



DESIGN RESEARCH AND EXPERIMENTATION ON THE HYBRIDIZATION OF WOOD WITH OTHER MATERIALS

EKORU PARTNER OF THE **MASTER IN WOOD**
ARCHITECTURE BY YACADEMY



BOERI
STEFANO
BOERI
INTERIORS

mario cucinella architects
MC A

EKORU

The Master in Wood Architecture by Yacademy was created to guide designers and professionals in rediscovering and evolving wood as a contemporary structural and architectural material. A training program designed to bring together design culture, technological innovation and sustainability, through the joint contribution of companies, teachers and internationally renowned architecture firms.

A training program made up of:

84 HOURS

OF CLASSROOM TEACHING

32 HOURS

OF DESIGN WORKSHOP



NUMEROUS LECTURES
BY INTERNATIONAL-LEVEL PROFESSIONALS

Participants explored the wood supply chain, the study of different wood species, and the characteristics of a living material.

The master was created with the goal of training a new generation of designers capable of using

WOOD AS A STRUCTURAL AND ARCHITECTURAL MATERIAL,

exploring not only its technical characteristics, but also its cultural and environmental value. Wood is in fact one of the oldest materials in the history of architecture: from the earliest human settlements to the temples of ancient Greece, from the pagodas of the Far East to the great roofs of Gothic cathedrals, its presence spans centuries of building history.

Today, faced with environmental challenges and the need to reduce the impact of construction on the planet, wood returns to the center of the design debate. It is a

RENEWABLE, NATURAL RESOURCE WITH A VERY LOW CARBON FOOTPRINT,

capable of combining technical performance, healthiness and aesthetic quality, giving buildings a warm, human and welcoming character.



In this context, the collaboration with **Ekoru**, also takes place, involved as a partner of the program and lead for the module dedicated

TO THE **HYBRIDIZATION** OF WOOD WITH OTHER MATERIALS.

A contribution aimed at sharing experiences, design approaches and application possibilities related to the integration of different construction technologies.

The master thus represents a concrete opportunity for exchange between the academic world and production realities, where different skills converge to explore new models of living and building.





During the training module, the master's participants developed

RESEARCH AND DEVELOPMENT PROJECTS USING THE EKORU CONSTRUCTION SYSTEM,

applying it to very different geographic and functional contexts.

The projects addressed specific needs - such as educational facilities, residential buildings and spaces dedicated to elderly care - in contexts ranging

FROM AFRICAN VILLAGES TO EUROPEAN CITIES,

demonstrating the flexibility of the system and its ability to adapt to different climatic, social and urban scenarios.



The goal of this design activity was not only practice, but also exploration:

participants had the opportunity to engage with

A REAL CONSTRUCTION TECHNOLOGY,

experimenting with innovative solutions and assessing how the integration of materials can generate sustainable, efficient and replicable architecture.

The value of the master also lies in the quality of the international network that drives it.
Participants worked closely with internationally renowned professionals
and architecture firms, including

STEFANO BOERI INTERIORS **AND MARIO CUCINELLA ARCHITECTS**

engaging with high-profile design experience and innovative approaches to
sustainability and contemporary architecture.

BOERI

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Ekoru is a company that constantly invests in the innovation of construction systems with the goal of significantly raising the quality standards of building processes and the well-being that the finished result must guarantee.

In this approach, the design phase cannot be separated from dialogue with the construction phase, in order to **optimize the use of materials, systems and resources**.

The construction process becomes engineered and carried out through **controlled industrial processes**, following an *off-site construction* model, which makes the final result more certain from every point of view.





AN IMPORTANT OPPORTUNITY TO ENGAGE WITH THE WORLD OF **RESEARCH** AND **ADVANCED DESIGN**.

Through dialogue with young architects from international backgrounds, the construction system is observed, reinterpreted and applied to new project typologies, helping to fuel an ongoing process of innovation.

At the same time, those designing the cities of the future have the chance to gain experience with innovative building systems.



