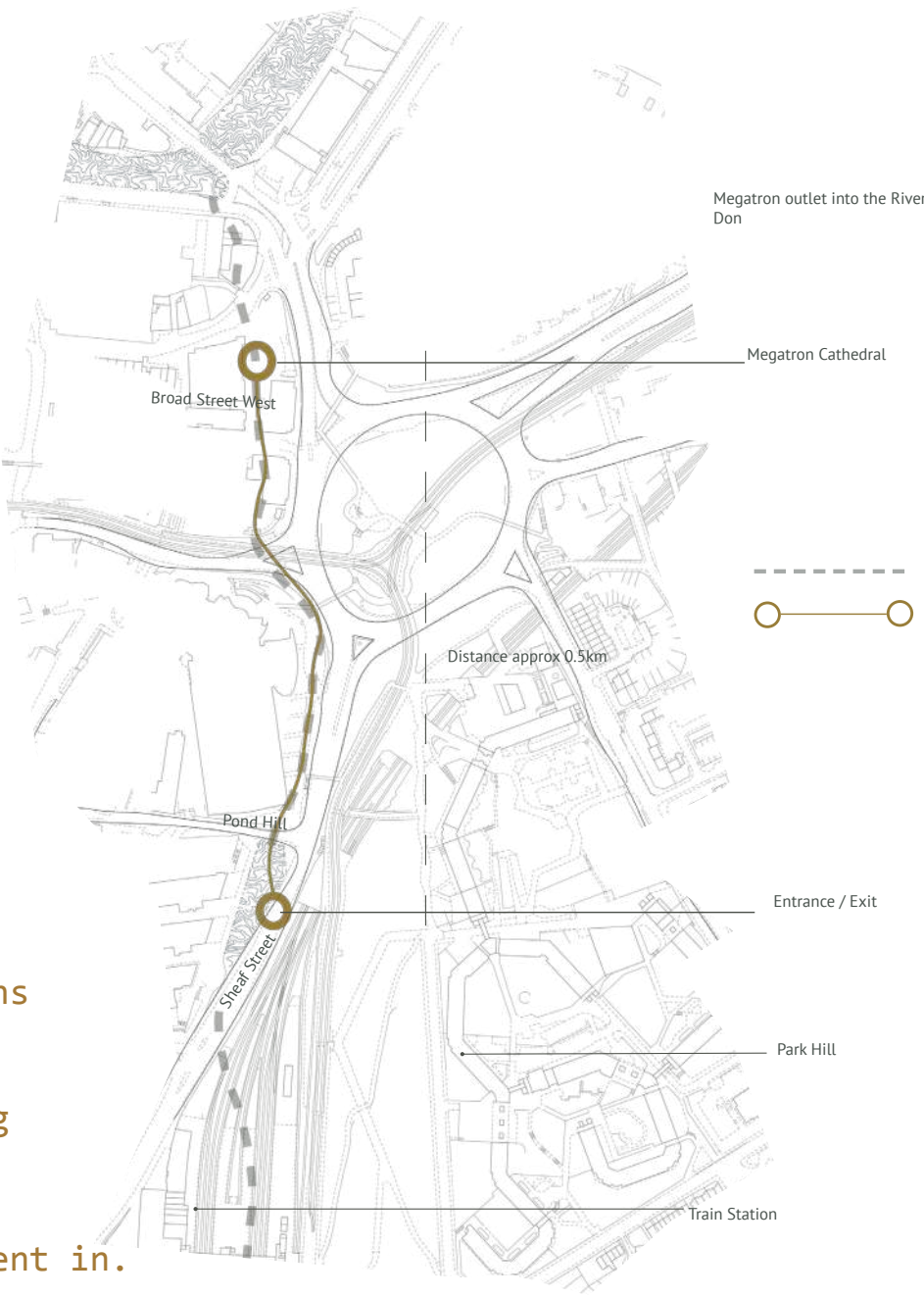


Rendered visual showing Intervention 3

“

Life is a series of mini resurrections  
[...] of collapses into the chaotic  
underworld; where you learn something  
profound and when you come back out,  
  
you're more than you were when you went in.

