

INTRODUCTION

This project proposes the establishment of a Community-based Incubation and Research Center for Lifestyle Product Entrepreneurship in Kochi, Kerala. Recognizing the need to support the growth of the local economy, the project aims to support local artisans and entrepreneurs in developing lifestyle products. The design explores the viability, challenges, and potential benefits of this center, focusing on how it can contribute to the local economy while maintaining its historical character and ecosystem, while taking into account Kochi's socio-economic and cultural context.

The proposed center aims to fulfill a crucial role by offering resources and opportunities for local entrepreneurs to develop their products and businesses. Emphasizing functionality over signage, the concept aligns with the city's changing interests in addressing local needs while fostering socio-economic and cultural growth in the broader community.

AREA OF CONCERN

People/public to see architecture as a dynamic form, therefore the building itself becomes an expressive form.

Deficit in Public R&D Spaces mainly for people pursuing smaller design-based projects beyond the purview of major national institutions.

Critical requirement for reasonable incubation facilities that expand beyond the walls of elite educational institutions.

Collaborative Innovation Hubs: Abundance of common areas where talented persons may connect, stimulating collaborative innovation.

Leading the next generation into a technology-oriented and innovative environment. Tech-Centric Hubs for Next-Gen Innovation.

Nurturing Creativity and Diverse Design: Foster an atmosphere that encourages various design techniques and nurtures the abilities of India's broader creative community.

Startups: Dry Hobby Hub, Youth Centre, Community Engagement.

INCUBATION HUB: Community Engagement.

INCUBATION HUB: A nurturing ground dedicated to entrepreneurs and entrepreneurs. It provides essential resources, mentorship, and networking opportunities, fostering innovation and growth. By offering a collaborative environment, it helps accelerate business development, translating ideas into viable, market-ready enterprises.

LIFESTYLE PRODUCT-BASED ENTREPRENEURS: Lifestyle product-based entrepreneurs focus on developing products that enhance quality of life by embracing the values and interests of users. Their products include fashion, interior and decor related products.

These entrepreneurs excel in blending traditional craftsmanship with modern styling, creating unique products like handwoven fabrics, sustainable furniture, and decorative items made from recycled materials.

Lifestyle Product-Based Entrepreneurs in Kochi, Kerala, India are incorporating the natural resources and rich legacy of the area into their products and services.

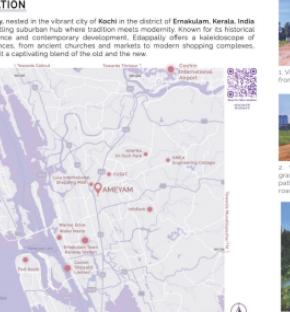
They create unique products like handwoven fabrics, sustainable furniture, and decorative items made from recycled materials.

These businesses support the regional economy in maintaining and advancing Kochi's cultural identity internationally.

These entrepreneurs are essential in maintaining and advancing Kochi's cultural identity internationally.

Collaboration, Functionality, Creativity, Innovation, Development, SPACE DESIGN, Educational Institutions, Skilled Workers, and Users.

LOCATION



ACCESSIBILITY

The site is accessible through road, air, rail, and water modes of transportation. The nearest service road is NH 66 (4 lanes), which runs from Mumbai to Kanyakumari via Kochi.

1 Km: Edapally metro station, 3 Km: Edapally Railway Station, 8 Km: Edapalum Junction Railway Station, 24 Km: Cochin International Airport, 7 Km: Marine Drive Water Metro Station, 13 Km: Cochin Shipyard.

NEARBY PLACES OF INTEREST



Museum Of Kerala History, Marriott Hotel, Changampuzha Park, Thrissakara Temple.

SITE CONTEXT

Building Typology map.

The map displays the immediate vicinity of the site, featuring building types, roads, canals, bridges, surrounding vegetation, and an overview of available service layouts.

