

BIO MADE

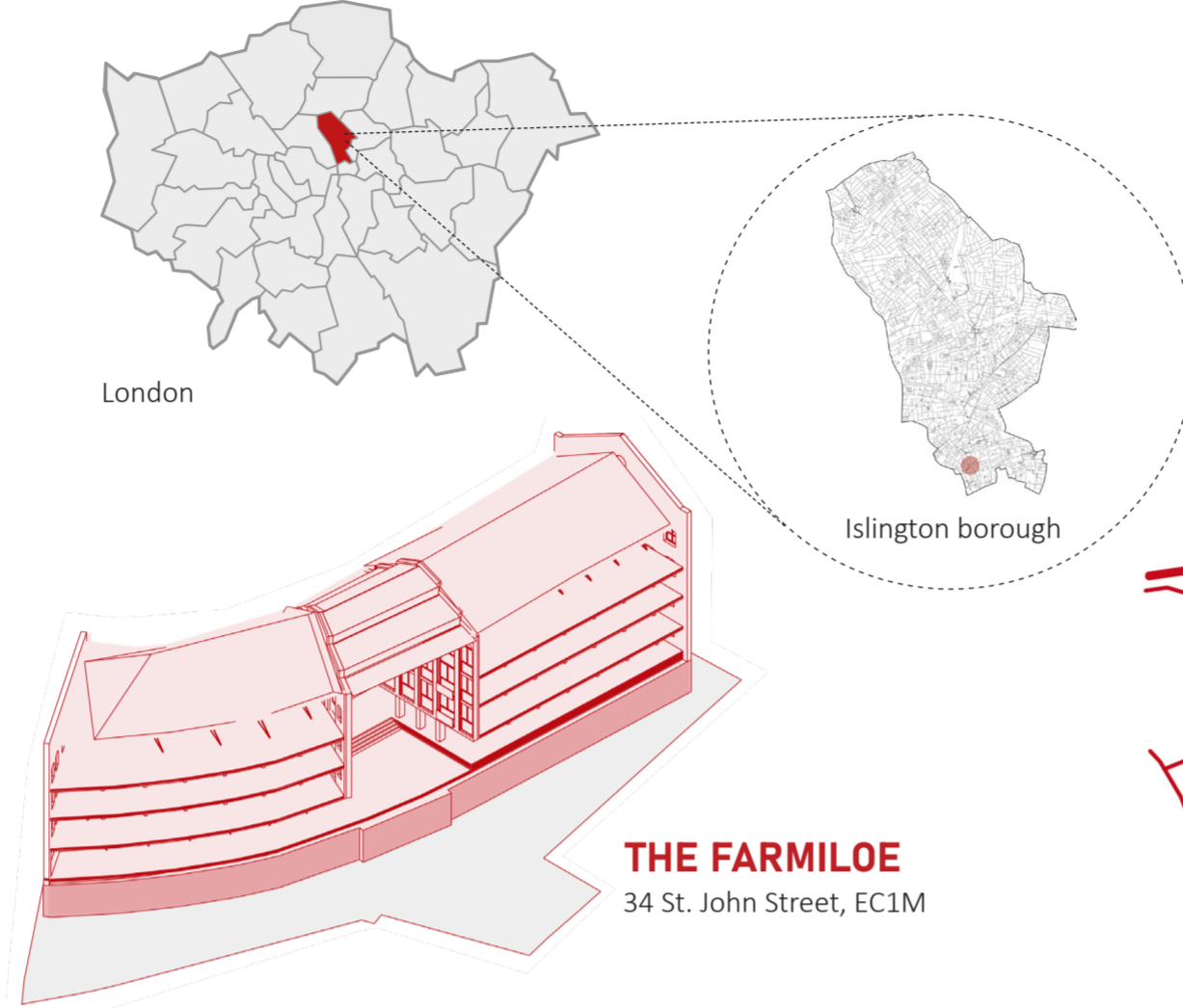
BIO TEXTILES DESIGN CENTER | EXHIBITION SPACE

The textile industry is one of the most polluting in the world, accounting for 10% of global CO2 emissions. The majority of our garments are made in underdeveloped countries where environmental laws are weak or non-existent. Conventional manufacturing methods are highly toxic and harmful to human health and the environment.

Bio-design has the potential to change the way our clothes are sourced, produced, and consumed by incorporating living organisms to make biodegradable garments that require minimal raw materials, toxins or water. Its development is crucial for expanding its applications beyond fashion to other sectors such as architecture, medical, etc.

BIO MADE aims to foster innovation, raise awareness, and promote sustainability. The redevelopment of the Farmiloe building, includes exhibition spaces, a pop-up shop, and accessible facilities for the creative industries, comprised of studios, workshops, and laboratories.

Site Location



THE FARMILOE
34 St. John Street, EC1M

THE ENVIRONMENTAL IMPACT OF FASHION



RESOURCES

5 trillion liters of water are used by the fashion industry each year.



POLLUTION

Toxic chemicals are used in the manufacturing process, such as in fabric dyeing and treatments.



WASTE

Polyester, the most used fiber in garments takes up to 200 years to decompose.

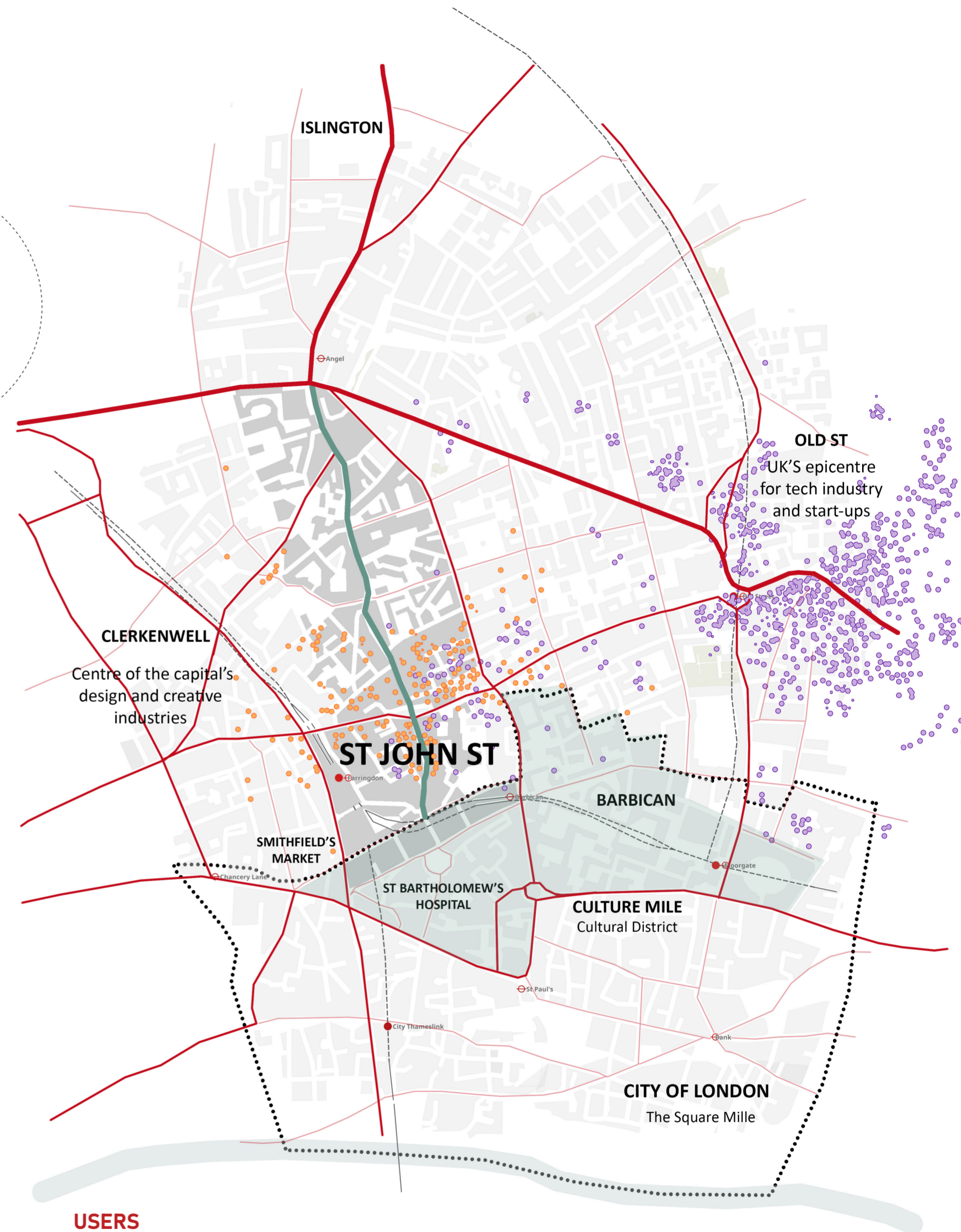
THE AREA



CREATIVES & START-UPS
The site is in close proximity to Clerkenwell, with a high concentration of design businesses and start-ups close to Old St roundabout.

