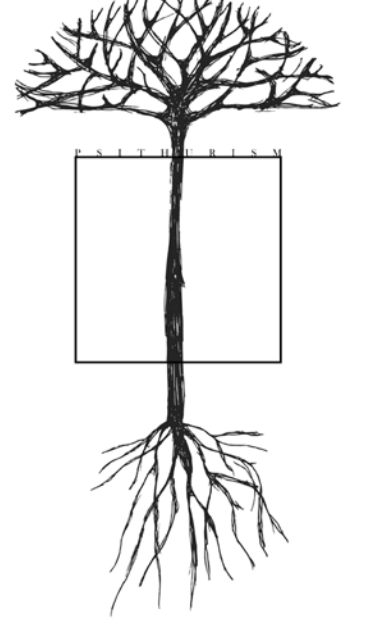


# Can architectural ruins be rewilded to encourage biodiversity?

## PSITHURISM



### PROJECT AIM:

To increase biodiversity and initiate steps to tackle the environmental crisis globally.

### Psithurism definition:

“Noun  
**Psithurism (plural not attested)** / (Obsolete) The sound of rustling leaves or wind in the trees.

### Etymology

An adaptation of the Ancient Greek ψιθύρισμα (psithúrisma) or ψιθυρισμός (psithurismós), from ψιθυρίζω (psithurízō, “I whisper”), from ψιθύρος (psithuros, “whispering, slanderous”).” (“Psithurism - Wiktionary” 2019)

## RESEARCH

“Biodiversity refers to the variety of living species on Earth, including plants, animals, bacteria, and fungi.”

Helps to mitigate natural disasters, a natural regulator of the climate, prevents diseases and limits pests. Our life quality will degrade if we don’t change (Directorate 2019).

## STATISTICS

“In the past 60 years, 60% of the Earth’s ecosystem has been degraded.”

Only 23% of species and 16% of habitats under the EU Nature Directives are in good health. (WWF 2020)

## QUOTES

“But after people are gone, the diversions will soon follow them.” (Stokland et al. 2012)

“There are 972 species whose numbers are in decline in Surrey” (Strudwick 2020)

## Concept

A Psithurism of hope. A selfless design regenerating biodiversity and educating for the future. This project doesn't just consider sustainability it embodies it. This concept is sustainable in word and action.

## Brief

Psithurism is a project that starts in **Clandon Park** in the ruins of the Palladian mansion, with hopes of expanding to further unused ruins. This space focuses on **revitalising the local flora and fauna** whilst tackling locally and globally the **biodiversity crisis**. Through **science, history, and education** the levels of this insertion actively combat the environmental damage we have caused as humans. The **main user becomes the animals, the plants**, and their needs through **re-wilding more than 50% of the building**. The other users then become the **scientist**, supporting the process and the **student**, learning for a better future.

## Strategy

The design stems from the strategy of **diminishing returns**. As the human insertion goes through the space from basement to 2nd floor more of the overall volume is given back to the animals. **4 main habitats, the noctis, aer, aqua and terra habitatus** have been constructed to facilitate observation and teaching, along with encouraging the species to return and colonise the space.



Perspective section AA’ - Nature half of the rewilded building 1. Aqua habitatus 2. Aer habitatus 3. Terra habitatus 4. Noctis habitatus



Perspective section BB’ - Human half of the re-purposed building 1. Science centre 2. History centre 3. Education centre 4. Social centre