Services

Water supply line, Electric supply line, Mixed Use, Residential, Commercial, Government, Public Use, Parks.

Commercial, Residential, Institutional, Hospital, Government, Public Use, Parks.

Commercial, Educational Institutions, Skilled Workers, and Users.

Situated in an urban setting, the site is conveniently located just 1 km away from Edapally's city center, beside the Manjeri Canal. Within a 1 km radius, there are residential neighborhoods further within this 1 km radius, there are educational buildings and public spaces.

Electricity and water supplies can be obtained for a well within the site. Options for a well within the site can be explored for water usage. The site is situated near the man road, with an electric connection available at the site's approach road entry. Additionally, a public water supply line runs parallel to this setup.

The pre-monsoon water level in Edapally is approximately 0.8 meters above sea level (MSL), with a seasonal fluctuation of water levels varying from 0.6 to 1.0 MSL.

Preserving the significant trees and abundant foliage in the vegetative area of the site offers natural shading and contributes to maintaining the site's ecological balance. The presence of these trees significantly enhances the potential for a prominent nature-oriented design option in the area.

Trees such as coconut and arecanut can be strategically placed along the other edges, imparting a planned appearance. This not only creates a natural fence but also preserves the light and shade key elements along these edges.

PROJECT SITE



The project site lies within a residential area, including younger generations, and is surrounded by a well-equipped commercial neighborhood and essential services. This makes the site an ideal location for an incubation center.

LEGAL

Kochi Municipal Building Rules - 2019 (KMBR 2019): Site area: 1000 sq.m. Maximum permissible FSI: 3. Maximum permissible Coverage: 60%. Minimum access width: 10m.

Permissible building height: every 50 M built area Land use: Mixed - Residential and Commercial Frontage: 25m Rear and Side Setback: 2 M

NEIGHBORHOOD & SERVICE LAYOUT

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Implement efficient design strategies to minimize energy consumption during summer and fall afternoons.

Incorporate passive design strategies such as shading or initial operable sunshades to reduce heat gain during summer and fall afternoons.

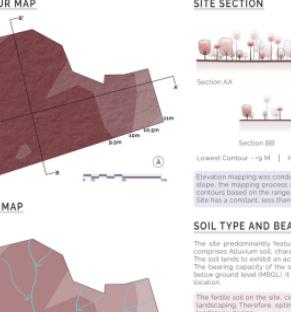
Maximize natural ventilation, shaded areas, and cross-ventilation for minimal air conditioning needs.

Integrate green roofs, rainwater harvesting, and solar panels for energy efficiency and sustainability.

WATER TABLE

The pre-monsoon water level in Edapally is approximately 0.8 meters above sea level (MSL), with a seasonal fluctuation of water levels varying from 0.6 to 1.0 MSL.

SITE CONTOUR MAP



Site has a downstream slope that leads to a water body. Water can flow into the canal/valley according to the geography.

SENSORY

The staffroom scenic views of the site are limited to land along the approach road, with minimal views on the other sides. Noise levels are primarily influenced by highways and followed by surrounding residential areas.

Taking into account views and noise analysis, it is advisable to centralize buildings on all sites for versatile activities. Residential buildings, toward water bodies and open spaces, should be landscaped along the edges, reducing disturbance within the site.

SUN-PATH & WIND DIRECTION

Wind rose diagram showing wind direction and speed ranges (0-5, 5-10, 10-15, 15-20, 20-25, 25-30, 30-35, 35-40, 40-45, 45-50, 50-55, 55-60, 60-65, 65-70, 70-75, 75-80, 80-85, 85-90, 90-95, 95-100).

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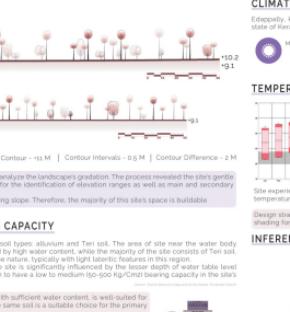
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SITE SECTION



SOIL TYPE AND BEARING CAPACITY

The site predominantly features two soil types: Alluvium and Teri soil. The area of site near the water body comprises Alluvium soil, characterized by high water content, while the majority of the site consists of Teri soil.

