# PORTFOLIO

**Amoljot Singh**
May 2024

# Amoljot Singh ARCHITECTURE STUDENT | B. ARCH | FIFTH YEAR | 2024

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## Professional Summary

Creative young architect adept at designing residential, hospitality & commercial projects. Team collaborator. Problem solving approach & mindset.

## Experience

INTERN ARCHITECT | NOOR ARCHITECTS CONSULTANTS | CHANDIGARH June 2023 – December 2023
India's First Architecture Studio in Metaverse | noorarchitects.com

- Role - Computational Designer (Rhino7 & Grasshopper) for India's first 3D Printed Concrete Pavilion (3DCP) for EVage Motors.
- Interior Design for Radisson Phagwara (Hospitality Interiors), Homeland Regalia Apartment (Residential Sales Interiors) with the NOOR Team.

## Education

Bachelor of Architecture | Chitkara School of Planning & Architecture July 2019 – June 2024

## Licenses

Council of Architecture (The Architects Act, INDIA– 1972) Student Enrolment Number – COA-164520

## Certifications

- Structure, Form & Architecture IIT Roorkee
- Contemporary Architecture & Design IIT Hyderabad
- Interpersonal Skills & Business Communication
- Building Information Modeling with Revit
- Parametric Design with Rhino Grasshopper

## Software

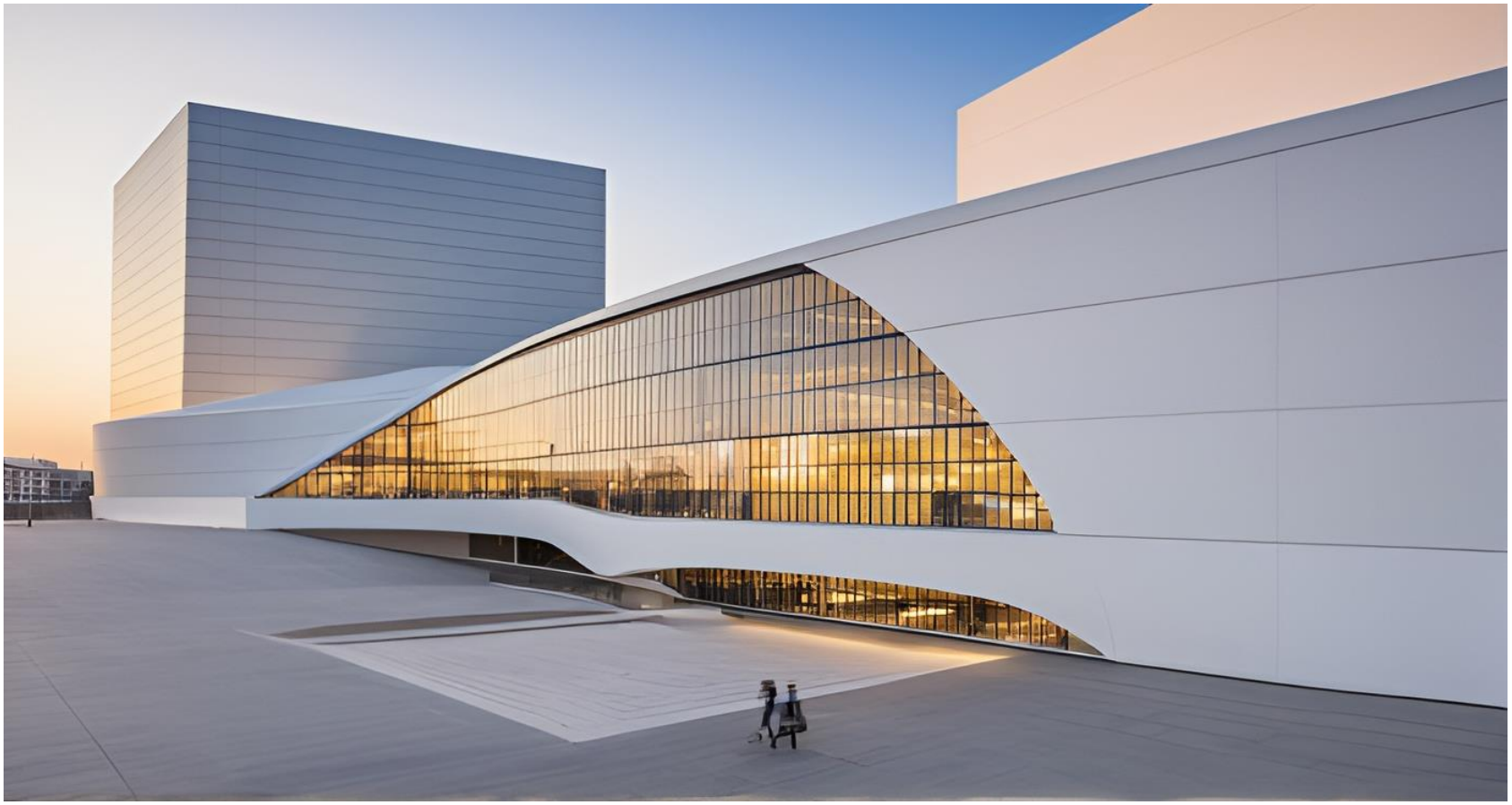
- Autodesk AutoCAD LT 2024
- Rhino8 & Grasshopper
- Autodesk Revit 2024
- Microsoft Word 2016
- Lumion & Twinmotion Engines
- Adobe Photoshop & Firefly Ai
- Blender 3D Modeling
- Prome A.i

## Skills

- Client Relationships
- Site Co-ordination

Contents

## Mixed Use Sector 62 Mohali – Thesis | Academic



Software: Rhino 3D + Prome A.I

In this architecture thesis, we embark on a journey into the realm of fluidic design, where the boundaries between form and function are reimagined through the lens of fluid dynamics. Inspired by the graceful twists and cross sections of tweens, the concept of fluidic design seeks to transcend rigid architectural conventions, embracing fluidity, dynamism, and adaptability.