Existing site



Basement floor  
- Science centre  
  
Re-use existing  
walls and floors



Ground floor  
- History centre  
  
Highlight existing  
features & design

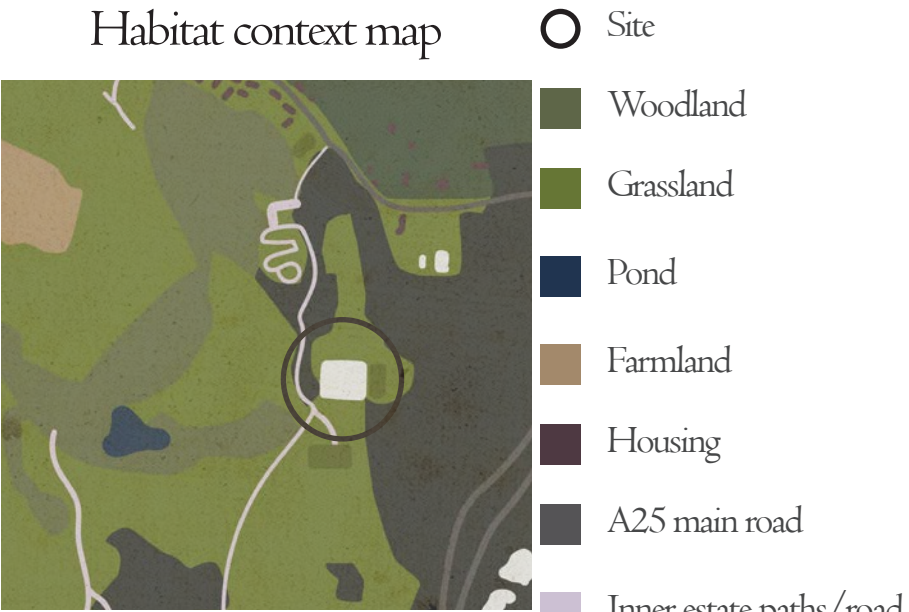
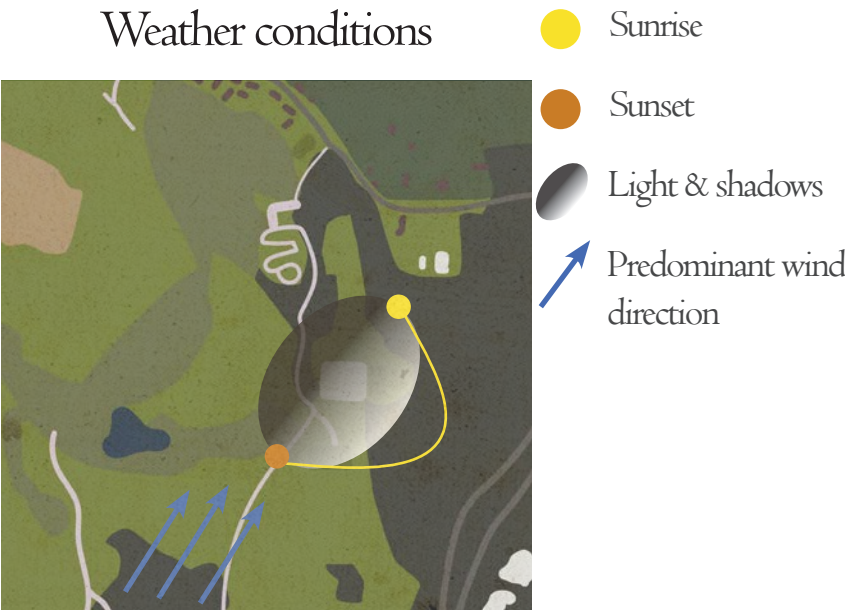
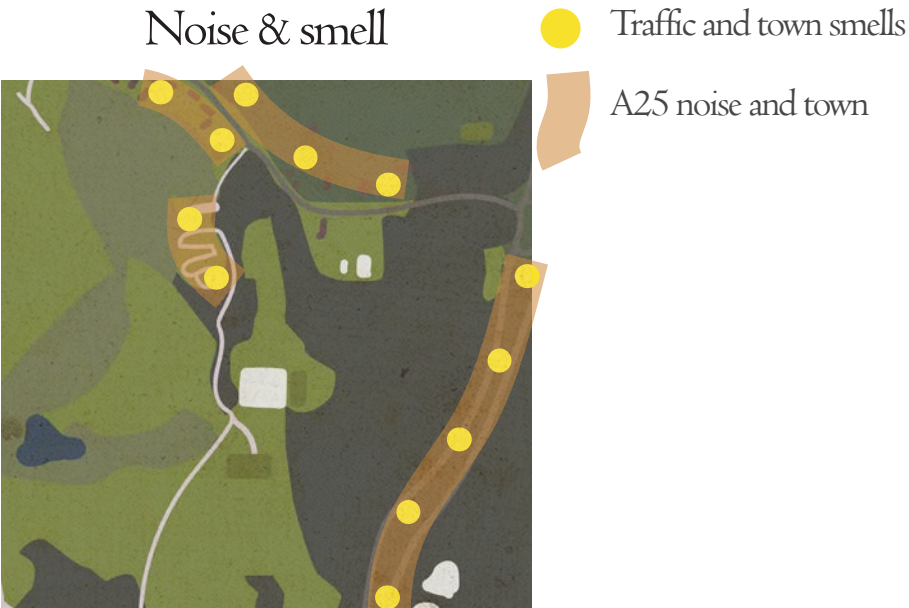


