

Postgraduate | BASEhabitat

Master of Advanced Studies - Architecture

Summary activities 2022



Credits: BASEhabitat

Postgraduate | BASEhabitat
Master of Advanced Studies - Architecture
Summary activities 2022

Kunstuniversität Linz | University of Art and Design Linz
die architektur

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This report is a summary of the activities that took place between April and December 2022. It includes the elaboration of the material provided by the guest professors and photos taken during the course.

The photos contained in this document are from BASEhabitat, except when something else is mentioned.

Report made by Marta Rota
February 2023

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1. Design and Theory in Linz, Austria

April - September 2022

The core part of the **Design and Theory** term in Linz consisted of 3 modules focused on the three aspects of sustainability (social, environmental and economic) in order to establish a set of common design tools.

The term was organized around a project-based design studio, anchored by theoretical lectures, seminars and practical workshops. Participants worked independently in different projects in groups and individually and benefited from the knowledge, skills and teaching method of each guest professor.

The Postgraduate began with the **Introduction week**, during which students got to know each other, the guest professors and the University through various activities organized by Marta Rota, the coordinator of the program.

As part of the **Design Studio** held by Markus Dobmeier, students designed and planned the Kyaninga Inclusive Model School in Western Uganda. All needs, restrictions and possibilities of the real context and their effects on spatial and architectural qualities had been taken into consideration. Addressing the cultural and socio-economic context was just as important as developing simple and constructive solutions and technical design details.

With Elisa Engel in the **Social Entrepreneurship** module, students learned how to present a project to potential funders, project partners and project beneficiaries. The outcome was a detailed project plan. Through the combination of lectures and group exercises, students have acquired practical skills to start their own community-based projects.

In a combination of workshops and lectures, students were introduced to **Sustainable materials (earth and fibers)**. With the guidance of Gian Franco Noriega of Amaco, they had the opportunity to experiment with three different techniques such as rammed earth, adobe and light earth. Related to this module, Dominik Abbrederis, BASEhabitat's construction site manager, supervised a clay plaster workshop. After a general introduction to earth plaster and tools, students plastered a wall and experimented with pigments and fine plaster mixes.

This year's **Practical Masterclass** was led by Lehm Ton Erde (Martin Rauch) in cooperation with the Haberkorn company in Wolfurt. During a 2-week rammed earth workshop the



Presentations to get to know each other



Project presentation



Games and team building exercises during the Introduction Week



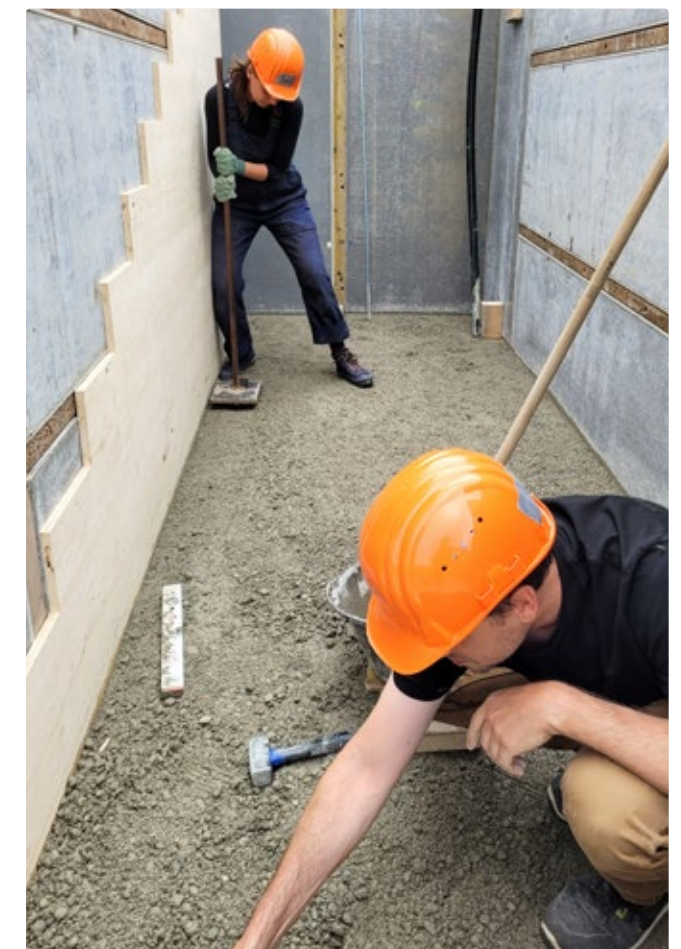
Teamwork in group project

Credits: Elisa Engel



Earth workshop at the Sommerauerhof

Credits: Gian Franco Noriega



Practical masterclass with Lehm Ton Erde, Martin Rauch

students took part in the construction of a pavilion. Being in Vorarlberg, the westernmost province of Austria, we had the opportunity to visit some examples of contemporary architecture built from earth and wood. These new buildings are a source of inspiration for their materiality and their innovative approach to design.

During Nina Pawlicki's module, **Collaborative methods** and decision-making processes were explored as a tool for interacting with different stakeholders. Focusing on the social aspect of sustainability and addressing social issues related to community-based projects, students learned to work as a team, both on joint projects and projects with complex clients.

Anna Heringer, as a Postgraduate ambassador, taught students what **Claystorming** is all about. During a three-day workshop, the students worked individually and in small groups to practice Anna's method of 3D sketching with clay models. Thanks to Anna's invitation, we had the opportunity to participate in the review of the **Laufen Manifesto** which took place in Laufen in July. The Laufen Manifesto promotes a general paradigm shift regarding the role of architecture in our society. With professionals and academics we discussed the relevance of the ideas of the original Manifesto listening to the voices of the younger generations.

In conjunction with all these courses and activities, the **Theory Seminar** with various lecturers fostered an atmosphere of intellectual exchange which showed a different path of traditionally conceived architecture.

With the support of Sophie Schrattenecker and Stefan Gruber and their input on **Academic writing** in an architectural context, the students started to define the topic of their Master Thesis. The master thesis will be developed during the third semester of study.



Visit to the Werkhalle | Lehm Ton Erde, Martin Rauch



Vorarlberg excursion



Laufen Manifesto



Claystorming

1.1 Introduction week

In charge: Marta Rota

Teaching period: 4.04 – 7.04.2022

The Postgraduate Degree programme started with the Introduction Week. Over the course of that one week the participants had the opportunity to know each other and their teachers. They bonded through different activities and presentations as they familiarized themselves with the University of Art and Design Linz.

Setting the framework and preparing the learning space marked the beginning of the activities that took place in the first three days.

By sharing group expectations, building trust and making the curriculum visible, we have created a safe space to develop new attitudes and skills, while maximizing team-based learning and increasing engagement.

Through practical exercises and games, the students learned simple tools to lead an effective group process by setting out a clear purpose, structure and goals at the very beginning.

These team building activities allowed the students to explore the potential of the learning experience, such as learning by doing and participatory learning. By taking responsibility for their own learning, together we set the base of our collaboration creating enthusiasm for further exploration and reflection.

As a closing event, the students went on a guided tour of the city of Linz, their home for the next six months.



Lego exercise



Team building



Presentations

1.2 Social Entrepreneurship

Professor: Elisa Engel

Teaching period: 8.04 – 20.04.2022

What difference can I make in a world where the challenges we face are as urgent as they are complex? Learning how to affect positive change is essential to our survival as a species and to our happiness as individuals. To discover what agency we have, we need to find common cause with others and learn to maximise the power, knowledge and wisdom we hold both as individuals and collectively.

We began this two-week workshop with 11 young architects from 8 countries who barely knew one another. After two weeks, these individuals had identified three problems they wanted to solve, formed working groups around a common purpose, and had conceived clear, actionable project proposals to address them. They had created project pitches to win over fellow activists and written project plans to convince funders and other stakeholders.

Together, we thought deeply about questions of ethics in practice, justice, inequality and access to resources. We talked about how to map financial flows in projects (and what this tells us about who holds the power). We learned how to define and measure project impacts. The hands-on workshops that made up most of the course were underpinned by a series of lectures that gave theoretical grounding to practical learning.

We started with a series of exercises designed to get to know each other and to create better cohesion as a community of changemakers. We then went on to practice techniques commonly used in design thinking processes to generate as wide a range of ideas as quickly as possible.

The first task was to identify what problems we wanted to turn our attention to. Students learned techniques for categorising and analysing these problems. Next, students were introduced to the concept of needs-based and asset-based community development. Armed with this framework, they worked together to identify the values and tools at their disposal to address the challenges we face.



Ideating assets



Many needs, more assets

Through this process, students identified themes they wanted to address. Out of these, they chose three specific challenges: they wanted to help individuals achieve better self-awareness and personal growth, fight marine pollution and combat cultural erosion. The students grouped themselves around these challenges and named their teams XChange, Carbon Sink Collective and Grow Local.

Through a series of workshops, discussions, and trial pitches they honed their ideas. To start with, the teams worked to align their vision and answer key questions: What is the project? Why is it necessary? How will the project aims be delivered? Who will be involved, and who will benefit?