The participation of students and partners confirms their commitment to

A MORE CONSCIOUS WAY OF BUILDING,

in which technology, sustainability and architectural quality
can converge to **shape the spaces of the future.**





DEVELOPED PROJECTS



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KINDERGARTEN

Authors

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Tutor

Lapo Naldoni

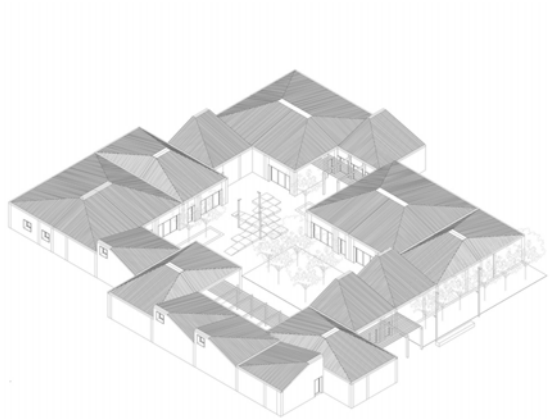
Context: rural (southern Italy)

Climate: hot (winter: +7, summer: +40)

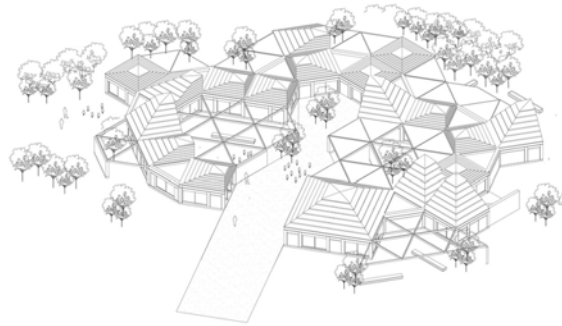
Plan: irregular (less defined boundaries,
delimited by the natural context, open shape)