Site Area: 14.47 Acres Maximum Ground Coverage: 45% F.A.R allowed: 1:3.0 (44.1 Acres)

Please note that the thesis project as of 10th April 2024, is still under progress, the render shown is imagined using Prome A.i using the 3D massing created in Rhino 3D. The portfolio will be updated with the final drawings and visualizations once the thesis concludes by June 2024!

For latest drawings up to the latest stages, please feel free to contact!

## 3D Printed Concrete Pavilion – NOOR Architects Consultants | Internship

Role: Computational Designer – Rhino 7 & Grasshopper


It is a project I was highly involved in while working as an architectural intern at N.A.C. I was involved as a Computational designer working on Rhino 3D & Grasshopper, Blender 3D & Lumion. The project has reached its late stages of completion. 3DCP building technology might just be the future of building construction. 3DCP concept is new yet it looks promising. 3DCP projects have low carbon footprint and allow mass production in shorter time span while still making sure every project is unique.

**The project can be located digitally on NOOR website at noorarchitects.com**

Working on this project offered its unique challenges. Being a part of the NOOR team, I had worked in close collaboration with the Principal Architect Noor Dasmesh Singh and the project had been a very fruitful and professionally satisfying experience.

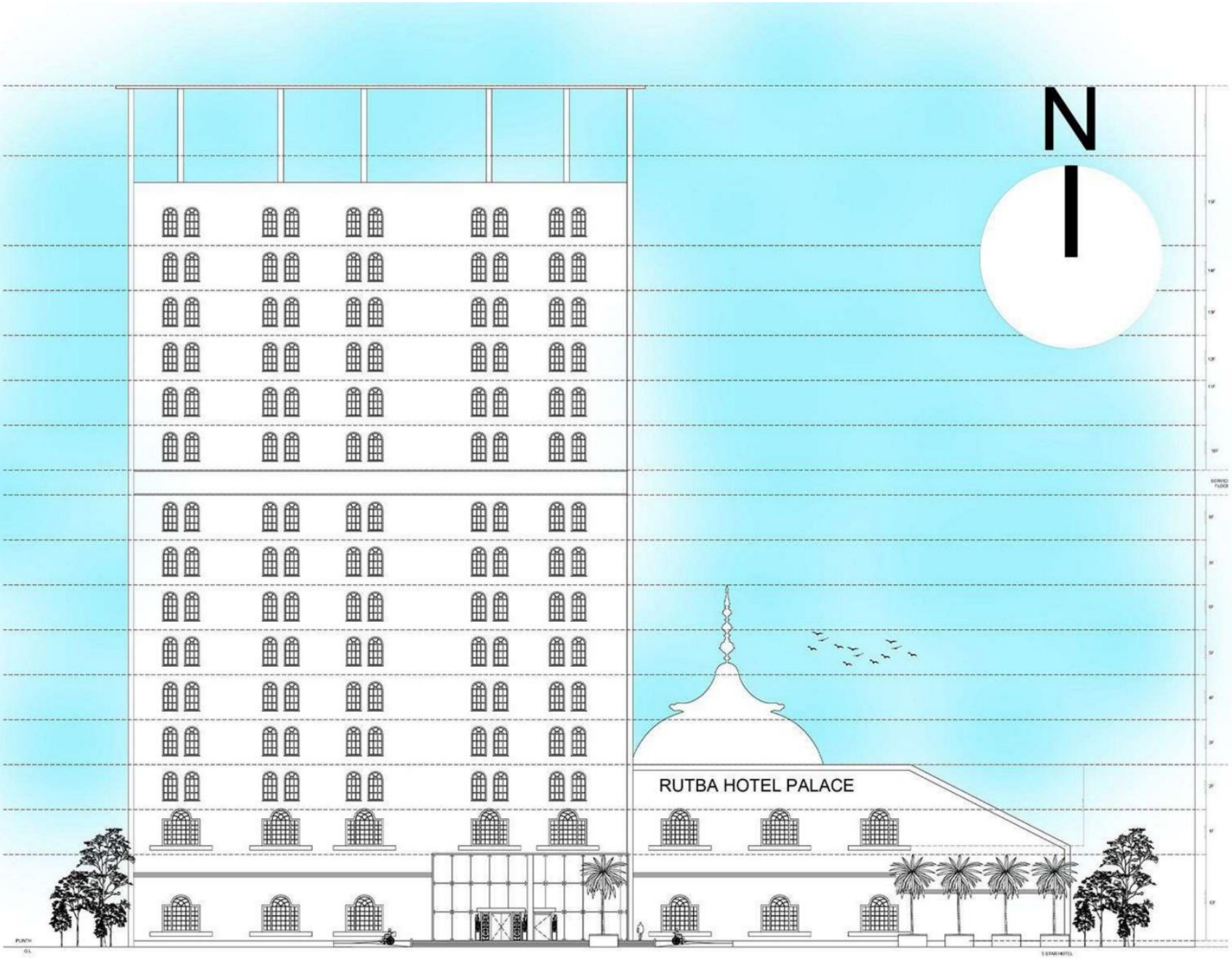

Software: AutoCAD LT 2022 + Blender 3D

The Rutba Hotel Palace is a prestigious 5-star hotel project designed as part of the semester 7 curriculum for a Bachelor of Architecture degree. Inspired by the timeless elegance of Rajputani architecture and the regal charm of traditional havelis, this hotel exudes a sense of grandeur and sophistication.

Rajputani Influence: The hotel draws inspiration from the rich architectural heritage of Rajasthan, featuring intricate carvings, majestic arches, and ornate detailing reminiscent of Rajputani palaces. The design pays homage to the cultural legacy of the region, showcasing traditional craftsmanship and artistry.

