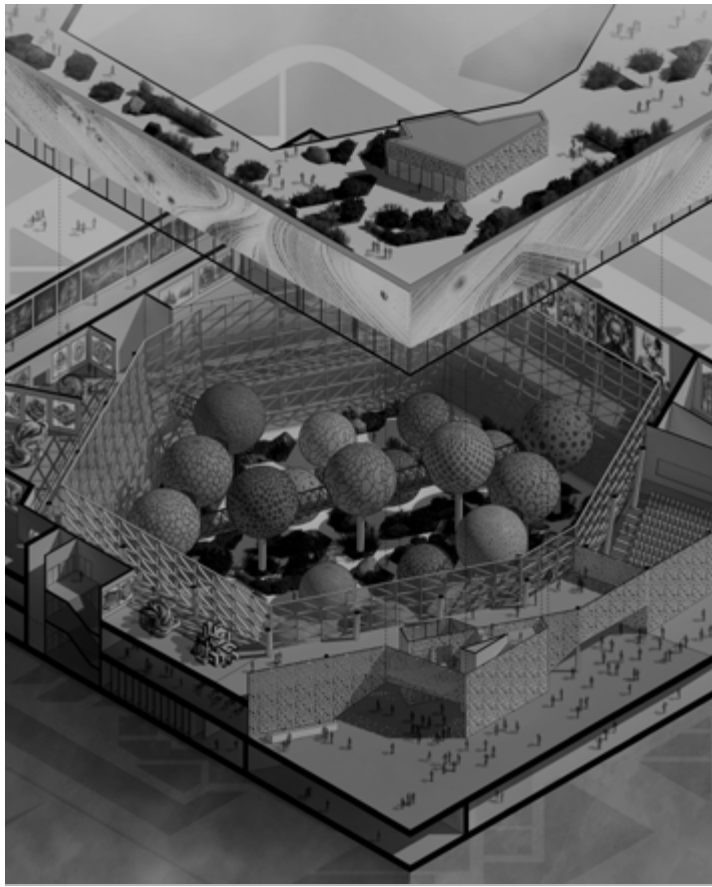
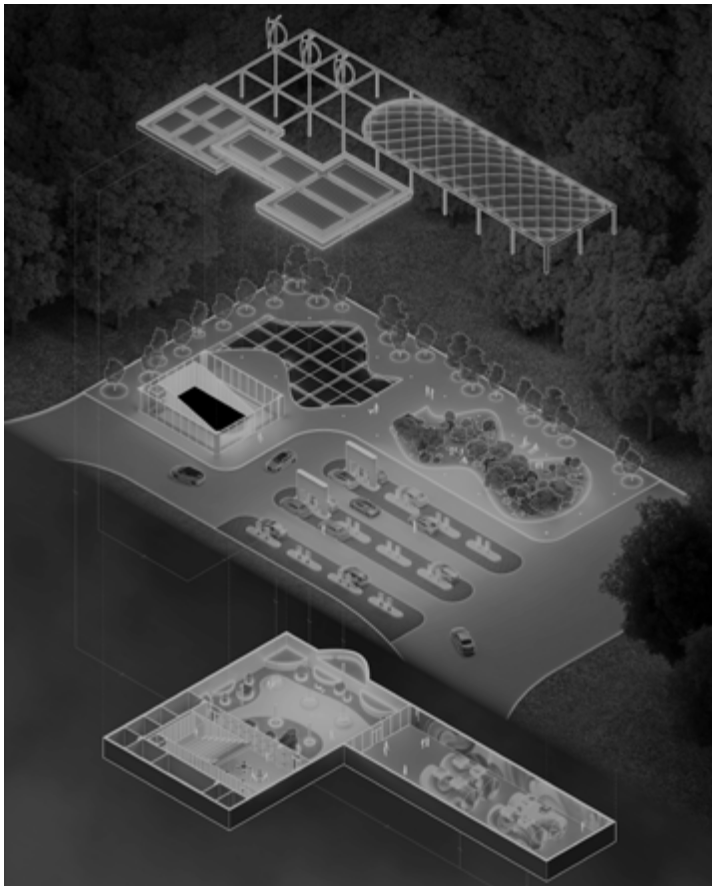


MSTISLAV KOCHKIN'S

SAMPLE PORTFOLIO

2021/25 SELECTED WORKS

CONTENTS



3 Competition, 3 Academic and some more...



COMPETITION ENTRIES

TRI_ARCHY

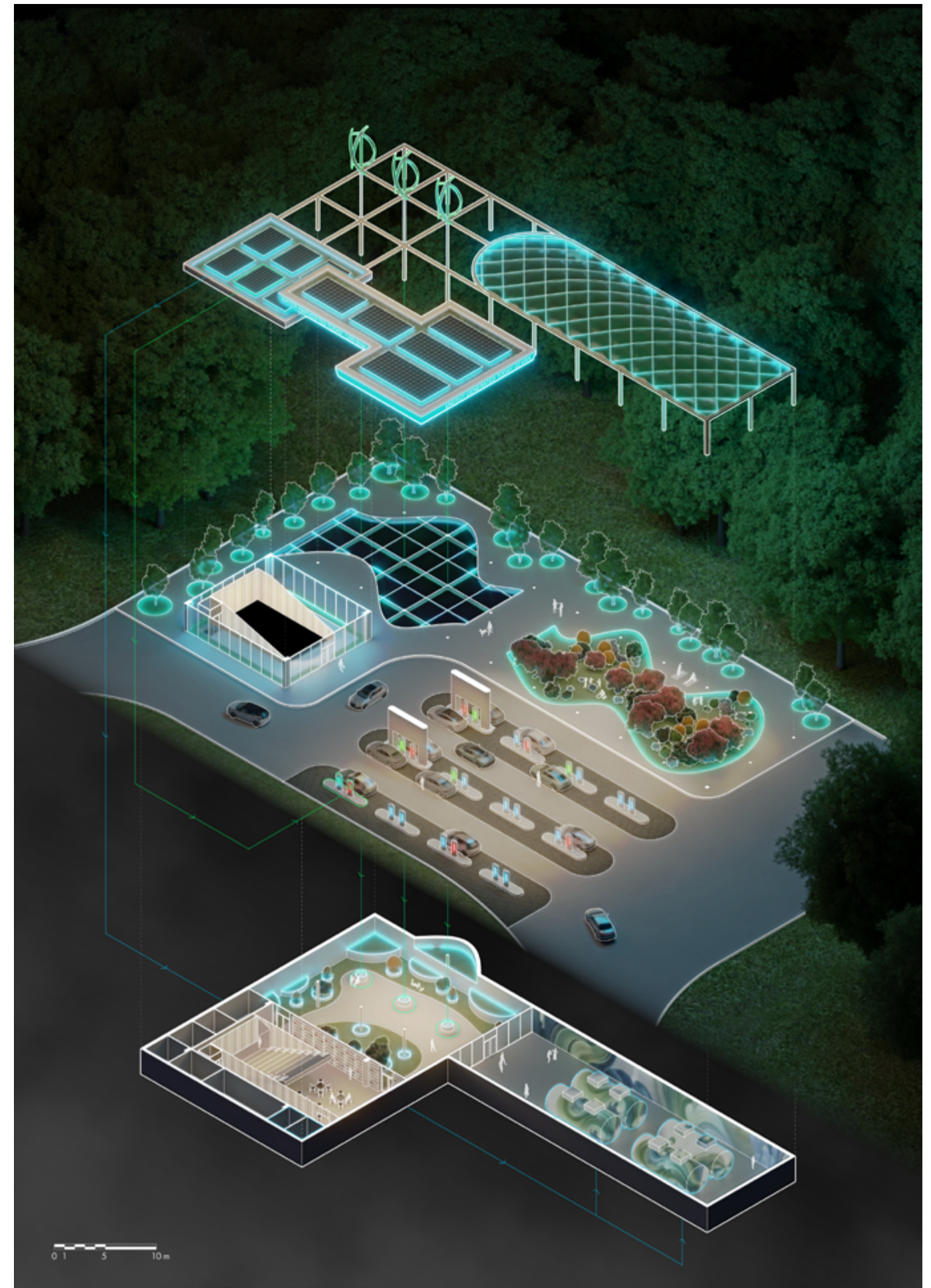
Competition Entry / Finalist
Site Unspecified / 2025

#Three #AdaptiveReuse #Renewable #Green #Developing

With the emergence of petroleum-powered vehicles, the gas station became a vital typology and will not perish with the emergence of electric cars, but its program may change. While petroleum cars are fuelled in minutes, electric vehicles take longer to reach sufficient cruise range. This entry proposes converting the abandoned rural gas station into a charging bay with spaces for resting, education, physical development, and socialising during the charging hours. The TRI_ARCHY describes three components in each design aspect. The architectural design adaptively reuses the store building, canopy and underground cisterns. The green vertical hierarchy includes a wetland roof, an outdoor winter garden with an ETFE canopy, and an indoor winter garden. The spatial organisation is formed around a development hub, indoor vertical farming, and a digital & media art gallery. The sustainability strategy includes wind power, sunlight and harvested water.



