



We ARE ALL
made out
of mud

Natural building & youth work

Handbook for working with youth
in the natural building field

MADEOUTOFMUD.EARTH

CREDITS

We are all Made out of Mud

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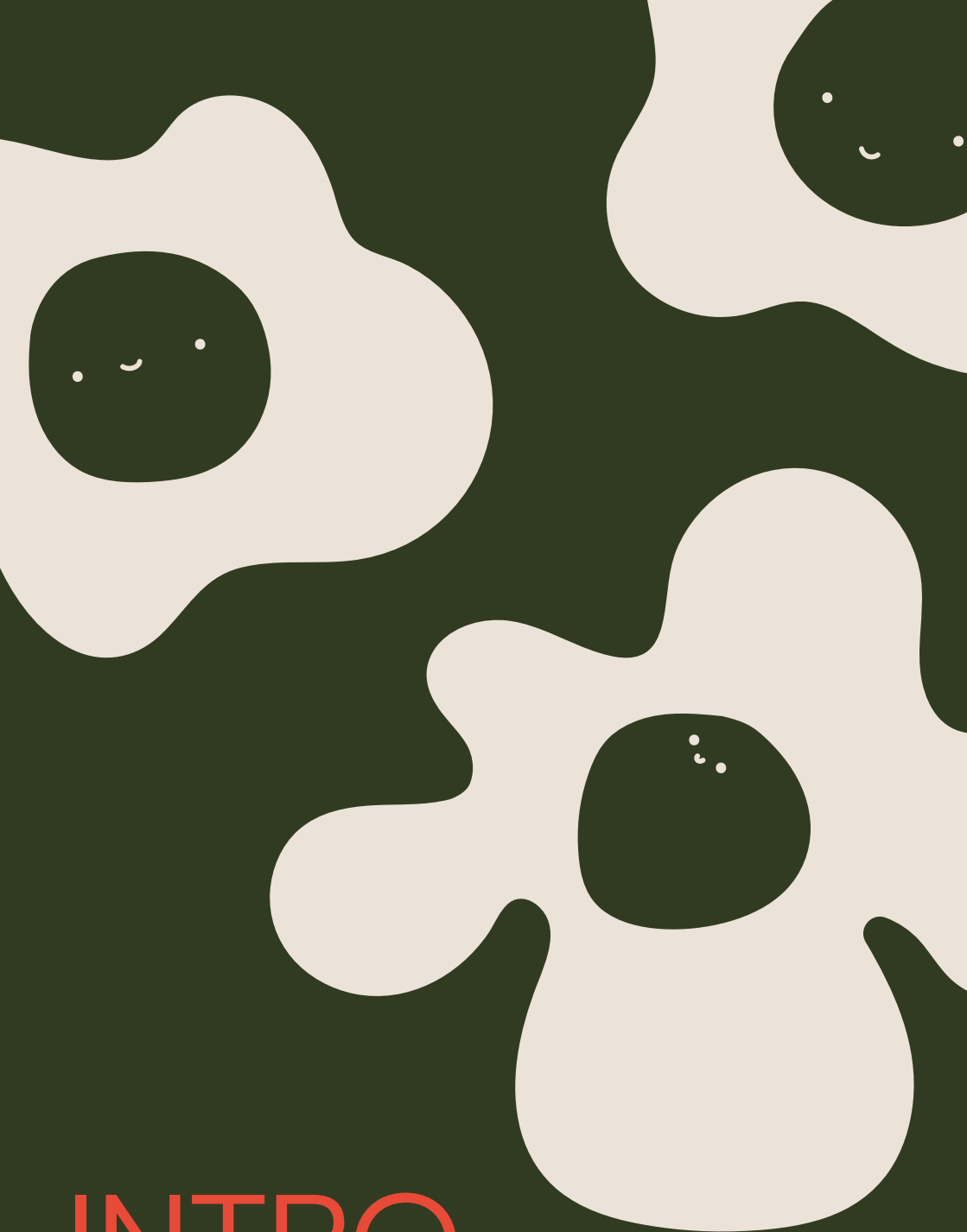
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INTRO

About the project

In 2017, a couple of friends and activists from our organisation, GAIA, started a project in a small, remote village in the Eastern part of the country. This area of Kosovo is economically least developed, facing depopulation in particular due to migration of young people, but at the same time it lives in its own diversity without ethnic divisions.

The initial idea and the driver was about practising, learning and teaching permaculture. Looking back, it seems that we were at all not aware of the potential, possibilities and challenges. We relied a lot on the help of friends, volunteers, creativity and improvisation. Most of the things were new to us. Many things were completely unknown to us. But, we knew people and organisations that have been doing this for years and we knew how to organise volunteering projects. As the official branch of Service Civil International, we had years of experience in hosting long term volunteers, but also short term groups. There was an emerging need to bring together the knowledge of permaculture, natural building and youth work.

Soon, we realised that natural building is an unexplored area and that, so far, we managed to bring many people together through our workshops and activities on rebuilding the place with natural materials. We also realised that some of our international partners are also working and experimenting in this field and that there are no training courses, no available tools nor guidelines for those who want to do or use natural building with youth. The idea was born!

Together with partners from Slovenia, Croatia, France, Turkey, Bosnia and Herzegovina, Serbia, Montenegro and Albania, a proposal for a project that combines natural building and youth work, as a practical answer for addressing climate change and a tool for inclusion, was submitted: We are all made out of mud! Soon after the world was struck by a pandemic and a couple of months later, our project proposal got approved.

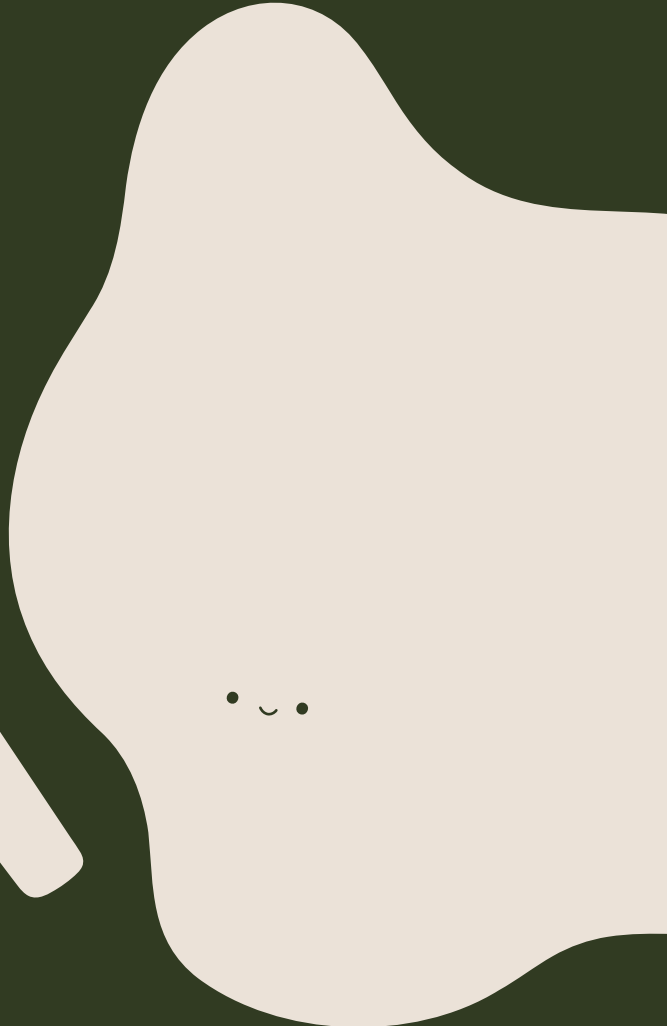
The pandemic, of course, has jeopardised all of our plans, but we still managed to do everything that was planned. During the preparation meeting in Slovenia, we went into the challenges and limits of combining natural building with youth work. Solid foundations for two training courses for youth workers in natural building and quality standards were set up, so we could jump into the activities.

We learn a lot about ourselves, from each other as well as about our organisations and dived deeper into the topic of natural building and its potentials. Fruitful and long lasting partnerships, friendships were established. Many prejudices based on culture, ethnicities and genders were busted and many hidden potentials unlocked. We opened the door of countless opportunities for engaging young people in natural building, but also using it as an empowerment tool for inclusion, equity and environmental education.

One of the outcomes of the project is a will, need and desire to continue collaborating in further development and explorations of the synergy between youth work and natural building. As one of the participants said: "I believe a strong network of people was created through this project, and that is what will help with facing the challenges. Having connections that can support each other."

The story of collaboration through working with earth and nature will continue...

In Bozevce, January 2024



NATURAL BUILDING



History

Natural Building is not a new, revolutionary concept. It exists for much longer than it has been called as such. Humans have been building for millennia, from caves and wooden huts to complex structures capable of hosting thousands of people. The journey of building, with natural but also artificial materials, is one of the biggest achievements of our kind.