During the next two days, we used roleplaying techniques to practice project pitches aimed at different stakeholders. How might you describe the project to potential volunteers, beneficiaries, land owners and funders? What aspects are relevant, and what issues need to be resolved further? These practice pitches were an opportunity to test ideas in conversation with students working on different projects. Talking about your project in different contexts helps better define your ideas, sharpen your thinking, loose your fear of speaking your mind and to enjoy communicating your passion.



The Grow Local Team preparing a pitch



XChange pitch



Aligning project visions through collaging

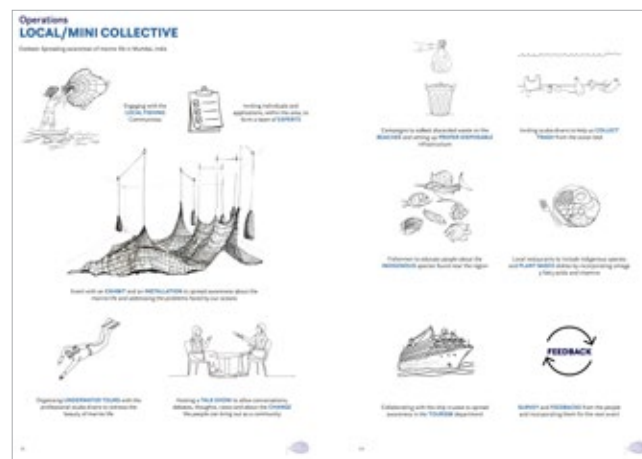
On the final day of the course, the three teams had a chance to present their project pitches to a wider audience:

- The XChange team proposed a cultural exchange program allowing participants to 'discover' their own true self.
- The Carbon Sink Collective imagined a global network of marine experts, designers and individuals to combat behaviours that lead to marine pollution and over-fishing.
- Grow Local explained how a town in Peru, Cocachimba, could re-direct outside investments to benefit local crafts people and strengthen a community.

Following the workshop-based portion of the course, each group produced a written project plan, outlining their project vision as well as a detailed pathway to delivery. The project plans included research on the problem at hand, other actors already operating in the field and an analysis of the strengths, weaknesses, opportunities and threats facing the proposal. Students were asked to quantify the resources needed (both financial and otherwise), identify how they proposed to fund their project over time, explain whether they envisaged it growing in scope and how such growth could be achieved and managed.

After two weeks, the participants had at their disposal the tools needed to affect positive change as well as three worked examples of how this could be done.

But above all, the 2022 BASEhabitat Postgraduate students have grown from being idealistic, joyous, smart and tenacious individuals to a cohort of skilled changemakers. We cannot wait to see them apply these tools in the real world!



Sample page from Carbon Sink Collective project plan



Sample image from Grow Local project plan



Carbon Sink Collective pitch



Grow Local pitch

1.3 Sustainable materials (earth and fibers)

Professor: Gian Franco Noriega

Teaching period: 23-27.05.2020 + 27-29.07.2022

Earth is more than a building material for ecological interests. It is a material that appeals to our senses, perception, emotions and affection. In the collective imagination it has a very strong symbolic charge. Today, this building material is regaining a place in our building environment as a part of an ecological transition quest. This ancestral material, in which more than a third of the world's population still lives, is experiencing a contemporary renaissance through new construction experiences that combine aesthetic quality and technical innovation.

The aim of the module is to rediscover and experiment with earth construction techniques through an exploratory process of the constructive potential of earth and fibers as natural building materials, from material science to architectural design.

- *What is earth? How, where and why use earth to build?*
Through a brainstorming process the students explore their preconceptions about earth as a building material. The purpose of this exercise is to establish a 'collective mind map' which will guide our explorations but which at the same time will be transformed and adapted throughout the whole module.
- *General overview of earth architecture*
The workshops were accompanied by lectures on the panorama of raw earth architectural heritage in the world, emphasizing the relationship between architecture and landscape and providing an overview of the evolution of the earth building culture and their architectural qualities. Examples of the contemporary renaissance of earthen buildings that combine aesthetic quality and technical innovation were presented, giving students the opportunity to rediscover the qualities of an „eco-local“ material.
- *Sensorial approach to earth material*
What can I do with this soil? Is it good for building? Through these sensory exercises, the participants are invited to discover with their own senses the characteristics and properties of the material: granular composition, plasticity, humidity states, cohesion, etc. These phenomena allow to understand earth material life cycle: from extraction to construction and destruction.
>> Videos: [Field test for earth construction](#)



Brainstorming process and collective mind map



Sensorial approach to earth material

- *Earth & fibers material science*

Unseen forces and properties explain the behavior of earth material. In order to understand how earth works, this theoretical contribution explores by scientific manipulation the variety and characteristics of soils by analyzing the chemical-physical interactions of earth material components such as clay, water, sand and gravel involved in earth construction. This input also explores the principles of stabilization of organic and chemical material and the roles of fibers in earthen construction (mechanical strength, traction, bending, insulation, ductility, etc.)

>> Videos: [‘Grains de bâtisseurs’ experiences](#)

- *Earth and fibers hands-on workshops*

This 5-day workshop explored earth material building techniques through different hands-on exercises and building experiences. The aim of this practice is to experiment the production line and material transformation properties: from a raw material to a building material. It is an introduction to the constructive and aesthetic qualities of earth building techniques such as rammed earth, CEB blocs, adobe, cob, wattle & daub, light earth, etc. Each traditional construction method with its own constructive characteristics carries enormous potential for innovation, which is beginning to be explored by artists, designers and architects.

>> Videos: [Construction sites](#)

- *Earth architectural properties and construction details*

How can we build in earth? The students explored the physical and mechanical properties of the earth as mechanical resistance to compression, traction, bending, resistance to water vapor, thermal resistance, permeability, phase change materials, inertia, hydrothermal regulation, material reversibility, recycling. We also approached the analysis of the life cycle of the earth material, earth architectural details and implementation strategies.

- *Design workshop*

Participants build their own arguments about the relevance of building with earth and explore different architectural implementation strategies in their own design process. The objective of the Earth design workshop is to design a small pavilion by applying the skills learned and develop a final work that includes architectural references and a description of the selected construction technique. This assignment helped the students process the information and experiences from the workshop and helped evaluate the evolution of their skills.



Material science



Hands-on workshop



Credits: Gian Franco Noriega



Credits: Gian Franco Noriega



Credits: Gian Franco Noriega



Credits: BASEhabitat

1.4 Collaborative methods

Professor: Nina Pawlicki

Teaching period: 13.06 – 22.06.2022

Sustainable Architecture is primarily based on fruitful collaborations: it is crucial how architects develop and communicate their approaches and proposals with internal and external collaboration partners.

The Collaborative Methods module focused on working in groups on joint projects and projects with complex clients. Participatory methods and decision-making processes were explored as a tool to engage with different stakeholders. Students got practical skills to start their community-based projects and work collectively.

In the first phase of the two weeks workshop, preparatory research on international projects directed toward the common good was conducted. This served to dig deeper into the context, perceptions, internal conflicts, and interplays during projects. To better understand the different personas in a project, actor profiles were created using an empathy map as a tool. In addition, students learned about other tools, such as moderation and decision-making techniques for collaboration via inputs, case study analysis, and role plays.

The second phase of the workshop was then dedicated to applying the knowledge gained to design an engagement plan and tool to present at a fictional traveling, interactive exhibition on common good-oriented projects. The engagement tools were prototyped and tested within the group following a brainstorming phase. Final prototypes include interactive exhibition pieces that use mosaics as a tool to collectively create an identity, make environmental effects perceptible or stimulate sensorial perception.



Learning the tools and decision-making techniques

Credits: Nina Pawlicki



Credits: Nina Pawlicki



Credits: Nina Pawlicki



Credits: Nina Pawlicki



Lunch at Über den Tellerrand in Linz

Credits: Nina Pawlicki



Credits: Nina Pawlicki



Credits: Nina Pawlicki



Credits: Nina Pawlicki

1.5 Design Studio

Professor: Markus Dobmeier

Teaching period: 28.04.2020 – 8.09.2020

The design studio gave the opportunity to work on a real project over the entire semester, to integrate and reflect on the theoretical content from the other courses and to implement one's own position on socially responsible building in practical planning.

The integration of expertise at the earliest possible stages is crucial for a design project that relates to sustainable and climate-adapted construction methods. The resulting process can no longer be linear and must always be based on holistic perspectives.

Because the question of architecture for the common good does not only refer to certain design methods and the choice of adequate materials. Rather, it is about the entire process of planning and building, which particularly includes the local context and all relevant stakeholders.

KIMS - Kyaninga Inclusive Model School

The task resulted from the cooperation with an Ugandan NGO, the Kyaninga Child Development Center KCDC, which provides the urgently needed therapies for disabled children. At the location in western Uganda, children and their families are successfully supported through medical application, treatment and education, enabling them to lead a dignified and independent life. As part of a design-build project with students from Munich, a new therapy center is currently under construction in Fort Portal.

The goal of KCDC is to build an inclusive school on the premises of the therapy facilities with the pedagogical vision of experimental and collaborative learning. The question was how an adequate environment can be created for this vision and how special forms of learning can even be promoted through suitable spaces. This led to the real assignment for our design studio: The Kyaninga Inclusive Model School.