PHOTO REFERENCE

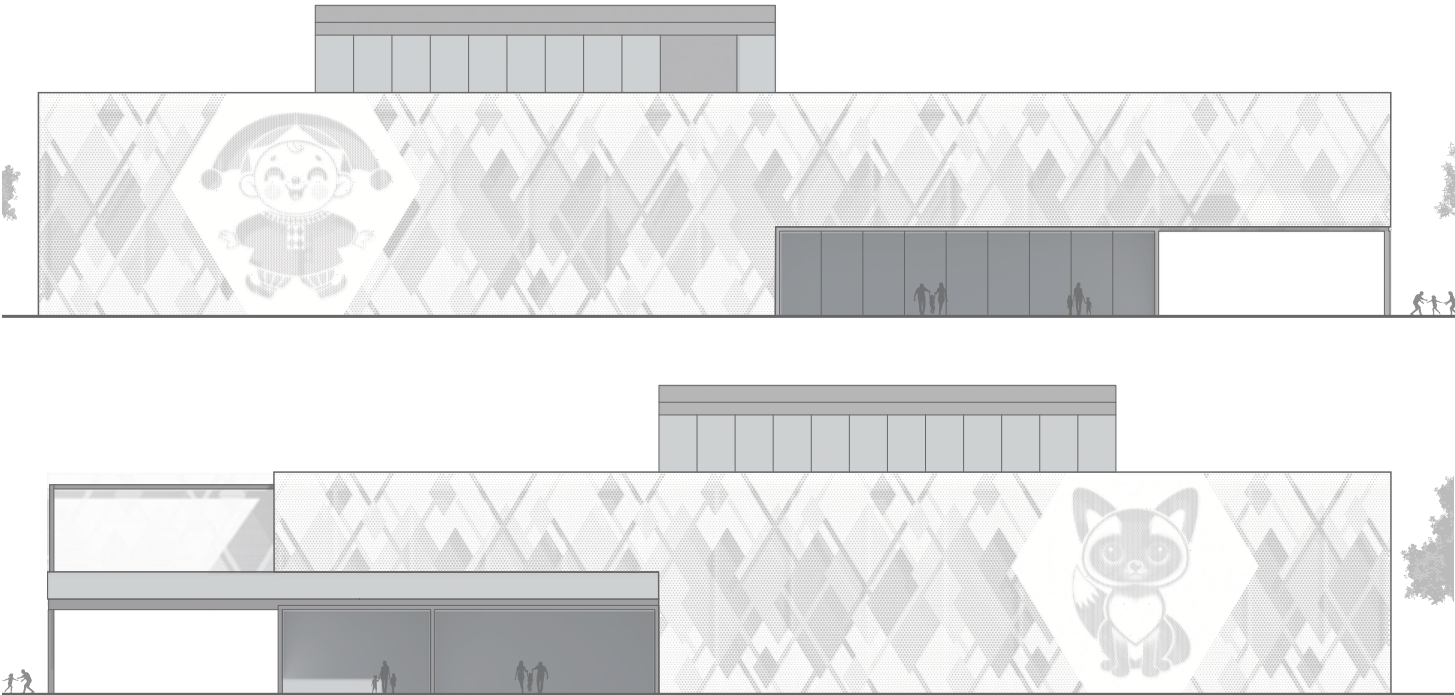


SUBMISSION ISOMETRIC DRAWING

PETRUSHKA PUPPET THEATRE

Competition Entry
Surgut, Russia / 2024

Russian Avant-garde inspires the main pattern of the façade entry, composed of deconstructed rhombuses, which is historically one of the main geometric shapes in theatrical and circus art. The shape of the pattern was achieved through geometric transformations of rhombuses, followed by breaking them down into a more dynamic composition using a diagonal grid. The different perforation sizes of the panels add shades to the plain façade. Medallions with stylised images of Petrushka and Silver Fox will be placed on the northern and southern facades of the theatre. Petrushka is one of the classic characters of the Russian puppet theatre, and the theatre will be named after him. The silver fox is considered one of the symbols of Surgut, for which it was awarded placement on the city's coat of arms and flag. The cartoonish style of the image contrasts with the strict geometry of the main pattern to emphasise that this theatre is for children



KEY ELEVATIONS (NTS)



SUMMER VISUALISATION



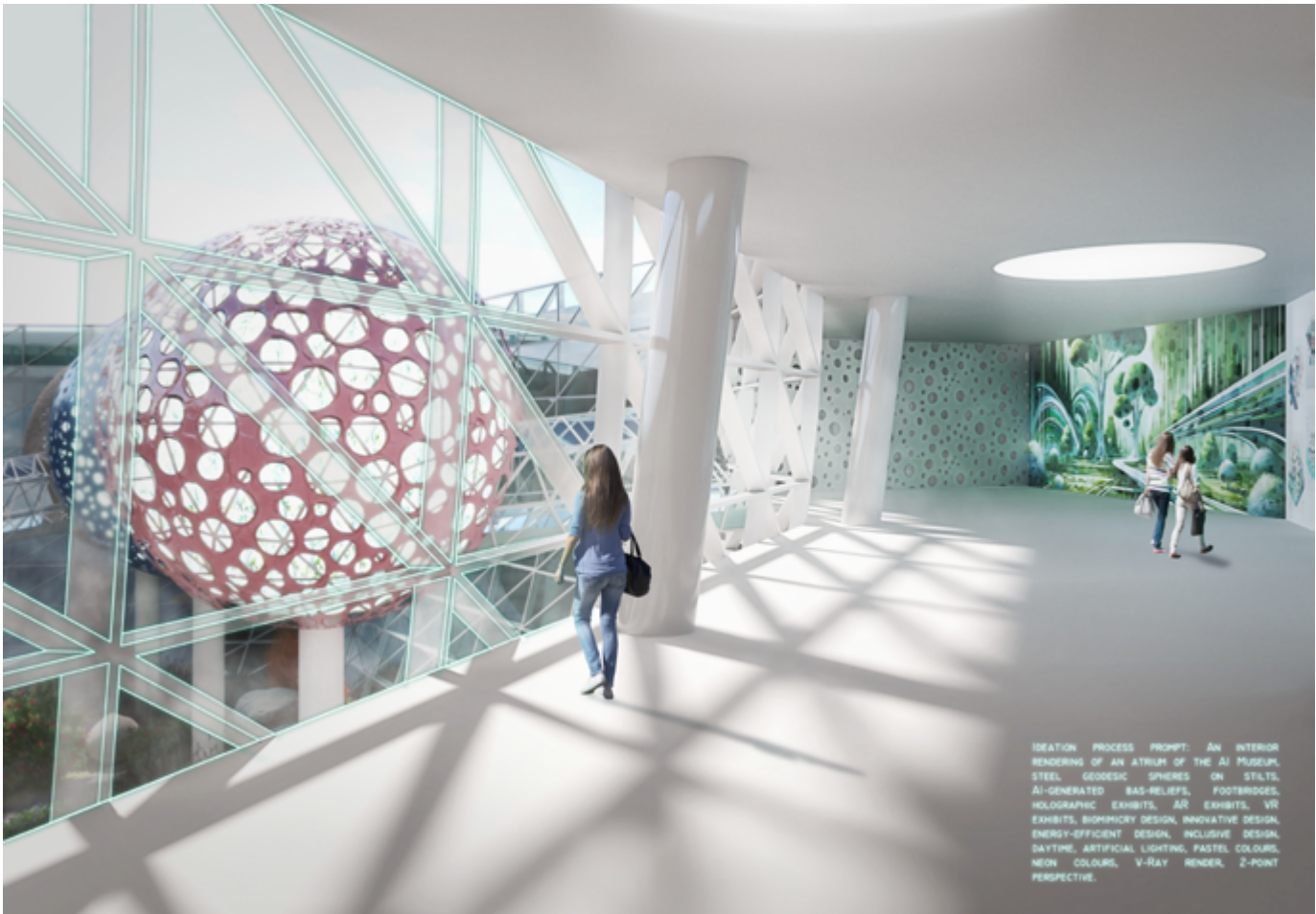
WINTER VISUALISATION

BACKPROPAGATION MUSEUM

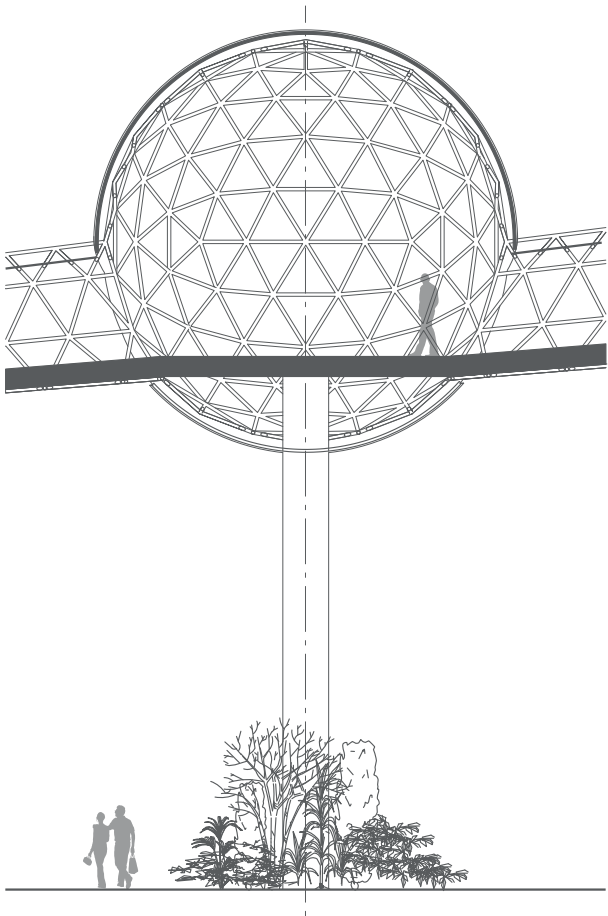
Competition Entry / Honourable Mention
Site Unspecified / 2024

#ArtificialNeuralNetwork #Backpropagation #Biomimicry #SpatialDynamics #Innovation