Haveli-like Structure: Embracing the architectural style of a traditional haveli, The Rutba Hotel Palace boasts a courtyard-centric layout with interconnected wings surrounding a central open space. This design creates a sense of intimacy and community while providing guests with a serene oasis in the heart of the hotel.

Tranquil Retreat: Despite its central location, The Rutba Hotel Palace provides a tranquil retreat from the hustle and bustle of city life. Lush gardens, serene courtyards, and tranquil water features offer guests moments of relaxation and contemplation amidst the hustle and bustle of the city

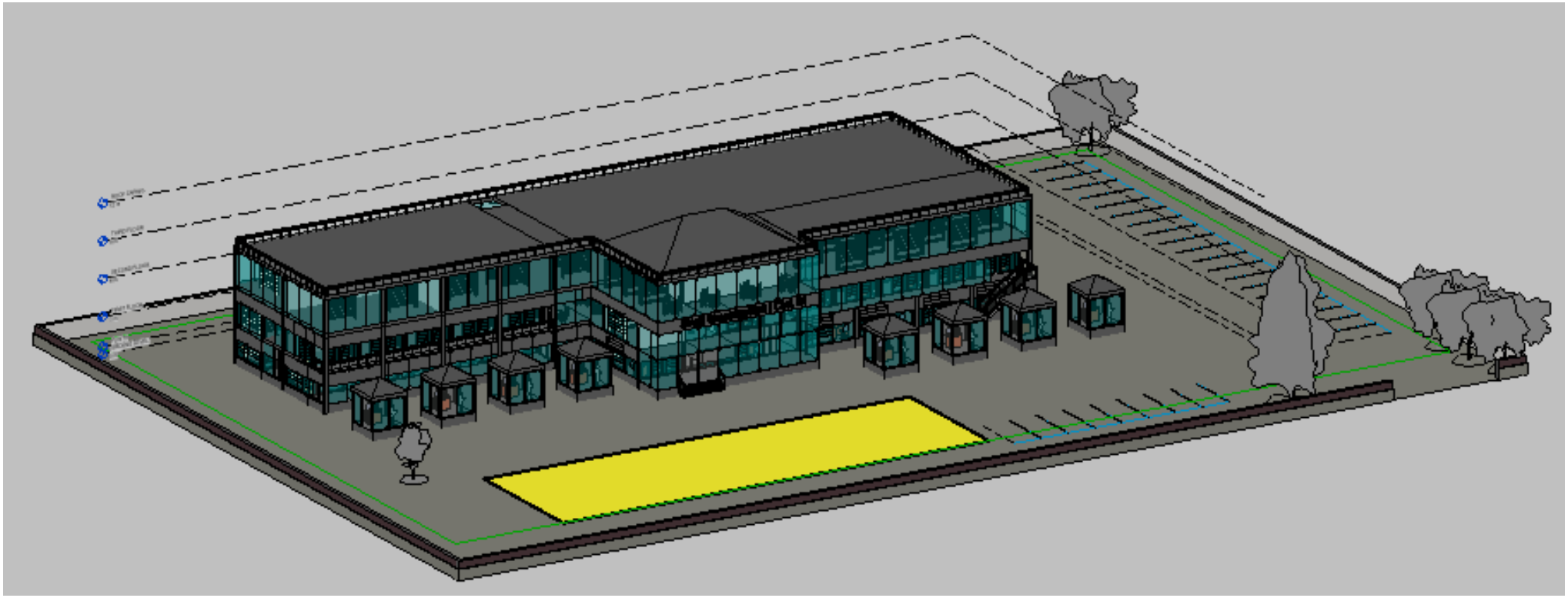

N
RUTBA HOTEL PALACE


GROUND FLOOR PLAN HOTEL BLOCK

## Commercial Complex | Academic

Software: Autodesk Revit + Lumion 10.5

The project is a commercial complex I created for my ETE in Semester 5, It was my first project I created using Revit, learning from various sources including YouTube videos, Balkan Architect, Autodesk documents and community BIM forums. During Covid 19 Lockdown, our Design ETE was conducted through online mode only, and we had the flexibility to attempt it by either hand drawn sketches/drawings and/or through digital mediums using software of our choice. Withing the stipulated time of 12 hours, stretched over 2 days, I created this Revit model. I was always keen on learning new technology, and to me it had been a fruitful experience. While now I understand the importance of Building Information Modelling, back then the man unique selling point Revit offered to me was the automatic drawings creation, I just did the floor plan and the Elevations/Sections, how many I want to generate, all were created and updated automatically, this helped me academically and ignited some serious curiosity for new tech in the industry.