The bearing capacity of the soil in the site is significantly influenced by the lesser depth of water table below the ground level (MABL). It is known to have a low to medium (60-500 kg/cm²) bearing capacity in the site's location.

Elevation mapping was conducted to analyze the landscape's gradient. This process revealed the site's gentle slope, the mapping process allowed for the identification of elevation ranges as well as main and secondary contours. The site has a constant, less than 5% sloping slope. Therefore, the majority of this site's space is buildable.

Design strategies should focus on thermal comfort through ventilation, insulation, and shading for better comfort of users.

INFERENCE ZONING

The site has been divided into various zones based on its proximity to infrastructure and user needs.

Climate and On-Site Analysis

The site zoning has been formulated through the examination of climate and on-site features during site analysis. Efficient land parcels have been identified and designated for built spaces, including residential, commercial, and mixed-use areas. Pedestrian and vehicular movement pattern considerations various factors to enhance the strategic design movements within the site.

SWOT ANALYSIS

The same can fulfill non-potable water requirements for the project.

The canal serves as a focal point in the design's visual axis, promoting active and passive leisure space in the project.

The presence of multiple modes of transport in the vicinity presents an option to explore ways of commuting into the site.

The site's low-lying terrain necessitates careful planning during the monsoon season.

The proximity to the nearby highway enhances the site's accessibility for mobile users from the surrounding areas.

Arises with low vegetation provide design options for the site, making it more visually appealing and reducing confusion for new users.

The approach road leads to the site, making it accessible for the project.

The canal imposes risks of overflow and flooding during certain periods.

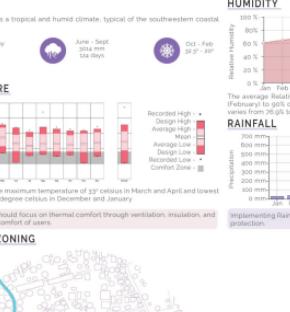
The diverse age groups within the community surrounding the site contribute to its accessibility for users.

Integrating efficient design strategies such as shading or initial operable sunshades for minimal heat gain during summer and fall afternoons.

Incorporating natural ventilation, shaded areas, and cross-ventilation for minimal air conditioning needs.

Maximizing natural ventilation, shaded areas, and cross-ventilation for minimal air conditioning needs.

CLIMATE



Rainfall

Implementation Rainwater Harvesting and suitable chajja projections could aid in water storage and wall protection.

TEMPERATURE

Temperature analysis shows that the site experiences the maximum temperature of 33° Celsius in March and April and the lowest temperature of 23° Celsius in December and January.

Design strategies should focus on thermal comfort through ventilation, insulation, and shading for better comfort of users.

HUMIDITY

Humidity analysis shows that the site has the highest humidity in March and April (around 80%) and the lowest in October and November (around 60%).

Design strategies should focus on thermal comfort through ventilation, insulation, and shading for better comfort of users.

WATER SUPPLY

Water supply analysis shows that the site has a constant water supply throughout the year.

Design strategies should focus on thermal comfort through ventilation, insulation, and shading for better comfort of users.

WATER TABLE

Water table analysis shows that the site has a constant water table throughout the year.

Design strategies should focus on thermal comfort through ventilation, insulation, and shading for better comfort of users.

WIND DIRECTION

Wind direction analysis shows that the site has a constant wind direction throughout the year.

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WIND VELOCITY

Wind velocity analysis shows that the site has a constant wind velocity throughout the year.