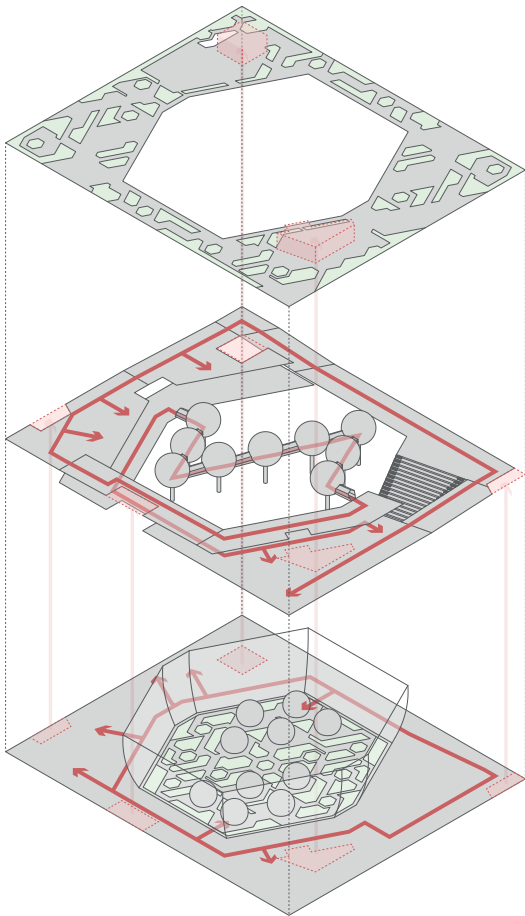
The design proposal explores a museum's spatial dynamics inspired by the Artificial Neural Network's (ANN) structure and functioning. The museum includes spaces for physical, digital, AR and VR AI-generated artworks and educational spaces to teach about AI. The display galleries and the courtyard with spherical pavilions create a looped spiral circulation pattern, in which the visitors initially ascend through the galleries (feedforward) and eventually descend through 9 raised spheres (backpropagation). TextToImage AI models were used to develop architectural design elements such as biology-based sphere finishes and interior wall bas-reliefs, LED façade, and futuristic greenery at the atrium and roof terrace. The referencing and design ideation were completed with AI using the semantic method of prompt formulation. All artworks exhibited in the concept image were generated with AI at different stages of my academic and extracurricular work.



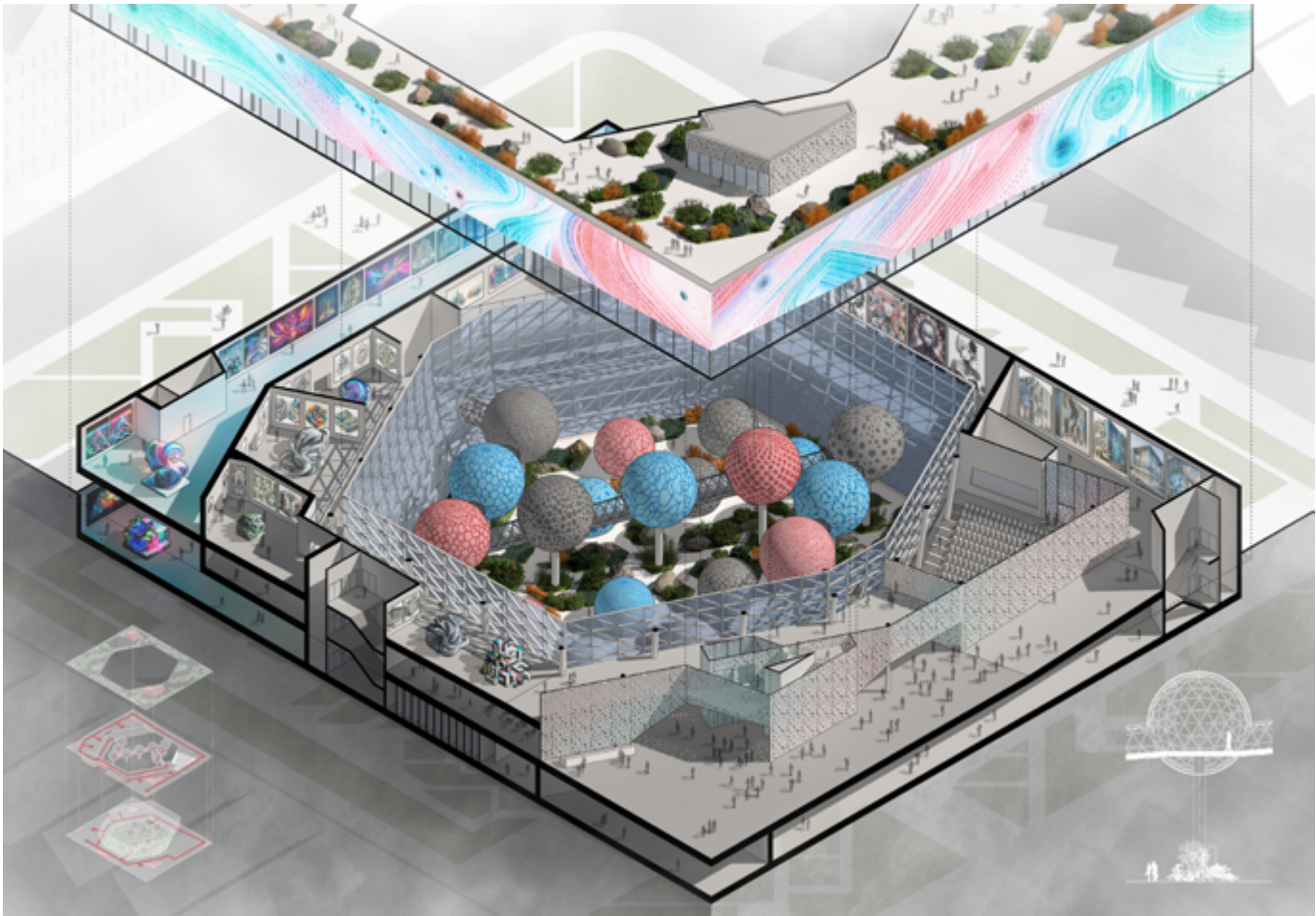
IDEATION PROCESS PROMPT: AN INTERIOR RENDERING OF AN ATRIUM OF THE AI MUSEUM, STEEL, GEODESIC SPHERES ON STILTS, AI-GENERATED BAS-RELIEFS, FOOTBRIDGES, HOLOGRAPHIC EXHIBITS, AR EXHIBITS, VR EXHIBITS, BIOMIMICRY DESIGN, INNOVATIVE DESIGN, ENERGY-EFFICIENT DESIGN, INCLUDING DESIGN, DAYTIME, ARTIFICIAL LIGHTING, PASTEL COLOURS, NEON COLOURS, V-RAY RENDER, 2-POINT PERSPECTIVE.



SPHERE CROSS SECTION



CIRCULATION



SUBMISSION DRAWINGS

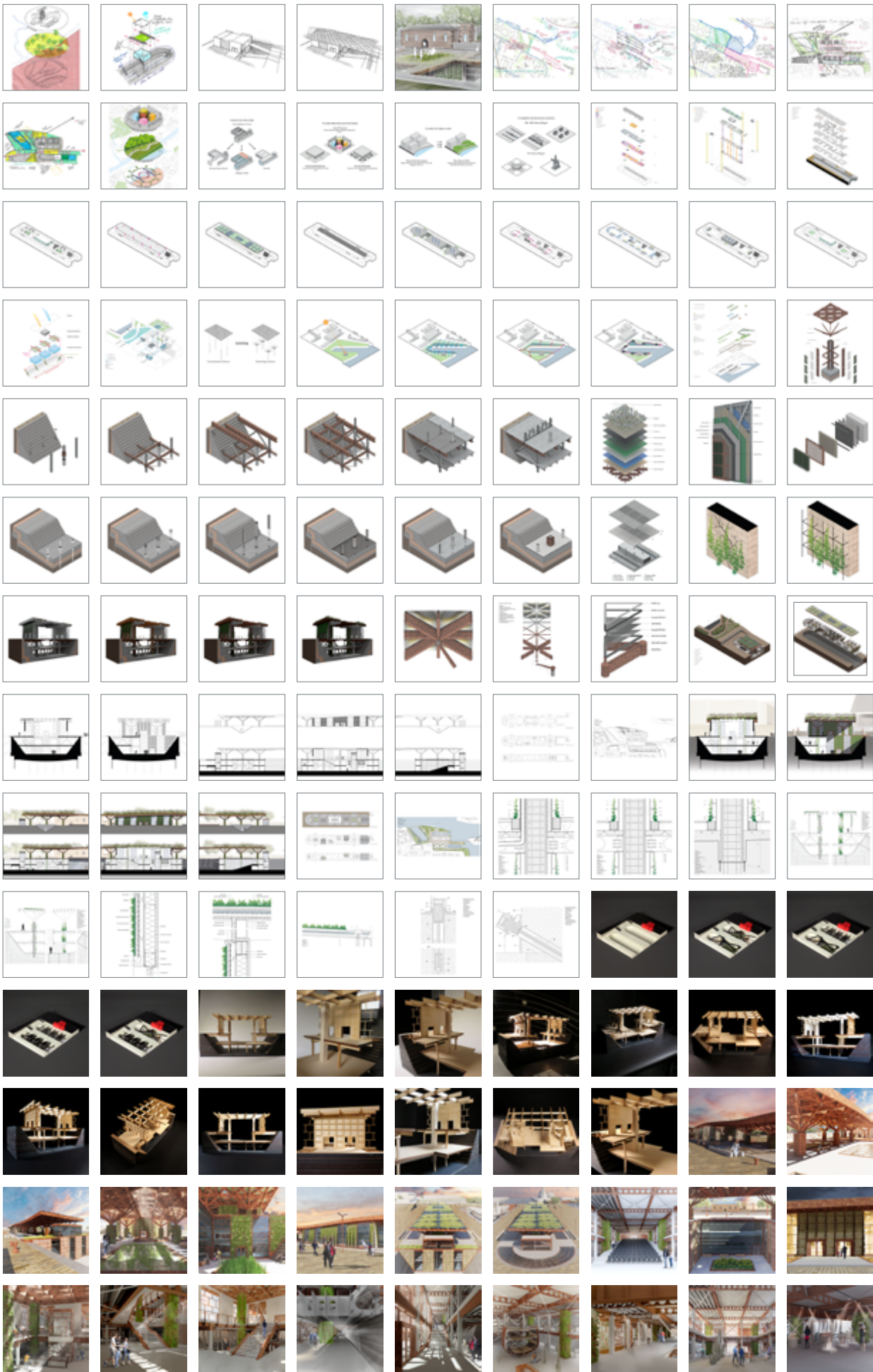
AI POWERED DESIGN IDEATION

Academic MArch (by Conversion) Thesis
Based on Final Design Thesis / 2023-24

My Master Thesis explores the potential of different forms of Artificial Intelligence in becoming a valuable assistant in architectural practice. Using Govan Reclamation Dock as the subject of study and training dataset, I investigated the potential incorporation of AI in the architectural design ideation process. In the first investigation stage, the existing architectural representation mediums were “recreated” with “black box” and “grey box” TextToImage models based on prompts created with the semantic method. In the second stage, the AI was tested in the design development from day one, which included research with AI chatbots, feasibility studies and massing development with AI-powered CAD software and generation of design iterations using TextToImage models. This chapter demonstrates the critical AI design methods derived from the completed research and tests.