The render provided was not submitted to the Google Classroom link, as it was rendered a few days after the ETE concluded. Ever since, the Render has been put on display on my website, at **amoljotsingh.github.io**

## The Vatika – Affordable Housing | Academic


Software: Autodesk AutoCAD LT 2022 + Blender 3D

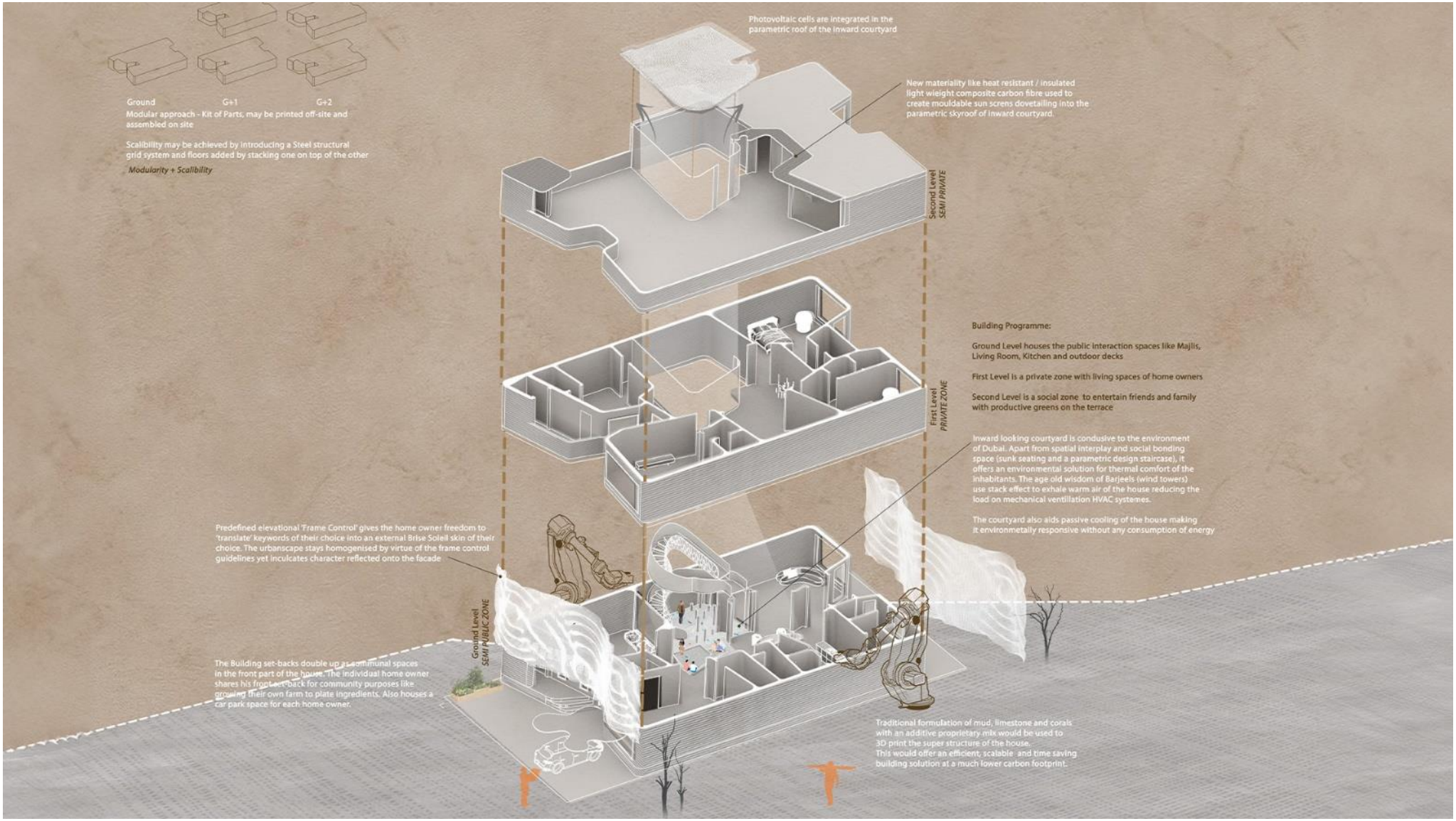
Welcome to "Vatika" – an innovative approach to affordable housing that redefines the concept of low-cost living. Developed as part of my sixth-semester Bachelor of Architecture course, Vatika embodies the principles of sustainability, affordability, and community-centric design. Inspired by the pressing need for accessible housing solutions, this project aims to provide comfortable and dignified homes for individuals and families from diverse socio-economic backgrounds.


At the heart of Vatika lies a commitment to sustainability and environmental responsibility. The design prioritizes natural ventilation and passive cooling strategies to enhance comfort and reduce reliance on mechanical systems. The use of exposed brick finishes not only adds a rustic charm to the architecture but also minimizes construction costs while promoting thermal efficiency.