First building techniques are to be found in the Neolithic period, or the “New Stone Age”, and at that time buildings were shelters to the base of safety and warmth. And those needs have remained until nowadays. The evolution is found in the materials and the techniques that have been used. The needs also evolved as our society developed.

Afterwards followed centuries of evolution all around the world, starting with the birth of first settled civilisations such as Egypt, Mesopotamia, and Greece...

Further on arrived the first big innovations in construction and architecture with the creation of concrete by the Romans, followed by architectural plans and complex structures in the Middle age and Renaissance period. The biggest step of the last centuries has been the first Industrial Revolution with the growing need to innovate, build faster and bigger structures.

The use of materials such as concrete or metal exploded whether it is through building or the production of the materials themselves.

That is when the construction sector shifted from using natural materials, while materials were more often being processed. As our society developed, building codes appeared and craftsmanship slowly started to decrease to the benefit of faster and cheaper means.

In the 60's the concept of "Natural Building" emerged as an answer to the toxicity of conventional constructions.



Global crisis

All of this brings us to now, 2023, where biodiversity and climate are at high risks of never going back to a stable state.

Our world has created and is facing numerous crises on many levels and conventional building is one of the causes of it: *“Buildings contribute to approximately a third of U.S. emissions and 40% of global emissions, so we cannot meet consensus climate targets without transforming the buildings sector.”* **United Nations Intergovernmental Panel on Climate Change, AR6 Climate Change 2022: Mitigation of Climate Change: Summary for Policymakers**

As much as climate change is being the main trigger to the need for building more naturally and sustainably, many other global issues can find solutions within Natural building:

- Destruction of natural habitats: the extraction of raw materials requires much less processing and can be extracted sustainably, thus direct impact on the environment is less harmful.
- Health of builders and homeowners: as Natural Building Finds its sense using non toxic materials the risks taken by workers whilst manipulating materials is reduced (in comparison with conventional building where many resources are found to be carcinogenic) as much as homeowners while living inside such houses.
- Housing crisis: ***acute shortage of housing, particularly social and genuinely affordable housing, has led to spiralling rents and house prices across the country. Many young people and families on low to middle incomes struggle to afford to rent or buy a decent home.*** The concept of Natural Building has been developed in the way that it also includes means and solutions for affordable houses in the sense of energy consumption and hosting capacity.
- Accessible knowledge/Traditional knowledge: Traditional building techniques are slowly disappearing to the benefit of conventional techniques and material. Cultural heritage and tangible knowledge is central in understanding how civilization and nature grew apart.

- Inclusive process: Natural Building movement also addresses ethical and gender questions as, for long, this field has been seen as a “man field”, while many workshops and training are open or organised by women, children friendly and so forth. *Of course building is still a skill that requires knowledge and precision for safety reasons!*



What is natural building?

Now that we have a bit of the context, we can go deeper into the topic. Natural Building is a set of principles, values and ethics that have been developed, formally or informally throughout the last century, under the shape of innovations, researches, books, leaders, building codes to bring up feasible solutions to global crises and reconnect houses to people and people with nature.

As much as Natural Building is a fairly new concept it finds its roots and inspiration from tradition, we now look for ways to mimic how mankind was doing when we had no other options but to use natural materials, but it also includes low and high technology in the less harmful and most passive way.

PRINCIPLES AND VALUES

There is no official set of principles within Natural Building as much as there is not one way to proceed while constructing. Various publications mention principles but there is a variety of them. Here are the most common ones:

NON-TOXIC

Non-toxic is preferred to natural materials for the reason that it is very complicated nowadays to make a completely natural house, because of the electrical systems, glass windows require materials that simply cannot be avoided. It is about limiting the amount of toxic materials as much as possible...

LOW IMPACT (EMBODIED ENERGY, AVAILABLE MATERIALS, WASTE REDUCTION)

Low impact refers to the construction process but also to the finished product: not only the foreseen construction should be thought through Natural Building but also the life of the house after it is finished (energy consumption, passive techniques)

Available

An available material means that it should be plentiful within the location of the future building. There is no sense in making a straw-bale house if the bales have to be transported from far away.

Embodied energy

The embodied energy of a material/building is the amount of energy (Kj, CO₂, H₂O...) required to get the material/building from raw to a final product, in other words from extraction to transformation and then transportation/installation.

For example portland cement are sediments (rock/clay) that are extracted, then cooked at very high temperature to create a chemical transformation, and then crushed so it becomes a powder. It then has a very high embodied energy.

Waste reduction

Further than plastic packaging waste reduction in Natural Building includes all possible leftovers from construction and the ways it can be reused. Wood scraps from a roof can be used for furniture making or burned to heat up the house.

EFFICIENT

Low tech

Low tech is logical, simple, practical and easy systems that are accessible to all. It is in line with Do It Yourself (DIY) practices.

Passive energy

Passive energy is energy from variable natural sources that are directly used to achieve an intended purpose. For example putting a heavy earthen floor in a house to maximise thermal mass and get thermal inertia.

Accumulation vs. insulation

Accumulation or thermal mass results in the use of heavy dense materials in a construction to get passive heat storing capacity whether insulation can be seen as light materials, full of air with very low conductivity to slow down temperature exchanges between outside and inside a house. Both of those concepts are very ancient and are the base of any energy efficient construction. Depending on the

climate one, the other or both can be used to keep convenient temperatures inside the house and reduce energy consumption.

LONG LASTING

In a society where consumption overran preservation, the building sector also has been affected and conventional houses are being built for added value and not for their strength, so that future generations can benefit from houses already built... and then less materials are to be used as there (should be) is existing houses!

BEAUTIFUL

That principle does have unanimity among the Natural Building community. Every Natural Building (speaking mainly about individual housing), as they are made usually with closer contact with homeowners, if not by them or friends, are beautiful. I am not speaking here about aesthetic tastes only, but also feelings.

There are memories in and on the walls, roofs and floors of those houses: from details of the process to shades of autumn lights.

Art has a big place in Natural Buildings, careful attention is given to those spaces so they fit and suit the tastes of people living inside. And this brings us to what values are carried by eco-construction.



Values

Values are an abstract concept in this case. As many different initiatives and movements emerged from Natural Building, here will speak about individual and collective aspects. Not about factories and companies working in that field. Even though there are common traits to those two "branches".

HOUSE AS A LIVING BEING/SHELTER NOT A GO TO AFTER WORK

Houses are nowadays seen as products of consumption, a place to go to after-work. In contradiction with this way of thinking Natural Building sees houses as living, breathing beings where warmth and comfort are being met. People escape homes to go to far away vacations, as they would escape their homes and cities, why not see home as a safe place for resourcing ourselves and building resiliency?

COMPLEXITY OF CHOICES

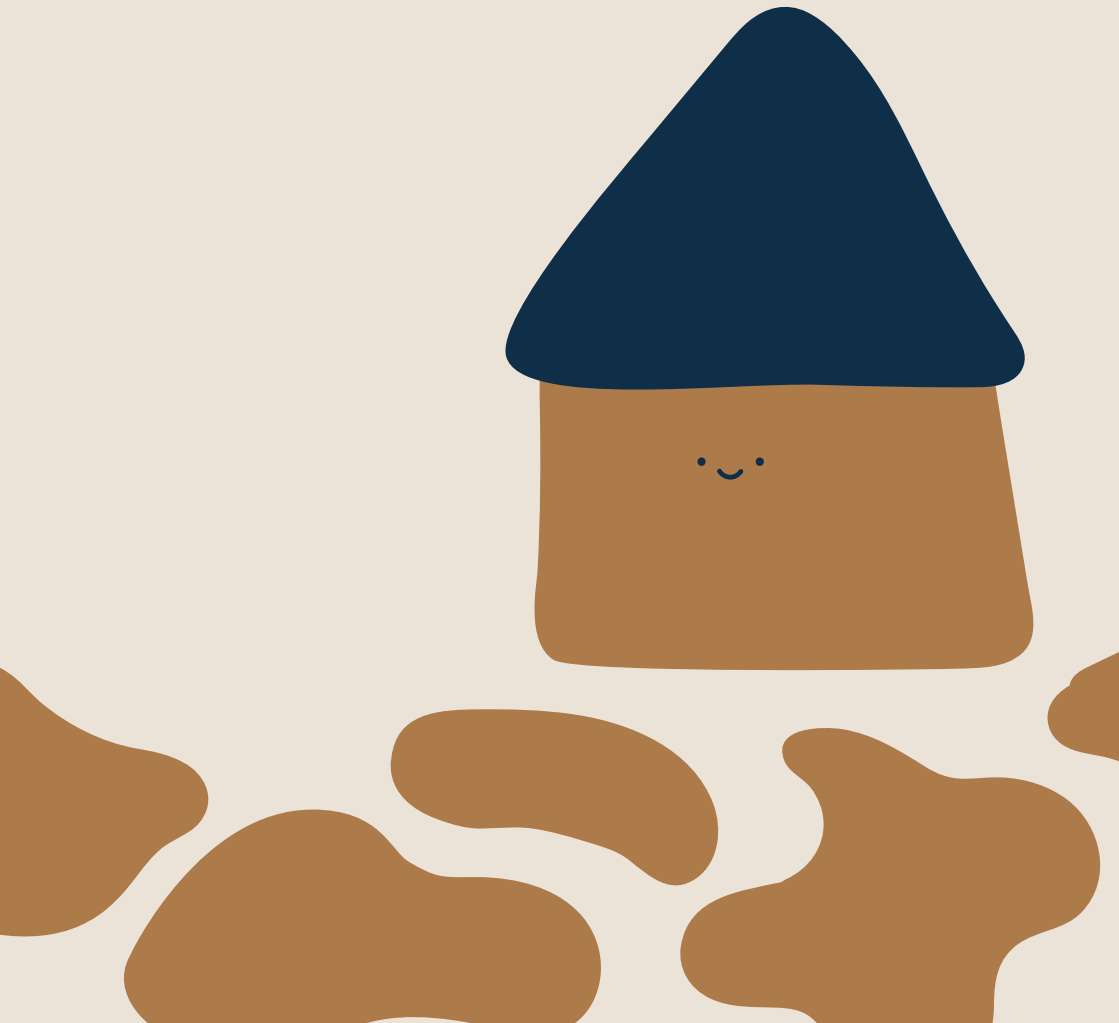
There is no one way to build a natural house. A big panel of choices come into place; materials, techniques, orientation... The movement is getting bigger and new concepts are emerging, new materials.... There is no good or bad way, what matters is the mindset of the builders, from very Do It Yourself to conventional looking houses there are a variety of possibilities and it is sometimes hard to find ourselves in this.