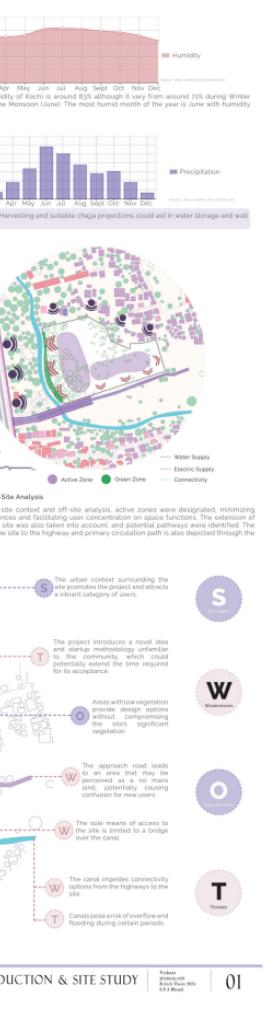
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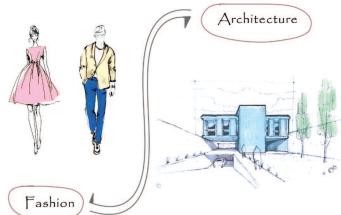
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INTRODUCTION & SITE STUDY



ARCHITECTURE AS FASHION

CONCEPT DEVELOPMENT



TRANSIENCE NATURE OF FASHION

TRAIL ROOM - DECISION POINTS

NOTION AND MANIFESTATION OF FASHION IN ARCHITECTURE



Blending aesthetics, trends, functionality and principles to create rejuvenating and modern spaces.

Spatial concepts merged with fashion ideologies for creating dynamic and engaging environments.



Fostering unity, inclusivity and collaboration among local community.

CONCEPTUAL FRAMEWORK

AXIS: Design incorporates conceptual principles drawn from fashion through axes



SEAMING OF MATERIALS: Integrating Different Materials seamlessly to create smooth transition over textures



LIGHT AND SPACE: Building forms and openings placed to create lighting and shading in spaces



SOLID AND VOIDS: Creating voids in solids, making innovative design expressions.



DATUM: Circulation paths that seamlessly links separate building volumes.



AXIAL ORGANISATION: Building masses organised over axes creating nodes and circulation through them.



LARGE FENESTRATION: Big Openings and Glass Walls incorporated in design elements in buildings.



TRANSITIONAL SPACES: Build forms opening into nature through pathways leading to seating spaces and waterbodies.



CLUSTERED: Build masses clustered over open spaces creating abstract courtyards.



SPATIAL TRANSITION: Circulation paths transits closed and open spaces.



INTERCONNECTIVITY: Buildings connected only certain levels in various spaces.