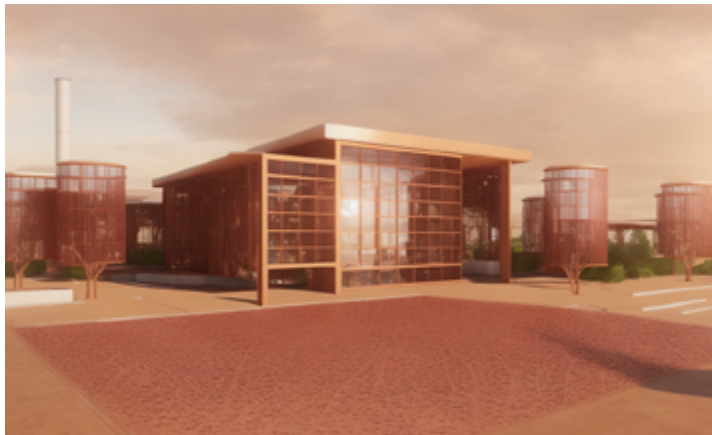
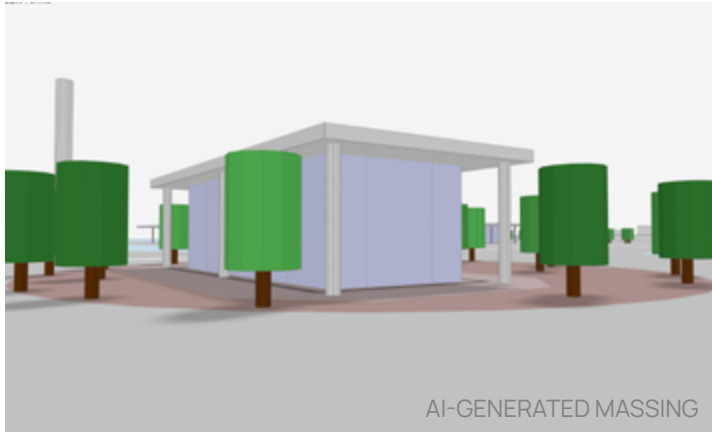
AI-GENERATED CAFE BUILDING PLACED IN GOVAN RECLAMATION DOCK SITE