SHOWROOMS
Over 80 showrooms of textiles, furniture and interiors span along St John St and Clerkenwell Rd.

CULTURE MILE
Aims for the area to become a hub of creativity and innovation.



ISLINGTON

OLD ST
UK'S epicentre for tech industry and start-ups

CLERKENWELL
Centre of the capital's design and creative industries

ST JOHN ST

BARBICAN

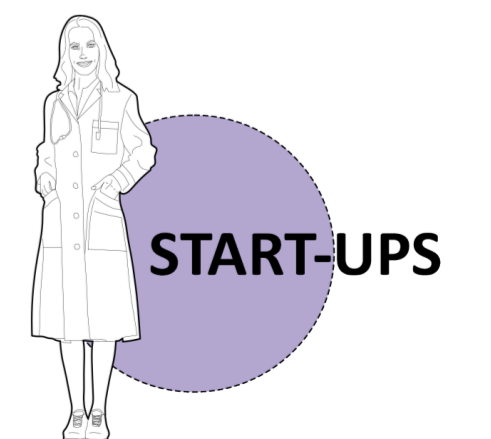
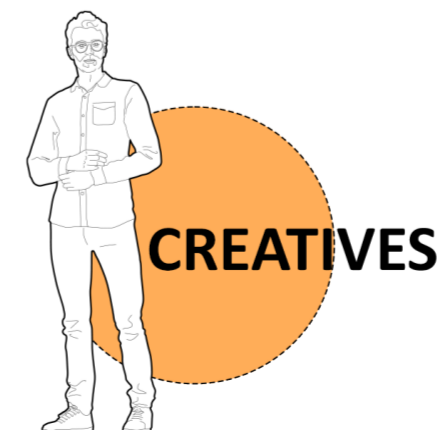
SMITHFIELD'S MARKET