First floor  
- Education centre  
  
Inserting an energy  
efficient building

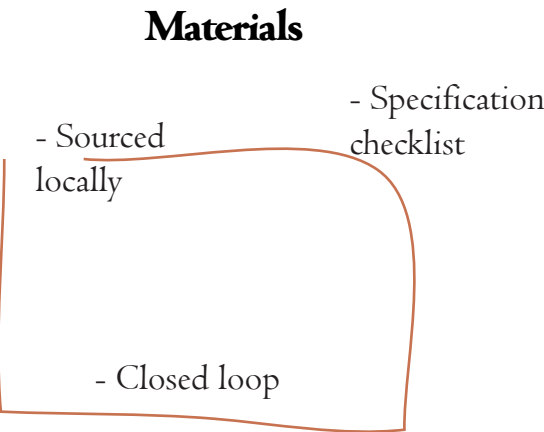
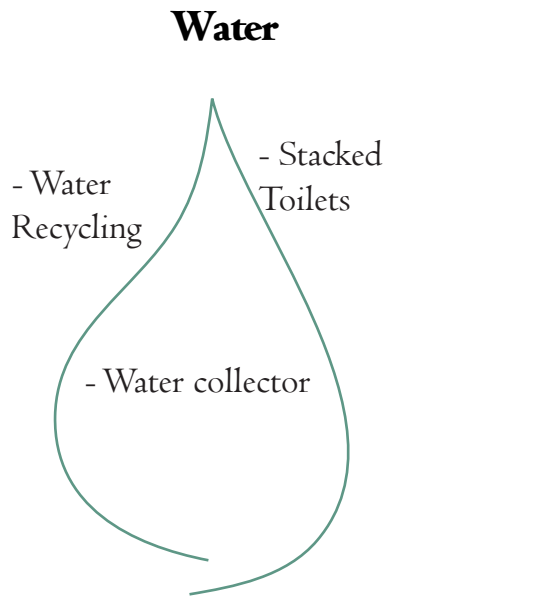


Second floor  
- Social centre  
  
Utilising natural  
lighting & ventilation

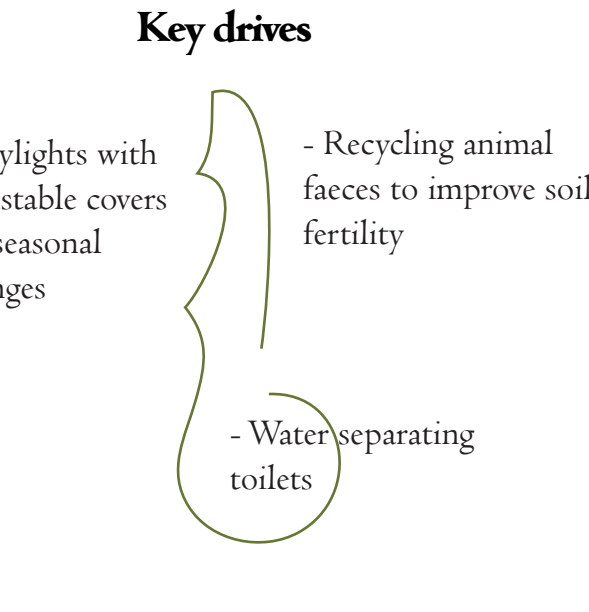
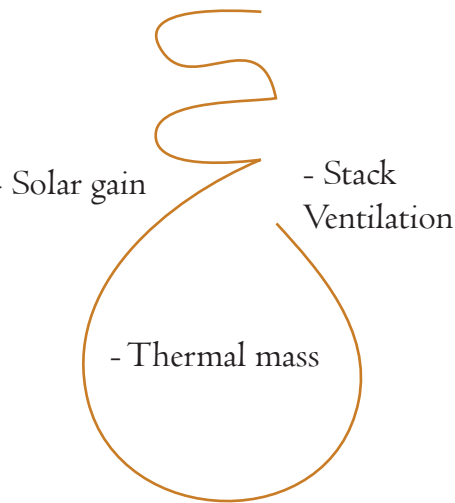
Site analysis