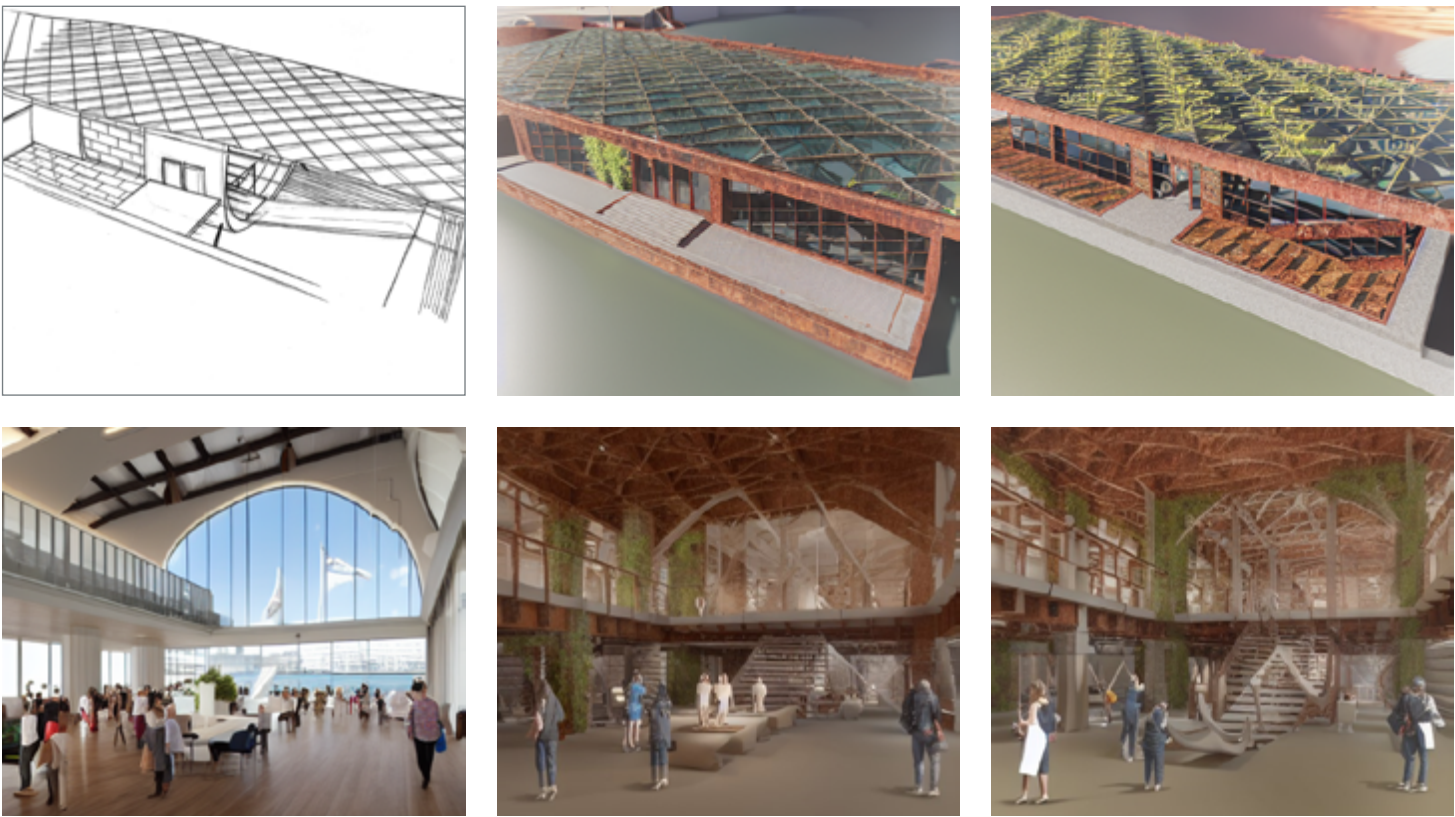
DATASET BASED ON THE FINAL DESIGN THESIS



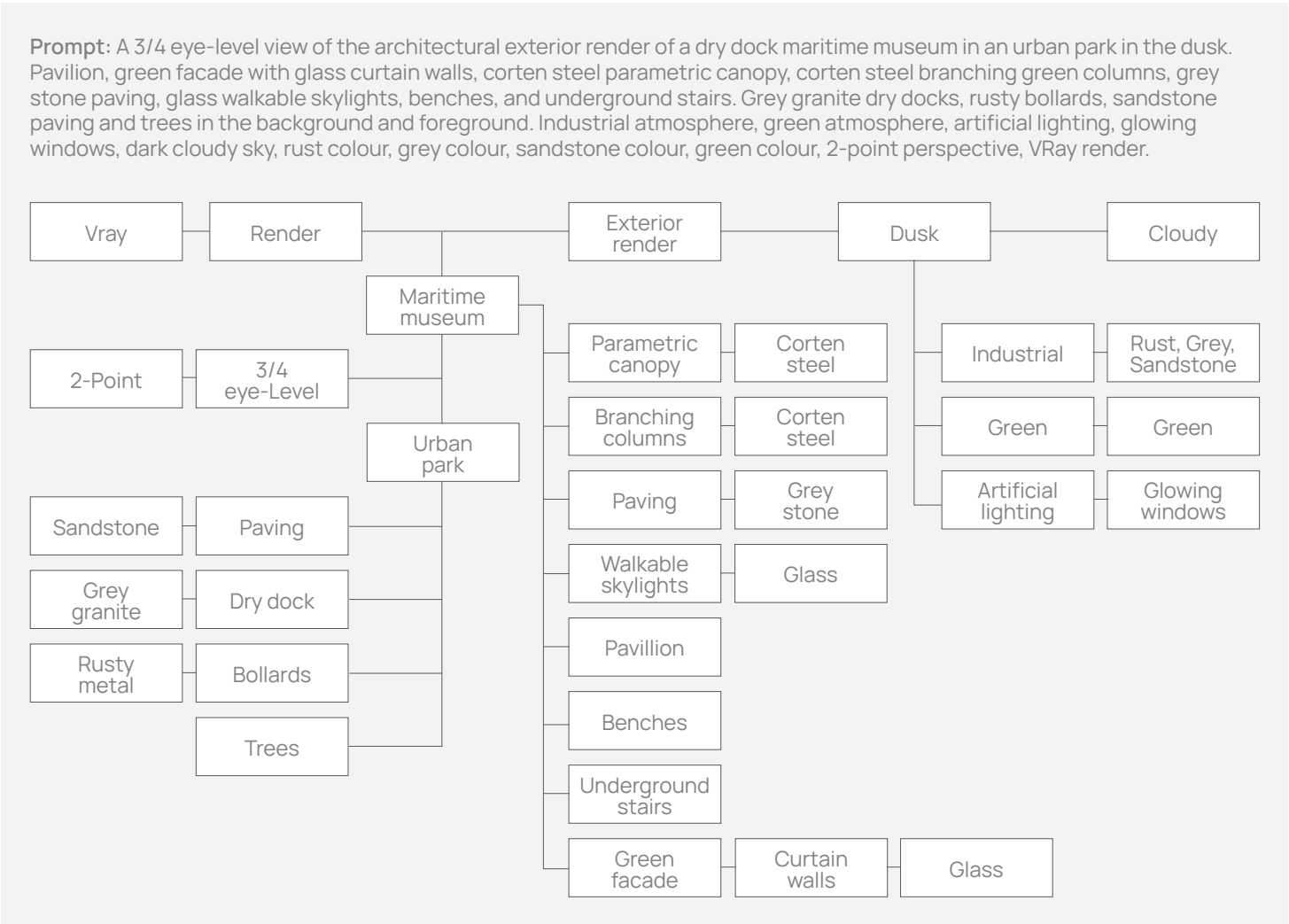
EXTERIOR RENDER GENERATION / UNTRAINED (TOP) & TRAINED (BOTTOM) AI MODELS



GOVAN RECLAMATION DOCK CAFE BUILDING GENERATION WITH AI TOOLS



STYLE TRANSFER / TRAINED STABLE DIFFUSION



PROMPT ENGINEERING WITH SEMANTIC MAPPING

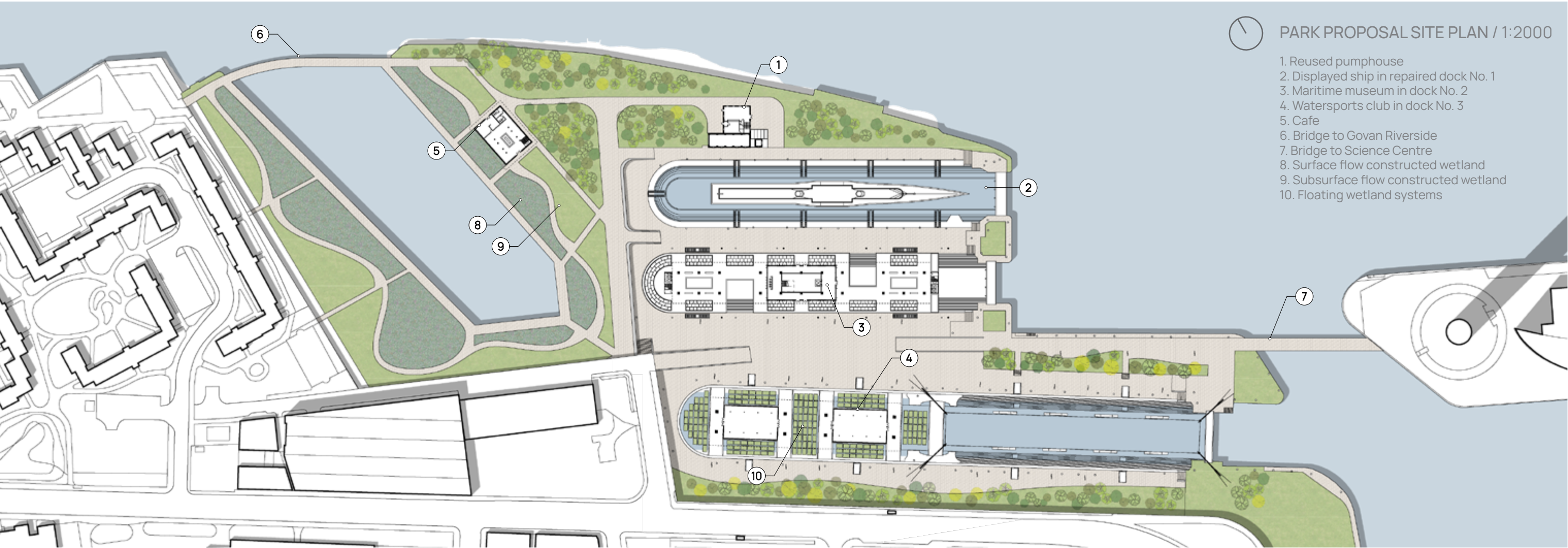
GOVAN RECLAMATION DOCK

Academic Final Design Thesis
Glasgow, UK / 2021-22

The DipArch Final Thesis project explores the ability of the urban park to solve social deprivation. Inspired by Henri Lefebvre’s “Right to the City” Govan Reclamation dock attempts to resurrect Govan, a shipbuilding district of Glasgow, that became deprived after deindustrialisation. The park accommodates versatile typologies and design solutions to celebrate the local industrial heritage and offer job opportunities, and physical and intellectual development. The constructed wetlands would contribute to the decontamination of the site and adjacent areas from remainders of industry and contribute to circular economy. Evocative architectural design should turn Govan into a destination and attract visitors and new investments. Such provision of these social benefits to local people would encourage them to contribute to city development.