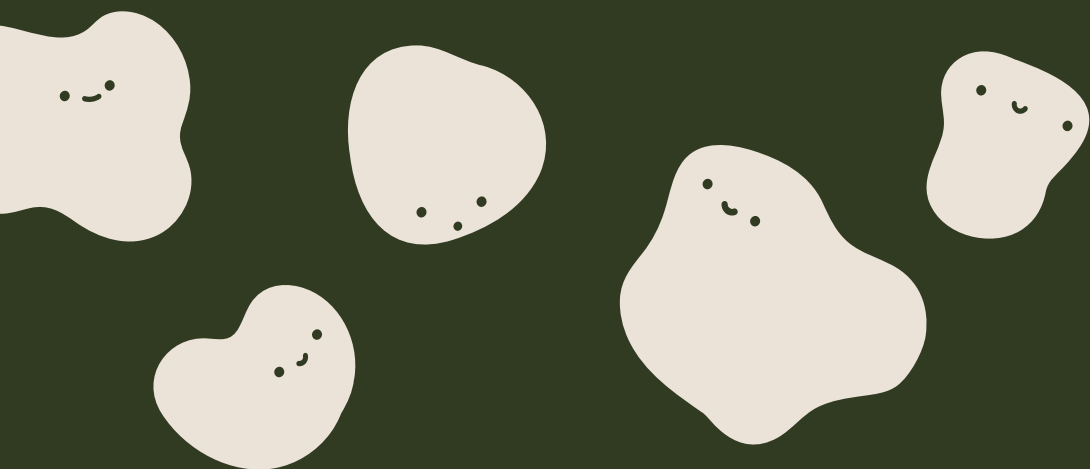
A good tip would be to look at old houses around. They gather local materials that are suitable to the climate and crafts that preserve houses for a long time.

The idea is not to reduce comfort

A stereotype that is often to be seen is that living in a house represents a symbol of poorness. Concrete overruled earth in the last centuries and mainstream thinking does not see this material as valuable.

Of course the idea is not to reduce comfort, our habitat criterias and lifestyle evolved and housing yet needs to adapt to that. The intention of preserving our environment should prevail and our needs should be adjusted but it for sure does not mean that we should go back to a peasant way of life...





NATURAL BUILDING AND YOUTH WORK



Youth work in natural building

‘Youth work’ is a broad term covering a large scope of activities of social, cultural, educational or political nature both by, with and for young people. Increasingly, such activities also include sports and services for young people. Youth work belongs to the area of ‘out-of-school’ education, as well as specific leisure time activities managed by professional or voluntary youth workers and youth leaders, and is based on non-formal learning processes and on voluntary participation *‘resolution on a renewed framework for European cooperation in the youth field (November 2009).’*

Youth work has a long tradition of supporting young people’s understanding of the world around them and promoting such values as justice and equality; in the last years sustainability has been more and more present. *“To create a world that is more just, peaceful and sustainable, all individuals and societies must be equipped and empowered by knowledge, skills and values as well as be instilled with a heightened awareness to drive such change. This is where education has a critical role to play.” (UNESCO 2014)*

Natural Building is part of the frame of sustainability but it did not create a strong link with practice and skills. And that’s where most learning experiences can sprout.

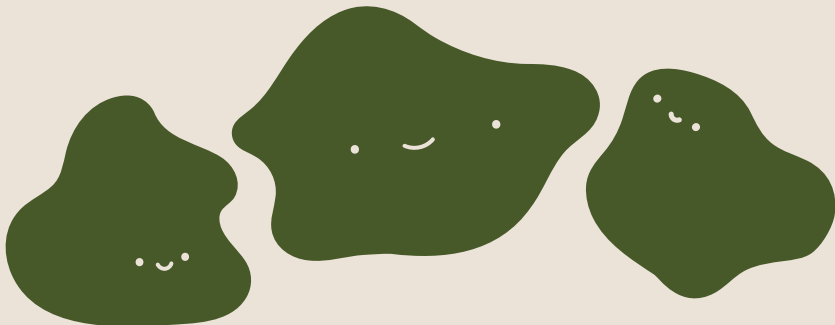
In practice that means that Natural Building practices, ethics, principles are transmitted with non-formal methods, through practice and theory. Starting with introduction activities and explanations about the general concepts and then getting deeper in the topic, connecting with broader topics such as climate change, traditional knowledge, and inclusion. Whether it is practice or theory, teamwork is one of the foundations of such activities and tries to counter a more and more individualistic society. The idea is not to give one option or to expect that all of them will radically change their lives so far. It is to first demonstrate the complexity of our society and of the issues that exist and to show what can be alternatives.

The main challenge is that the Natural Building, and building sector in general is seen as a sector that is or for low standards workers (too physical, low salaries, poor education) or too elitist (architects, engineers: so long studies, with hard chances of succeeding).

This problem is yet true but also gives the chance to youth to know about the basics of Natural Building and is pushing to arouse interest, through non-formal or formal education (studies with recognized diplomas are crucial to the growth of Natural Building).

The potential outcomes for youth work, through Natural Building, are not only a better knowledge of the topic itself, but also comprehend the connections that it has as an answer to global issues and the power it can have to create a better society.

Keeping *craftmanship* of traditional building alive, if the movement and sectors grows, the employability will raise and this field is yet to explode (unfortunately) with the upcoming global crisis. Natural Building aims also for equity and diversity, for the makers and also the beneficiaries of it: from a human and a natural point of view.



Training courses

Within WaaMooM, two training courses were organised: one about Natural building and short-term activities such as workcamps, youth exchanges, workshops and another one about Natural building in long-term volunteering programs. The target groups were group leaders, camp coordinators or volunteer coordinators that are already doing or are willing to implement natural building activities. Both trainings were facilitated by the same team of trainers. The general intention was to create, develop and test an “activity template” for partner organisations and others active in this field. We thought that it is important to have a common ground, understanding of the level of knowledge and skills needed, as well as minimum standards regarding safety and responsibility.

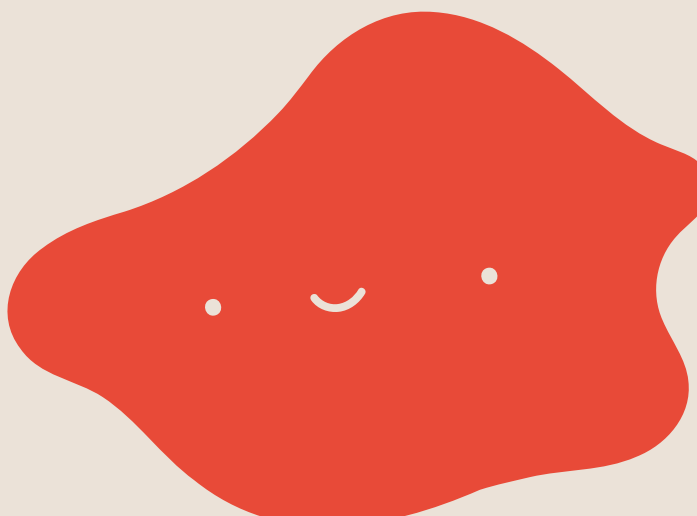
FIRST TRAINING COURSE

As for the first training course, participants were involved in creating safety guidelines and program templates for youth activities with natural building as the main topic. Those templates were also used later during the Youth Exchanges that were part of the WAAMOOM project. Some of the participants not only took part in the design part but also as group leaders during the Youth Exchanges!