Sustainable strategies

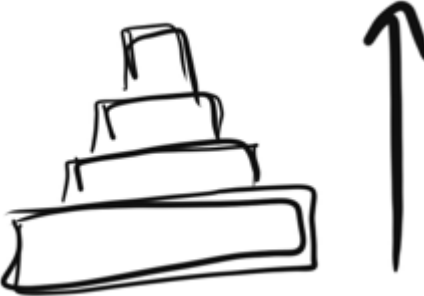


Energy - Passive design

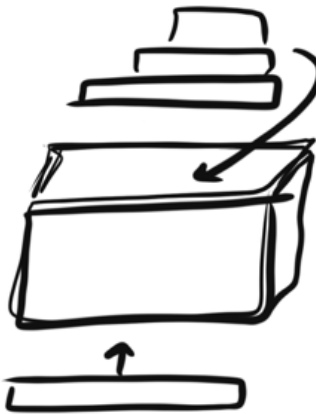


Concept diagrams

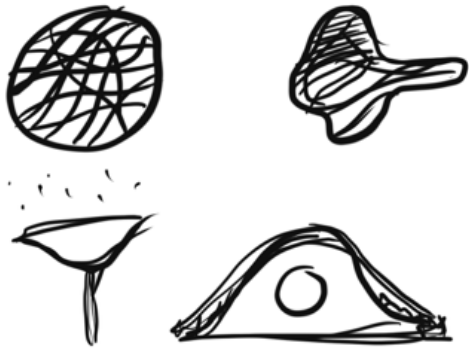
Diminishing returns  
Giving back to nature as you ascend