ST BARTHOLOMEW'S HOSPITAL

CULTURE MILE
Cultural District

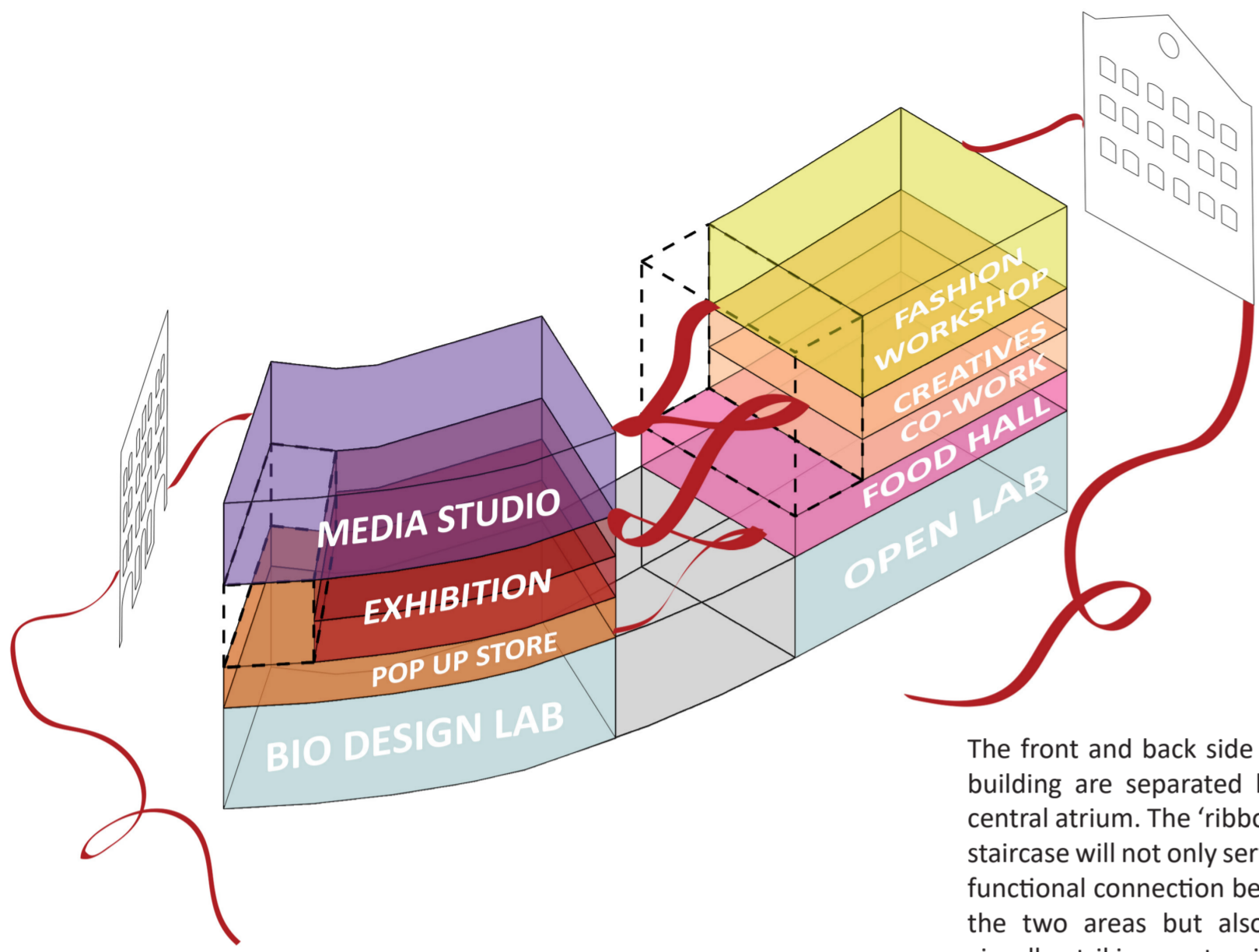
CITY OF LONDON
The Square Mile

USERS



THE BUILDING

CONCEPT

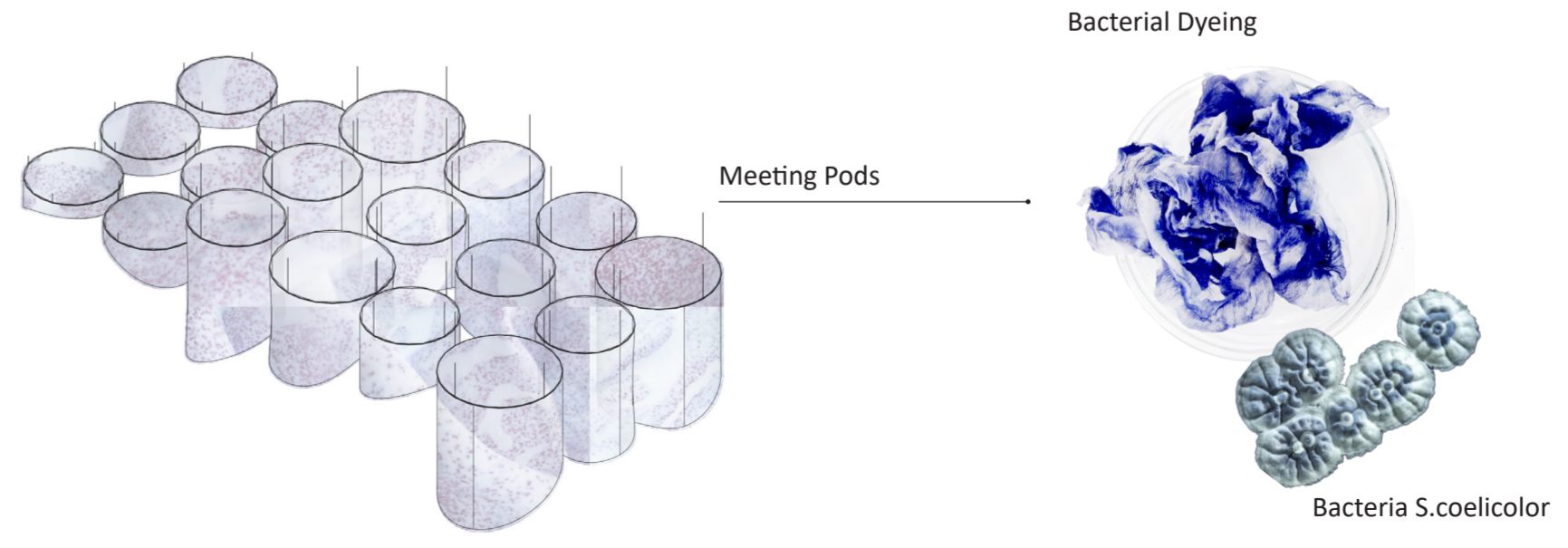


The front and back side of the building are separated by the central atrium. The 'ribbon' like staircase will not only serve as a functional connection between the two areas but also as a visually striking centerpiece of the building's design.

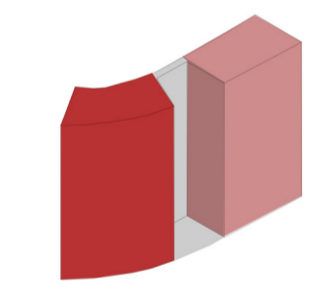


Working with microorganisms to address environmental issues and shift to sustainable means of production.

Bacteria *S.coelicolor* generates pigment molecules that can attach themselves to fibres without the use of chemicals.