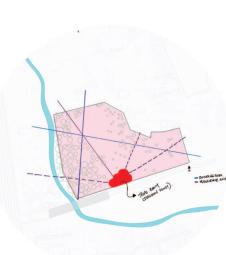
Vegetation



Site Analytical



Fashion Concept

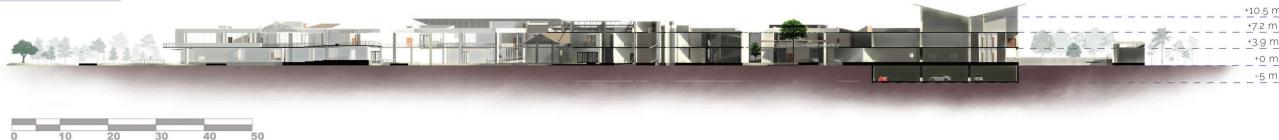


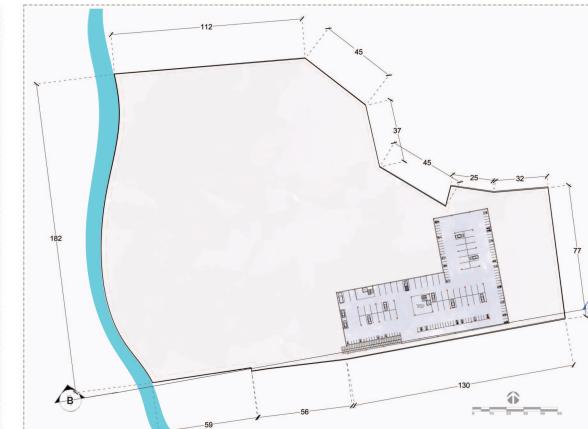
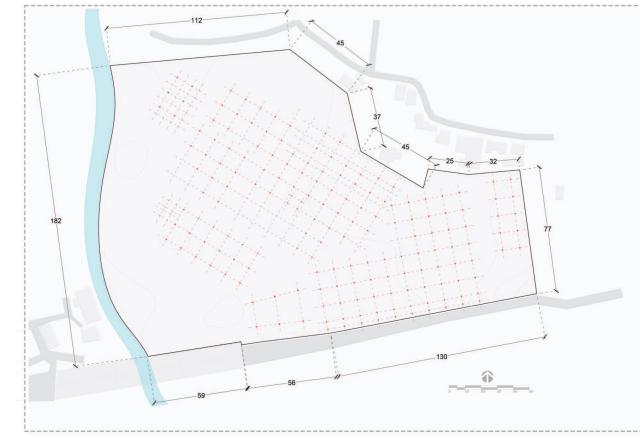
Fashion + Architecture

SITE PLAN



SITE SECTION AA'





BASEMENT FLOOR PLAN



-10.5 m
-2.2 m
-2.8 m
-0 m
-0.5 m

GROUND FLOOR PLAN



LIBRARY BLOCK DETAILS

VIEW D



VIEW E



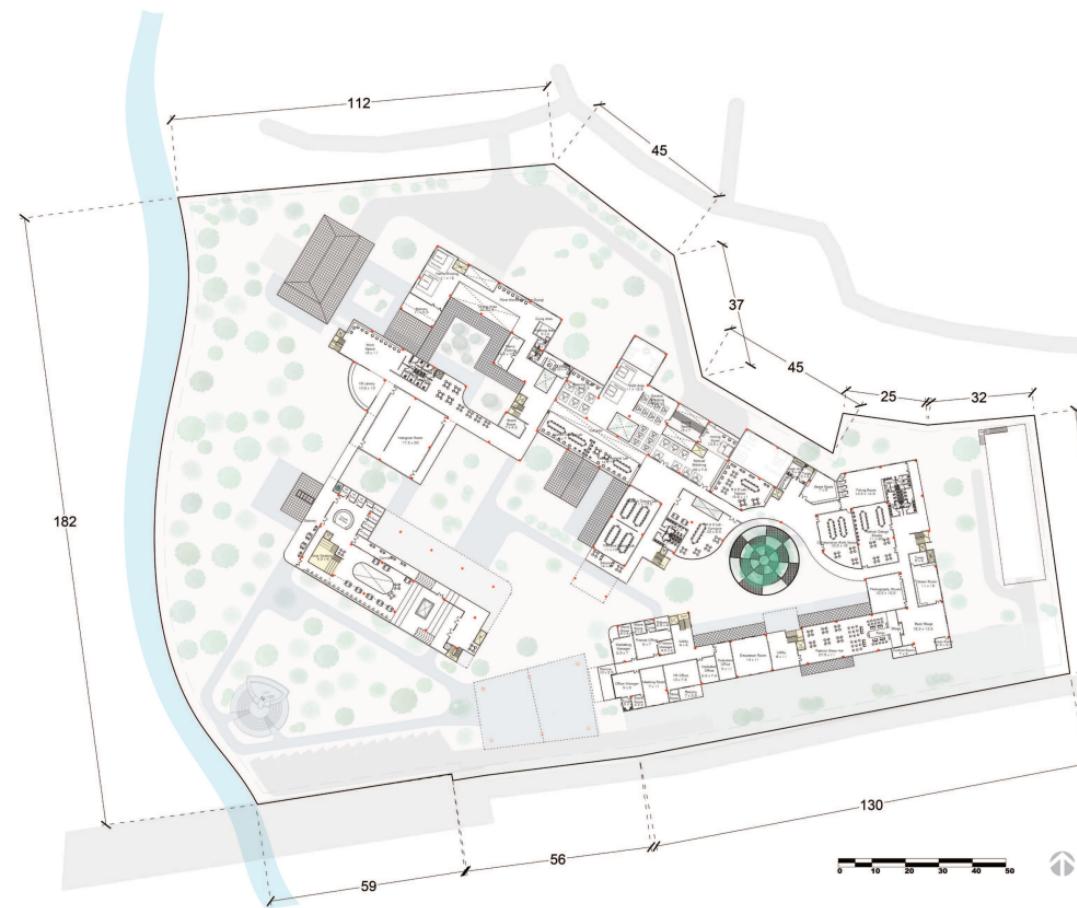
SECTION CC'