Adaptive re-use  
Inserting into the existing walls



Habitats  
4 habitats promoting diversity inspired by the elements



Extrusions  
Using paths and corten steel cut outs to unite human and nature



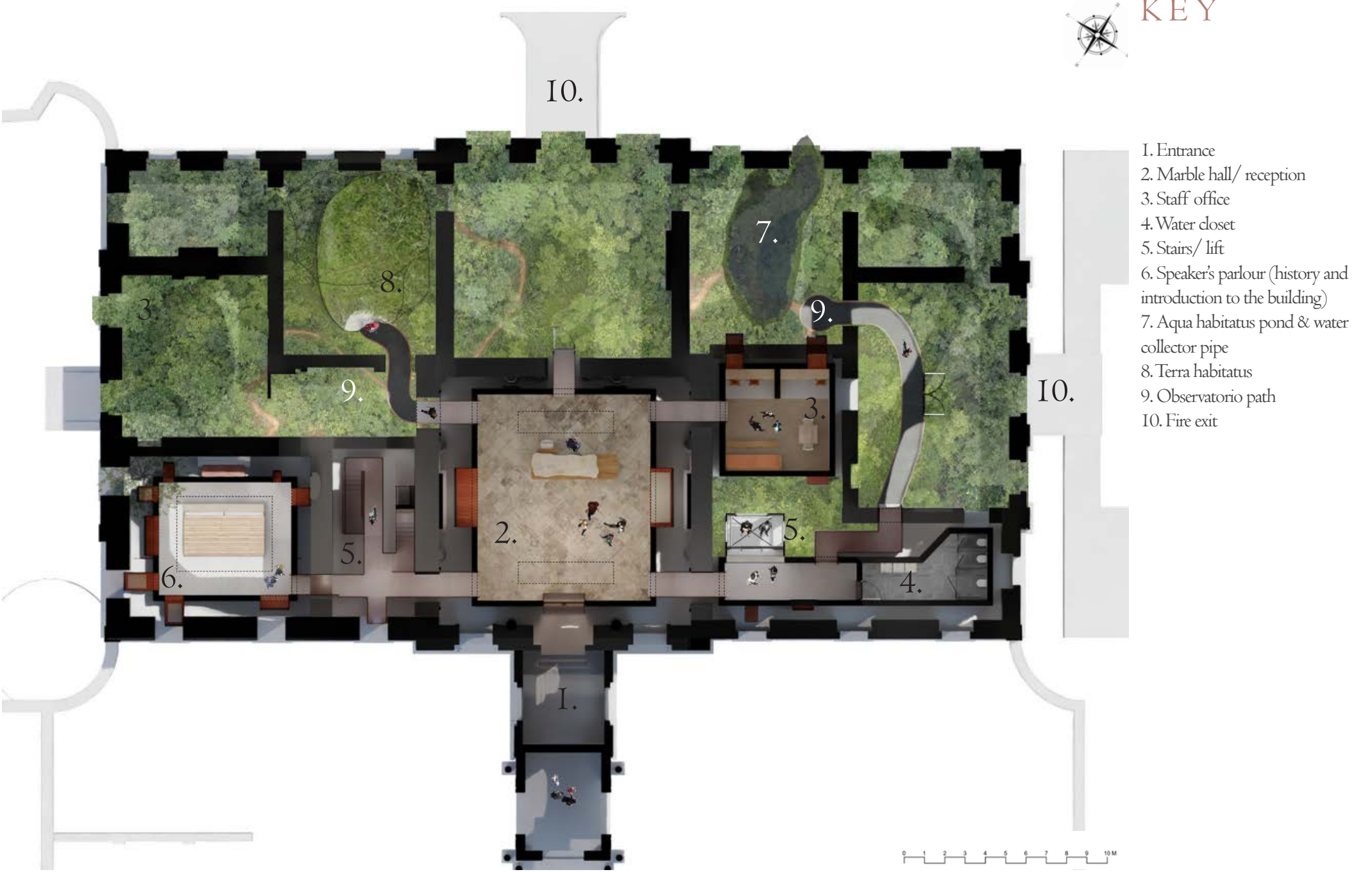




Basement floor plan - **Science centre** allowing progressive research into the biodiversity crisis.



First floor plan - **Educational centre** actively teaching children about biodiversity and the climate crisis



Ground floor plan - **History centre** respecting and educating on the building's importance.



Second floor plan - **Social centre** to reflect upon the knowledge gained from visiting psithurism.



Design

The atmosphere looks at **raw** materials (**brutalist** inspired) and **minimalistic** interiors to **maximise** the **sustainable consciousness** of the design, minimising material waste. **Contrast** between the **structured human insertion** and the **organic nature habitats** is defined creating a **harmonious juxtaposition**. **Coexistence** along with a selfless strategy approach includes all 3 users needs through adaptive re-use in the architectural ruins, **regenerating** the genius loci of a forgotten space.

The insertion uses **site lines** and **extrusions** to **frame** and celebrate the existing building and surrounding natural beauty.

The natural **growth** of the **plants** become the **canvas** and **personalisation** to the design. It is important the users focus on the **development** of the **flora and fauna** and **appreciate** the **importance** of the new building's **purpose**.

Over the years the space will **change, adapt and progress** with **seasons and steps in the right direction**. The **habitats** themselves become the **set and ever-changing architecture**, whilst the **animals** become the actors in the unfolding scenes.

Users



Animals, plants, specialists and children. This diverse space will offer a interactive, immersive and unique experience with nature.