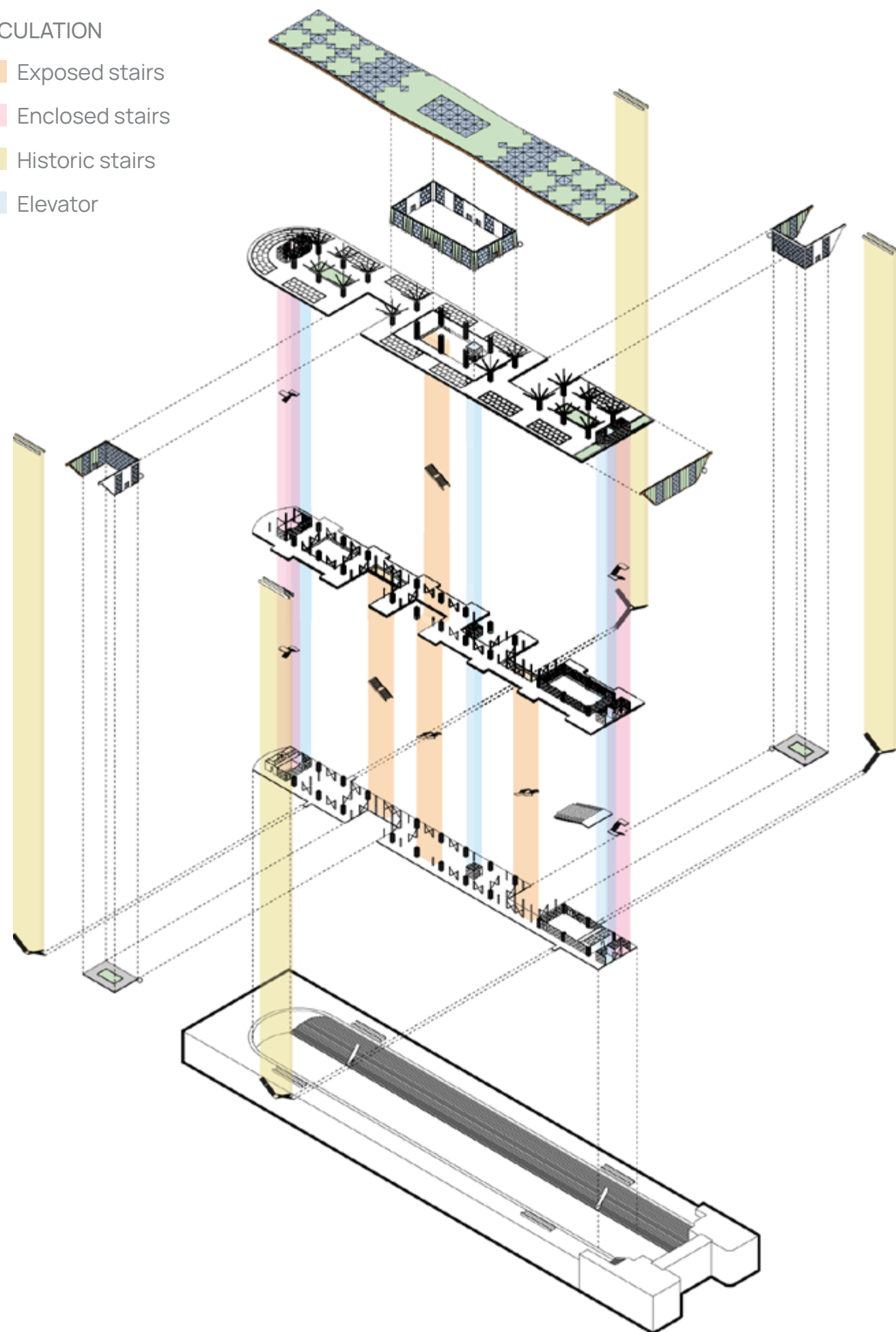


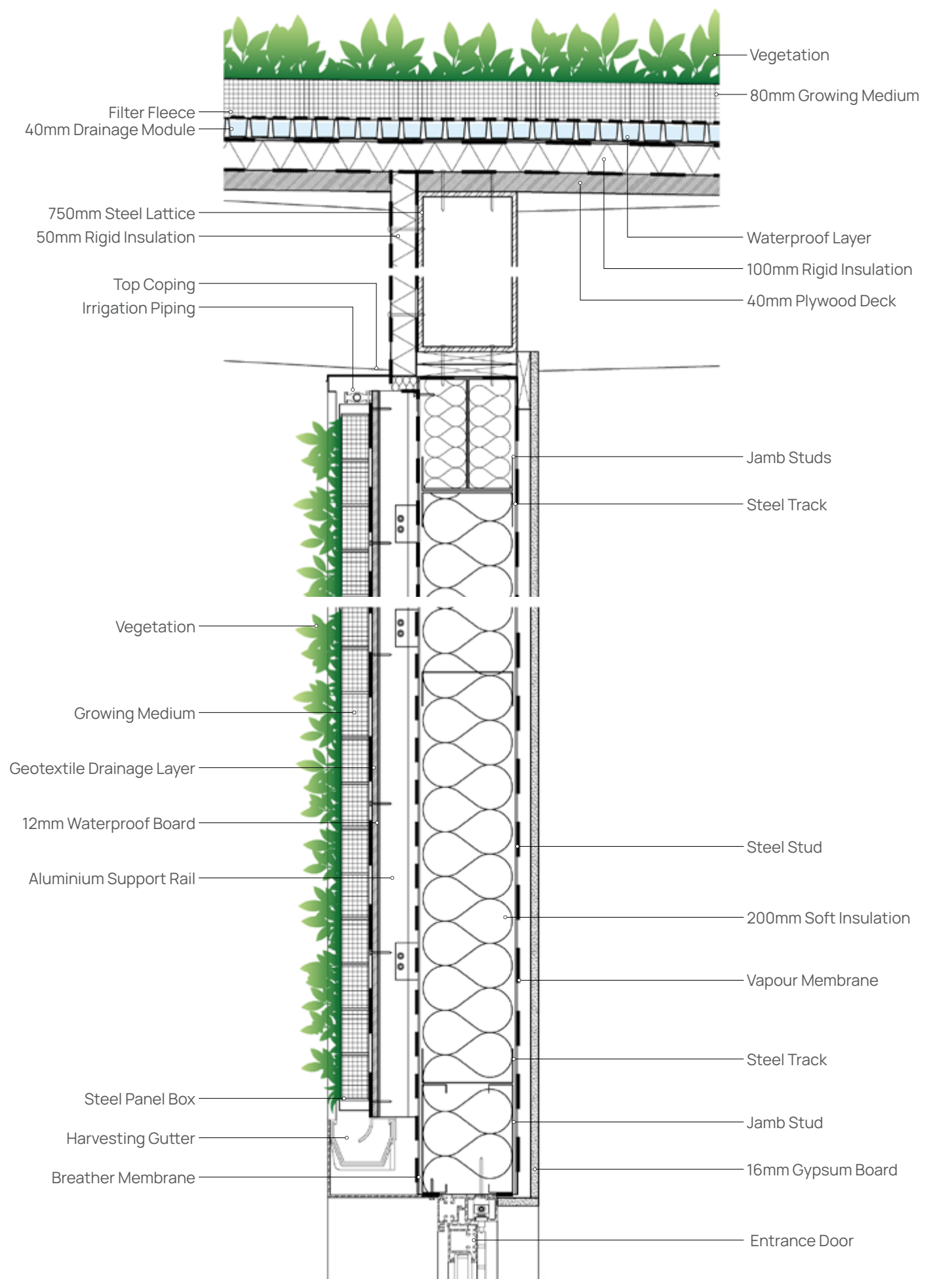
AERIAL VIEW



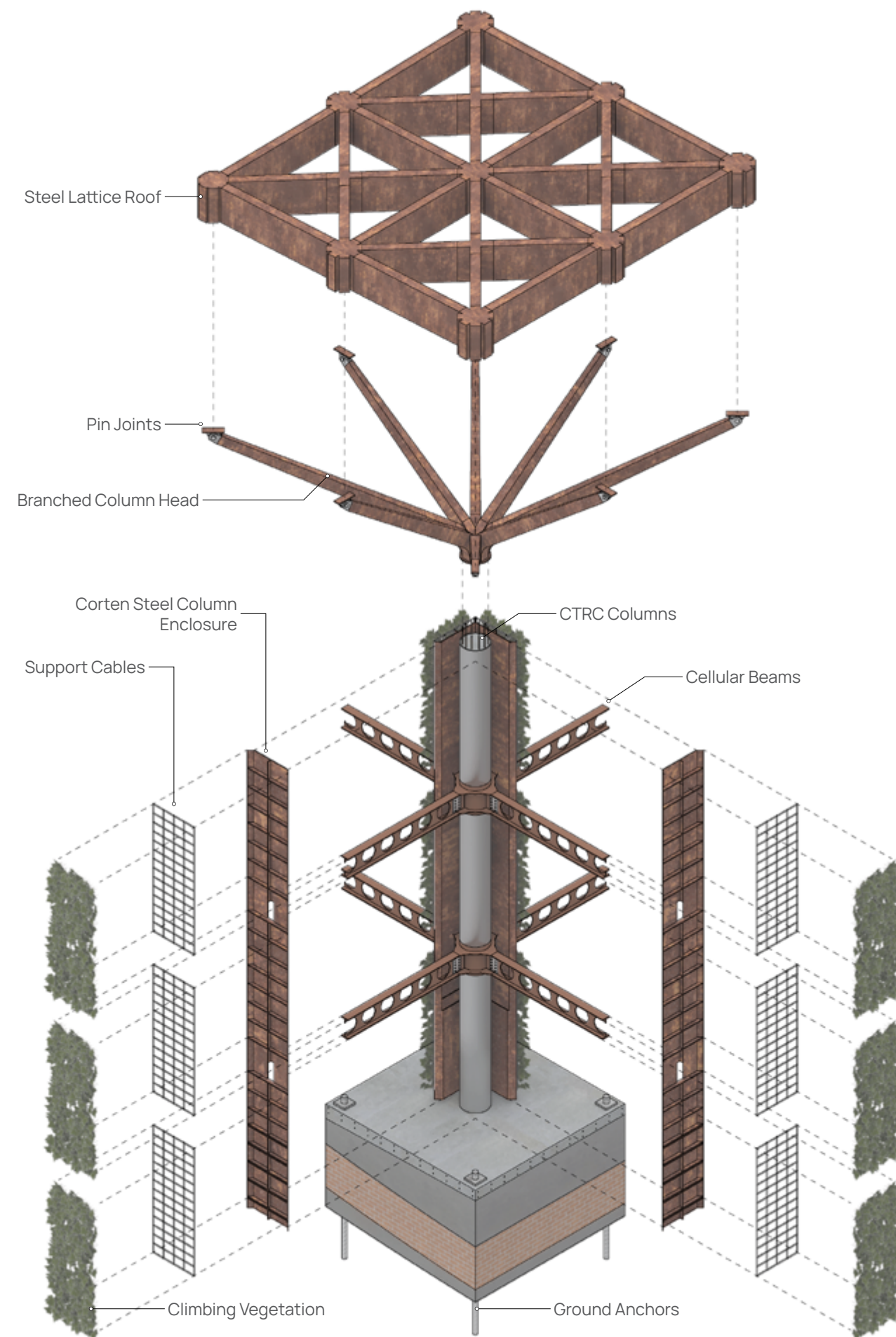
CIRCULATION

- Exposed stairs
- Enclosed stairs
- Historic stairs
- Elevator





ROOF & WALL DETAIL



CANOPY COLUMN STRUCTURE

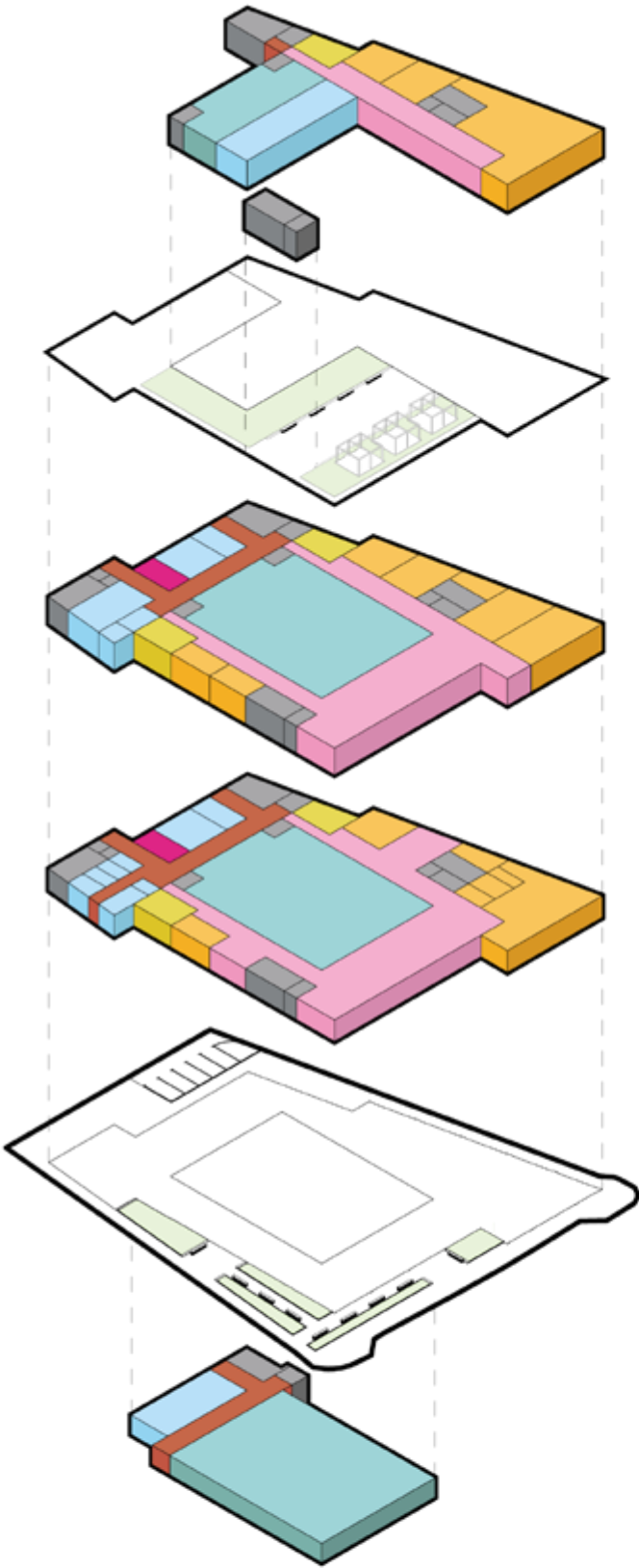
THE BARRAS ARTS CENTRE

Academic Project
Glasgow, UK / 2021

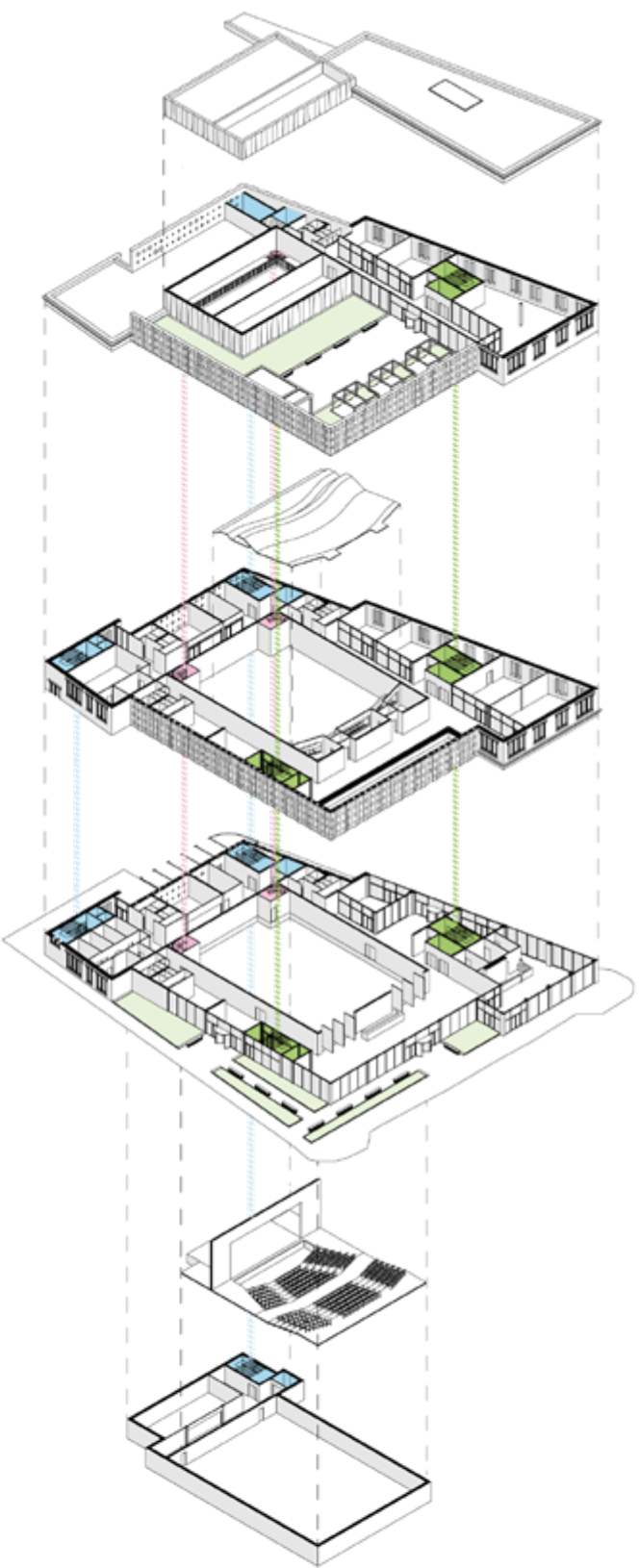
The project proposes the introduction of a multipurpose venue as the solution for society's recovery from the consequences of COVID-19. The site is located in Bridgeton & Calton neighbourhoods, which are characterised by limited access to educational, recreational and physical development opportunities, which was deteriorated by stress from self-isolation during pandemics. The building design seeks to solve this by using an automated auditorium, which