Credits: Markus Dobmeier



Credits: Markus Dobmeier



Credits: Markus Dobmeier



Credits: Markus Dobmeier



Credits: Markus Dobmeier



Credits: Markus Dobmeier

Project-based design process

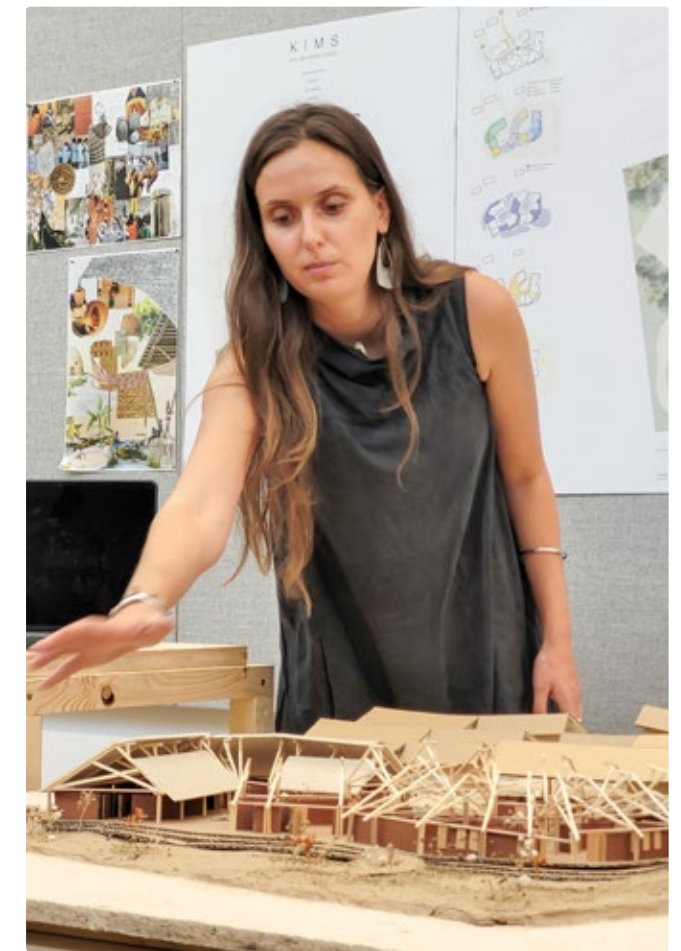
The design process extended over the entire semester and was essentially structured by defined work steps, which were initially carried out as individual contributions and later as group work.

In preparation for the topic was an examination of one's own school experiences in very different cultural contexts, with exemplary schools and continuously with the question of how space and learning are mutually dependent. The excursion to Vorarlberg was another opportunity to see contemporary school architecture and to compare different spatial concepts.

In interviews and discussions with the founders and teachers of KIMS, the program was analyzed, priorities were set and an insight into the special requirements of an inclusive school was gained.

Researching exemplary sustainable architectures in Africa was another important step in developing a reference catalogue, clarifying one's own perspectives and being able to classify the various parameters in the design and their respective effects. This was also linked to the question of how building concepts can be defined as sustainable at all.

The individual preliminary drafts led to very different approaches and typologies. Here it became clear how strongly form and structure depend on each other and how much the requirement to develop solutions for self-construction also determines the design concept.



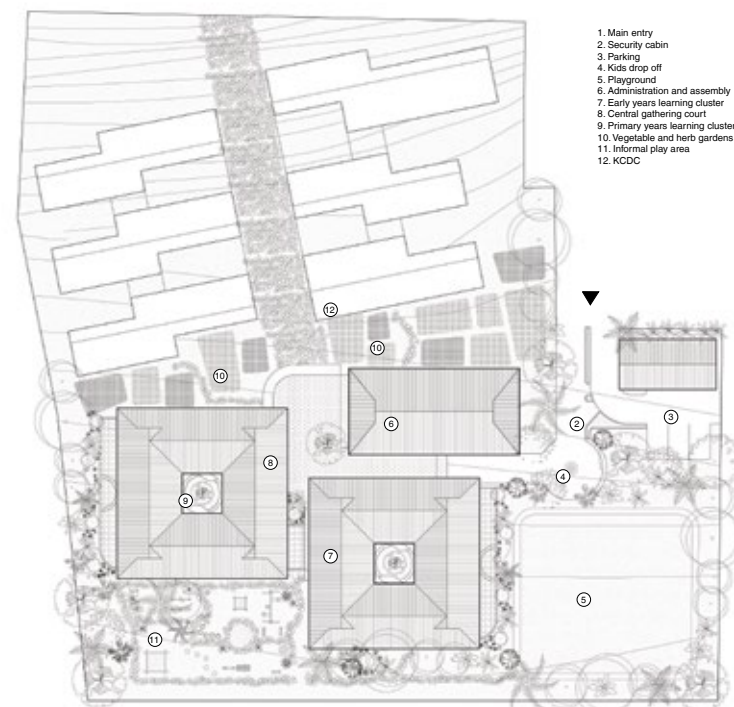
Final presentation of the Design Studio

Team 01

Talib Bashar, Sigurd Colsman, Prarthana Murali, Rikunj Shah

The design divides the various uses into three independent volumes, which are placed on the property at short distances in such a way that there is space for a further construction phase. The two school buildings differ according to the special needs of early years learning and primary learning. In terms of typology, both correspond to a courtyard building, which enables the rooms to be opened and oriented towards an inner courtyard and form a cluster of classrooms that also opens outwards to the gardens and the covered outdoor areas. The third, staggered volume contains the administration rooms and creates a connection to the complex of the therapy center with a covered assembly area. High truss constructions for the roofs, which stand independently of the CEB wall construction and are self-bracing, emphasize the non-directional position of the building and underline the symbolic protective function of the roof.

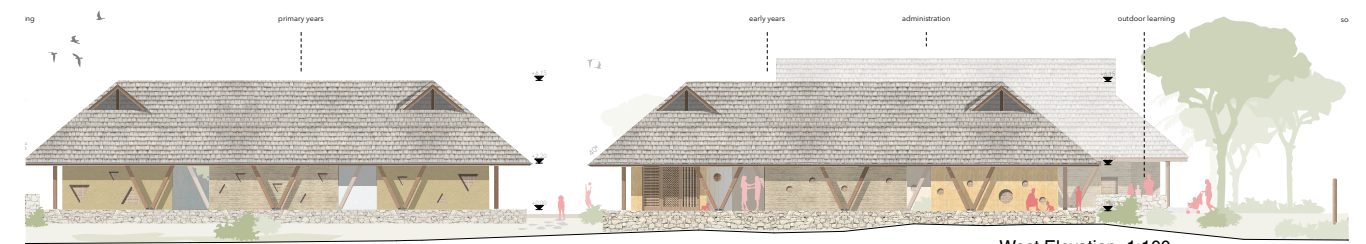
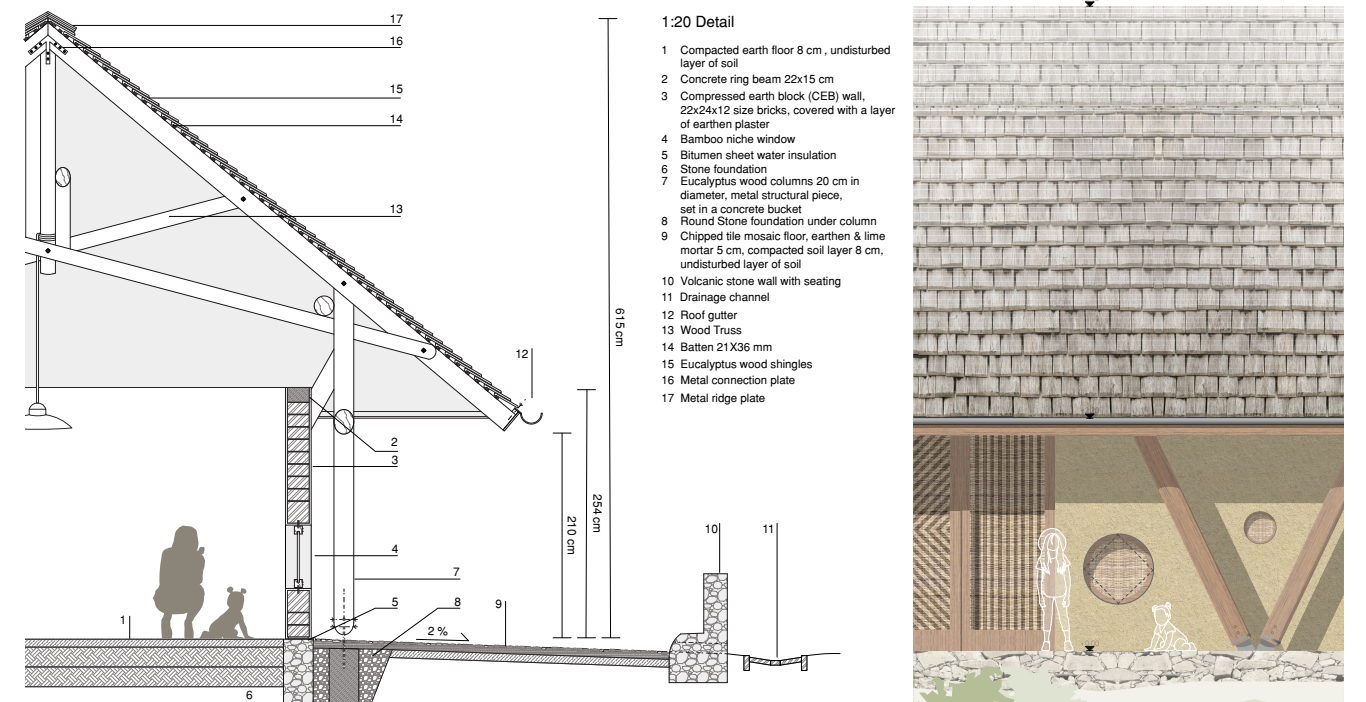
This approach shows how the greatest possible flexibility of the rooms can create different qualities of space and promote playful appropriation by the children. The project looks at spaces of transitions - Corridors, courtyards and gardens as equally important learning spaces as the classrooms inside.