ISOMETRIC VIEWS

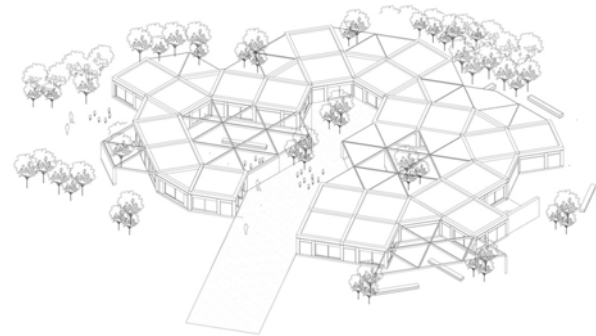
CASE STUDY N° 1



CASE STUDY N° 2

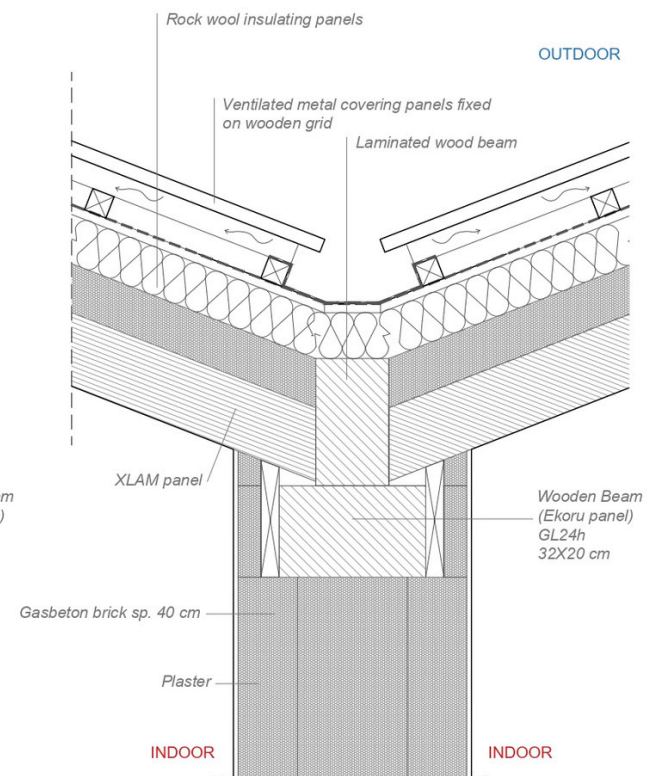
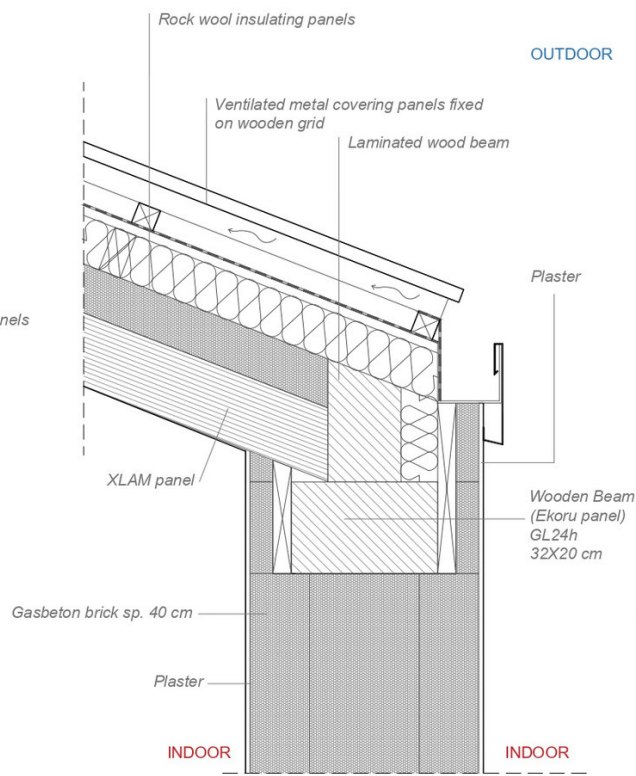
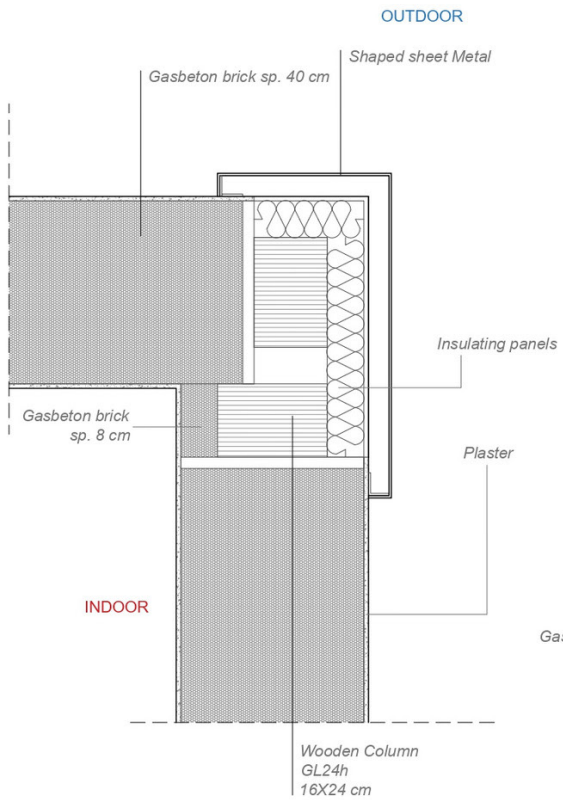


Sloped roof proposal



Flat roof proposal

CONSTRUCTIVE JOINTS DETAILS



SLOPED ROOF PROPOSAL



FLAT ROOF PROPOSAL





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RESIDENTIAL COMPLEX

Author

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Tutor

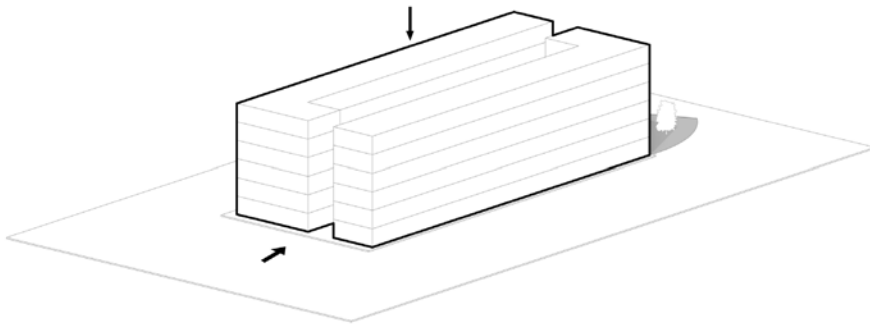
Arch. Giorgio Donà
Arch. Jacopo Abbate
Arch. Cansu Usta

Context: peri-urban (Cameroon)