The program of the training course included a combination of topics around natural building and youth leadership. The participants could learn about the Bozevce project, why natural building makes sense and what makes it different from conventional building, diversity of techniques, safety requirements at the working sites and how to handle different tools properly. They could also practise different techniques on demonstration walls. In order to be ready to coordinate youth exchanges, workcamps and ESC teams about natural building, the participants were empowered by new skills and knowledge about leadership styles and skills, soft skills, communication skills, with particular focus on non-violent communication, then group dynamics and program flows. Finally, divided in thematic groups they designed programs for future activities.

EXAMPLE OF PROGRAM OUTLINE

TRAINING COURSE FOR ORGANISING YES, WORKCAMPS, GROUP ESC AND SIMILAR INTERNATIONAL GROUPS ON NATURAL BUILDING						
DAY 1	Community building	Introduction to the project Erasmus+, YouthPass	Lunch break	Bozevce project	Why natural building make sense	Movie screening
DAY 2	Soft skills	Diversity of natural building		Safety and tools	Demonstration 1: Straw-bales	Introduction to permaculture
DAY 3	Leadership skills	Structure and logistics		Demonstration 2 - wattle and daub	Continuation	Presentations of organisations
DAY 4	Communication skills; non-violent communication	Mid-term evaluation		Study visit	Study visit	Traditional dinner
DAY 5	Addressing the needs	Conflict management and problem solving skills		Demonstration 3: Light straw	Continuation	Presentations of organisations
DAY 6	Designing the programs of youth exchanges, camps	Continuation		Demonstration 4: Earthen plastering	Continuation	Free evening
DAY 7	Presentations of the programs/ group work	Open Space		Evaluation Follow up	Closing, ceremony and certificates	Farewell party



SECOND TRAINING COURSE

The second training course was about long-term volunteering and natural building. The objective was to host volunteer coordinators or builders and empower them with knowledge on natural building, volunteering and non-formal coordinating skills.

The approach for the part about natural building changed, it included more links to global issues and the role of natural building as a solution for mitigation. It is very important to connect those topics: as much as natural building seems fun and inclusive it is also a responsibility for educators to show why it is necessary, and to transmit the right information.

For the practice, there was more content about the materials themselves than the techniques. Understanding better what are the characteristics of wood, earth, straw as building materials.

At the end of the course the participants designed long-term volunteering templates within different programs (ESC, Woofing...), based on what they have learned and their previous experiences.

We have realised that it is hard to go into detail in such a short period, and that it is not so common to find coordinators, or builders that can make the bridge between natural building and non-formal education. For that to be developed further, natural buildings should be more visible and known by youth in general.



EXAMPLE OF PROGRAM OUTLINE



TRAINING COURSE FOR ORGANISING LONG TERM VOLUNTEERING PROJECT IN NATURAL BUILDING						
DAY 1	Getting to know each other	Community building	Lunch Break	Introduction to the host organisation and the venue	Why does natural building make sense (climate crisis, environmental crisis...)	Internatural evening
DAY 2	ESC - long term volunteering, inclusion projects, 4Thought for Solidarity	Other volunteering programs		Safety & Tools	Structure and logistics	Presentation of natural building programs/organisations projects in different countries
DAY 3	Coordinating volunteers & support system	Problems & solutions in LTV programs		Working with Clay & Straw	Working with Wood	Movies screening
DAY 4	Visit local ESC organisations in Kosovo and partners of GAIA			Free afternoon		Dinner in Ethno House in Gracanica
DAY 5	Mid-term evaluation	Open Space: everything else you would like to share & learn		Learning through volunteering & the concept of key competences	Natural building and learning	Evening organised by the participants (input from mid-term evaluation)
DAY 6	Addressing the needs	Addressing the needs		Practical part	Practical part	Music evening
DAY 7	Inclusion and natural building	Inclusion projects: case studies		Free afternoon: self-reflection time/ silent time		Free evening
DAY 8	Practical part	Practical part		Designing programs for LTV and short term inclusion projects in natural building	Designing	Farewell party
DAY 9	Finishing designs and presentations	Presentation of group work results, feedback and congratulation time		Evaluation Follow up	Closing, ceremony and certificates	

Youth exchanges in natural building

Within WaaMooM project two Youth Exchanges were organised and hosted in Bozevce village. Programs for both exchanges were prepared during the Training course for youth leaders. The first Youth Exchange was about Natural Building and gender equity, while the second Youth Exchange combined Natural Building with social inclusion.

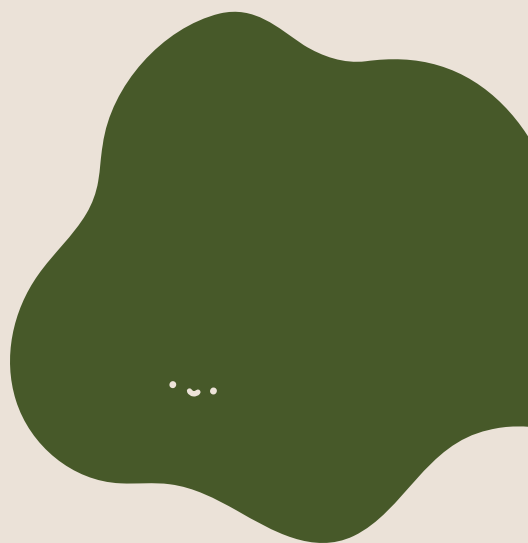
The groups included young people from Turkey, Montenegro, Kosovo, Serbia, Albania and Croatia. The idea was to:

- To provide space for practising various techniques such as earthen plasters and sculptures, rammed earth, wood work.
- To build or create tangible and intangible memories from this experiences.
- To share theoretical insight with safety basics of construction and principles of Natural Building.
- To discuss about how to include gender topics in a stereotyped environment.
- To explore and discuss modern challenges of social exclusion and discrimination and how Natural Building can contribute to inclusion.
- To offer more space for sharing, exchanging, helping, discussing, enjoying nature and cultures.
- To put into practice what youth leaders learnt during the training course about working with youth groups in the field of Natural Building.

These are examples of possible programs for Youth Exchanges that combine Natural Building with important social topics.

TRAINING COURSE FOR ORGANISING LONG TERM VOLUNTEERING PROJECT IN NATURAL BUILDING									
DAY 1	Daily check-in	Community building (getting to know each other, expectations, culture of the place & rules, group agreement)	Coffee break + kitchen support	Community building and Intro to the project	Lunch Break	Tour Bozevce project	Reflection time + Dorodango balls	Movie night: Movies on Natural Building	
DAY 2		Presentation Natural Building techniques + Why Natural Building is important		Safety and tools at a working site		Natural Building practice (introduction and first tests)		Preparing materials and building site	Capoeira night Backup plan: little finger dance
DAY 3		Communication + team building		Explanation of the presentation (for day 8: movie, song, sketches)		NB Practice Phase 1 1: Clay mural 2: Adobe 3: Dorodango balls Designing, preparing materials		Walk and talk + Herbarium	Presentation of cultural and Natural Buildings (each country)
DAY 4		NB Practice Phase 2 1: Clay mural Colours, preparing materials 2: Adobe Producing 3: Fire place molding preparation		NB Practice Phase 3 1: Clay mural producing; 2: Adobe producing; 3: Fire place producing; 4: Plastering		Speaker/ Trainer on gender equity		Workshop with guest speaker/ trainer	Presentation of cultural and Natural Buildings (each country)
DAY 5		Mid-term evaluation		Study visit Draganac Monastery					
DAY 6		NB Practice 1: Fire place Phase 3 2: Clay faces 3: Mural		NB Practice 1: FirePlace Phase 3 2: Clay faces 3: Dorodango balls		Cultural awareness		Open space	Global village (traditional cooking)
DAY 7		Natural Building: Bozevce practice		Open space		N.B. Practice 1: Sgraffito 2: Plastering 3: Fireplace		Continuing	Evening together inviting neighbours
DAY 8		Final touch and cleaning		Presentation of group projects		Final evaluation and Youthpass		Closing ceremony	

YOUTH EXCHANGE ON NATURAL BUILDING AND SOCIAL INCLUSION							
DAY 1	Community building	Coffee break + kitchen support	Tour of the place	Lunch Break	Community building	Reflection time + Dorodango balls	
DAY 2	Theory of Natural Building (history, principles, values)		Theory: What is social inclusion		Community work (in the village)		Cultural evening #1
DAY 3	Walk and Talk: Social inclusion & Natural Building		Practical work in smaller groups (mural, plastering)		Practical work in smaller groups (mural, plastering)		Movie night
DAY 4	Practical work in smaller groups (mural, plastering)		Practical work in smaller groups (mural, plastering)		Introduction to open space + midterm evaluation		Cultural evening #2
DAY 5	Free time		Free time / walk, garden		Sharing experience on social inclusion – Roma Versitas Kosovo		Free evening
DAY 6	Performing - addressing needs from mid-term evaluation		Open space 1				Cultural evening #3
DAY 7	Intro to Permaculture - Ethics and Principles		Practical work in smaller groups (mural, plastering)		Climate fresk - Climate Awareness Association		Exhibition of results
DAY 8	Youthpass		Evaluation		Gratitude + Closing Ceremony		Farewell party



Volunteering in natural building

Natural building is, by its essence, something that cannot be done by a single person. And, on a social level that is also not the idea. The building process should be about gathering people around a common goal. It often happens that group actions are needed to achieve some of the steps of the construction, in particular when working with natural materials such as earth or straw bales.