Through careful planning and thoughtful consideration of spatial layout, Vatika fosters a sense of community and belonging among its residents. Shared green spaces, communal gathering areas, and pedestrian-friendly pathways encourage social interaction and promote a vibrant neighborhood atmosphere.

In essence, Vatika represents a holistic approach to affordable housing that addresses the pressing needs of today while laying the foundation for a more sustainable and inclusive future. Join me on a journey to explore the transformative potential of architecture in shaping communities and improving lives.

# House of the Future 3DCP – NOOR Architects Consultants | Internship



Role: Active Design Discussions, 3D modeling in Rhino, Graphic Illustrations

Design Brief:
Our deep-rooted modernist ethos has lent a clean, flowing space with its superstructure proposed to be printed in clay. A traditional formulation of mud, limestone and corals with an additive proprietary mix would be used to 3D print the super structure - the walls encasing the house.

Testing & deploying emerging technologies like 3D print to efficiently print habitable modules is a promising prospect. Using the technology gives the user the freedom to print newer floor plans based on individual requirements without having to compromise on pre-defined 'available' Builder floor layouts. This helps create individualistic designs without any premium over the standard costs.

At the level of facades, we have attempted to define a 'Frame Control' which lets the user generate the outer skin of the house with a reflection of their our 'personality'. Since homes are an emotional subject in each one's life, one has the ability to transform his or her likings into a 'tangible design' translated on ground.

Carbon footprint would be low due to 3D printing (avoids huge site wastage of building material), sustainable due to choose of building material and close to each home owners' heart. These designs are proposed to be modular in nature and in case a requirement exists for scaling up, a steel structure is proposed to act as a modular vertical structural system to stack up and infill with 3D print walls. Other innovations from environmental aspects are also deployed where the opportunity arises.

## Homeland Regalia (Interiors) – NOOR Architects Consultants | Internship

Role:

Active Design Discussions, 3D Modelling & Rendering in Blender 3D,

preparing furniture schedule,

Skirting and false ceiling Details

During my internship, I had the opportunity to contribute to the interior design of the show flat for Homeland Regalia, a prestigious residential development. This project involved translating the vision of the client into a captivating and functional living space that would appeal to potential buyers.

**The project can be located digitally on NOOR website noorarchitects.com**

## Elysian Blend Villa | Personal

The word "Elysian" evokes a sense of beauty and paradise, while "Blend" reflects the harmonious combination of old European architecture and modernist design principles in your villa project.

Elysian Blend Villa is a unique architectural masterpiece that seamlessly blends elements of old European architecture with modernist design principles. Inspired by the timeless elegance of European villas, this project reinterprets traditional architectural features such as arch windows and intricate detailing within a contemporary context.

The villa's façade is characterized by a harmonious juxtaposition of classic arch windows on the lower levels and sleek glazing on the top floor, creating a visually captivating contrast between past and present. This blend of old-world charm and modern sophistication reflects a thoughtful approach to architectural design, where heritage meets innovation.

Throughout the interior spaces, the fusion of old and new continues, with spacious layouts and clean lines complemented by ornate mouldings and classical motifs. Large windows flood the rooms with natural light, blurring the boundaries between indoor and outdoor living and enhancing the sense of openness and connectivity.