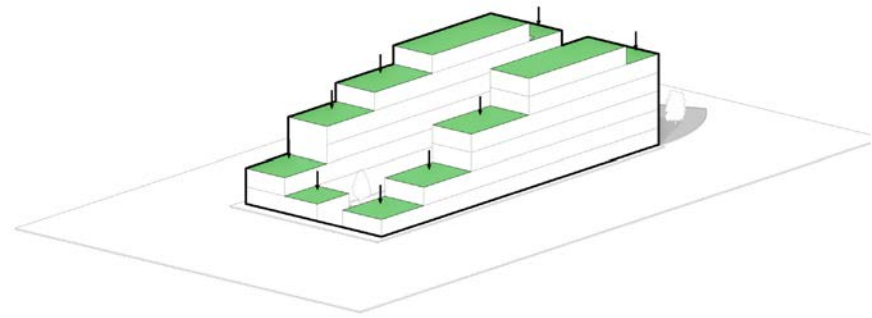
Climate: hot (winter: +15, summer: +40)

Plan: rectangular (delimited by the urban expansion context)

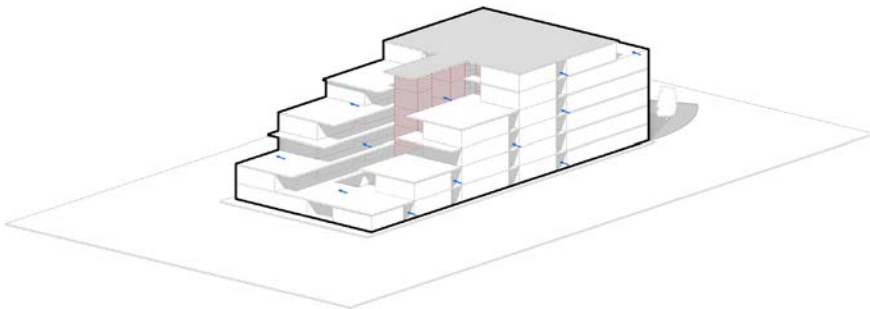
Conceptual Approach



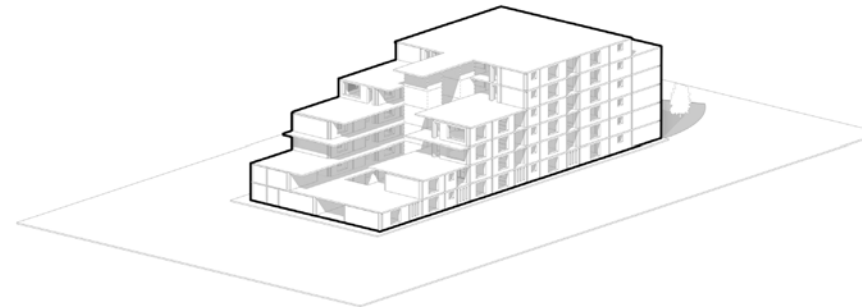
1. Basic shape with central courtyard



2. Create terraces by sculpting the volumetry



3. Create circulation while ensuring fire safety, and promote natural ventilation and lighting



4. Integration of ekuro technology

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Interior and exterior renderings

Exterior rendering / Lateral view



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Interior and exterior renderings

Interior / Bedroom





RESIDENTIAL COMPLEX

Author

NDE KEULEK Sidoine Baudrel

Tutor

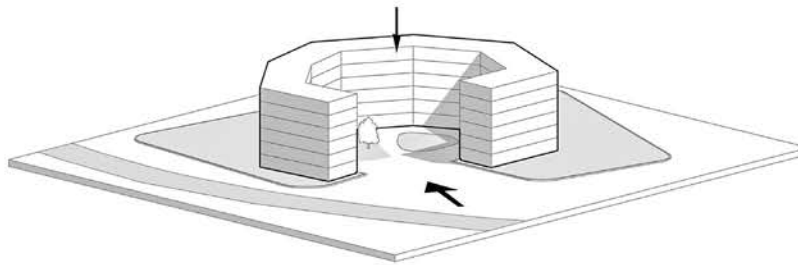
Arch. Giorgio Donà
Arch. Jacopo Abbate
Arch. Cansu Usta

Context: rural (Cameroon)

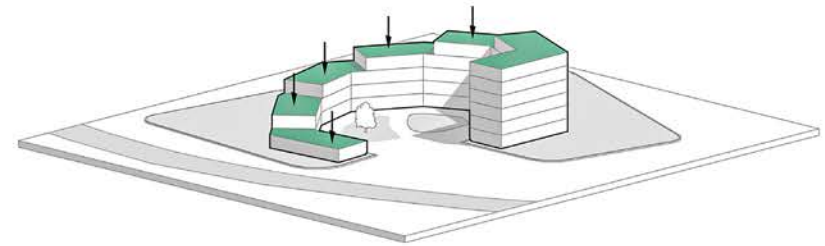
Climate: hot (winter: +15, summer: +40)