Nowadays, volunteering is a way to try to contribute positively to the society and environment, but also a way of looking for alternative ways of living and working, and exploring different sources of knowledge and experience.

Thus, volunteering and natural building are a very good match in a sense. One is useful to the other and vice-versa. They both share common values and have the potential of aiming for a better society and future.

Throughout WaaMooM project, there were different types of volunteering actions, and all of them showed that there is sense in holding such activity.

Natural building is still not widespread, and there are some struggles to make it more known, by associating it to volunteering activities that contribute to its development. It is often a fulfilling experience, where you can see the results, and feel the evolution as it is a bunch of hands (including yours) that have been working for a common goal. In a context where we have access to a lot, if not too much, information about everything on the internet, volunteering is a concrete way to get spoken and shown information, connecting vague concepts to real hands on experience; but also to bridge with the complexity of nowadays challenges such as climate change, social injustice, housing crisis...

Individualism is omnipresent and affects many of us, we lack true connections among eachothers and disconnect ourselves from real social interactions. Working as a group on a building connects us to the worldwide tradition of building. Houses used to be built by villagers altogether; it created a sense of belonging and friendship that is slowly disappearing with construction contractors and big scale housing projects.

But we should not get fooled into the idea that any inexperienced person can build a house. Some parts need to be made by professionals. Building codes, insurances require it but also because ethics that natural building carry aim for long lasting objects, efficient and above all safe to live in. And the framework of a house cannot be done through improvisation. Volunteers can also be exposed to serious injuries due to lack of experience, and that in no case represents what natural building is.

As educators and trainers we have responsibility towards volunteers we host, in the sense of common knowledge but also to be able to guarantee everyone’s safety and integrity on the working site and around.

EXAMPLE OF A PROGRAM FOR VOLUNTEERING TEAM/CAMP

TRAINING COURSE FOR ORGANISING LONG TERM VOLUNTEERING PROJECT IN NATURAL BUILDING						
DAY 1	Name games	Introduction to the program, group agreement, teams	Tour around the place	Team building + sustainable living		
DAY 2	History of natural building	Intro to Natural Building (climate change, environmental impact)	Safety at work	Presenting the project in detail		Open air cinema
DAY 3	Introduction to hand tools and wood work		Wood work			Music & fire
DAY 4	Time off (or preparing group presentations)		Walk to the rock & sunset			
DAY 5	Wood work		Wood work			NB presentation: group 1
DAY 6	Mounting the structure		Cleaning the working site			NB presentation: group 2
DAY 7	Evaluation + plan for the week	Learning about cob	Preparing cob + making the walls			NB presentation: group 3
DAY 8	Preparing cob + making the walls		Preparing cob + making the walls			
DAY 9	Introduction to permaculture		Visit the monastery			
DAY 10	Finishing details		Finishing details			The last party
DAY 11	Cleaning, packing	Reflection, youth-pass, evaluation	Presentation of the group	Youthpass ceremony		

PLATFORMS FOR DIFFERENT VOLUNTEERING PROJECTS

[European Youth Portal →](#)

The European Youth Portal provides EU level information and volunteering opportunities for young people and youth stakeholders

[Ecobuilda →](#)

Ecobilda is about natural building and permaculture but what it really is about is human connections. Ecobilda is a platform facilitating opportunities to travel, meet like minded people and learn new skills.

[WWOOF →](#)

Worldwide Opportunities on Organic Farms (WWOOF) is a worldwide movement to link visitors (WWOOFers) with organic farmers, promote a cultural and educational exchange, and build a global community conscious of ecological farming and sustainability practices.

[SCI Workcamps →](#)

SCI organises short-term voluntary projects, commonly known within SCI as ‘work-camps’. These projects are organised in cooperation with SCI branches and partner organisations, who create and organise these projects together with local communities.



Logistics and structure

During the training course for coordinators of workcamps, ESC teams and youth leaders in exchanges, several participants had the opportunity to develop the basic guideline for short-term volunteering such as ESC volunteering teams, Youth Exchange or SCI international workcamp about Natural Building. This is what resulted from this exercise:

BEFORE

- Thinking about the project/documentation work
 - Place and plan of the object. Analysing the site
 - Plan + Which techniques? Which materials and tools? Documentation
 - How many workers are needed? Which kind of worker?
 - Time: duration and season favourable towards building of the object
 - Risk assessment
 - Checking if any measures are needed to lower the impact of the event on nature
- Administrative issues
 - Licences
 - Getting in contact with the local municipality
- Finances
- Find partners
- Communication
 - Creating a website
 - Informing local media

- Share responsibilities
 - Managers
 - Coordinators
 - Facilitators
 - Logistic
- Form a workers team
 - Writing and publishing announcement to find volunteers
 - Selection of participants
 - Communication with participants
 - Arrival
 - Personal data
 - Special needs
- Accommodation
 - Preparing the place
 - Cleaning
 - Tidying
 - Organisation
 - Beds
 - Buying/finding sheets, pillows, mattresses
 - Catering
 - Making menu
 - Buying food
 - Buying/finding cutlery, dishes...
 - Bathrooms
 - Transport
- Finding tools and material
- Creating a schedule
 - Time to work
 - Time for special (cultural) activities
 - Time to rest
 - Plan B (if the weather is bad, for example)

DURING

BEGINNING

- Arrival of participants
 - Welcoming
 - Presentation of the place
 - Explanation about accommodation
- Introduction
 - Presentation of the team
 - Culture of the place
 - Safety
- Presentation of project
 - Schedule
 - Responsibilities
 - Activities
 - Tasks

DURING ALL THE DURATION

- Following worker's conditions
 - Activities for meeting each other, then, for team building
 - Time for team-talks
 - Time for unplanned activities
 - Adaptability according to the needs of each one
 - Adapting schedule according to weather, motivation, needs
 - Group agreement between participants and the project team
 - Energy level check up
 - Feedback and reflection time
 - Involving and empowering the group and also individual participants

- During work
 - Preparations for activities (providing tools, material...)
 - Sharing knowledge about building
 - Cleaning and maintaining the place
 - Giving responsibilities to participants
 - Mixture of non-formal and informal learning
 - Insuring safety
- Collective life
 - Ensuring necessities
 - Catering
 - Seeing what's needed in general (toilet paper, soap...)
 - Watching stocks of food
 - Warming places if it is cold
 - Maintaining safe environment
 - Giving responsibilities to participants
 - Trying to involve locals
 - Highlighting local culture and contact with nature
 - Taking care of the impact on environment of activities
 - Taking pictures and videos

ENDING

- Cleaning the place
- Sorting out leftover material
- Participant's evaluation
 - Individually
 - As a group
- Team member evaluation
- Summarization of activities and evaluation

- Gratitude and celebration
 - Collective moment for the group
 - Suggesting others projects
 - Addressing further needs
 - Exchanging contacts
 - Certification
- Project closing
 - Checking if everything was fine with accommodation
 - Departure

AFTER

- Dissemination
 - Pictures
 - Documents
- Staying connected with participants
 - Through others projects
 - Visiting their project
 - Sharing pictures and documents
- Reflection with the project team
 - Lessons learned
- Conclusion for building process
 - Checking structure in time
 - Recapitulation of loss, time, etc.
 - Summing up collected material
 - Finance check
 - Archive (share with participants)
 - Preparing a report
- Ideas for following projects



Safety guidelines

These guidelines are intended to provide you with the general orientation to safety measures in youth and volunteering projects on Natural Building. You are encouraged to familiarise yourself with the contents of this handbook, but please keep in mind that this handbook cannot anticipate every situation.

EVERY PERSON IS A SAFETY LEADER

Safety is everyone's concern. Every participant on a construction site becomes a safety leader the moment he/she arrives. An observer can often see danger better than the worker involved in the project and it is his/her obligation to speak to the worker and the coordinator. Since this kind of activity normally has a high proportion of inexperienced people, everyone must pay particular attention to safety.

Be conscious of the safety of others as well as your own.

Be cautious at all times.

Safety is based on **knowledge, skill and an attitude of care and concern.**

Ask questions. There is a coordinator on each project that can help you identify inherent hazards and instruct you on how to avoid them.

Don't be brave on a working site.

Only work with tools if you are **focused, concentrated and on point.**

PARTICIPANTS' RESPONSIBILITY

Participants in Natural Building projects are often not experienced and should prioritise safety and well-being for themselves and others.