Jordan Peterson

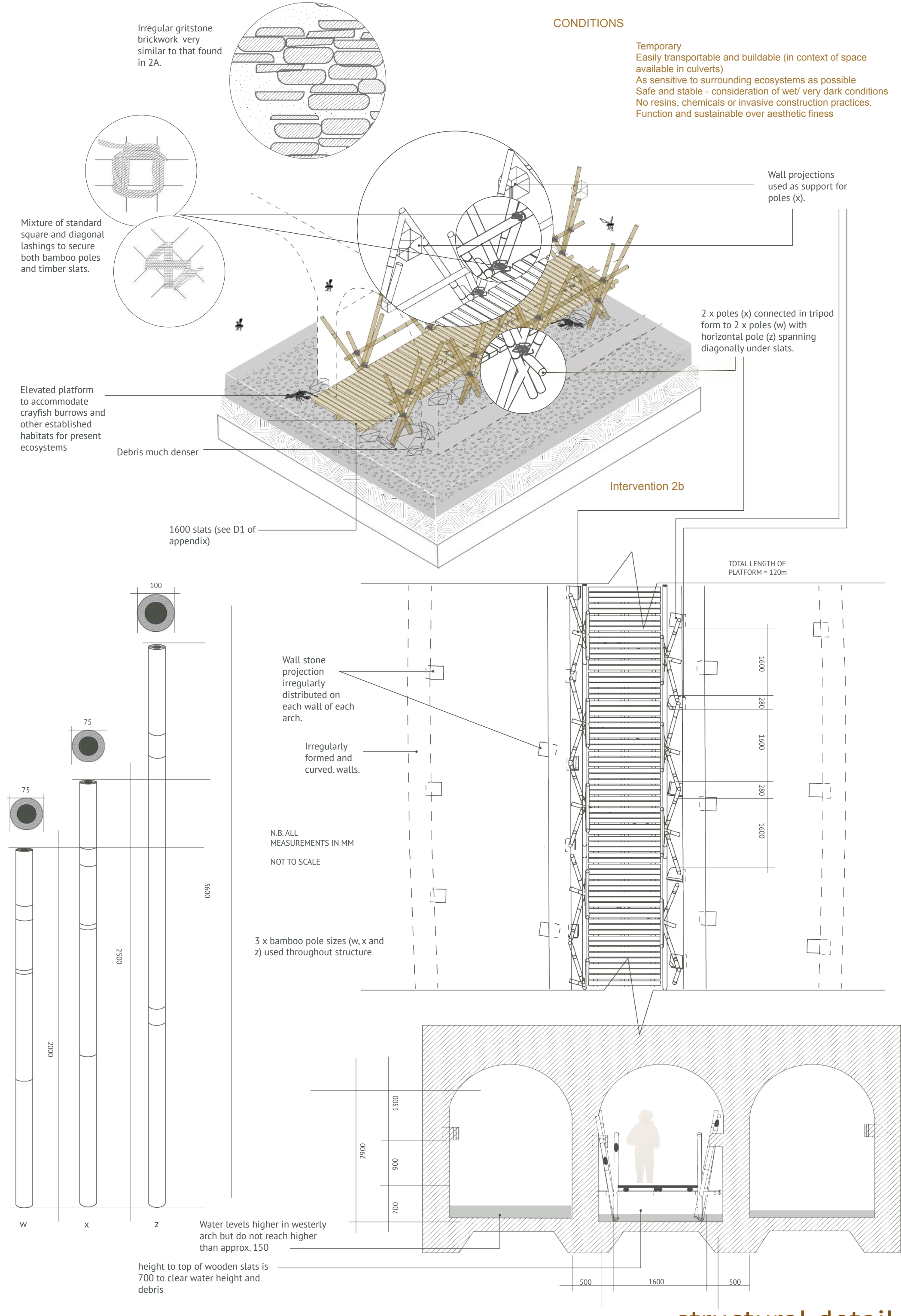