Plan: open octagonal (divides interior space from exterior zone)

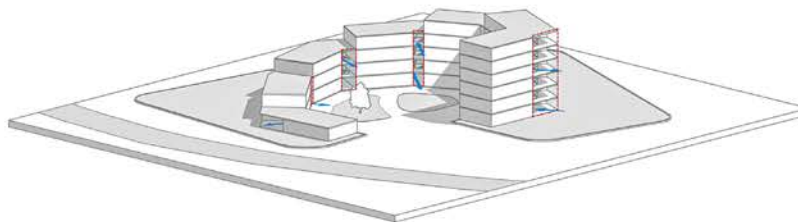
Conceptual Approach



1. Basic form with central courtyard



2. Creation of terraces by carving into the volumetry



3. Ventilation aspect and fire safety



4. Ekoru system aspect

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NDE KEULEK Sidoine Baudrel

Interior and exterior Renderings

Exterior Rendering

View of the entrance



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Interior and exterior Renderings

interior Rendering

Bedroom residential unit





MULTI-FUNCTIONAL COMPLEX

Author

Frانيا Sebe

Tutor

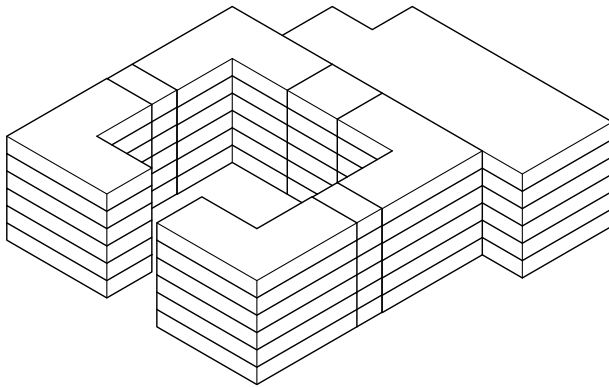
Arch. Giorgio Donà
Arch. Jacopo Abbate
Arch. Cansu Usta

Context: urban (Germany)

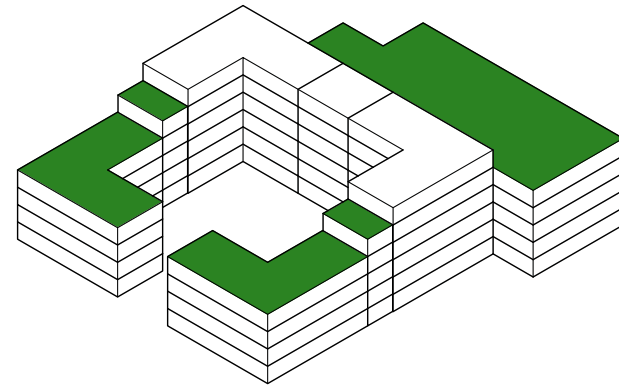
Climate: cold (winter: -10, summer: +30)

Plan: regular composite (suitable for multiple uses)