Elysian Blend Villa is more than just a residence; it is a testament to the power of architectural storytelling, where tradition and innovation come together to create a timeless and inspiring living environment. Whether admired from the street or experienced within its walls, this villa stands as a testament to the enduring allure of architectural synthesis and creative expression.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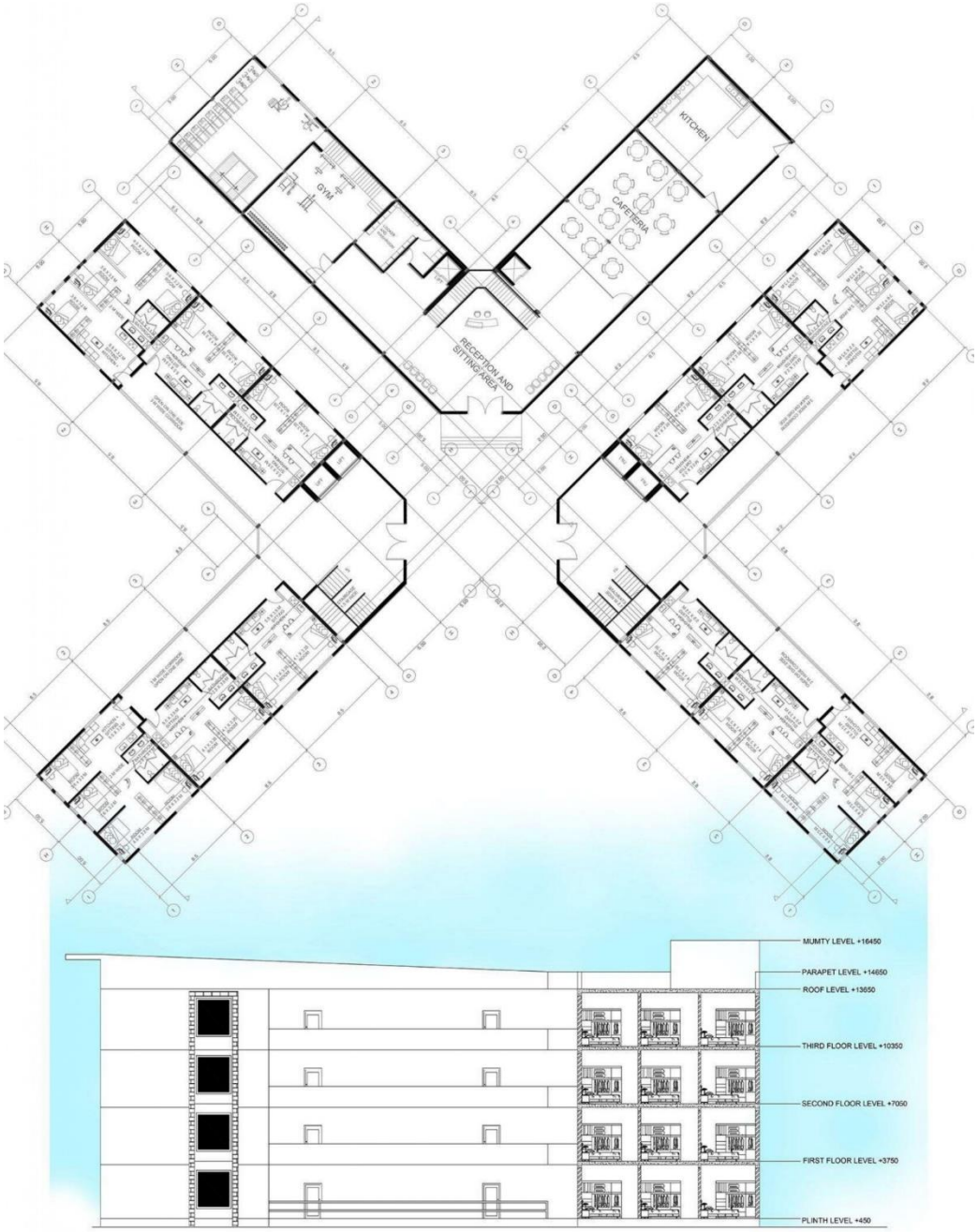
Role: Site Plan, Landscaping, 3D Modelling & 3D Rendering

When a student migrates to another city or a state for pursuing higher education finding a suitable accommodation that lies a proximity to the institute and offers basic amenities is a primary concern. On campus housing have a limited capacity & hence students prefer a “Paying Guest’ accommodation where in a lot of composites is to be done in terms of living conditions. The project intends to solve such problems & provided an affordable sustainable alternative The project was completed in collaboration with my very dear friends, Arsh Bhatnagar & Atul Mehta

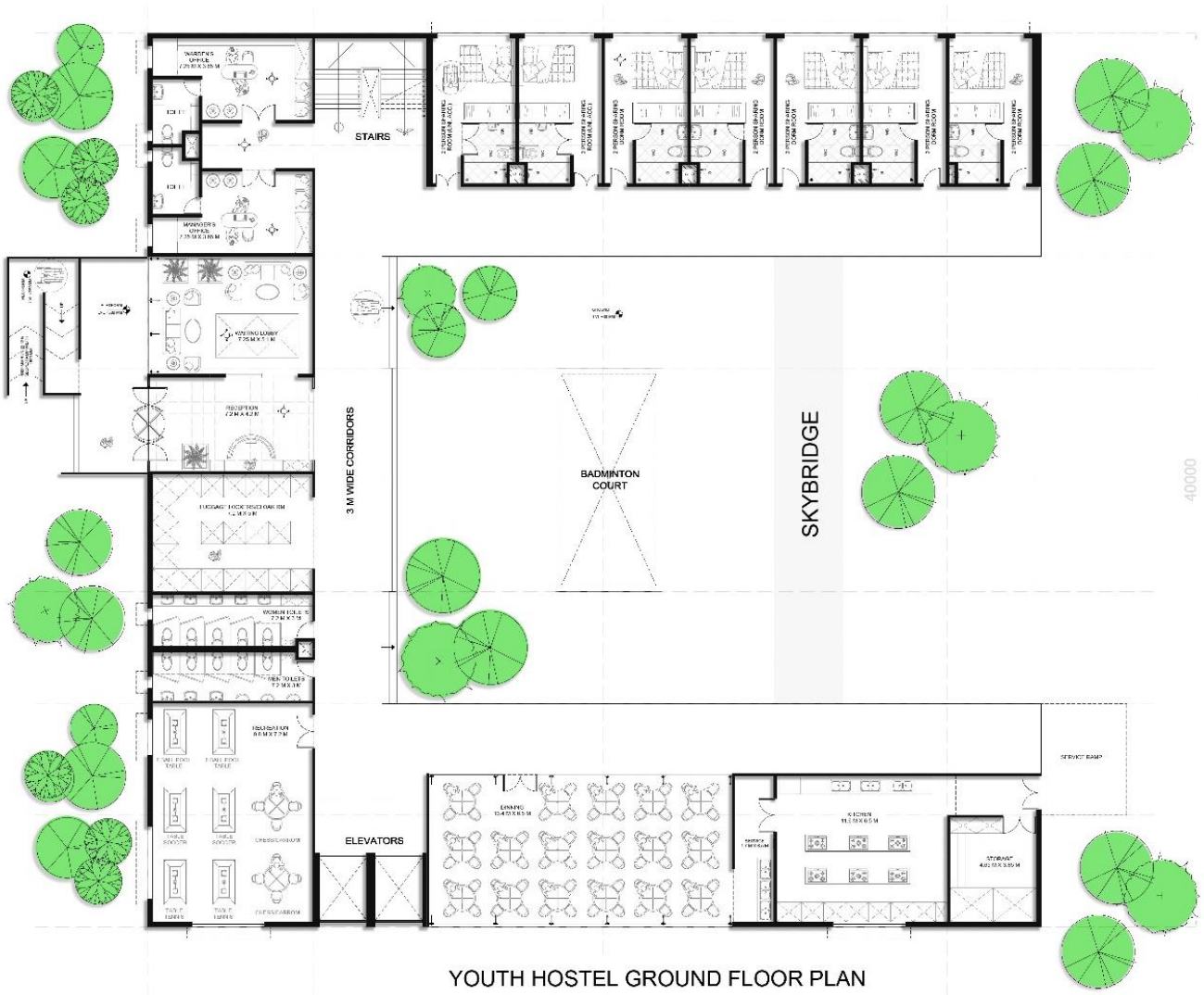
Site Location: Noida, Uttar Pradesh Site Area: 14,688 sq. m Ground Coverage allowed: 30% of the total site area on campus housing have a limited capacity & hence students prefer a PG i.e. “Paying Guest” accommodations where in a lot of composites is to be done in terms of living conditions. The project aims at solving these problems & providing an affordable, comfortable space for students.