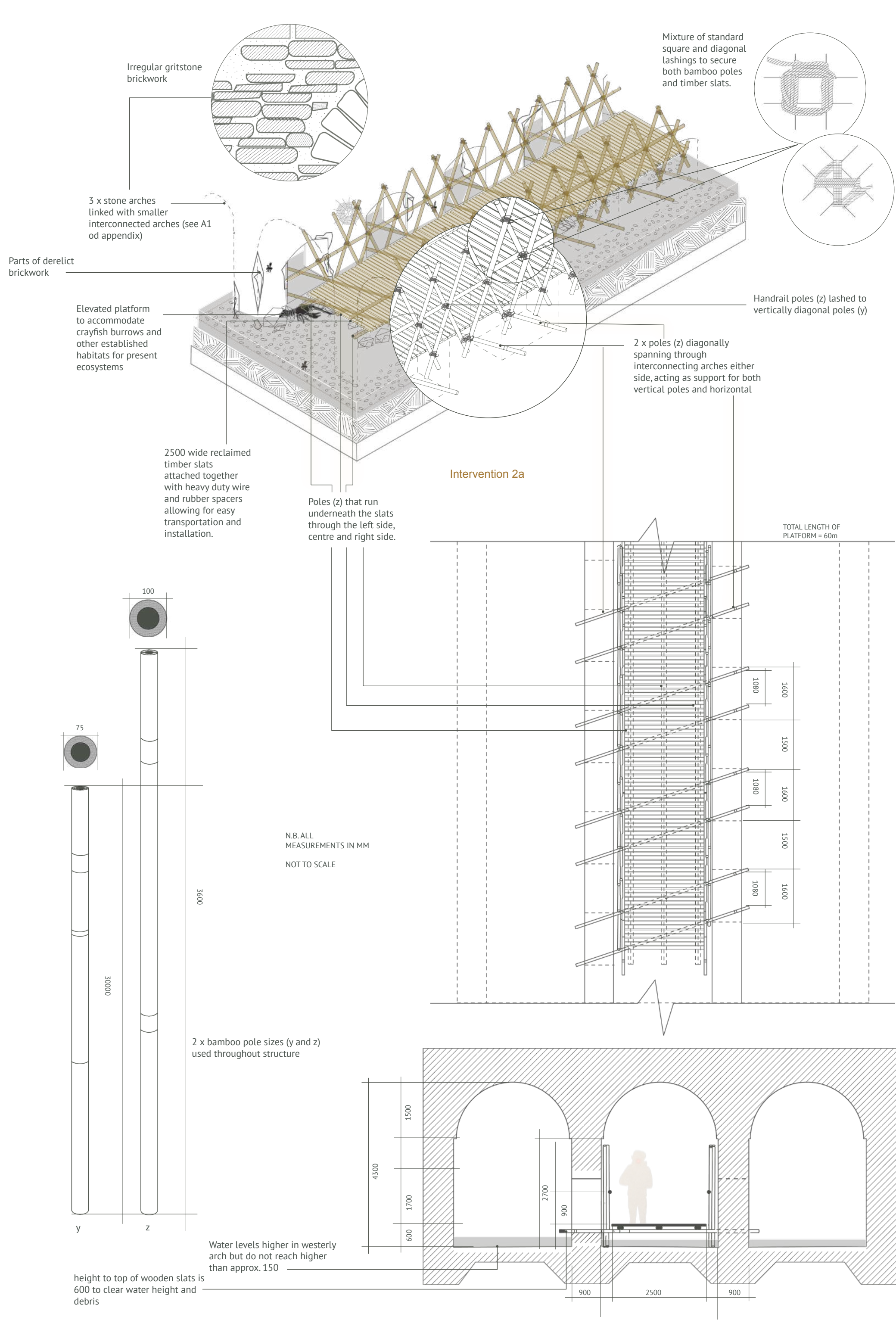