As a participant on a workcamp, Youth Exchange or similar short-term project you should:

- Read all documents given to you.
- Carefully listen the instructions and ask for clarifications whenever needed.
- Wear all the safety gear needed for that situation.
- Don't use tools you are not familiar with your own (ask the coordinator) and don't hesitate to say no if you are not comfortable to use a certain tool.
- Take breaks to rest once you feel too tired to maintain focus and precision.
- Don't feel pressured to finish a project.
- When noticing unsafe behaviours, make sure to warn the person. Don't hesitate in that case to speak up!
- Be aware of your posture when carrying/lifting heavy objects.
- Leave the working space as you found it or even better (**cleaner is safer**).
- Don't be shy to ask the coordinator to repeat, explain, or clarify what you could not understand.

COORDINATORS' RESPONSIBILITY

Whether you are a coordinator of volunteers in projects such as international volunteer workcamps and ESC volunteering teams or Youth Exchanges which involve 10 or more participants, your responsibility regarding safety is high.

As coordinators you should:

- Check if the tools are correct/working properly and prepare the working site in advance.
- Provide the tools and make sure they are maintained.
- Provide safety gear and safety guidelines (these ones) and practicalities of the place.
- Explain which tool is for what.
- Show how to use a tool – **never show if you don't know or did not receive proper instruction from someone else.**
- SAFETY FIRST:
 - not forcing something should be done when not absolutely safe;
 - never force someone to use a tool if they don't feel confident using it;
 - **be there, watch out and help/support;**
 - **STOP the work immediately if something goes in the wrong direction.**

GUIDELINES FOR A SAFE CONSTRUCTION

Be honest about your comfort level, there is no need to be a hero on a construction site. If the thought of working at heights bothers you, stay off ladders.

Think about your task. If you are uncertain about how to accomplish your task or how to operate a tool or piece of equipment, ask a coordinator. If you must use your cell phone, move away from the immediate build area to a safe area until you are finished.

Concentrate on the task at hand. Avoid distractions.

Inspect all power tools, hand tools, ladders and scaffolding. If any unsafe tools or conditions come to your attention contact the supervisor immediately.

Manage your energy level carefully and do not push yourself too much. If you feel tired or weak, ask for a break. Balance social, working and resting parts of your time during the project.

Avoid exposure to direct sun in summer. Use hats, sun protection cream and drink enough water or tea.

Always be sure from where (who) comes the information.

Don't hesitate if someone is watching you and you feel pressure to express it.

Put warning signs on the site. That is another way to ensure that participants will remember or get reminded by safety guidelines.

Stretch in groups before starting the work if possible.

PROPER SAFETY EQUIPMENT

Wear appropriate clothing. This is as important to safety as the proper selection and use of tools. Loose clothing is dangerous around power equipment. Workers should wear boots or closed shoes (if possible thick-soled). Any person wearing sandals or flip-flops will not be allowed to remain on the working site.

Wear helmets. They are available on site and must be worn if anyone is working above you or if it is determined necessary by the coordinator.

Wear protective eyewear. Eyewear is available onsite and should be worn when using power tools or when determined necessary by the coordinator.

Wear dust masks. Dust masks are available onsite and should be worn when installing insulation or in heavy dust situations.

Don't use gloves when you are using rotation devices (power drill).

Protective shoes are important.

If you have long hair keep it tight or cover it.

Jewelry on a working site is not recommended, also long nails can be broken easily.

Use a rope and harness while working on a roof.

POWER TOOLS AND OTHER ELECTRICAL DEVICES

Wait for proper instructions. Each participant should receive instruction before a power tool is used, including what could happen if not used correctly. A coordinator should give instructions to all participants, including experienced do-it-yourselfers.

Check for defects. Check all power tools, switches, cords and plugs. Pay special attention to blade guards and make sure they operate correctly. Under no circumstances you should ever disable a blade guard. Defective tools should not be used and the coordinator should be notified so that they can remove the tool from service immediately.

Examine extension cords. They should be of sufficient size (check with the coordinator) and in good condition. Keep cords out of mud or water and avoid stepping on them.

Observe people when they use power tools.

Always unplug tools when you don't use them.

After use, clean tools and check if there is any defect on it.

GENERAL PRINCIPLES

UNLAWFUL HARASSMENT AND DISCRIMINATION

All participants and volunteers should be accorded respect and consideration and feel that a safe and productive environment is provided. Any action or conduct that may discriminate against or harass others is prohibited.

If you feel that you have been harassed you should notify the coordinator of your concerns without delay. Coordinator will investigate all claims of prohibited harassment.

RESOLVING ISSUES WITH OTHERS

As in all workplaces, personal differences may occur among individuals. It is important for volunteers and coordinators that issues are not allowed to fester and detract from your important contribution.

We believe that the quickest way to resolve the issues is to approach the individual(s) involved so that an appropriate solution can be reached. If this initial conversation does not lead to resolution or you feel uncomfortable discussing the matter with the person directly, we ask that you speak with a coordinator or someone else responsible to resolve the matter.

EQUIPMENT AND PROPERTY

Please be respectful of property, tools and equipment. Take good care of tools and supplies so that they remain in good and safe working condition. You can help us keep our costs down with proper use and storage of all tools, equipment and supplies.

Do not forget to return equipment that you or your team have been using clean and in the right place.

PERSONAL APPEARANCE AND DRESS CODE

All volunteers must wear sneakers or boots; open toe shoes, flip flops, being

barefoot and high heels are **prohibited**.

Please refrain from wearing tight fitting, revealing, low cut, shear clothing, or ultra short shorts.

Don't hesitate to use the safety equipment that is available to you.

DRUG AND ALCOHOL POLICY

Volunteering projects and Youth Exchanges are Drug Free places. The unlawful manufacture, distribution, dispensing, possession or use of controlled substances is prohibited. At no time is alcohol permitted at the working site.

SMOKING

We are committed to creating and maintaining an environment that is safe and healthful. Please refrain from using tobacco products at the working site. Tobacco products may not be used while unloading trucks or during other volunteer related tasks.

Smoking on a working site can also lead to fire hazard.

Safety is extremely important to everyone involved with our program. Accidents can be costly in pain and stress to the injured, costly in money and time and at the very last, disruptive.

Please remember that 99% of safety is pure common sense and attitude.

HAND TOOLS

Select the proper tool. Make sure you are using the right tool for the job at hand and make sure it is the proper size. If you are unsure, ask the coordinator.

Check the condition of the tool. Avoid tools with loose handles or tools that are dull. Oil or dirt on a tool can cause it to slip. Make sure the tools are clean.

Hold tools correctly. A hammer should be held at the base of the handle to ensure maximum efficiency, while a knife should be held in such a manner as to allow you to cut away from your body.

Handle and carry all tools with care. Carry only a few tools at a time or carry them in a tool belt with special compartments. Keep sharp or pointed tools pointed away from you. Be conscious of where you lay your tools down. Never lay a hammer down on the slope of a roof or the top of a step ladder.

Use extreme caution with a saw. Never bind a blade, especially a power saw. It can result in a very dangerous bucking action that can cause serious injury. Support what you are cutting in a proper fashion to avoid kickback or to prevent a cut board from falling on someone.

Keep the tool storage organised. Further than saving time and frustrations this also leads to less hazards.

LADDERS

Inspect all ladders before use. If the ladder is unsafe, don't use it. Look for any defects.

Use ladders of proper length. An extension ladder should reach one metre above the work level.

Move your ladder with your work. Don't lean too far. If both of your shoulders are outside the ladder you are leaning too far and an injury could occur.

Set your ladder at the proper angle. For every 1m height the bottom of the ladder should be 25 cm away from the wall. You are at the correct angle if, when you place your toes against the base of the ladder and stand erect, you can reach out and grasp the rung at shoulder height.

Place your ladder on solid footing. Avoid mud or gravel, if there is a risk of the ladder slipping, tie or stake the ladder down. If the ladder is not level, dig the ground out from under the high leg rather than "block up" the other leg. Always face the ladder. Carry tools in a container so that your hands are free to climb.

Be cautious with aluminium ladders. Never use aluminium ladder near electrical lines, in inclement weather or on windy days.

Wear suitable shoes.

Store after using it. Don't leave a ladder with no purpose on the working site.

One person at the time. Ladders are not designed for more than one person. It can lead to injury to many people.

SCAFFOLDING

Use the proper scaffolding. All scaffolding must be designed to support for times the weight of the worker and materials resting on it. Special care should be taken to ensure scaffolding components are compatible.

Inspect scaffolding everyday. When erecting scaffolding, make sure the legs are resting on adequate sills and that the equipment is plumb and level.

Many scaffoldings accidents occur when the walk boards are inadequate or defective. Inspect planking frequently and remove any defective or suspicious pieces.

Install handles if they are not provided. Make sure that no one can fall from the scaffolding.

Consider the slipperiness of the planking!

Clean worksite and tool care.

Maintain a clean worksite. Keeping a neat and organised worksite contributes to efficiency and is important in preventing accidents.