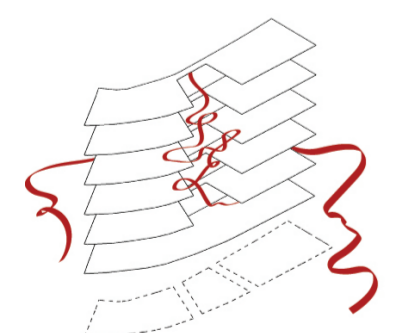


MASSING



The site is divided into three parts

CONNECTED

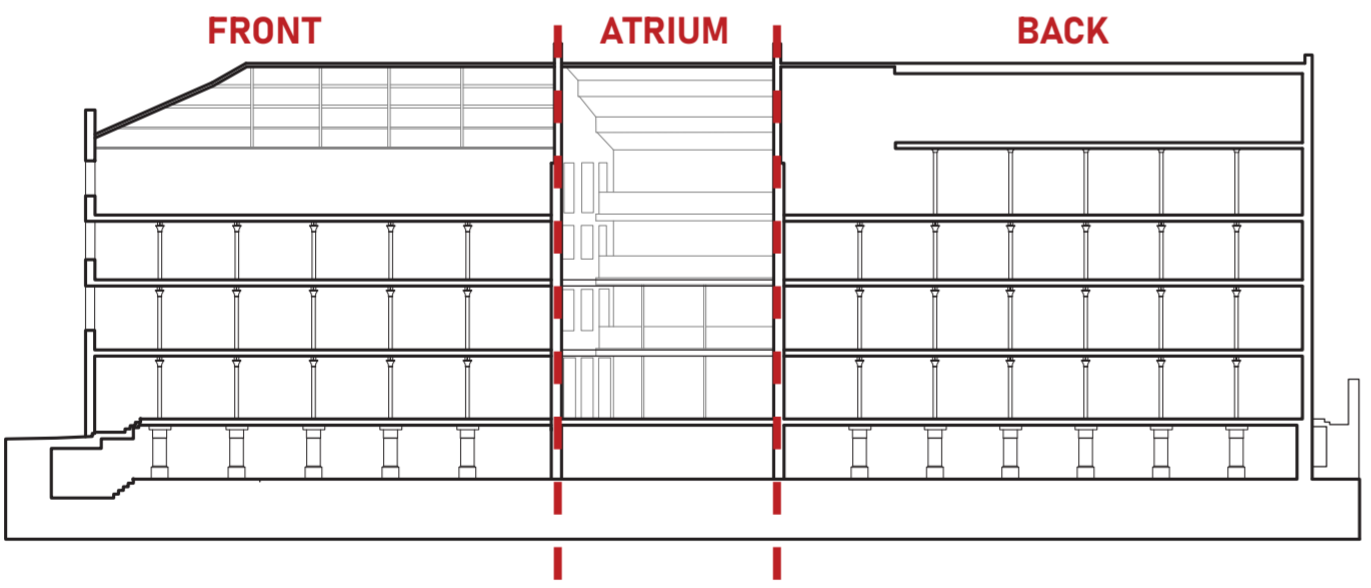


BY A RIBBON



The Atrium - Internal Courtyard

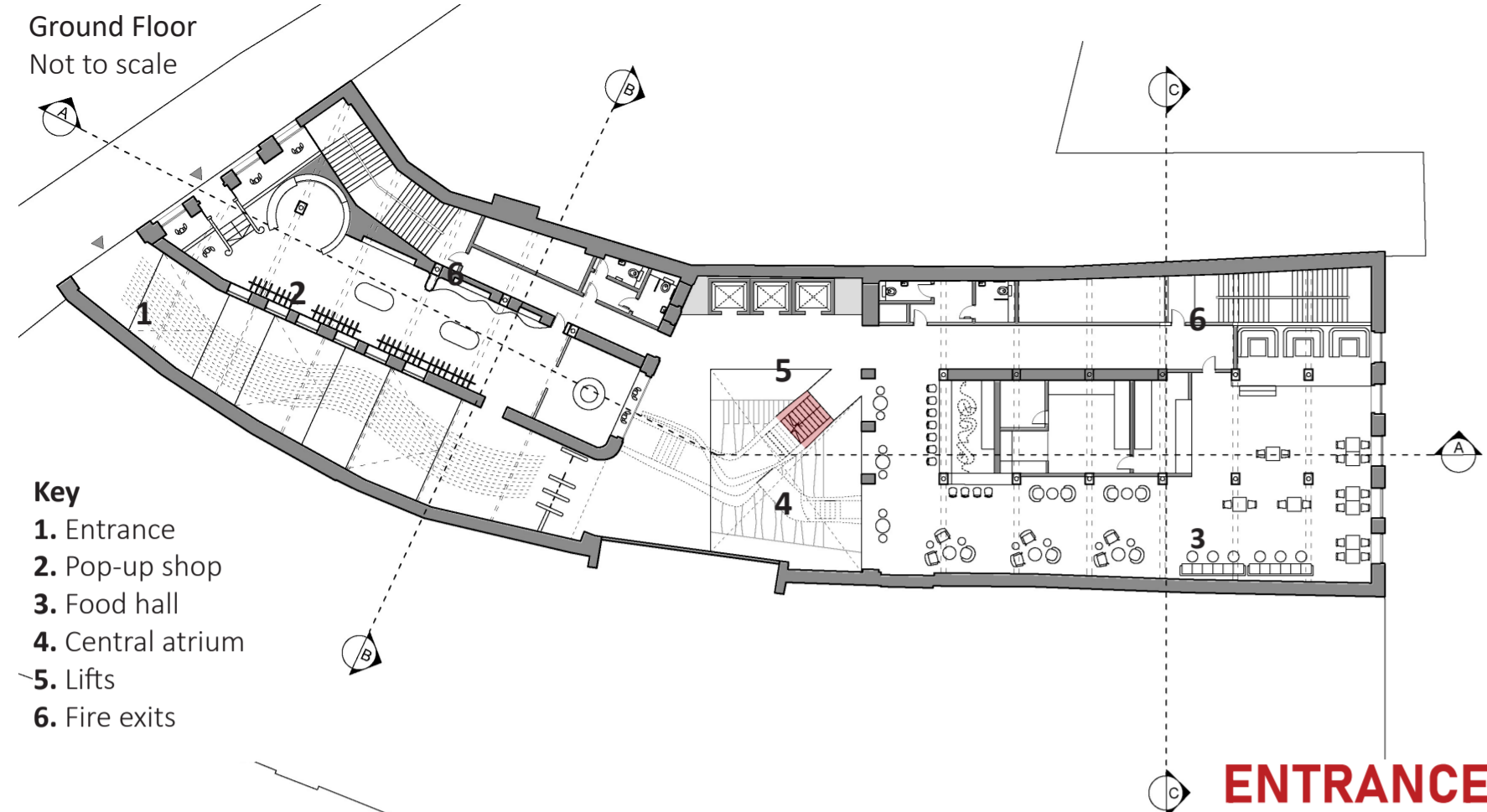
Long Section
Not to scale



Short Section
Not to scale



PROPOSAL



The ramped entrance features a bio fabric ceiling installation leading visitors into the central atrium.

POP-UP

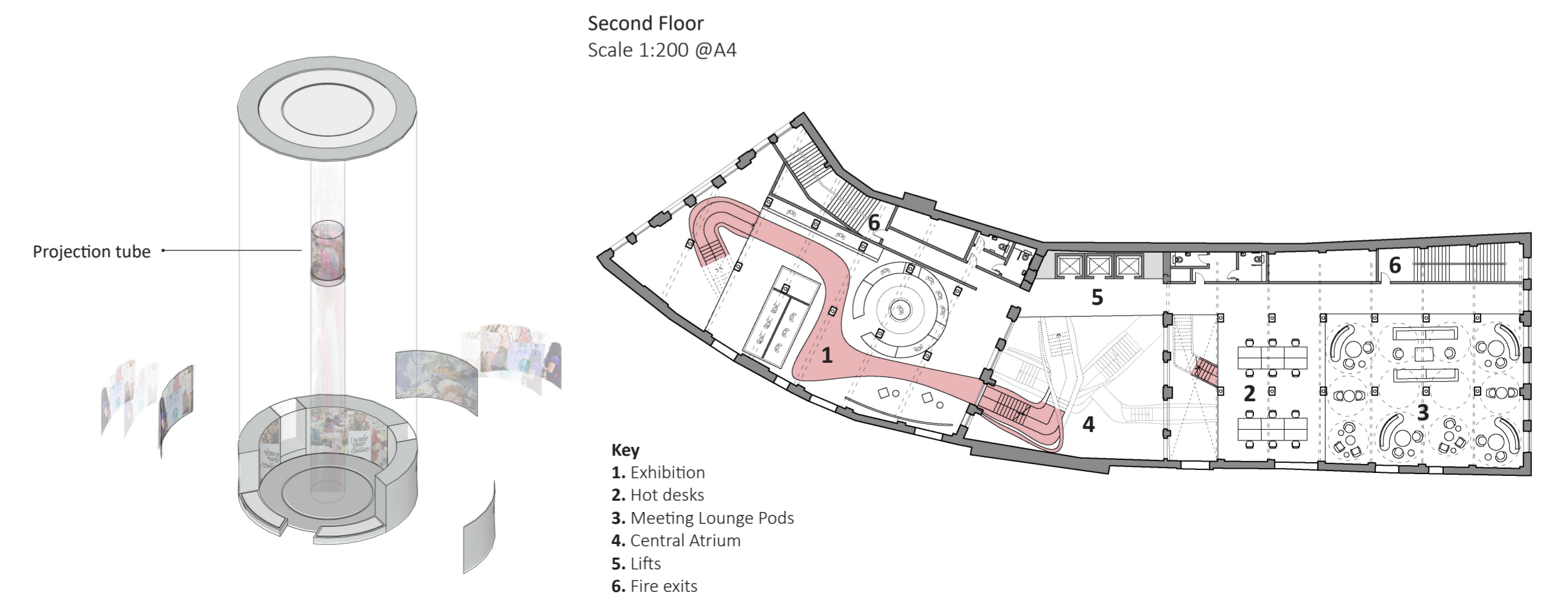


The pop-up shop is where bio garments produced in house are put on sale, appealing to the creative industries of the area.

EXHIBITION



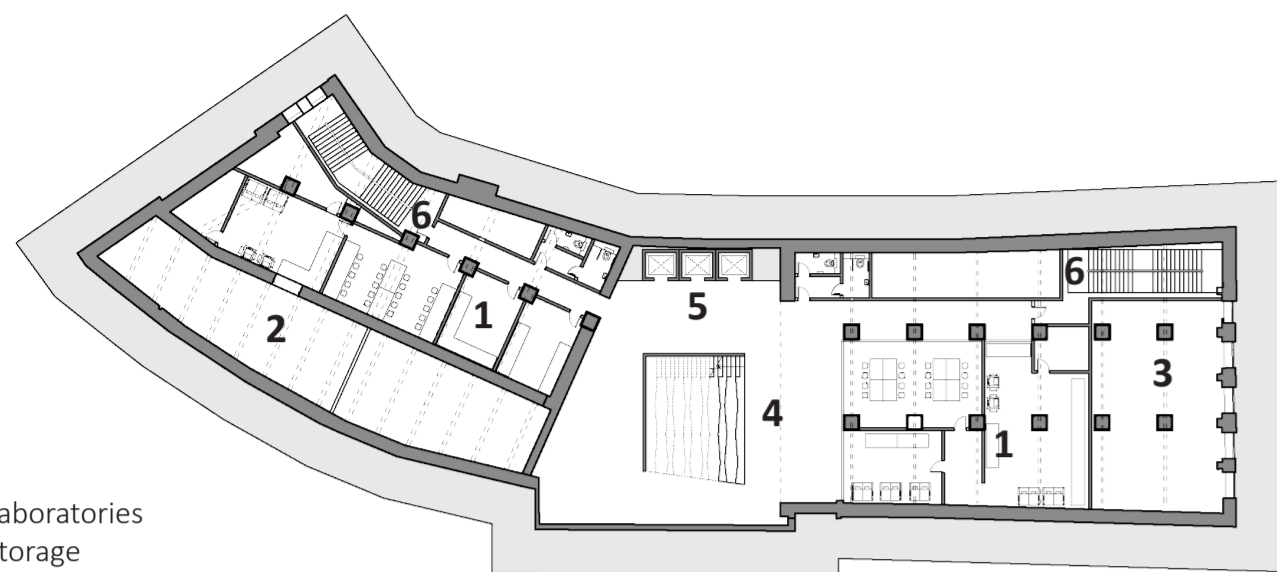
Interactive displays raise awareness as visitors are encouraged to rethink their relationship with fashion and consider sustainable choices