Guides for the installation that set the pace for the duration, interspersing themselves amongst the group.

Congruent with the eco-centric project philosophy, the noise and light pollution has been deeply considered, such that the sonically guiding sound piece will be played through in-built helmet headphones; and a small red LED light providing only an indicator of navigation, will act as a visible guide.

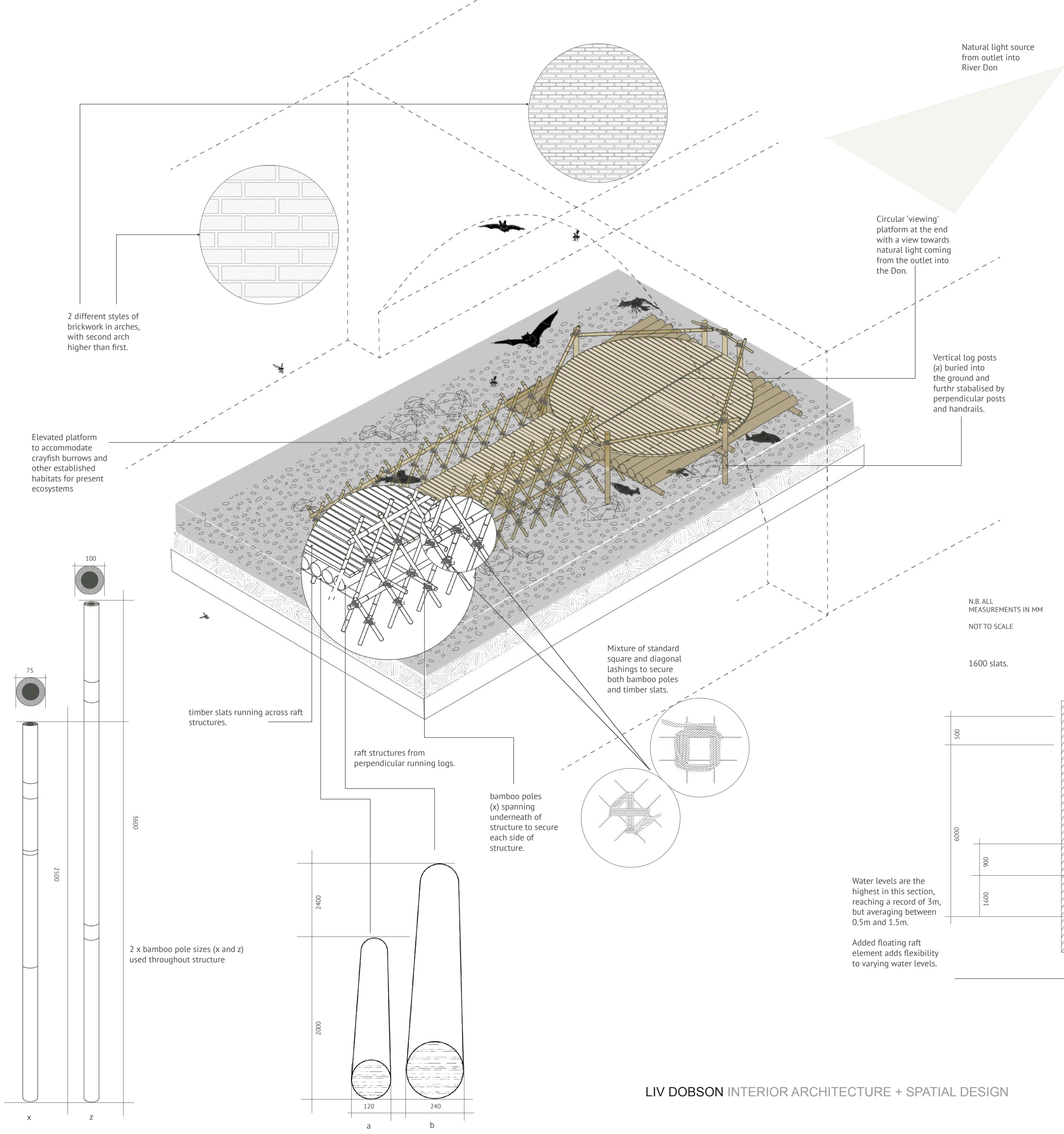
## CONCEPT + PROPOSAL





structural detail





### Intervention 3

#### CONDITIONS

The same for interventions 2a and 2b

Consideration of higher water levels - use of water for boyancy and support