Clean up all rubbish and scrap as you go. Do not allow wood scraps, nails or any trash to pile up. They interfere with work and can be a hazard.

Keep up with tools and equipment that are not being used and return them to the tool container. This protects the tools as well as the workers.

EMERGENCY MEDICAL TREATMENT

DO NOT attempt to treat anyone unless you are trained medical staff.

Get help. Notify the coordinator and construction staff immediately.

Get help. If you are hurt and can walk, notify the coordinator immediately.

Get help. If you see someone hurt, notify the coordinator immediately.

Get familiar with the location of the **first aid kits**.

Always keep in mind that something can happen.

Check in the group who has a first aid kit training.

As a coordinator, prevent panic and keep the space around the injured person as clear as possible.

Inform coordinators about any health problems.





QUALITY
STANDARDS



Educational activities

PREPARATION

- Use existing handbook for ECVET Building with Earth
- Prepare the place, tools, materials
- Prepare theoretical presentations/workshops/input
- Calculations of materials needed
- Check the expectations, needs, rituals, disability

TYPE OF ACCEPTABLE WORK

- Not result oriented, but focused on the process
- Mistakes allowed
- Creative

- Professional output not expected, even though it can happen (for instance, working on private houses, participants can participate in 'rough' work, but final touch should be done by professional and this also depends)
- If it's not something with purpose, it should be reused, recycled or taken home
- Educational workshops, in principle, should not be used instead of the professionally paid work

LOGISTICS

- Good preparation makes logistics much easier
- Choosing adequate equipment and tools
- Fixing broken tools and keep them in good shape
- At least 2 persons have to be on the construction site
- Clearing of working site and tools on daily basis
- Estimate the need for experts according to the group size (4-6 per one expert)
- There should be enough tools for each participant

CONTENT OF THE PROGRAMME (LEARNING OUTPUT)

Depends on the concrete topic:

- Knowledge (theory)
- Skills (practical)
- Competences (ability)
- Test for certification (if the course is certified), written and sometime oral
- Evaluation, when relevant
- Celebration with certification
- Inspiration for more

WORKING SITE REQUIREMENTS

- Materials and tools should be well and safely organised
- Participants wearing safety equipment
- Make the place safe (proper scaffolding, to protect people and the site from sun, rain, etc.)

LIMITS AND BOUNDARIES

- Recognize the 'boundaries' of participants
- Use of power tools should be carefully moderated and explained in details

PERSONNEL NEEDED

- At least 1 expert in the field per topic and 1 assistant (group of 4 to 12 participants)
- One extra person for social work/group dynamic, if needed
- One person for logistics (ideally someone who knows the place/site)
- Sometimes a translator

COMPETENCES AND EXPERIENCE NEEDED

- Experience in the field/practical work adequate for the level of the teaching
- Basic knowledge of static of the building
- Basic presentation skills
- Basic or advanced (depends) design skills

Long-term volunteering projects

PREPARATION

- Selection of volunteer + suitable partnership with sending organisation
 - Assess need for a volunteer (who)
 - Define selection criteria
 - Template for selection process and interview with applicants
 - Inclusion?
 - Preparatory meeting with volunteer (offer references)
- Overview of the activity
 - Define goals and projects (personal or organisation-level)
 - Timeline and framework
 - Define structure and frequencies of evaluation meetings

TYPE OF ACCEPTABLE WORK

- Working structure (working hours, rest days, free days)
- Working principles
 - Safety
 - Care of environment
 - Care of tools
 - Balance between quality and volunteering
 - Balance between results and process
- Blog/video/creative contents
 - Beneficial for society, organisation and the volunteers who writes it
 - Focused on the volunteering aspect

- Progressive work
 - Stages of the progression
 - Evolution of the workload according to progression/wishes of the volunteer

LOGISTICS

- Accommodation, food
- Maintenance of tools
 - Define responsibilities when it comes to breaking a tool
 - Define responsibilities when it comes to maintaining certain tools
- Legal logistics and responsibilities

CONTENT OF THE PROGRAMME (LEARNING OUTPUT)

- Intro to safety in Natural Building: provide safety guideline and read it with the volunteer
 - First aid kit location
 - Good practices
 - Get familiar with working environment (introduction to working site)
- Use of tools and maintenance
 - Introduction to every new tool
 - Introduction to the workshop
 - Maintenance guidance and their location
 - Quality assessment
- Techniques, history (craft)
 - Introduction to Natural Building
 - History of Natural Building
 - Connect Natural Building with traditional practices
 - Introduction to new techniques used (advantages, inconvenients, alternatives...)

- Physics and gravity (engineering skills)
- References (book, movies, vlogs...)
- Development of tools through time
- Relate to institutional knowledge (ECVET, STEP Training, educational course about NB)

- Societal, environmental impact
 - Connect Natural Building to climate change, global crisis (potential mitigation but also have a positive impact), develop on the negative impact of conventional building
 - Explore the potential of Natural Building as a tool for inclusion and empowerment

- Inner changes
 - Empowerment with manual skills
 - Better understanding of global situation (issues, solution, causes)

- Follow up with the volunteer
 - During
 - Evaluation
 - Monthly report
 - Evaluation of competences
 - After
 - Connect with old volunteer
 - Educational training courses
 - Support them in any further initiative (recommendation letter)

WORKING SITE REQUIREMENTS

- Safety
 - Clean and well prepared projects
 - Maintained tools
 - Proper working equipment
 - Distinction between professional work and volunteer work (heights, power tools)
- Tools, materials necessary
 - Not too much improvisation
 - All tools and materials should be prepared prior to building (respect timeline)
 - Use safe materials
- Design to product
 - Create and respect a timeline that includes designing, preparing, implementing and closing the project
 - Feasibility (ethical and physical)
 - Respect boundaries of individuals, terrain, and needs and resources of organisation

LIMITS AND BOUNDARIES

- Coordinator
 - Dissociate volunteering and friendship on working site
 - Don't teach what you don't know
- Volunteer
 - Dissociate volunteering and friendship on working site
 - Limitations/challenges should all be mentioned in the application of volunteer
 - Don't do what you cannot do
- Usage of tools
 - Those limits should be defined by organisation and volunteering coordinator

PERSONNEL/STAFF NEEDED

- Mentoring from outside the organisation
 - On volunteering aspect (mandatory)
 - Craftspeople or institution that can support (very much a bonus)
- Support mechanism
 - Mentor
 - Coordinator
 - Organisation
 - Sending organisation
 - (Therapist)
- Support mechanism for coordinator
 - Organisation
 - Network of Natural Building coordinators or just coordinators
 - Other builder
- Professionals in Natural Building

COMPETENCES AND EXPERIENCE NEEDED (FROM THE POINT OF COORDINATOR)

- Theoretical background
 - Basic engineering skills
 - Basic design skills
 - Tools maintenance
- Social skills
 - Didactic
 - Communication/listening
 - No feelings
 - Previous experience (youth worker, associative field)
- Practical skills
 - Hands-on experience
 - Hands-on mistakes
 - Institutional education (ECVET, STEP, various workshops and trainings)
 - Proper health conditions
- First aid training/education
 - Ability to assess when it is “too much”
 - Be ahead of any dangerous situation
 - Authority and credible

Youth exchanges, workcamps, esc teams (short-term groups)

PREPARATION

- Define the coordinating/project team
- Double-check on venue, dates, duration, number of participants, countries
- The selection process, agree who is doing selection of participants regarding partners
- Buy or find needed materials for activities
- Define in details activities
- Make schedule, daily flow
- Divide roles

TYPE OF ACCEPTABLE WORK

- Stay inside the safety guidelines
- More general oriented tasks
- Be aware of the % of work, sharing, connecting regarding the activity
- Share the participants resource with the local community

LOGISTICS

- Support the arrival of the participants – preferably green travel
- Hosts prepare suitable accommodation
- Vegetarian local food – where, who is cooking
- Prepare material and tools

- Prepare working space, facilities
- Have enough staff

CONTENT OF THE PROGRAMME

- The general topic of the activity
- Theoretical input
- Practical activities
- Having prepared energizers when needed
- Activities for community building
- Free time/excursions/study visit
- Open space to cover needs of participants
- Midterm and final evaluation
- Experts to host

LEARNING OUTPUT

- Practical skills regarding the topic (how to build compost toilet)
- To improve the theoretical aspect
- Having a network
- Higher awareness of sustainable way of life and how to do small steps in their everyday life
- Being aware of climate change
- Raise self-esteem
- To be more empowered to make changes

WORKING SITE REQUIREMENTS

- Clean and tidy ALWAYS!!!
- Well organised
- Safe
- Not too many people on the same place/task
- Less is more

LIMITS AND BOUNDARIES (INCLUSION, POWER TOOLS)

- No power tools
- No barefoot
- Respect! Otherwise goodbye
- Coordinator has right to ask people to leave the working site
- No alcohol during the working time
- No drugs

PERSONNEL/STAFF NEEDED

- Depends on the event
- Youth leaders, facilitators, pax, experts as guests
- Cooks or catering
- Project coordinator
- Host
- Logistic
- Work coordinator
- Media/promotion volunteer/person

COMPETENCES AND EXPERIENCE NEEDED

- Youth leader
 - Medium social skills
 - Interested in natural building
 - Person does not need practical skills but needs to have someone with natural building experience around
- Coordinator:
 - Strong social skills to manage the group
 - Skills in natural building



Activities in post-disaster areas

PREPARATION

- Identifying the current conditions and needs – investigations:
 - Site visits: collecting materials and information
 - Meetings and getting in contact with organisations, participants, locals, different stakeholders (municipality, NGOs, etc.), academics and other professionals.
- Define the frame of solutions
- Timetable of the project
- Define cost and expenditure plan.
- Start fundraising.
- Selection of volunteers.
- Define a working frame of volunteers, get in contact with members of specific organisations, close the calls.
- Create teams (design team, fund team, research team, etc.).
- Define the daily flow.
- Online or physical pre-educations by professionals before the activity.