BIODESIGN FACILITIES

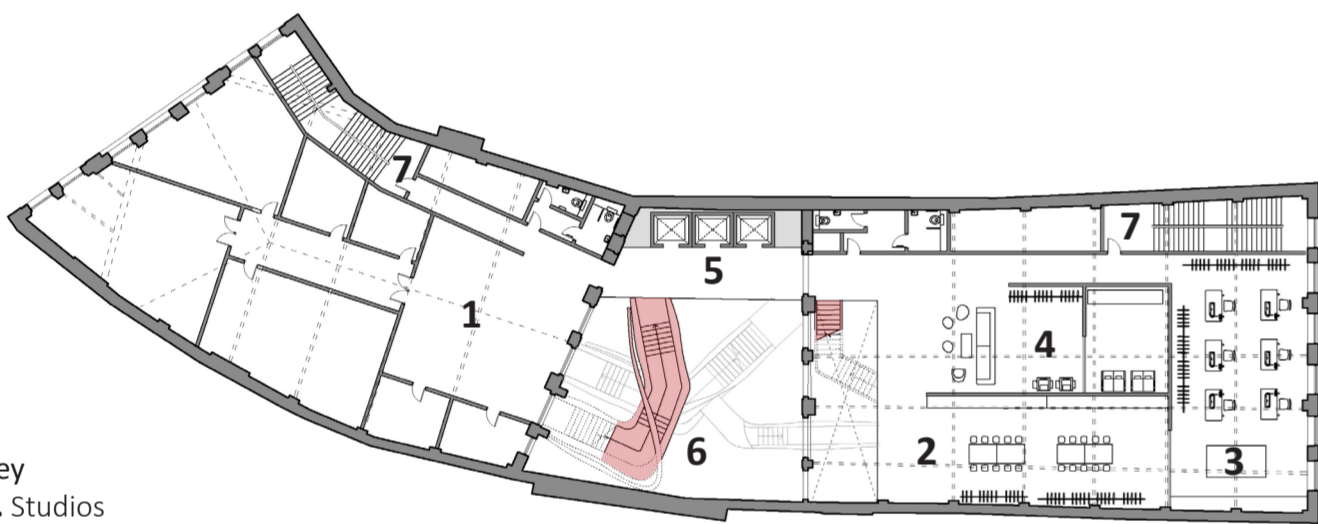
GROW LAB

Basement
Scale 1:200 @A4



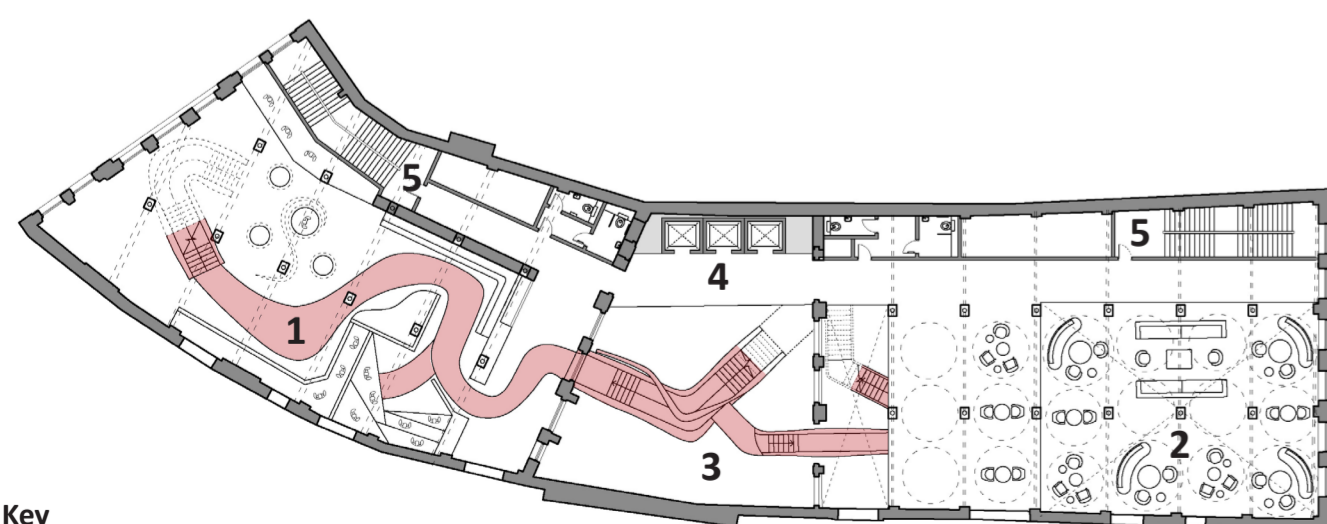
- Key**
- 1. Laboratories
 - 2. Storage
 - 3. Plant room
 - 4. Stair seating
 - 5. Lifts
 - 6. Fire exits

Third Floor
Scale 1:200 @A4

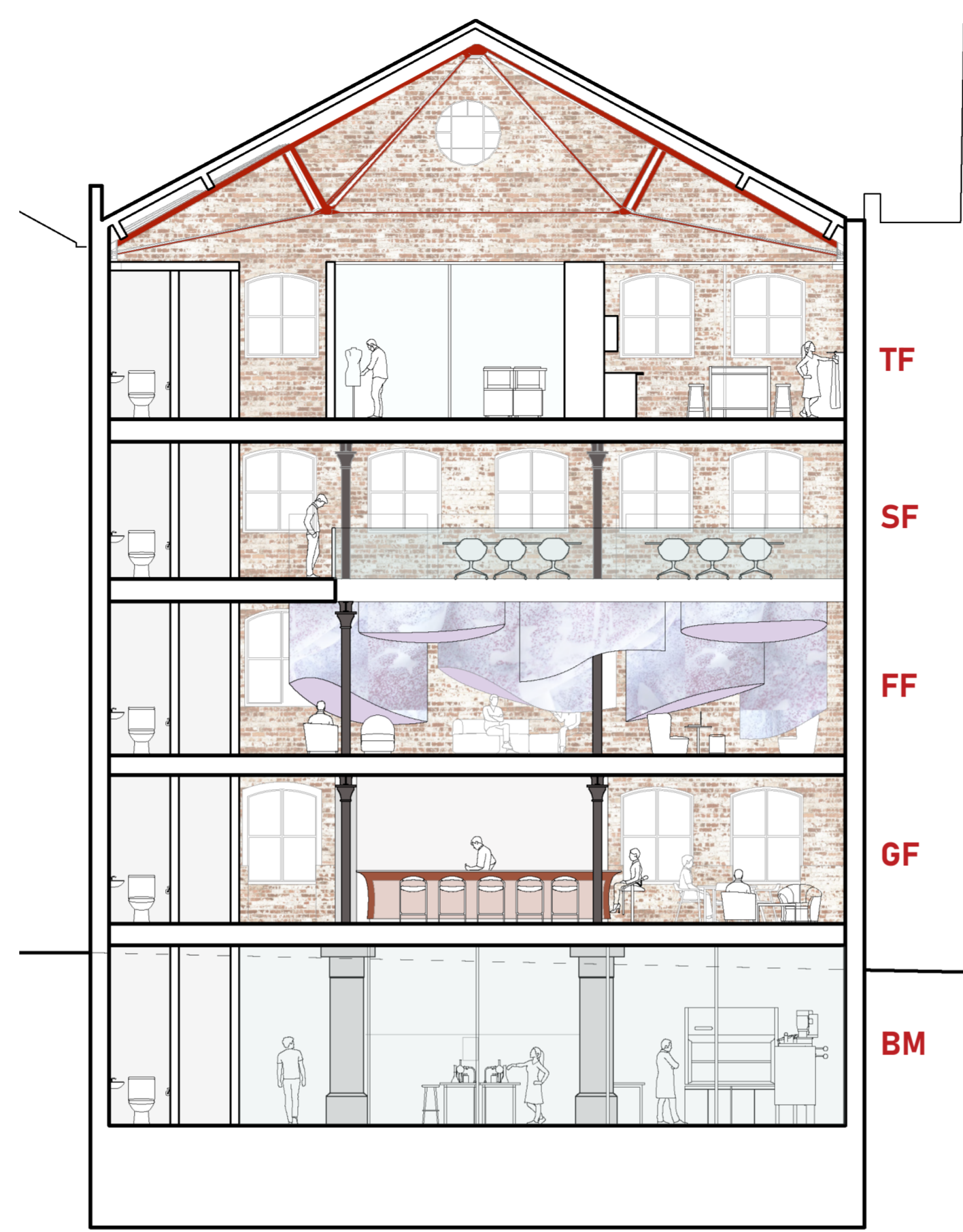


- Key**
- 1. Studios
 - 2. Pattern cutting
 - 3. Sewing area
 - 4. Printing
 - 5. Lifts
 - 6. Central Atrium
 - 7. Fire exits