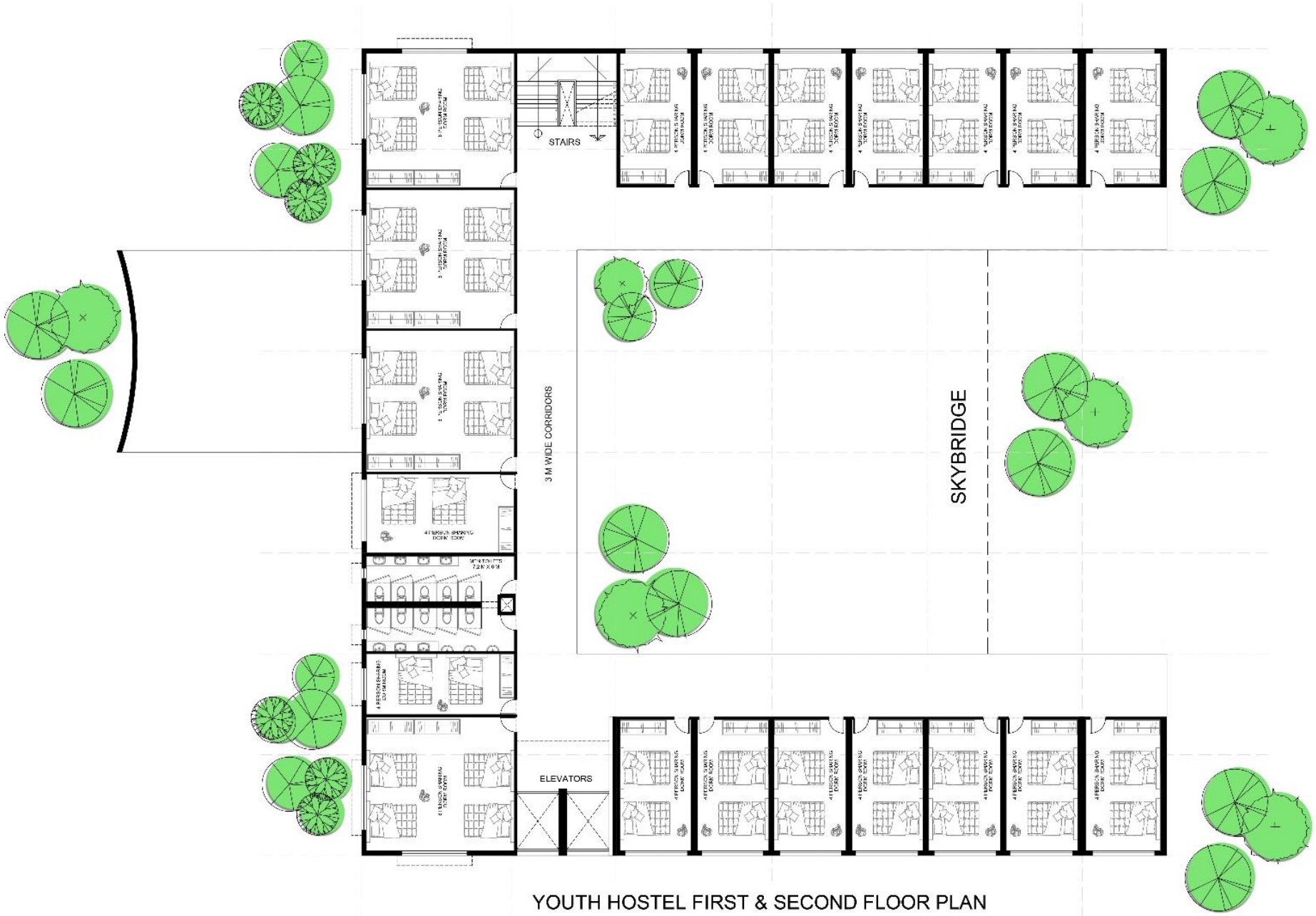
## Inspiration Hostel 2021 | Academic

The pace of urban life, information overload, visual and noise pollution, invasive advertising and other external factors constantly overstimulate our senses altering and distorting our perception of reality. Nowadays it is difficult to find an evocative space for inspiration, which is not only an aesthetically pleasing site, but also psychologically and emotionally neutral, where it is possible to concentrate, clear the mind, the consciousness and the artistic sensibilities. Therefore, there is a need for spaces that promote concentration, artistic inspiration and meditation.