Credits: Talib Bashar, Sigurd Colsman, Prarthana Murali, Rikunj Shah



Early Years Learning Cluster | View of the courtyard being used as a breakout space.



West Elevation 1:100

Credits: Talib Bashar, Sigurd Colsman, Prarthana Murali, Rikunj Shah

Team 02

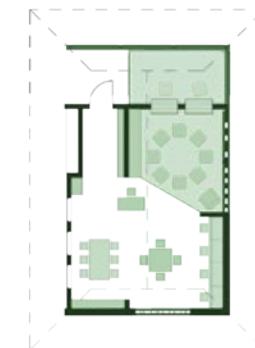
Kuusk Kaarel, Donald Luwaga, Pooja Parameswararao

The school complex here is a free arrangement of individual buildings that repeat a module for a single class building in variations and are grouped around two small courtyards. The central building for administration and assembly differs in size and shape and opens with a spacious three-sided courtyard to the KCDC complex. This creates a direct connection to the existing buildings and at the same time a center for the entire property: the arrival and welcome is emphasized and the school family is guided under the large canopy and on to the classrooms. The construction of Adobe bricks and roof trusses is based on the requirement to develop simple, inexpensive and practicable solutions for self-construction from local materials.

The design shows the possibilities of a modular unit that offers flexible usage options through suitable zoning in the floor plan. The combination of small groups of buildings creates lively and articulated spaces and outdoor areas that create sub-centres for the school complex.



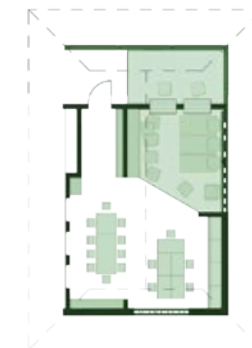
Credits: Kuusk Kaarel, Donald Luwaga, Pooja Parameswararao



TYPICAL KEY STAGE AND EARLY LEARNING MODULE: Group learning individual learning and readings spaces



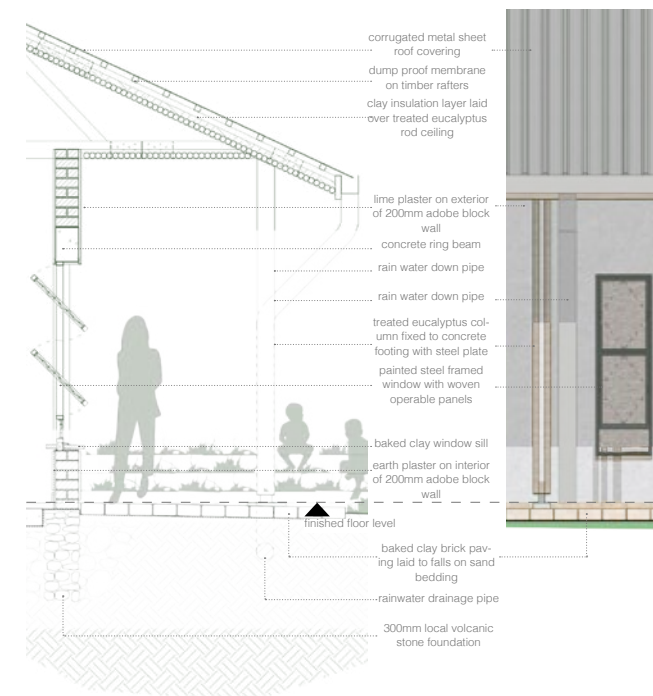
TYPICAL SPECIAL SUPPORT LEARNING MODULE: Group learning individual learning, readings spaces and special attention zones



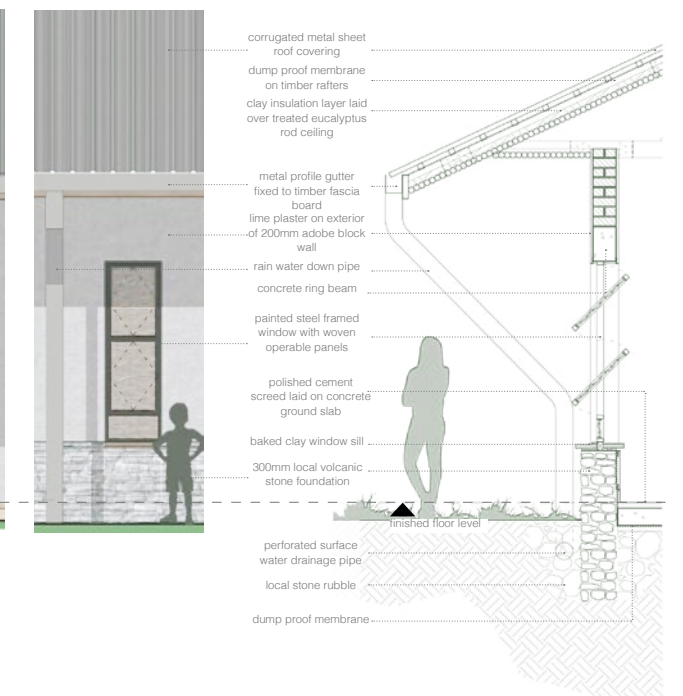
LAYOUT VARIATION 01



LAYOUT VARIATION 02



MAIN BUILDING DETAIL 03 _200mm thick wall with walkway SCALE 1:20



MAIN BUILDING DETAIL 04 _200mm thick wall without walkway SCALE 1:20

Credits: Kuusk Kaarel, Donald Luwaga, Pooja Parameswararao

Team 03

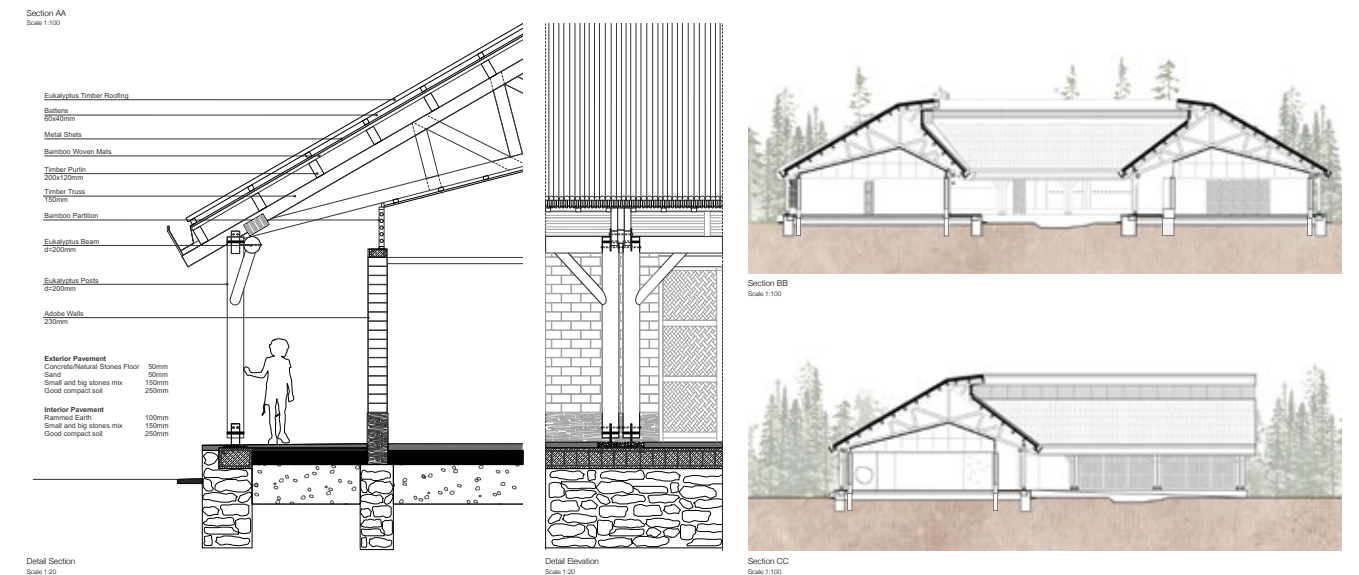
Luca Bertoni, Anna Chorzepa, Indira Orderique, Samyuktha Rajeev

The concept for this design initially came from an organic form that was intended to enable circular movements and access from all sides: A continuous path that connects inside and outside and enables continuously changing spatial impressions. In adapting to the structural conditions and the requirements of the space program, three curved buildings developed from this, which are connected to each other with covered open areas. This creates two inner courtyards that extend the classrooms through a variety of spatial and visual relationships and enable flexible uses. The roof construction is independent of the walls that delimit the room and, thanks to a special geometry, enables lighting and ventilation under the roof ridge. The climatic conditions have also been met by the free ventilation of all rooms and the clear protective function of the large roofs.