Specialists: headquarters and labs & Animals: habitat pods & Children: classroom and activities



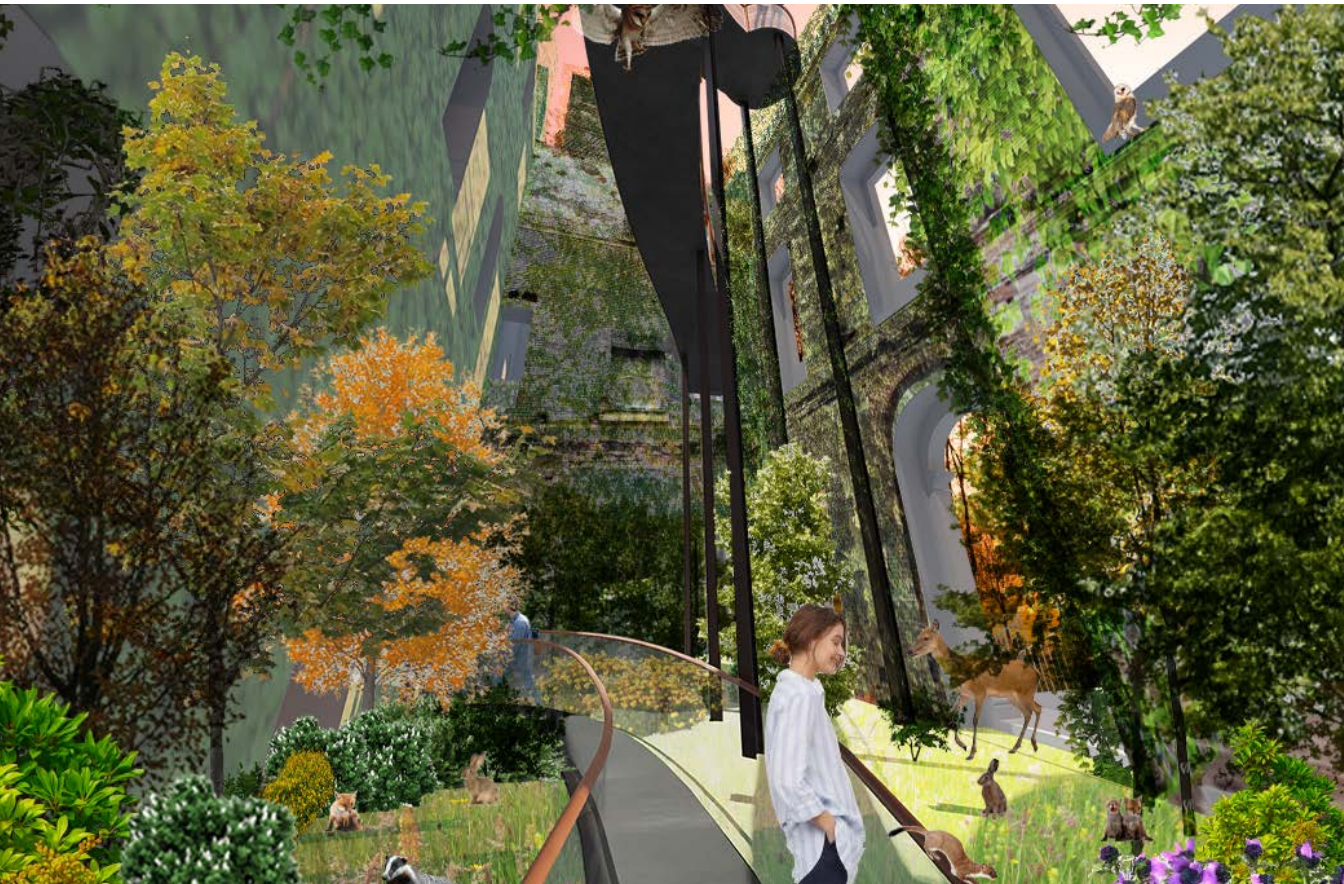
Speaker's parlour - (Ground Floor) Archives honouring the journey of Clandon park



Science ladder visual - (Basement) Climate activists meet and carry out action plans



Barlow classroom observatorio - (1st floor) Biodiversity is vertically growing and thriving