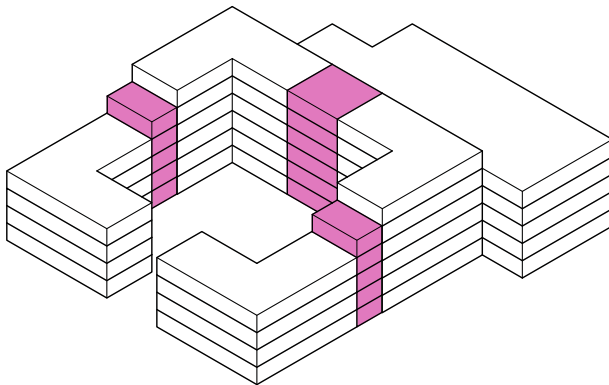
Conceptual Approach



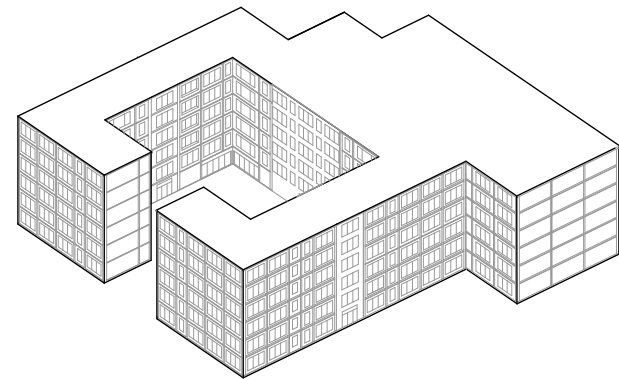
1. Basic shape with central courtyard



2. Create terraces by sculpting the volumetry

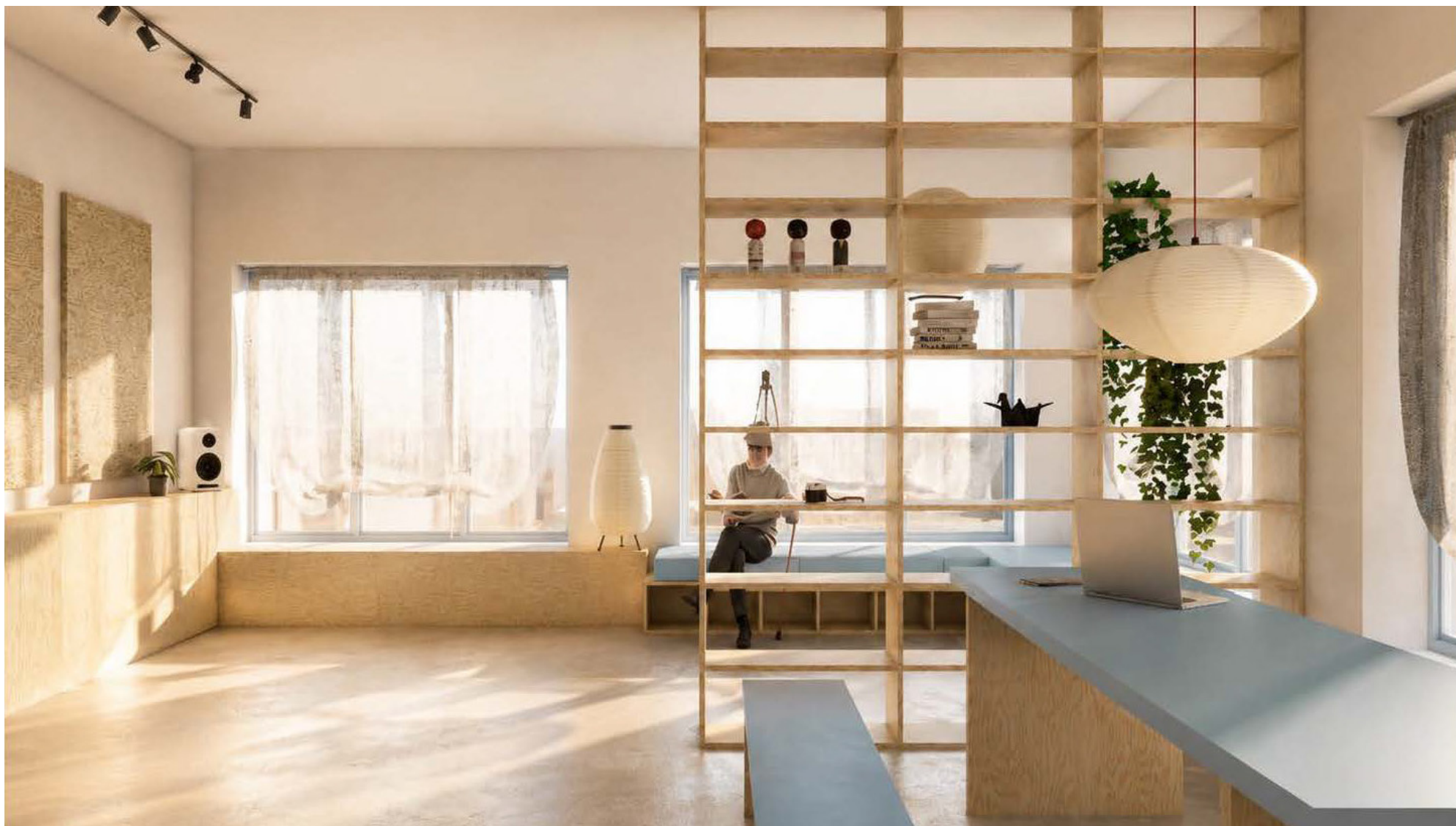


3. Create circulation while ensuring fire safety, promoting natural ventilation and lighting



4. Integration of EKORU technology







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