The design shows the challenge of integrating a specific program into an organically grown form and solves it by combining flexible interior and covered exterior spaces.



Credits: Luca Bertoni, Anna Chorzepa, Indira Orderique, Samyuktha Rajeev



Credits: Luca Bertoni, Anna Chorzepa, Indira Orderique, Samyuktha Rajeev

2 WORKSHOPS

2.1 Earthen Plaster

Tutor: Dominik Abbrederis

Date: 6 – 9.07.2022

Location: Zöbing, Austria

The workshop took place in Zöbing, Lower Austria and earth from the surrounding area was delivered on site. The task was to plaster a wall of approximately 50 m². The students were introduced to the principles of earth plastering, combining theory and practice.

In preparation for the workshop, we carried out tests and produced several examples, determining a good mix of materials.

After preparing the wall, Dominik Abbrederis, the construction manager of BASEhabitat, started with a general introduction to earth plaster, explaining how to use the tools and how to prepare the mixture and how it will be applied.

Alongside the actual application, an ‘*earth plaster laboratory*’ took place where the students were able to create their own mixture for fine plasters and experiment with pigments.

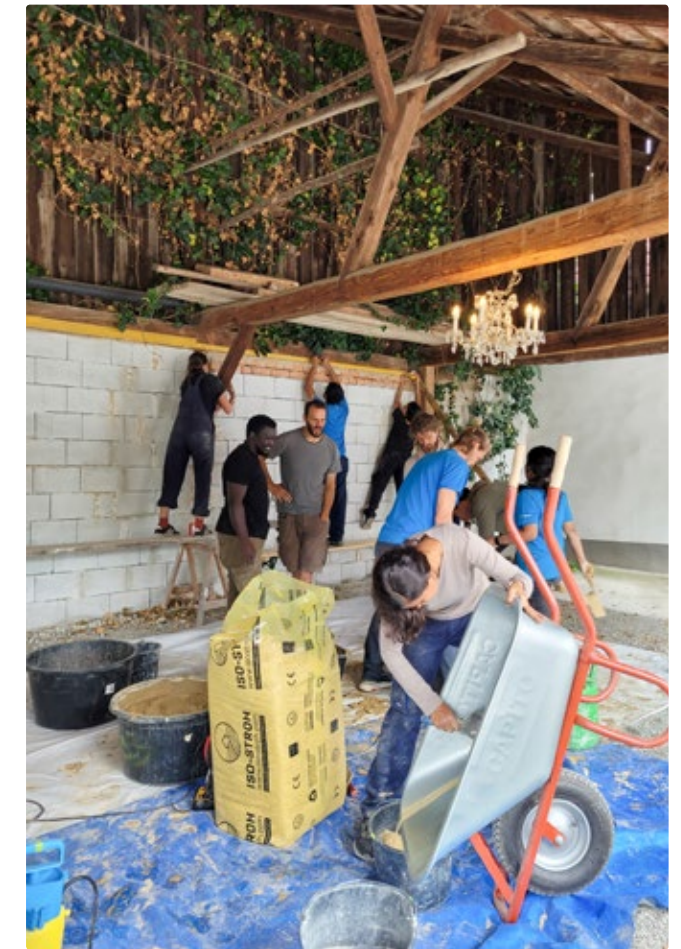
A mock wall was built on site to show different details and teach the students which things to look out for when plastering a wall.



Earth from the surrounding area delivered on site



Tools for plastering



Preparation of the wall and the mix



Hands-on training and discussions



Mock-up wall to show different details



Process and final result

2.2 Practical Masterclass: rammed earth

Tutors: Lehm Ton Erde, Dominik Abbrederis

Date: 9 – 20.05.2022

Location: Wolfurt, Austria

A 2-week rammed earth workshop was organised by Lehm Ton Erde in collaboration with BASEhabitat to build the Haberkorn pavilion in Wolfurt. The workshop was led by Dominik Abbrederis.

The pavilion, as the central element of the Haberkorn Garden, is located south of the storage building in Wolfurt and is meant to be an outdoor recreational meeting place for employees. A place to relax in the shade and be surrounded by various habitats for animals and plants.

The students took part in the construction of two L-shaped rammed earth walls. They were introduced to rammed earth mixing, formwork preparation, the use of manual and pneumatic rammers, formwork removal and final retouching.

The process of creating these two walls in situ involved technology and manpower, giving students the opportunity to participate in the process and gain practical experience in working with this technique.

At the end of the two weeks, after pouring and ramming a mixture of material in 12-15 centimetre layers into the formwork, we were able to remove the formwork and see the surprising result of the hard work.

After the completion of the rammed earth walls, apprentices from various timber construction companies in Vorarlberg, under the guidance of Dobler Holzbau, assembled the wooden roof structure on the walls.

This project not only intends to serve as finished architecture, but its implementation involved many people, imparted valuable skills in nature-inclusive construction to students and trainees, and inspired them in the broader sense of sustainable construction.

The opening of the „Haberkorn Garden“ took place in September 2022.

>> Watch the [video](#).



Preparation of the formwork



Dominik Abbrederis gives instructions and explanations about rammed earth



Martin Rauch checks and gives advices for the mix

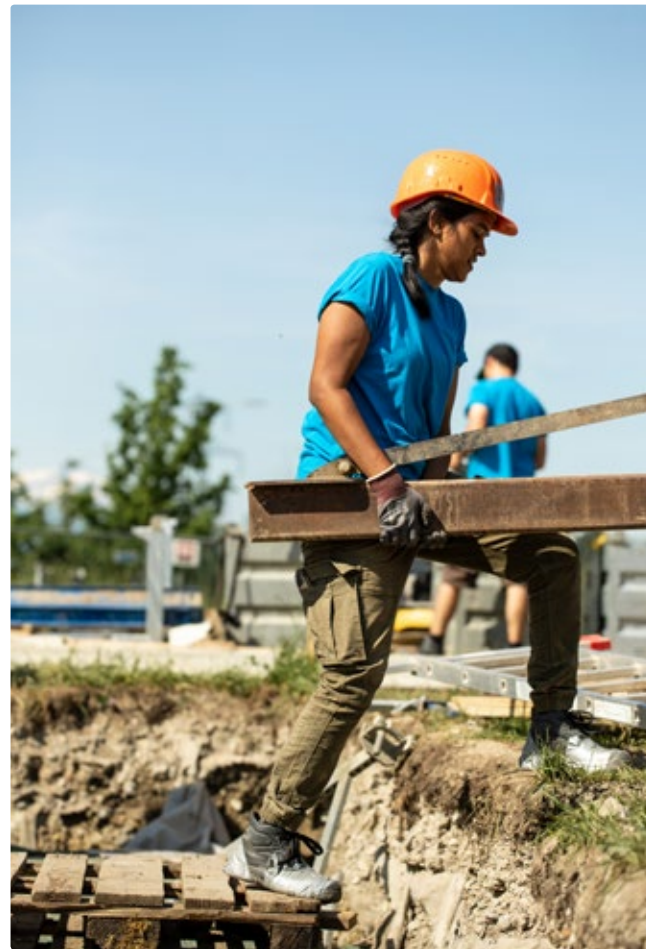


Ramming



Construction of the formwork

Credits: Haberkorn



Credits: Haberkorn



Overview of the construction site



Preparation of the base of the wall



Planning and discussion on site



Formwork disassembly

Credits: Haberkorn



Formwork disassembly

Credits: Haberkorn



Final result

Credits: Haberkorn



Final retouching

Credits: Haberkorn



Final retouching

Credits: Haberkorn



Final retouching

Credits: Haberkorn



Final retouching

Credits: Haberkorn



The team

Credits: Haberkorn

2.3 Claystorming

Professor: Anna Heringer

Teaching period: 4 - 6.07.2022

Location: Summerauerhof, Austria

During the three days of workshops, students worked individually and in small groups to practice Anna's method of 3D sketching on clay models. Anna Heringer has developed the method of Claystorming together with Martin Rauch.

After softening the clay by hand, the first exercise of the Claystorming was to make a pot. At first the clay was formed with open eyes, followed by forming with your eyes closed. The last step was forming the clay intuitively with your eyes either open or closed.

The second exercise was to think about your favourite place from your childhood. Using simple tools to cut, shape and press the clay, the students created models that everyone in the group could relate to.

The third exercise was characterized by working on a model in a group. First, the group modelled the landscape, then a proper human scale was selected while discovering the right proportions and imagining the space. During the process of modelling the clay with hands, the members of the group switched groups and worked on someone else's spot. This allowed for a change of perspective and, through non-verbal communication, a better understanding of other people's visions.

Through these three different exercises, the students experimented with this method and in the future, they could use it as a tool to quickly find an architectural language by letting their hands do the communication guided by their intuition.

The aim of this teaching module was to 'improve the connection to our inner self especially in the process of design. Designing is a constant decision-making process, and the best decisions are being taken with our gut feeling. Especially in complex contexts it is very helpful to have a good connection to our intuition'.