Observatorio path visual - (Ground floor) Full height view of the rewilded ruins





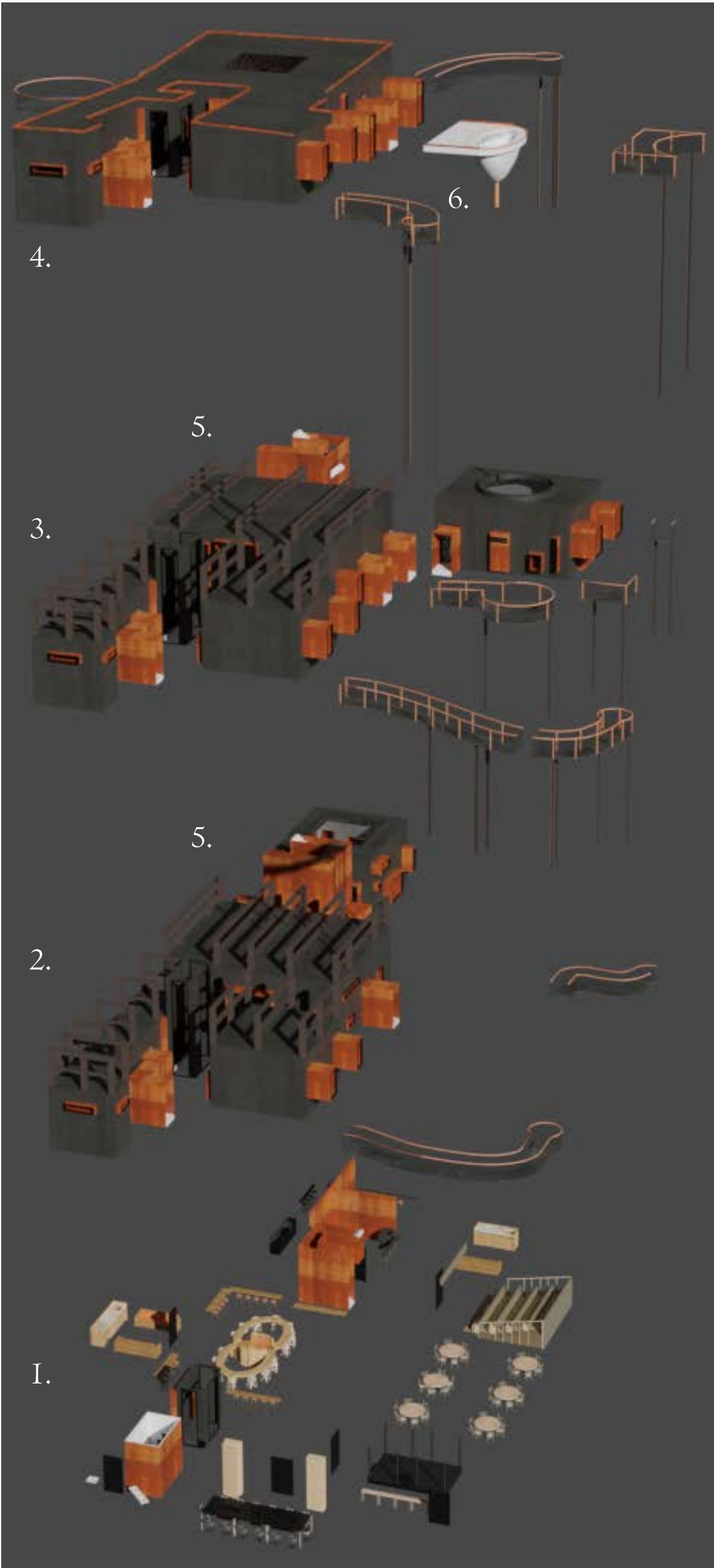
MASTER MOOD-BOARD

-Human= rectangles -Natural= circles

KEY

All materials are sourced locally and assembled on site by local employers.