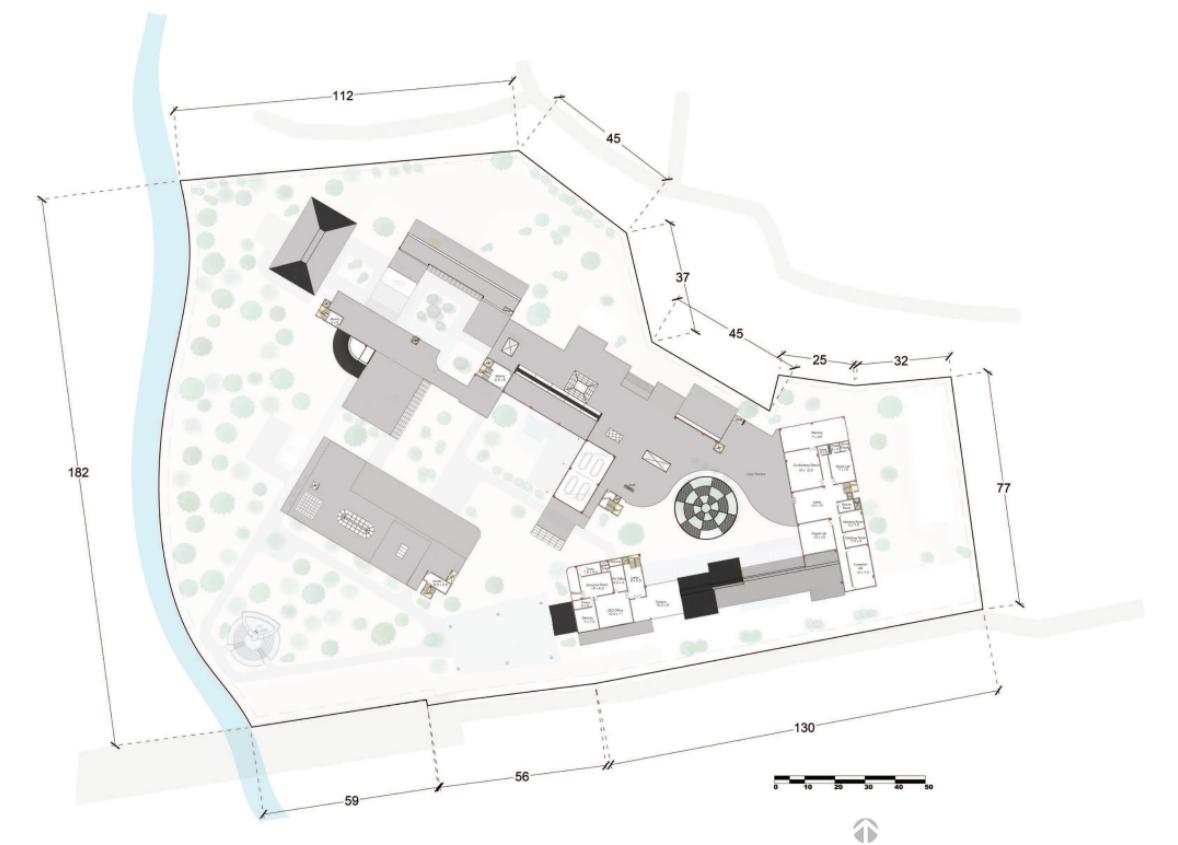
INTERIOR VIEW OF LIBRARY FROM RECEPTION



FIRST FLOOR PLAN



SECOND FLOOR PLAN



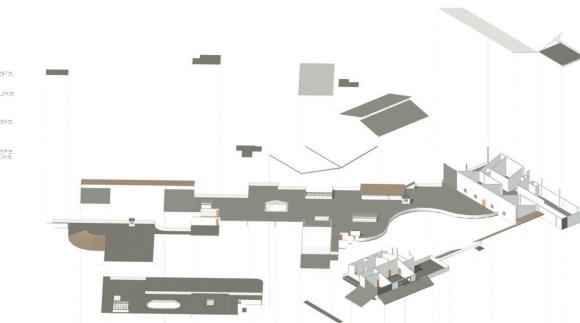
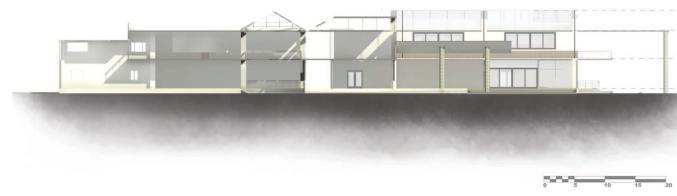
THE IMAGE FROM THE PATHWAY OFFERS VIEWS OF A WATERBODY, CANTEEN, AND OUTDOOR SEATING, SHOWCASING VARIOUS ROOFING STYLES, PLAYFUL OPENINGS, AND VARIATIONS IN SPATIAL HEIGHTS.



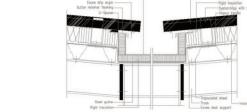