Anna Heringer



Clay Storming at the BASElab, Summerauerhof



First exercise: pot



Second exercise: your childhood's favourite space



Trust your intuition



Third exercise: landscape



Reflections and discussions



Team

2.4 Vorarlberg excursion

In charge: Marta Rota and Markus Dobmeier

days: 10.05.2022 + 14.05.2022

During the workshop with Lehm Ton Erde, the postgraduate students were able to spend a couple of days immersed in the building culture of Vorarlberg. Vorarlberg, the western-most province of Austria, impresses with its pioneering buildings made of wood and rammed earth.

We had the incredible opportunity to visit Martin Rauch's private residence, office and new Erden Werkhalle in Schlins, where we got an insight into the production of rammed earth products at Lehm Ton Erde. Since May 2019, Lehm-Ton-Erde has been building a new workshop and integrated office with a total size of approximately 67 meters by 24 meters and 20 meters high. The construction, which combines solid wood and rammed earth walls produced on site, represents a significant innovation for earth building. The students were impressed by the structure, as it is a real showcase of different clay construction techniques and wood construction methods, visible in different components such as facades and interior finishes.

As part of our excursion, we visited the Propstei St. Gerold, where we admired the community cemetery, that features a rammed earth wall by Martin Rauch, as well as the Reithalle (horse-riding arena) designed by Hermann Kaufmann.

In Batschuns the mayor took us on a tour of the Musikprobensaal (band rehearsal room) designed by Marte Marte and we had a look at the cemetery with a little chapel made from rammed earth.

Then we went to Hägi Wendls in Muntlix to see the project the Master students of the Art University Linz (the home of BASEhabitat) were working on during the winter of 2020 and 2021. Sylvia and Johannes, the owners of the house, talked us through the whole construction process and the many challenges they had to face.

In Höchst we stopped by the Unterdorf elementary school designed by Dietrich Untertrifaller. Peter Nußbaumer, one of the office's partners, gave us a tour of the school. The building, as an example of cluster design, provides an ideal educational facility for modern pedagogic approaches. It is built with wood, and it is optimized in terms of energy efficiency and building technology.

In Kennelbach we visited the wooden kindergarten designed by Hein Architekten. One of the teachers who works in

the school opened the building for us. The classrooms are positioned around a staircase which is designed as a house within a house, with colourful niches, which invite you to linger.

All these buildings were sources of inspiration for the students, not only in terms of materiality but also for their innovative approaches to design.



Haus Rauch



Erden Werkhalle



St. Gerold



Batschuns



Hägi Wendls in Muntlix



In Höchst with Peter Nußbaumer

3. Construction site in Baan Doi, Thailand

October - December 2022

As part of the permaculture centre for agriculture in Thailand, which started in 2018, this year postgraduate students designed and built the first prototype of four guest houses.

In recent years our partner NGO BAAN DOI has been able to produce organic food and show how agriculture can be done in harmony with nature. In this context, the four planned guesthouses will represent not only accommodation for visitors to the agricultural centre but also a source of income for the NGO.

BAAN DOI is an NGO located in Thailand's Chiang Rai province, where the borders of Laos and Myanmar meet. Near the border town of Mae Sai, the NGO runs a home for 20 orphans and offers projects for underprivileged children in the region. Barbara Meisl cofounded the NGO over 15 years ago and her goal is to give young people a good education and job opportunities for their future.

After the completion of the family house in early 2022, we implemented the next phase of the project. During a 3-month hands-on semester, the students, under the supervision of Florian Fend, the construction manager of BASEhabitat, built a guesthouse with a private bathroom and terrace with an outdoor kitchen.

The design process started in Linz, where the students got an introduction to bamboo as a building material. They tested and discussed different designs using physical models, studied different bamboo joineries and finally designed the building.

The BASEhabitat team and students arrived in Mae Sai at the beginning of October and started the first day with a tour of the Baan Doi farm and then immediately dived into earth tests to find the right mix for adobe bricks. Over the course of two weeks, the students produced 2500 adobe bricks. The students were joined by the Baan Doi kids who had fun mixing and dancing barefoot in the adobe mix. The second week, the team from the local construction company arrived on site and joined the process.

During the construction, the students were able to experience all stages of the bamboo manufacturing process: from harvesting, to treatment, to cutting and finally to the assembly of the roof structure. After erecting the bamboo columns, terrace and roof structure, they started with the

adobe masonry walls incorporating the windows and doors, plumbing and electrical wires.

In the last two weeks the group has managed to finalize all the finishes and details such as the floor, the ceiling and the plaster of the walls.

We are all eager to hear about the experiences of guests who will be staying here. We hope they will enjoy and appreciate the warmth of the natural materials in the idyllic farmhouse atmosphere, just as much as we loved building it.



View of the finished guest house

3.1 Hands-on experience

Construction site manager: Florian Fend

Teaching period: 12-15.09.2022 + 3.10 – 16.12.2022

Location: Linz and Thailand

Design phase in Linz

The starting point for the design of the guesthouse was the masterplan previously developed for BAAN DOI in 2018. A lot of experience has been gathered since the construction of the family home, the first building on site. Based on these previous results, we chose a typology consisting of a solid adobe unit protected by a lightweight bamboo roof structure.

During the two weeks in Linz that we spent designing the guesthouse, we mainly focused on the bamboo structure. In small teams we explored several designs on multiple scales simultaneously: from a 1:2 scale to explore bamboo joinery, to a buildings scale in 1:50 to an urban scale in 1:200 to study the composition of the four guesthouses. Philipp Reinsberg, an architect and researcher with a strong focus on experimental wooden structures, joined us as a guest during the workshop sharing his experience. He lectured and supported the students by giving his input during the design process.

In the first week, the students received some theoretical input on bamboo from Flavia Matei, assistant of the BASEhabitat Master degree, and started working with the physical models. Ideas were quickly expressed, discussed and evaluated. During the second week we worked on the 3D digital model and the drawings, which served as the basis for starting the construction site.

Once we arrived on site, we took the opportunity to adapt the project to the actual local conditions. Thus, the final design and detailing was done alongside the construction.



1:50 model



1:2 stool



Study of joinery



Design phase in Linz

Construction phase in Thailand

- Adobe production

We started on site with the production of approximately 2500 adobe bricks needed for the walls of the guesthouse. After testing different mixtures of local earth, sand and fibers, we decided on the following recipe: 4 parts red earth, 2 parts sand, 1 part rice husk, 1 part straw. The size of the formwork we chose is 29cm long, 14cm wide and 10cm high, which allowed us to produce bricks with a dry weight of around 6kg.

During the adobe production we have optimized the process and have managed to increase the productivity from about 100 adobe blocks a day in the beginning to about 400 adobe blocks in the last few days. The bricks were left to dry for about 10 days.



- **Foundation**

Due to the cohesive qualities of the soil on site, movement of the foundation is difficult to avoid. Therefore, it was decided to rest the entire building on a single concrete slab and distribute the loads as uniformly as possible. Consisting of a concrete slab, the foundation measures 640 cm by 440 cm and is 30 cm high. On the side facing the lake, the slab rests on an additional concrete beam (30 x 50 cm) which supports the cantilevered terrace but also prevents the entire building from settling unevenly.

With the help of the local construction team, we prepared the ground by excavating the ring beam areas and trenches for the water pipes. The steel rebars were cut, folded and wired together on site. The casting of the foundation was carried out in two phases: the first phase was to cast the beam which required approximately 1 cubic meter of hand-mixed concrete, while the second phase was to cast the slab, where approximately 9 cubic meters of ready-mix concrete were used.



- **Bamboo construction**

Once the foundations were ready, we focused on the bamboo construction of the guesthouse. The construction mainly consists of four elements: the vertical columns, the bracings, the cantilevered terrace and the roof triangles. The bamboo was brought to the site on a pick-up truck in 6m long pieces of two different diameters of approximately 5cm and 16cm.

Harvesting

While we didn't harvest the bamboo ourselves, we did get some insight into the harvesting process from Sandot, the permaculture teacher. With the help of a few machetes, we harvested some bamboo in the newly purchased Baan Doi Forest, which will become Baan Doi's source for construction bamboo in the future. Sandot taught us how to identify when a bamboo is ready to be harvested, how to choose bamboo according to its future use, how to use the machete to turn freshly cut bamboo into ropes, mugs and cups, and how to weave a basket out of bamboo splits.

Treatment

Before using bamboo, and in order to make it durable and resistant to insects or termites, it had to be treated. Since BAAN DOI wants to promote sustainable bamboo construction, the site is equipped with a borax treatment pool. First, we thoroughly washed and cleaned the bamboo in local ponds. We then drilled holes all the way through the bamboo nodes before dipping them into the pool of borax. The mixture consists of 7000l water, 175kg borax and 175kg borax acid. After 10-14 days the bamboo was removed from the pool and placed upright on the drying pile.

Selection and cutting

An important step in working with bamboo is selecting the right pieces for the right purpose. We chose bamboo for the vertical columns between 2.5 and 3.8m in length and for the terrace overhang of 2.5m. The thickest pieces (about 18 cm) were used for those structural elements which had to carry the heaviest load. After all the columns and terrace pieces were cut to size, we anchored them to the foundation with two 50cm steel bars filled with concrete through a 5cm hole to ensure the connection of the bamboo to the foundation was solid.