- 1. Zinc: cladding panels (inserted walls exterior)
- 2. Bamboo (Aer habitatus sphere)
- 3. Richlite, heritage slate (Observatorio paths)
- 4. Hempcrete (Ceiling Aqua habitatus)
- 5. Clay flooring (speakers parlour, custom floor)
- 6. Lime plaster (interior wall lining)
- 7. Copper (rail)
- 8. Cork wood flooring (main flooring)
- 9. Carbon steel (window and doorway lining)
- 10. Plywood (Noctis habitatus layered pod)
- 11. Hempcrete (wall structure)
- 12. Clay (Terra habitatus)
- 13. Locally sourced wood (communal desks)
- 14. Variety of selected textile colours



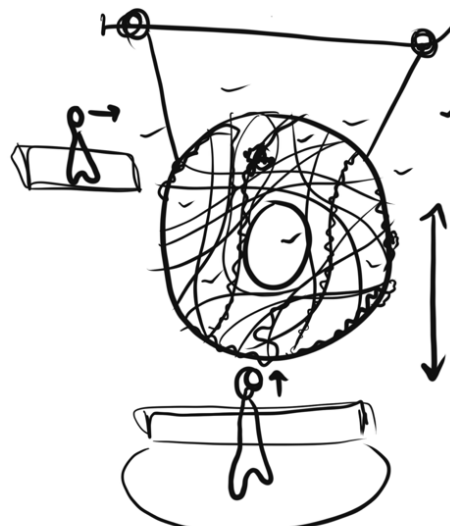
Terra Habitatus - inspired by mole hill



Aqua Habitatus - inspired by water cycle



Noctis Habitatus - inspired by bat cave



Aer Habitatus - Inspired by birds nest

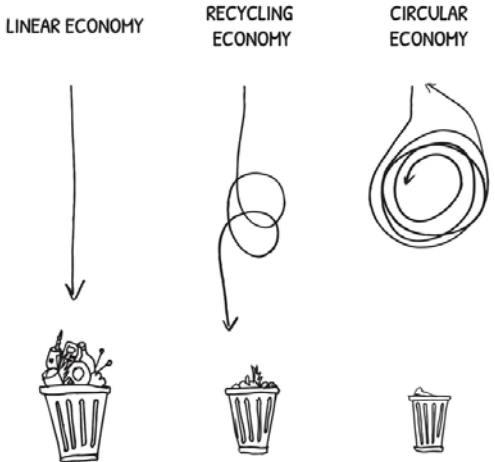
Renewable energy



“Reduce the impact of a project”

- Grey & black water recycling
- Rainwater harvesting for the science centre
- Angled roof for gathering water
- Solar panels (South facing 30 degree pitch)
- Sensor lighting system
- Water separating toilets

Circular economy



“The most sustainable building is one that exists.”

- Adaptable flexible spaces (meeting room can be split into 3 rooms)
- Re-using materials from the site (flooring and walls)
- Insertion designed to be assembled and dissembled for better transport and lifespan
- Donating unused materials

Biodiversity



“As people who work with buildings we are required to look after species that may live locally.”

- Accommodating well-being and mental health
- Green walls and water quality
- Understanding local weather to maximise resilience of flora

SUSTAINABILITY

*“The truth is: the natural world is changing. And we are totally dependent on that world. It provides our food, water and air. It is the most precious thing we have and we need to defend it.”*  
(Attenborough, 2012)

Acting upon the environmental impact of this project was **vital**.

**Economic:** Promotes growth for local economy. Sourcing local materials and labour to support businesses.

**Social:** Aids social longevity educating people on how to improve and act on the crisis. People can escape fully connecting to nature helping mental health

**Environmental:** Directly promoting a biodiversity sanctuary harbouring and instigating re growth of a variety of species which are threatened.

AXONOMETRIC KEY

- 1. Basement - Science centre (for the now)
- 2. Ground floor - History centre (for the past)
- 3. First floor - Education centre (for the future)
- 4. Second floor - Social centre (for longevity)
- 5. Support beams to minimise material waste and to allow natural lighting and ventilation.
- 6. Water collector



CLIMATE ACTION



QUALITY EDUCATION



GOOD HEALTH AND WELL-BEING



SUSTAINABLE CITIES AND COMMUNITIES



AFFORDABLE AND CLEAN ENERGY



INDUSTRY, INNOVATION AND INFRASTRUCTURE



REDUCED INEQUALITIES



LIFE ON LAND



CLEAN WATER AND SANITATION