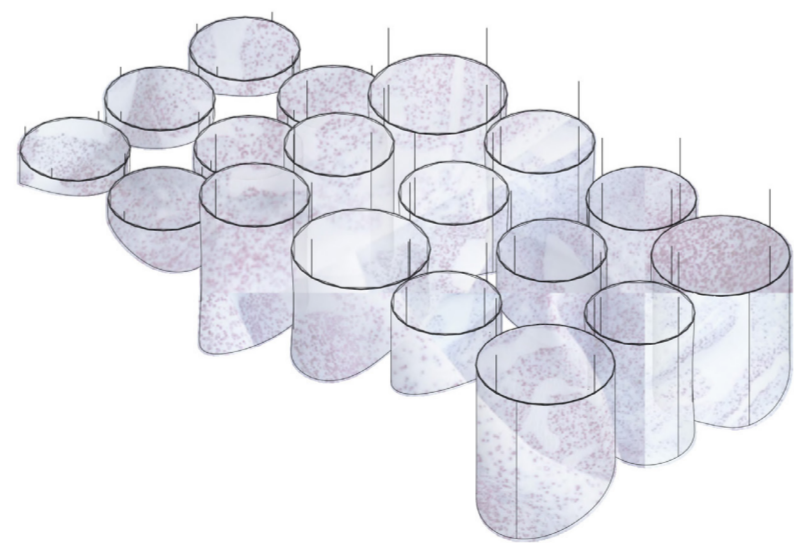
First Floor
Scale 1:200 @A4



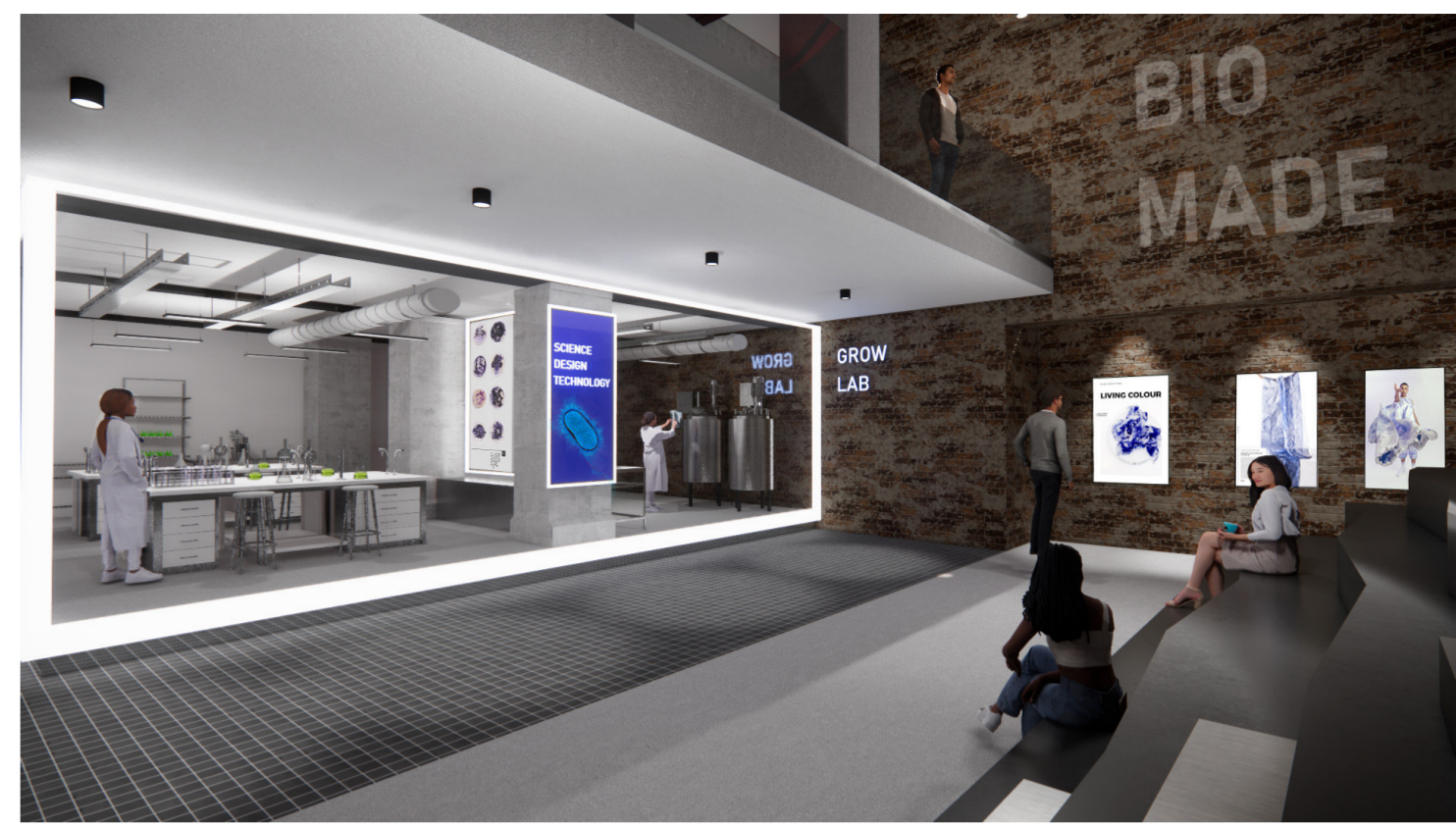
- Key**
- 1. Exhibition
 - 2. Meeting Lounge Pods
 - 3. Central Atrium
 - 4. Lifts
 - 5. Fire exits



Section CC
Scale 1:100 @A3



Bio fabric meeting Pods



The lab becomes part of the exhibition, the glazed walls allow visitors to see the collaboration between science and design.