Assembly of roof triangles

The roof structure was prefabricated on the ground. It is made up of two triangles with the longest side measuring around 13 meters and the other two sides measuring around 9 metres. To achieve these spans from only 6m long bamboo and to keep weight to a minimum, we decided to create beams by stacking 3 thin logs (5cm - 7cm) on top of each other. The three layers, fixed with bolts and diagonal self-made bamboo nails, interlock at their connection point to form the main triangular structure.

On top of this main structure, the battens are secured in place with rope twisted with custom-made bamboo sticks, a technique commonly used to make the temporary connections for bamboo scaffolding. The advantage is that the connections can be tightened in case of shrinkage or be loosened for maintenance without weakening the logs with additional holes.

Once the two triangles were assembled on the ground, the task was to be able to lift them and position them on top of the columns without the need for a crane or any other machine. The whole team joined in the effort to lift the triangles which were then bolted to the main columns. Once all the vertical pillars were in place, we were able to mount the additional reinforcing pillars from under the roof. To ensure a secure connection to the foundation, we filled lower part, about 50cm deep, with concrete.

- **Roof cladding**

The corrugated metal sheets arrived at the construction site already cut to size and were mounted on the bamboo battens with regular sealed screws. Finally, the excess ends of the sheets were marked with a string and trimmed with an angle grinder.





- **Adobe masonry**

Once the roof structure was completed, we started with the masonry walls. To protect the adobe from splashing water, we used fired bricks in a Flemish double bond for the first 35cm. A rubber sheet was placed on top of them as a capillarity breaker against humidity. The adobe bricks are placed in an English bond with a thickness of 30 cm which made it possible to incorporate niches in the bed and bathroom walls. The water connections were integrated into the walls during bricklaying, the electrical channels were cut afterwards, the pipes were embedded in the walls and then closed with earth mortar.

- **Openings**

The lintels of each opening were prefabricated on site by casting them in concrete and subsequently integrating them seamlessly into the adobe walls. The window and door frames were manufactured by a local carpenter from rubberwood. We set them into the adobe walls with screws. All windows and doors are simple wooden swing shutters. The main opening towards the terrace is 180 cm wide and consists of a double sliding glass door with a wooden frame equipped with a mosquito net.

- **Ceiling**

The solid adobe walls provide good thermal mass, so the ceiling must do the same. We decided to use rubberwood beams (4.5cm x 9cm) spaced 28cm apart topped by locally available hand-fired bricks in the size of 14cm wide, 28cm long and 6cm high. To ensure that the surface was completely closed, the ceiling was sealed from the outside with a 1.5cm layer of lime plaster.





- **Flooring**

For the floor we chose two different mixtures of grit for both the bedroom and the bathroom. For the bedroom the mix is half cement and half lime, while for the bathroom floor we only used cement to make it water resistant.

After spreading the mix on the floor, we compacted the layer to a height of about 7cm and filled the remaining small holes with a finer material mix to ensure a closed and uniform surface. A few days later, once the mix had hardened, we sanded the top surface with an angle grinder fitted with a diamond disc to achieve a terrazzo-like floor finish.

The terrace floor is finished with treated bamboo splits nailed onto bamboo mats resting on bamboo slats spaced approximately 15cm apart. The bamboo slats are attached to the main structure using rope and tightened by twisting custom made bamboo sticks. This way we avoided drilling holes and possibly weakening the main structure of the terrace.

- **Plaster**

The external walls have been finished with two layers of lime plaster. The bottom layer is 1.5cm thick, the lime is mixed with sand, rice husk and local clay to give the colour a more earthy tone. A thin layer of plaster was added to create a more uniform result, finished with sponge board.

For the interiors, lime plaster was used for the bathroom and clay plaster for the bedroom. For the bathroom, two layers of lime plaster were applied to create sufficient water resistance. The last layer was then smoothed out with a spatula. Two layers of plaster were also applied in the bedroom to even out the surface irregularities of the adobe masonry surface. For the bottom layer we used dark local clay mixed with 0-4mm sand and rice husks to create greater structural integrity, while for the fine plaster we used locally sourced light beige clay and finished the surface with sponge board.





Credits: Paul Eis

- **Additional works**

During our stay, we also worked on landscape planning around the guesthouse, including plantings, rainwater, freshwater and wastewater management, infrastructure for electricity and pathways.

After 11 weeks on the construction site the guesthouse was nearly finished. However, the remaining works were carried out by the local construction company. These jobs included the electrical installations, plumbing hook-ups, window and door panel fitting, creating pathways and landscaping. The guesthouse was fully completed around 6 weeks after we left the site.



Credits: Paul Eis

Participants in the construction site 2022:

Cofounder Baan Doi NGO

Barbara Meisl

Baan Doi kids

Yon, Taem, Chalit, Chang, Garn, Nokia, Gorn, Daeng, Yim, Bhumir, Khaopad, Bee, Ganya, Nim, Amy, Ying, Neung, Nicha, Elin

Children caretakers

Ms.Pailin Lungthanan (Pop), Mr.Wansuk Namthai (Mood), Mr.Somchai Sealao (Sim), Ms.Uraiwan Pradupphet (Rai), Ms.Kalaya Choemue (Nam)

Cook

Mrs.Suppatra Piyalak (Pa tu)

Gardener / preparation lunch

Mrs.Einuan Rongkham (Nuan), Mrs.Sang Namsang (Kuen)

Translator Thai-English

Ms.Suphaphon Asoe (Selena)

Permaculture teacher and helpers

Mr.Sandot Sukaew (Sandot), Mrs.Tey Yi Shen (Shen), Thomas Urquhart (Tom)

Agriculture work

Mr.Wanich Wangsa (Dtee)

Foreman – local construction company team

Mr.Thaweesak Inkaew (Sak), Mr.Kamin Thongthai (In), Mr.Jaisaeng Namluang (Seng), Mr.Yinuan Panyasu (Yinuan), Mr.Longtip (Tip), Mr.Sai Namthai (Sai), Mr.Noi Namsaeng (Noi), Mr.Num Boonsri (Num), Mr.Saengla Saikaew (La)

Volunteers and helpers during construction

Joachim van der Linde (Jo), Werner Rieck (Werner)

Kindernothilfe Team - Herzensprojekt

Julia Drazdil-Eder

Leonie Rachel



Credits: Paul Eis



Credits: Paul Eis



Credits: Paul Eis



Credits: Paul Eis



Credits: Paul Eis

4. **BASEhabitat** international, sustainable, collaborative

BASEhabitat

BASEhabitat is a studio in the department of architecture at the University of Art and Design Linz. We have been working in the field of social and sustainable architecture and spatial development for more than 15 years now. Our focus is on local and natural construction materials. We collaborate with community partners from around the world.

- BASEhabitat offers a wide study program, hands-on learning opportunities and real-scale projects.

- BASEhabitat works in planning and realizing projects, as well as in research on an academic level.

- Outside of academia, BASEhabitat develops exhibitions, offers workshops, on-site practice and hosts a bi-annual International Summer School.

International Experience

BASEhabitat works in research, planning and implementing architectural projects. The worldwide positive feedback and reputation and multiple international awards, like the World Energy Globe, are rewards for our dedication and work. Our projects have taken us to countries around the world, such as Ecuador, India and South Africa.

Global Network

BASEhabitat is a member of the unesco Chair Earthen Architecture, Building Cultures and Sustainable Development and maintains excellent relations with international schools and research facilities. Our work and projects have put us in touch with a large number of architects, designers, craftsmen and experts from around the world.

Summer School

The BASEhabitat Summer School is a biennial set of workshops, where like-minded professionals from more than 40 countries come together to learn from and work with renowned experts in earthen architecture and bamboo construction.



BASEhabitat Summer School



BASEhabitat in the department of architecture at the University of Art and Design in Linz

5. Guest professors



Foto: Elisa Engel

“Architecture is always political. As practitioners, we have a responsibility to understand the role we play in shaping communities – whether the outcomes are intentional or unintentional. Only then can we effect positive change. I believe that Architecture has an important part to play in creating a more equitable, sustainable and beautiful world.

We set up Citizen Architects as a vehicle for the change we want to see in the world. My teaching, especially at BASEhabitat, is an important part of that quest. Given the global challenges we face, it is also an invaluable opportunity to form connections with the next generation of likeminded Architects from around the world.”

Elisa Engel

Elisa is a co-founder of London based practice Citizen Architects and a Trustee at Architecture for Humanity London. She grew up in Germany and Swaziland, and has lived in South Africa, Botswana and the UK. As well as being an Architect accredited by the Royal Institute of British Architects (RIBA), she holds a Postgraduate Diploma in Development Practices from Oxford Brookes University.

For many years Elisa designed schools and other community buildings with Walters and Cohen Architects in London. She has worked with Peter Rich Architects in Johannesburg, and designed and project managed a youth centre in Botswana for Architecture for Humanity.

In 2014, she set up Citizen Architects with Richard Hadley. The practice specialises in community interest projects and community engagement in London and Sub-Saharan Africa. Last year, they completed a shelter and training facility for homeless young mothers in Accra. Most recently, they have co-designed a public square with a community in West London.

Elisa teaches on the Designing Cities course at Westminster University in London and has been a guest lecturer at universities including Bath University, University of Botswana and the Martyr's University in Kigali. Elisa also lectures on ethics in architectural practice at the RIBA as part of their continued professional development program. In 2020, she was a member of the jury for Green City Kigali, a new neighbourhood to be designed and built in Rwanda.