Artist retreats are breaks from life that allow craftspeople working in different media to experience a calming environment in which to create rewarding work within a community. Artist retreats can help us to not only enhance our artistry but also work on ourselves. Site has been visualized in Alps, Italy. Site features a splendid view at the foot of the Alps, the site has been designed for abundant sun.




YOUTH HOSTEL GROUND FLOOR PLAN

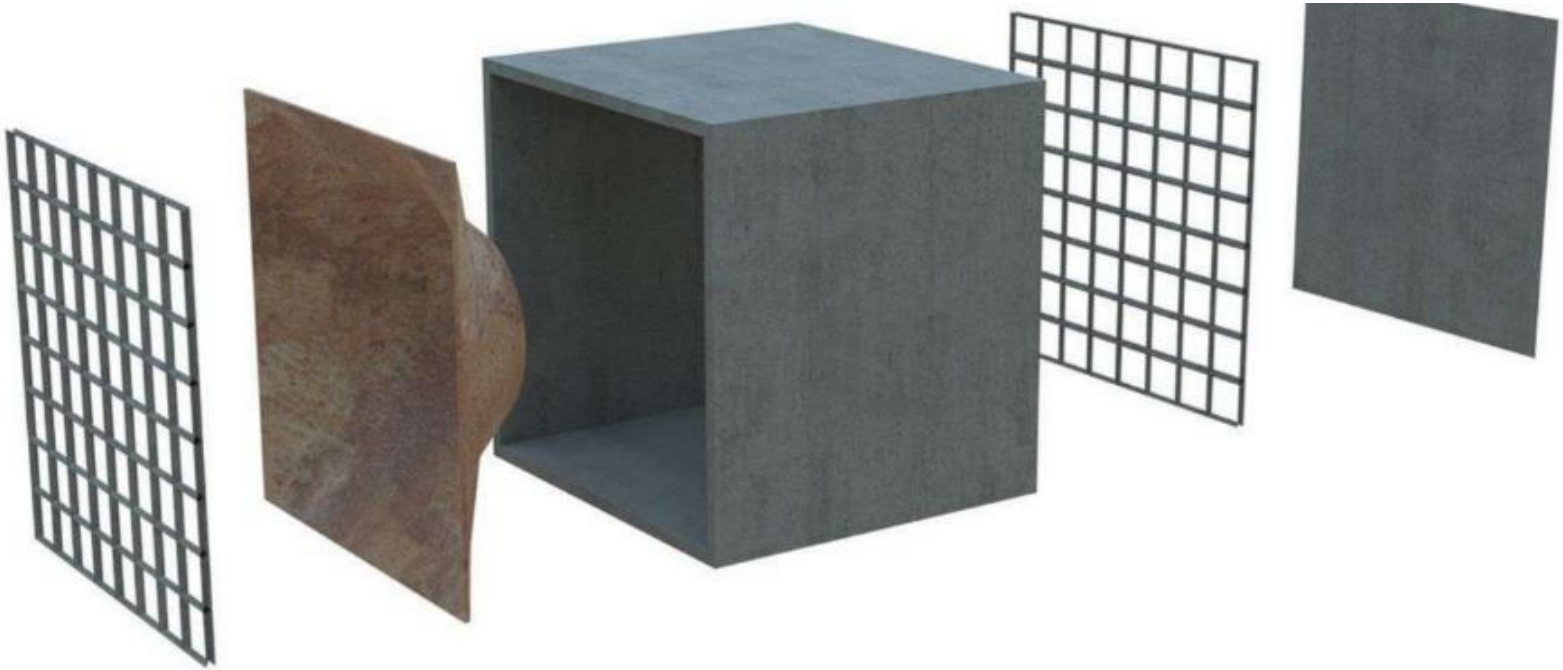



YOUTH HOSTEL FIRST & SECOND FLOOR PLAN

## Chandigarh Flee Market | Personal

The Concept I derived was inspired from the Bernoulli's theorem, Bernoulli's principle formulated by D. Bernoulli states that as the speed of a moving fluid increases (liquid or gas), the pressure within the fluid decreases. The concept for these perforated walls in a way resembles filler slabs, using these tiled hollow components stitched together, the clay/hardened mud funnel like structures allow air to pass through a wider area, while re-routing it out through the narrow funnel end, forcing wind to pass through lesser cross-sectional area increases wind speed, makes the wind feel ‘cooler’.

Resembling implementations can be found dating back to Vedic age in India.



## Hephaestus – A Dynamic Design Study Series

Kindly Scan the QR Code provided to be redirected to the Instagram Page for the Hephaestus Design Series