FASHION WORKSHOP



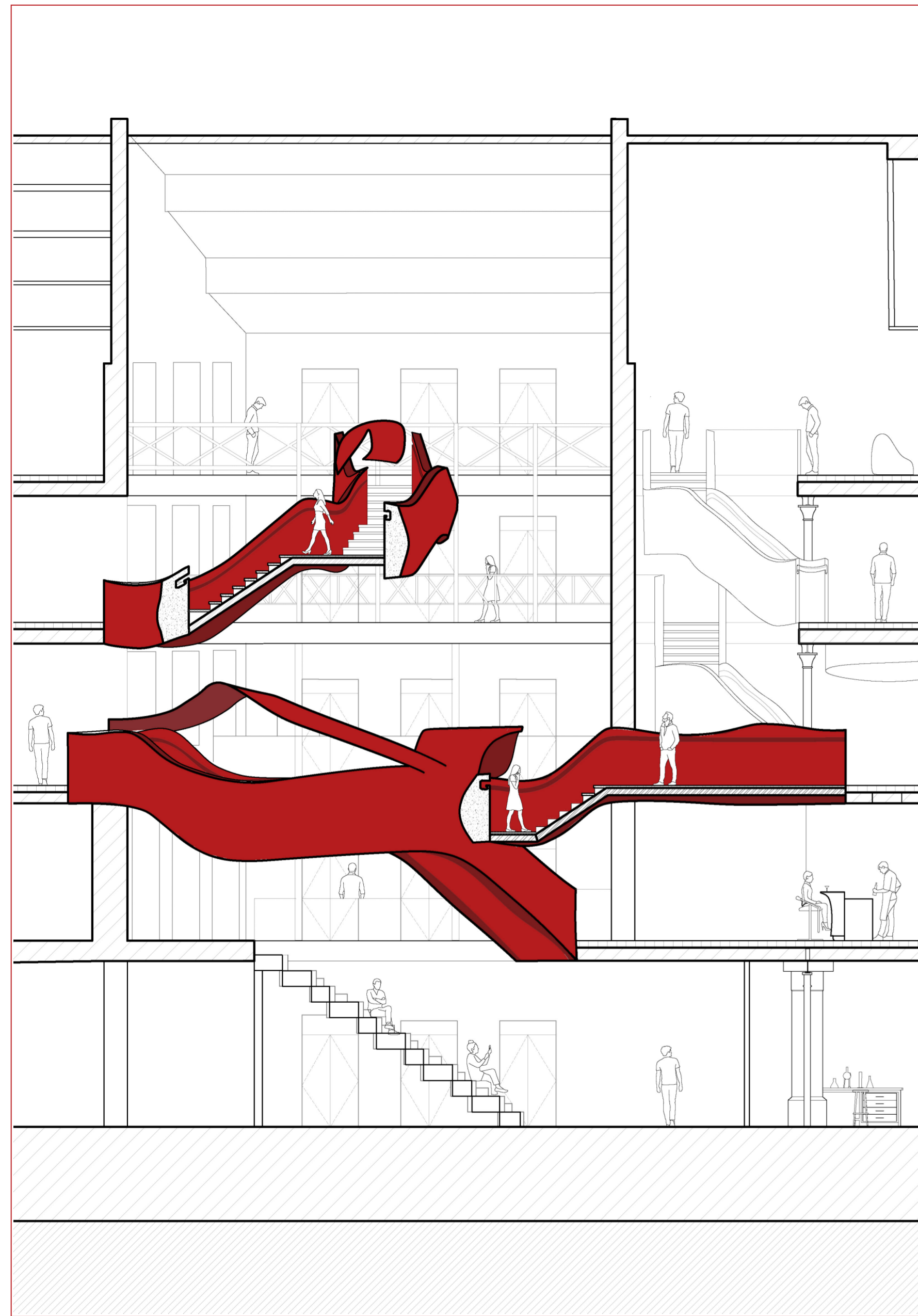
The shared facility is a dedicated space for designers to create, with areas for pattern cutting, printing, and sewing

BIO MEETING PODS



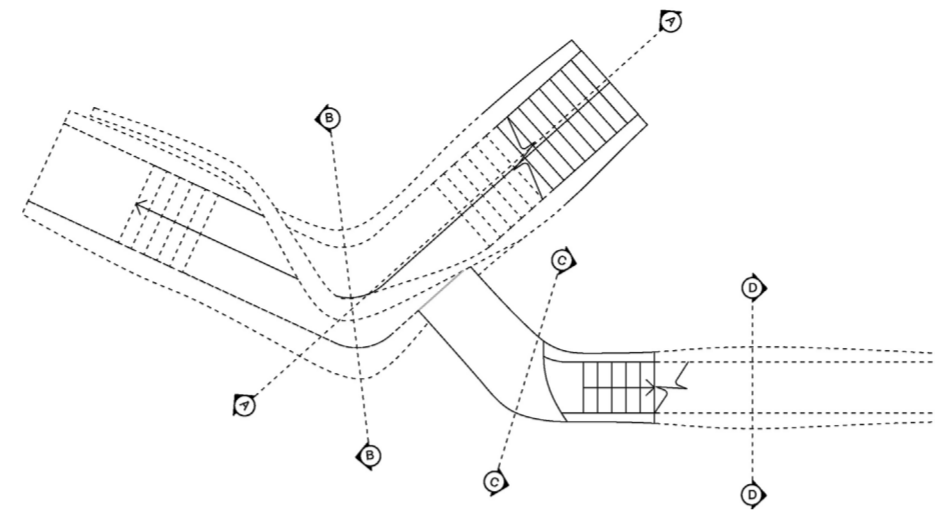
The fabric pods create zones within the space and give a sense of privacy to each meeting area.

THE RIBBON



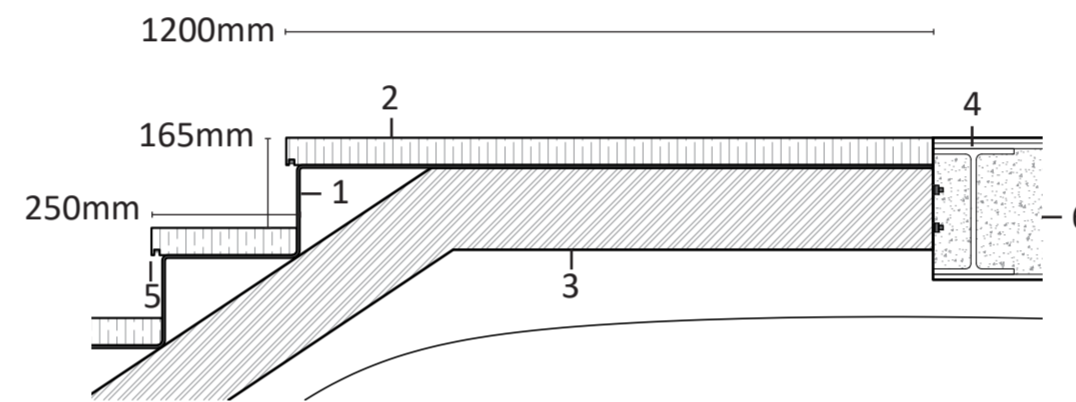
Section AA Detail
Scale 1:50 @A3

Staircase Plan View
Not to scale



DETAILS

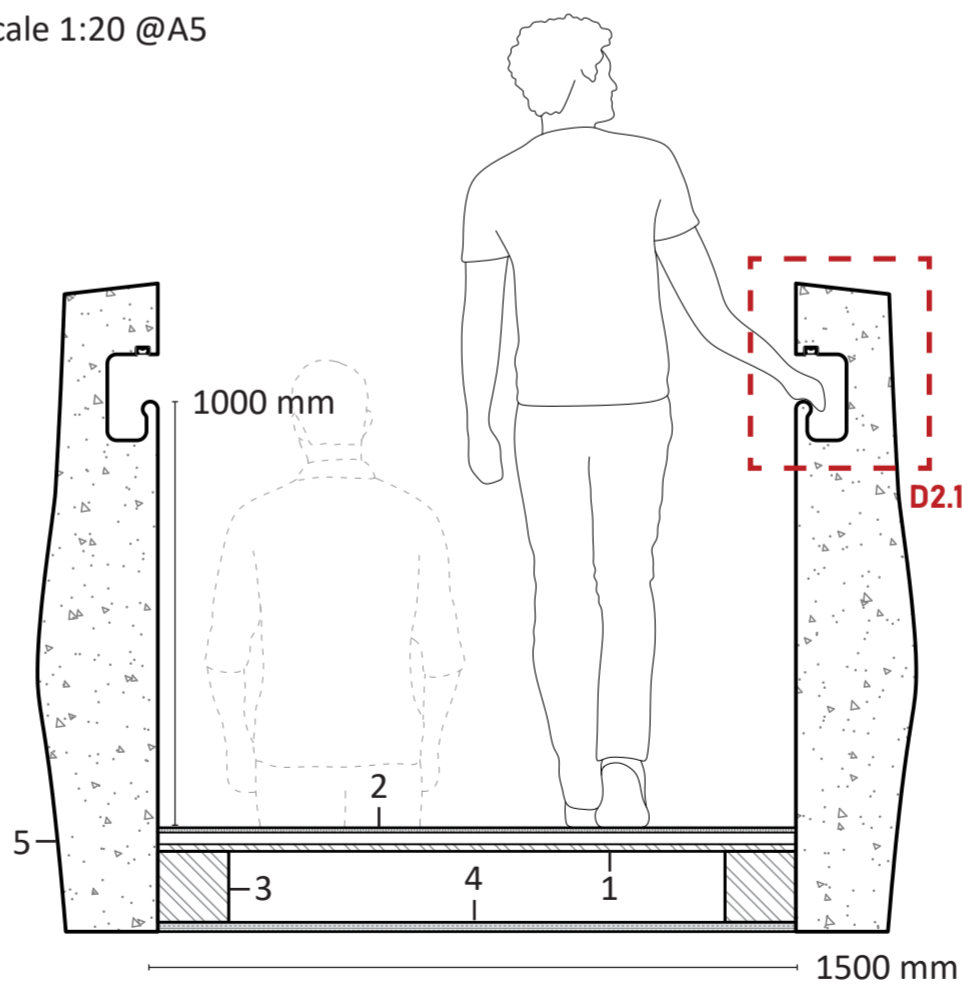
Scale 1:5 @A5



DETAIL 1. STAIR TO FLOOR SLAB CONNECTION

1. Welded steel sheet 12 mm
2. Steel tread 25 mm
3. Tubular stringer 150mm
4. I-Beam
5. LED lighting below tread 10 mm
6. Floor slab