Elisa has extensive experience in delivering community projects in complex environments. She specialises in identifying and engaging those impacted by developments and understanding the underlying power structures that architects operate within.

<https://citizenarchitects.eu/>



Foto: Gian Franco Noriega

“Growing up in Perú I was deeply touched by the vernacular intelligence in the use of natural materials in architecture, specially by earth-based constructions.

I wanted to understand how these ancient techniques can be transformed for the present, including haptics, sensuality and aesthetics.”

Gian Franco Noriega

Gian Franco is an architect, researcher and trainer, expert in bio and geo-sourced materials. He has been working at amàco, “atelier matières à construire” in France since 2013, focusing his activities on a technical exploration and constructive development of natural materials in contemporary architecture and design practices. His mains activities at amàco are to develop constructive experiences characterizing, prototyping and building with natural materials such as earth, fibers and wood. This research and practice experience are then applied in the training modules he develops as a teacher.

Gian Franco was born in Peru, where he studied architecture and graduated in 2003. For many years he practiced architecture design in architecture offices managing projects of different scales, from furniture design and housing to urban projects.

In 2009 he traveled to France, where he lives until now, to increase his knowledge about earth as a building material. After obtaining an equivalent architect degree in France, he worked as an architect and continued his studies with a postmaster training in Craterre research laboratory within the AE&CC research unit (Architecture, environment and constructive culture) of the school of architecture in Grenoble (ENSAG) where he obtained a post-graduated specialization diploma in earthen architecture, constructive cultures and sustainable development in 2012.

Gian Franco has an extensive experience in teaching. He develops experimental teaching modules that aim to upgrade and disseminate knowledge revealing the inner qualities of natural materials. Approaching matter through science and more subjective concepts, such as materiality and aesthetics, as amàco, he seeks to take part of an environmental paradigm shift, stimulating creativity through the re-connection of emotion and intellect in construction practices.

<https://amaco.org/>



Foto: Nina Pawlicki

Nina Pawlicki

Previously with the Habitat Unit and since 2017 at the Natural Building Lab, Nina has been a teaching and research associate at the Technische Universität Berlin since 2013. She became part of the CoCoon-Studio in 2011 and is planning to hand in her doctoral thesis on the impact and agency DesignBuild in 2019.

Nina studied architecture at the Technische Universität Berlin and the Pontificia Universidad Católica de Chile.

“Resource scarcity, climate change, environmental pollution and resulting mass migration and conflicts are current global challenges that are forcing us to radically rethink the way we live and work.

Global urbanization and building processes are one of the biggest greenhouse gas producers that we urgently need to transform into sustainable and socially inclusive systems.”

Within her work she is facilitating intercultural, hands-on and community-based projects on the interface between academia and non-academia. Through transdisciplinary approaches she is seeking to investigate how community engagement processes can lead to the design of more inclusive and diverse living environments. The main objective is to develop contextual, sustainable and locally appropriate strategies and built solutions.

As an architect, researcher and teacher she was involved in building projects in Mexico, Jordan, Mongolia, Germany and Colombia in her role as a project initiator, coordinator or director.

She also has a wide range of experiences from her time working as a freelance architect for various architecture offices.

<https://nbl.berlin>

<http://cocoon-studio.de>



Foto: Markus Dobmeier

Markus Dobmeier

As lecturer and assistant professor Markus has many years of experience in teaching architectural design and building construction. Working at the TU München his research was mainly focusing on timber construction and sustainable building methods. He studied Architecture in Rome and Munich where he runs his studio.

From 2006 on Markus directed the first DesigBuild projects with TU München giving architecture students the opportunity to contribute with their concepts and their hands-on work to community based building sites in South Africa. By then many projects were realized driven by the vision of a closer relation to practice and to social involvement at the universities. Currently teaching at the Munich University of Applied Sciences he is preparing and organising the implementation of a school centre in Uganda within the framework of an international summer school for young architects.

Markus is cofounder and chairman of the non-profit association “Bauen für Orangfarm” which facilitates and organises DesignBuid projects with students regularly since 2007.

“DesignBuild projects to me are not simply a hands-on experience for students. Much more it is a comprehensive approach to fundamental questions of architecture. It is about encouraging people to learn and to work together regardless different culture and status. And it is the occasion to deal with real needs and demands in order to get a deeper understanding for the relevance of your position as designer and architect for somebody’s live.”

<http://www.orangefarm-ev.de>



Foto: Anna Heringer

“I strongly believe architecture is a tool to improve lives. As architects we do have power to influence the society and to make a change.

Rather than exploiting our planet’s precious resources, we can be sensitive and graft what we find locally.

While building up structures we can also build up justice and trust.

The BASEhabitat Postgraduate Degree offers a holistic approach to an architecture that acts as a catalyst for change and I`m happy to be part of it.”

Anna Heringer

Anna is an architect and honorary professor of the UNESCO Chair of Earthen Architecture, Building Cultures and Sustainable Development. Her focus is on the use of natural building materials and the support of local economic circles.

Anna has been actively involved in development cooperation in Bangladesh since 1997. Her diploma project within her architecture studies at the University of Art and Design Linz, the METI School in Rudrapur, got built and completed in 2005. She collaborated with Eike Roswag and won the Aga Khan Award for Architecture in 2007. Over the years, Studio Anna Heringer has realized further projects in Asia, Africa, and Europe.

Anna is giving lectures at conferences worldwide, including a TED-talk in 2017, and has been a visiting professor at various universities including Harvard University, ETH Zurich (with Martin Rauch), UP Madrid, TU Munich and the University of Liechtenstein.

Anna received numerous honors and awards, such as the Global Award for Sustainable Architecture, the AR Emerging Architecture Awards in 2006 and 2008, the Loeb Fellowship at Harvard’s GSD and a RIBA International Fellowship. Her work is widely published and has been exhibited at the MoMA in New York, the V&A Museum in London and at the Venice Biennale, among other places.

“The vision behind, and motivation for my work is to explore and use architecture as a medium to strengthen cultural and individual confidence, to support local economies and to foster ecological balance. For me, sustainability is synonymous with beauty: a building that is harmonious in its design, structure, technique and use of materials, as well as with the location, the environment, the user, the socio-cultural context. This, for me, is what defines its sustainable and aesthetic value.”

<http://www.anna-heringer.com>



Foto: Martin Rauch

“Earth is an amazing building material I am really fascinated by. I want to share the know-how I have gained over the years experimenting and researching with rammed earth.

My vision is to encourage our society to build with earth and to believe in its potentials.”

Martin Rauch

1974 Technical College of Ceramics and Oven Construction, Stoob. 1978–83 University of Applied Arts Vienna, master class in ceramics, under Matteo Thun and Maria Bilger-Perz.

1983 diploma “Loam Clay Earth,” honorary prize of the Austrian Federal Ministry of Science and Research. Since 1990 design, planning and realization of clay building projects at home and abroad. 1999 founding of the firm Lehm Ton Erde, Baukunst GmbH, 2007 of the firm ERDEN.

1988—2010 one-man and group exhibitions, in Feldkirch, Meran, Paris, and Graz, as well as numerous prizes and awards.

Since 2003 lecturer at the University for Art and Industrial Design Linz. International workshops, in Bangladesh, South Africa, and Austria in co-operation with BASEhabitat.

Since 2010 UNESCO Honorary Professor in the Chair of Earthen Architecture. Since 2014 guest lecturer at Department of Architecture ETH Zurich (together with Anna Heringer).

Martin Rauch has built some really innovative large-scale projects like Ricola Herb Centre in Laufen (Basel), Switzerland, 2012 Alnatura Campus in Darmstadt, Germany, 2016 - 2017

His own factory workshop and integrated planning office is under construction since May 2019 in his hometown Schlins.

<http://www.lehmtonerde.at/en>

7. Lecturers, sponsors and partners

Guest of the Lecture Series

Rina Fetahaj
Design thinking

Stefan Pollak
Building connections across the continents

Robert Koeppe
Circular Carbon and Mushroom Cycles

Kathryn Larsen
Building with the Sea. Algae, Shell and Seagrass as Local Construction Materials

Tania Teixeira
Working in Networks. BioN Building Impact Zero Networks

François Streiff
CobBauge, modernize a traditional technique

Stefan Sterlich
Hempcrete

Elena Yaneva
Hempstatic, renewable building components

Anna Heringer
Architecture is a tool to improve lives

Felix Holland
Mustardseed Story

Guest Lecturers

Dominik Abbrederis_BASEhabitat
Earth plaster and rammed earth workshop

Flavia Matei_BASEhabitat
Bamboo

Philipp Reinsberg
Bamboo workshop

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Monika Wohler
Monika Wohler is Vice-Chair of the foundation board. Former deputy Rector of the St. Gallen University of Applied Science, head of the Social Work Department.

Jennifer Jensen-Zünd
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Dora Züger
Dora is responsible for the administration of the Foundation.



BASEhabitat

Kunstuniversität Linz | University of Art and Design Linz
die architektur

Head of BASEhabitat

Siegfried Atteneder

Studio Management

Ulrike Schwantner

Construction Management

Dominik Abbrederis, Florian Fend

Postgraduate Degree

Marta Rota

Master Degree

Flavia Matei, Christian Daschek

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