transforms depending on the event. The mixture of different programs must maximise the opportunities for local deprived people to socialise and entertain after pandemics. The architectural design combines adaptive reuse of historic buildings, located on site, and introduces a new parametric façade. The façade design is inspired by the penicillin colony, discovered by Alexander Fleming, which celebrates Scottish people's contribution to overcoming global pandemics.



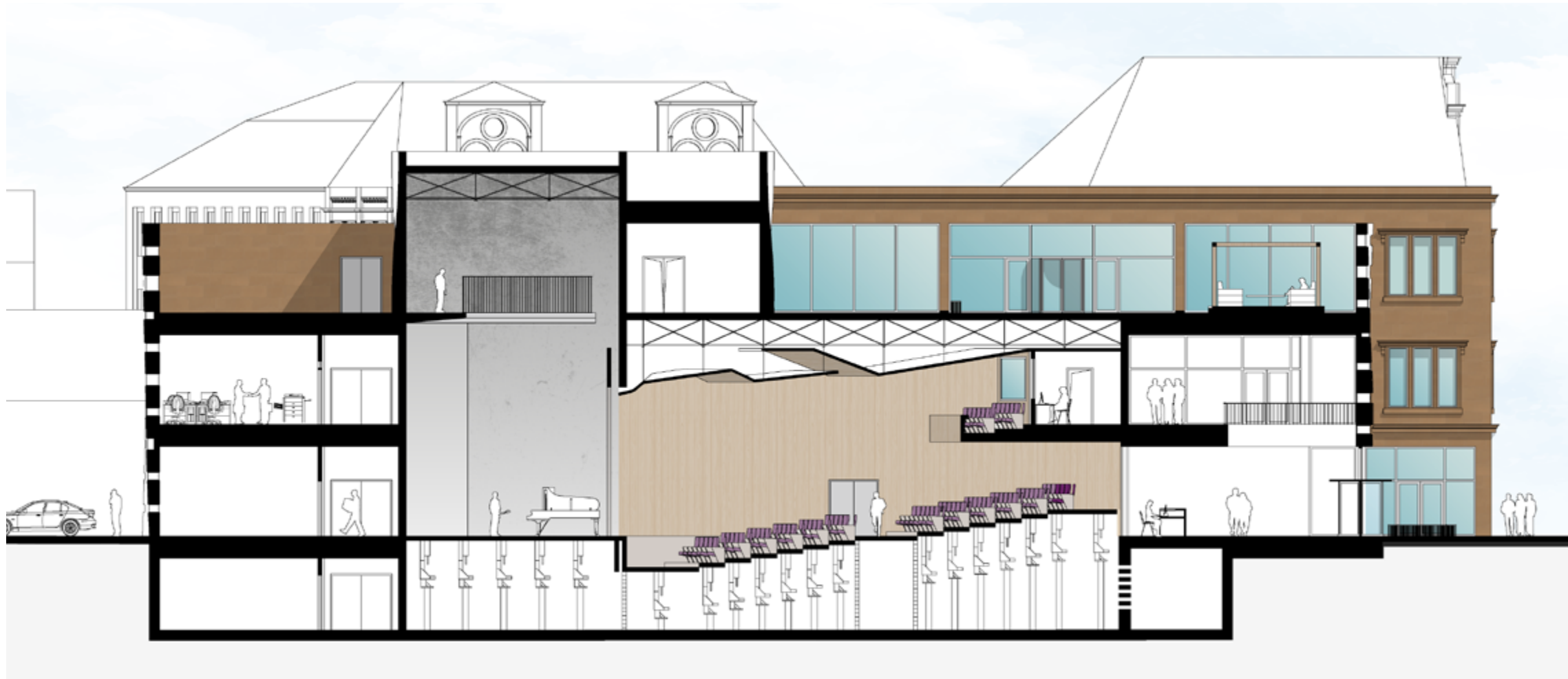
FACADE NIGHTTIME VIEW



- Block Functions
- | | | | |
|------------|-----------------|---------|-------------------------|
| Orange | FOH Spaces | Brown | BOH Circulation |
| Pink | FOH Circulation | Magenta | BOH Toilets |
| Yellow | FOH Toilets | Teal | Multipurpose Auditorium |
| Light Blue | BOH Spaces | Grey | Vertical Transportation |