THE VIEW CAPTURES THE FASHION SHOW STUDIO, HIGHLIGHTING THE RAMP FOR FASHION WALK, STAGES, AND AUDIENCE SEATING AREAS.



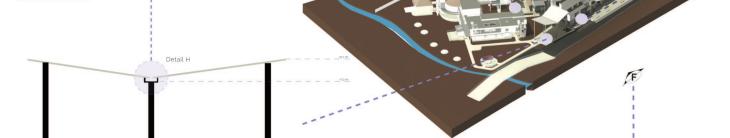
SECTION KK'



DETAILS H

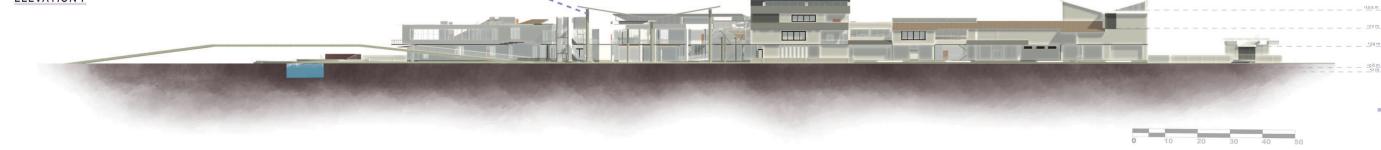


SECTION GG'



SECTION GG'

ELEVATION F



THE VIEW FROM THE FRONT OF THE CAFETERIA DISPLAYS ITS OPEN OUTDOOR SEATING ALONG A STREET PATH, OFFERING COMMUNAL SPACES, WITH A BASEMENT RAMP VISIBLE ON THE OTHER SIDE.



SECTION JJ'