Scale 1:20 @A5

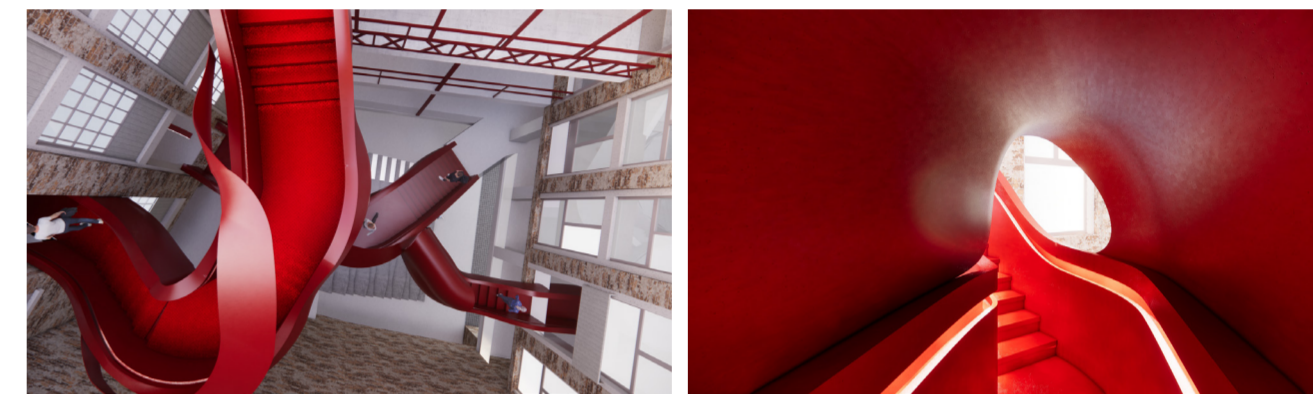


DETAIL 2. SECTION BB DETAIL

1. Welded steel sheet 12 mm
2. Steel tread 25 mm
3. Tubular stringer 150mm
4. LED screen
5. Concrete ballustrade



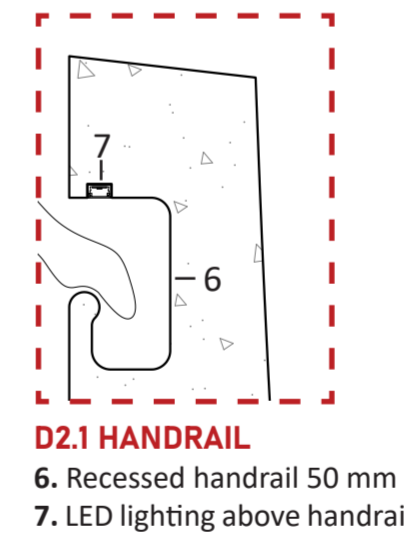
The 'ribbon' inspired staircases are located at the central atrium providing easy access between floors.



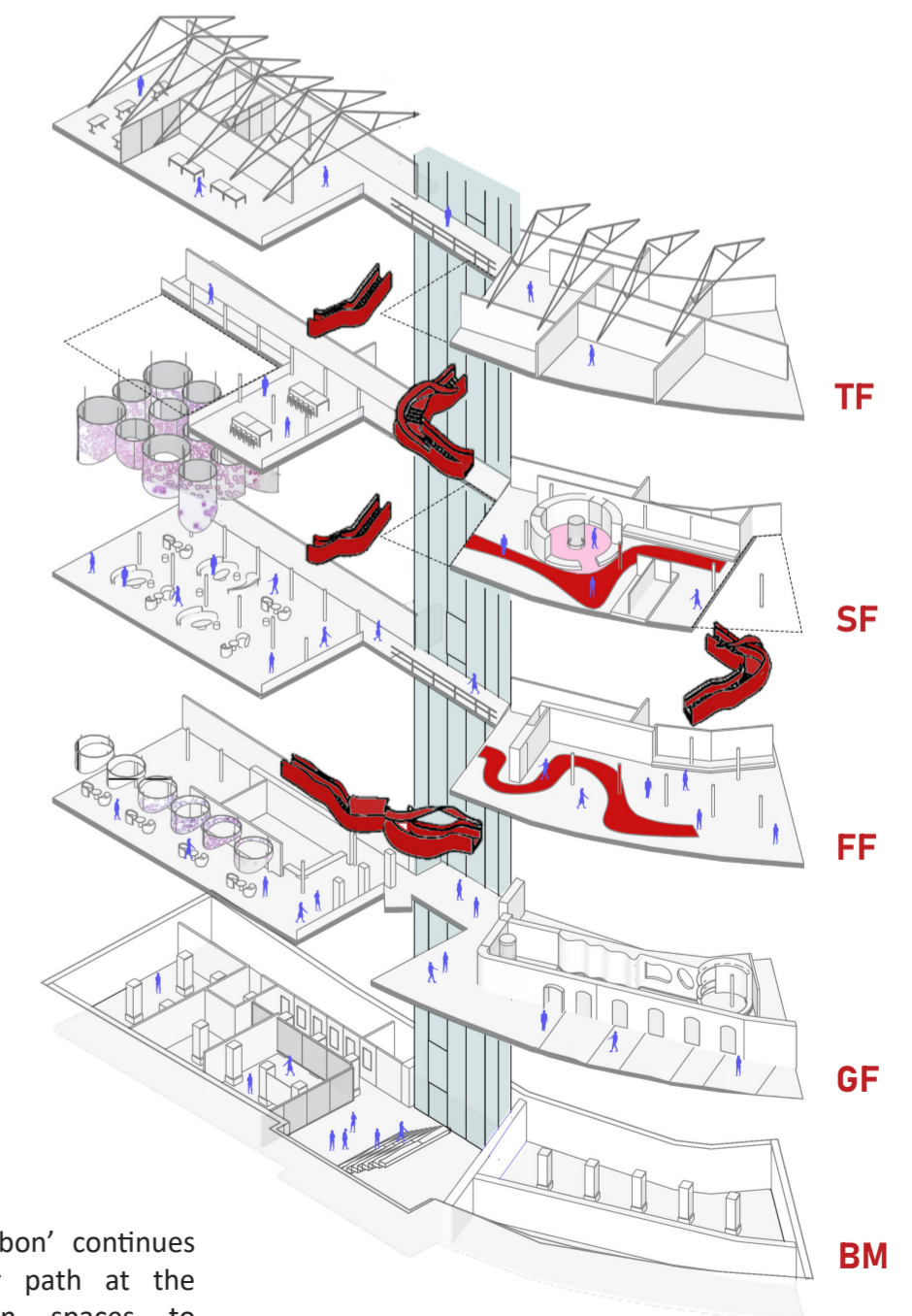
The central atrium's staircases overlay to connect both sides of the building. The stair leading to biodesign facilities is partly covered to discourage the public from taking the 'junction'.

CIRCULATION

Scale 1:5 @A5



- D2.1 HANDRAIL**
6. Recessed handrail 50 mm
 7. LED lighting above handrail



The 'ribbon' continues as floor path at the exhibition spaces to guide the user's journey.