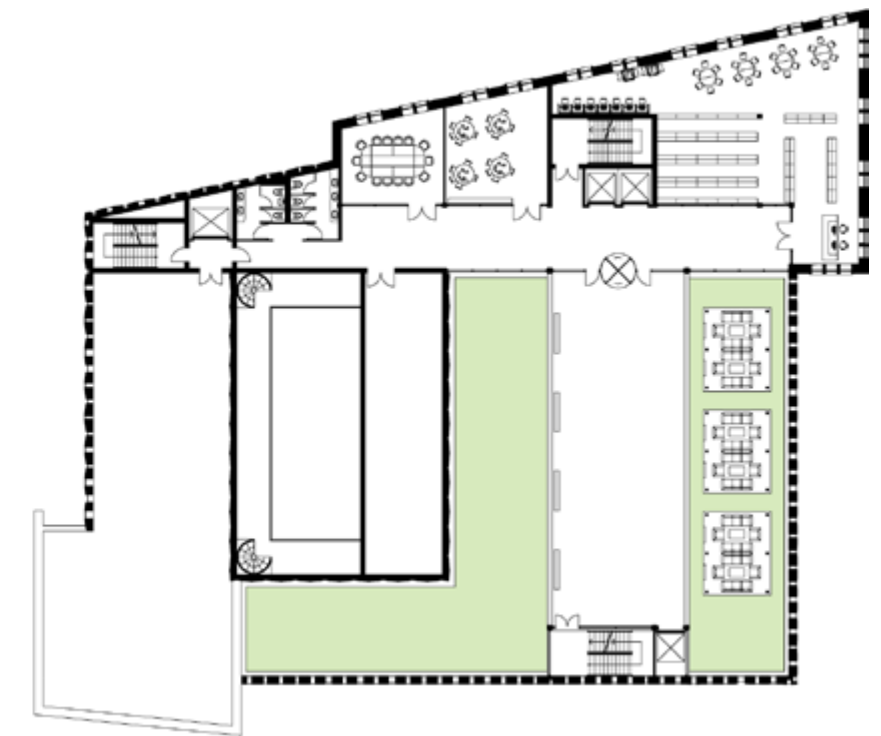
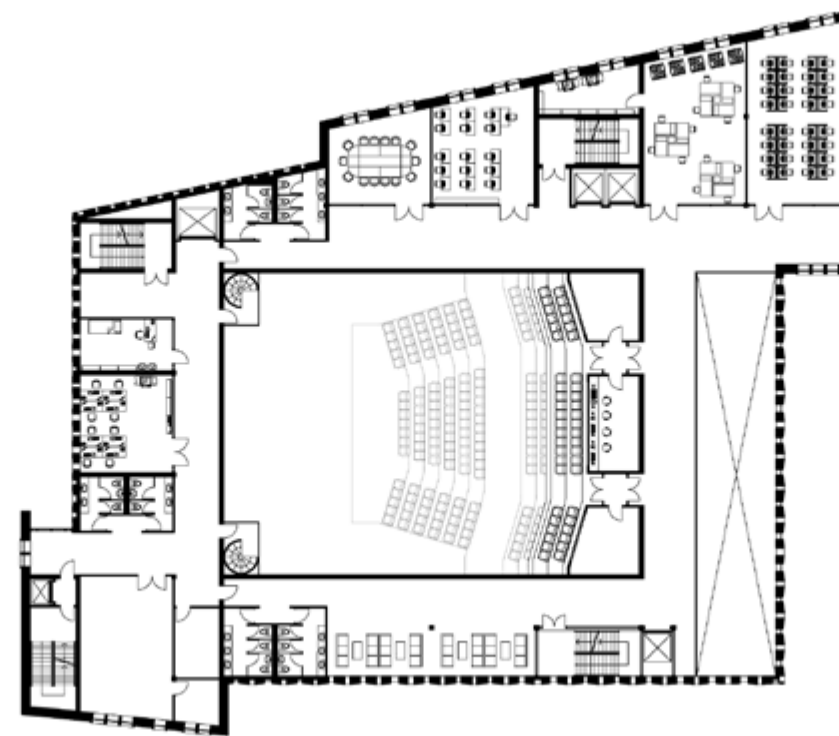
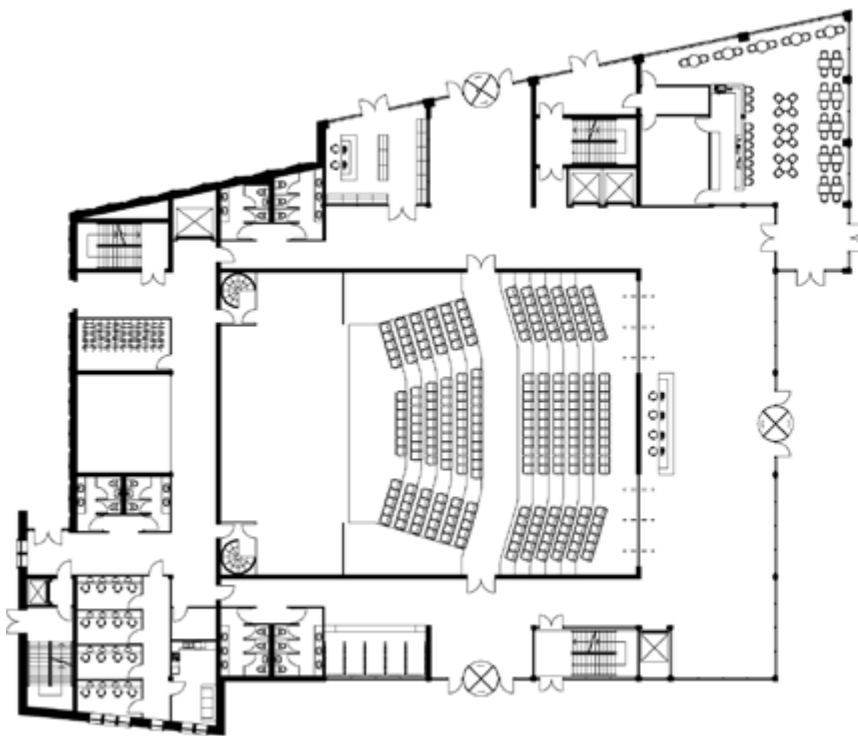
- Circulation
- | | |
|-------------------|------------------------------------|
| Green Dashed Line | FOH Vertical Transportation |
| Blue Dashed Line | BOH Vertical Transportation |
| Pink Dashed Line | Auditorium Vertical Transportation |



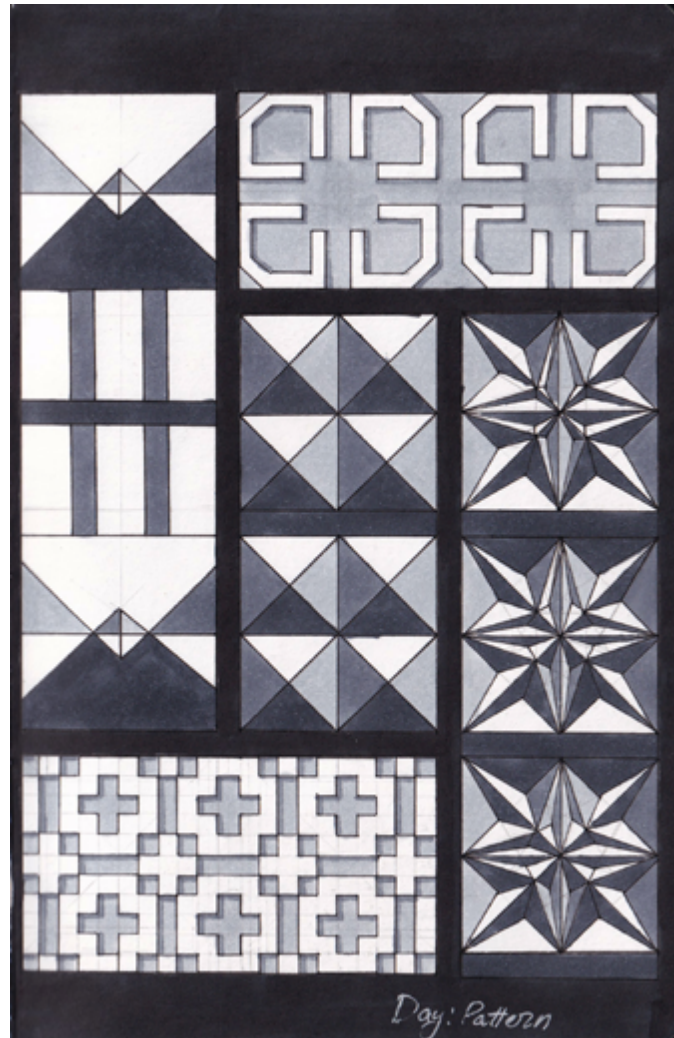
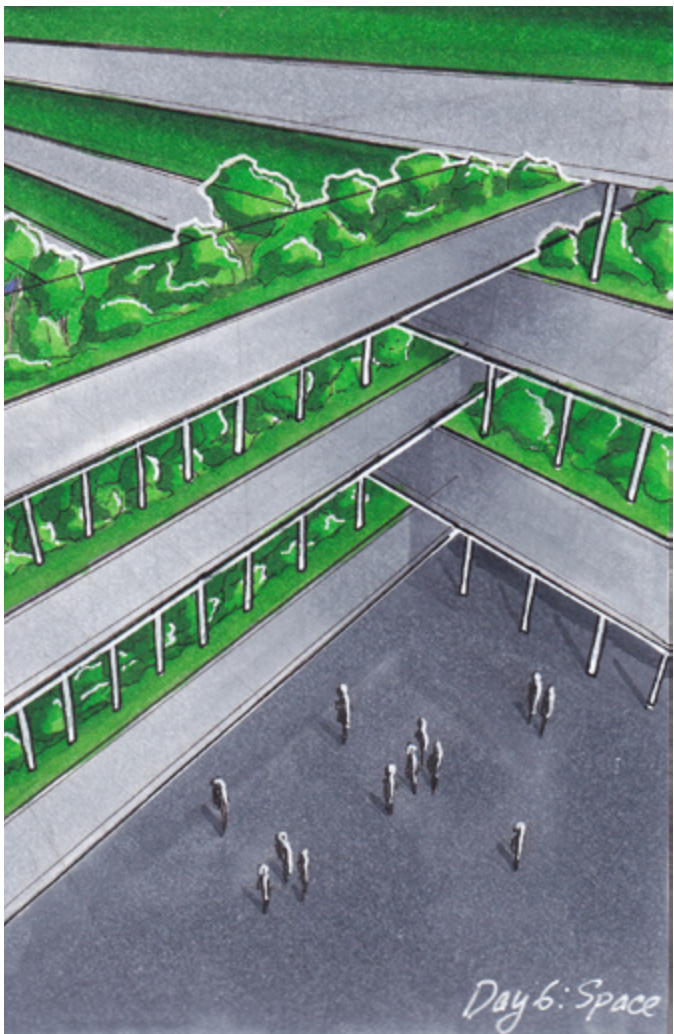
LONGITUDE SECTION / 1:200



TOP: AERIAL VIEW
BOTTOM: BAIN STREET VIEW



FLOOR PLANS / 1:300





QUIET AFTERNOON / PERSONAL PROJECT / 2025



NEON RIDER / PERSONAL PROJECT / 2025



FJORD / PERSONAL PROJECT / 2025



UTEP MINERS SPECIAL EDITION JERSEY / COMPETITION ENTRY / 2025



FEYENOORD FC 4TH JERSEY / COMPETITION ENTRY / 2025