TYPE OF ACCEPTABLE WORK

- It should make sense (creating positive impacts and improvements for the local community/future users).
- It can be permanent or contemporary.
- It should not harm the environment nor culture of the community.
- It should be sustainable or last for longer.

- It should be better to have examples in different places.
- We should consider the maintenance of the work in terms of social, sustainable (economical, etc.), environmental applicability with the locals if possible.
- It doesn't have to be a physical result.
- It can be social or physical work.
- It can include short/long-term activities.

LOGISTICS

- It should be supported by the organisation.
- Human resources should be considered before and during the process.
- Creating teams is important to divide the responsibilities.
- Sharing daily duties to volunteers is highly recommended (cleaning wet areas, depot control, checking for/collecting/cleaning the tools, food preparations, etc.).
- Food should be enough and healthy, it should be local
- Transportation of participants, food, materials should be considered
- Transportation should be chosen from the lowest carbon emission one.
- At least one car should be available for emergency situations.
- Accommodation of participants must be safe and near the working area.
- There must be a depot for food, materials and tools and it should be safe.
- For raising the fund of logistics, creating a fund team is a must.

WORKING SITE REQUIREMENTS

- Safety First! It should be secure.
- It must be accessible and visible by locals.

- Pre-planning of the site should be considered. It should be divided as accommodation, working site and tools, materials.
- The area should be close to the hospitals, fire and police stations.
- The map should be printed/shared to participants.
- There must be a first aid kit, and a fire extinguisher.

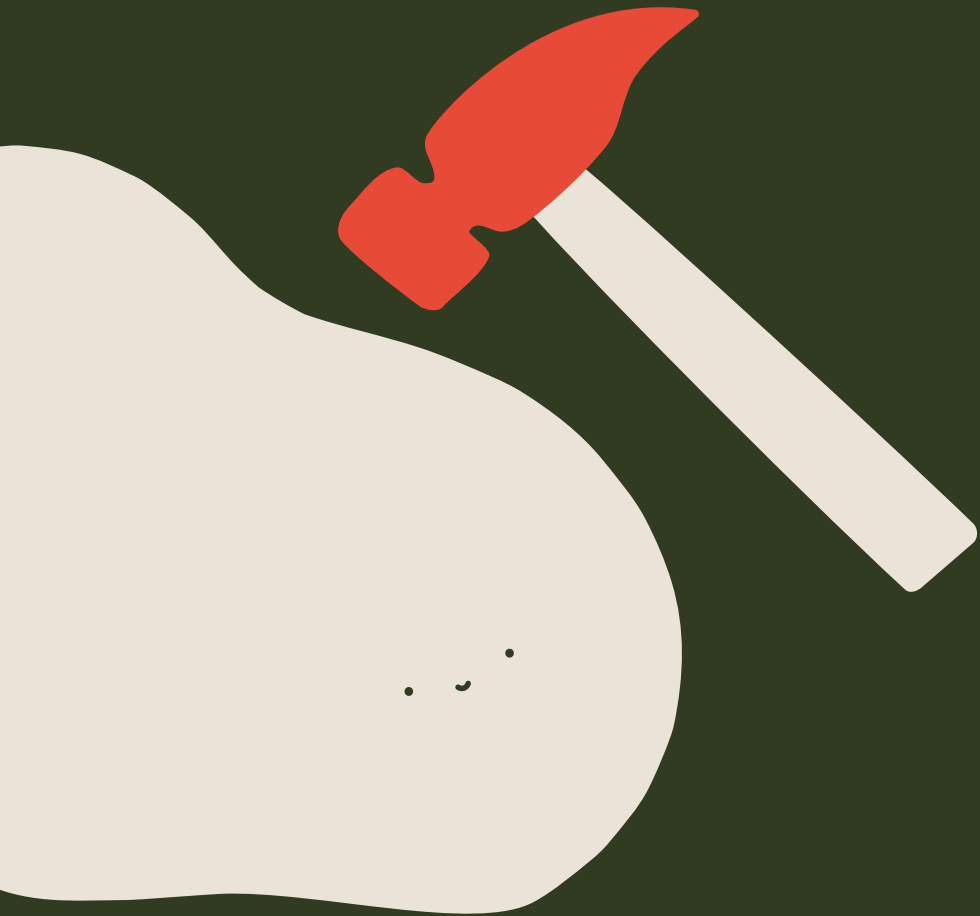
LEARNING OUTPUT

- Team building
- Building a bridge between locals, organisations and other stakeholders
- Community creation
- Resilience
- Learning from mistakes – experiment for the future
- Teaching techniques to locals and participants (basic skills to participants, raising the skills of professionals while working)
- Raising awareness about disaster types and dealing with the process
- Raising awareness about the environment
- Adapting the project for different communities

LIMITS AND BOUNDARIES

- It can be changed according to the fund
- Electrical and power tools should be explained to the users. Users should be over a certain age, physical conditions, and with enough knowledge
- Volunteers shouldn't climb over 2 metres. Only professionals
- All participants should work in pairs, if possible
- No kids in construction sites





EXAMPLES OF BEST PRACTICES



Non-formal education and natural construction – ECVET Earth Building

Formal learning, non-formal learning and informal learning are three concepts which are recognized in the framework of lifelong learning approach.

Formal education usually happens in school, may be repressive, it's structured and usually prearranged, motivation is typically more extrinsic; it's compulsory and teacher-led; learning is evaluated and sequential. On the other hand, informal education can happen everywhere, it's supportive, unstructured, spontaneous, motivation is mainly intrinsic, voluntary, usually learner-led and non-sequential.

Non-formal education (NFE) lies between these two: it happens at institution out of school, it's usually supportive, structured and usually prearranged, motivation may be extrinsic but typically more intrinsic, usually voluntary, may be guide- or teacher-led, learning is usually not evaluated and typically non-sequential.

NFE is an addition or alternative to formal education and promotes young people's personal development, giving them possibility to take an active role in solving problems globally and locally. NFE guarantees access to education for all,

especially where formal education is not available to everyone.¹

ECVET

Informal and non-formal learning practices are often difficult to measure and value and that's why EU Council made the Recommendation² on its validation and adopted the ECVET (European Credit system for Vocational Education and Training) in 2009, inviting Member States to apply the system to all VET (Vocational Education and Training) qualifications.

ECVET is one of the European Union (EU) instruments that help individuals to transfer, recognize and accumulate their assessed learning outcomes in formal, non-formal and informal contexts and to obtain a qualification, very often through transnational mobility.

ECVET complements and builds on concepts and principles shared with the European qualifications framework (EQF), Europass and the European quality assurance reference framework for VET (EQARF).

ECVET EARTH BUILDING

ECVET Building with Earth is a multi-level framework developed over 14 years of cooperation in working groups between practitioners, trainers, training organizations and associations from 9 countries. Designed for clay plasters between 2007 and 2009 with partners from 4 countries, it has been extended to load-bearing earth techniques between 2012 and 2015.

The nine fields of activity covered by the units are:

- Unit M: Prepare the soil, from extraction to mixing
- Unit P: Produce molded, compressed, extruded raw earth bricks

1 <https://ourfutureagenda.org/2023/04/how-non-formal-education-is-changing-the-world/>

2 Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning (europa.eu)

- Unit B: Building in earth – Masonry, cob, rammed earth
- Unit C: Applying earthen plasters
- Unit F: Manufacture and install formwork for rammed earth
- Unit R: Maintain, repair, renovate, restore works and clay plasters
- Unit D: Developing an interior design
- Unit O: Executing decorative elements and ornaments
- Unit E: Developing an economic activity

According to the principles of ECVET, each unit is divided into knowledge, skills and competencies necessary to carry out these 9 activities and each has criteria and indicators for the evaluation.

Units range from level 1 to level 5 of the European qualification framework (EQF), but not all units have yet been described for all levels. Up to level 4 of the EQF, learning outcomes in construction concern execution (level 2 – mason helper, level 3 – skilled worker, level 4 – boss of the team) and from level 5, it's more about designing, coordination and control of the works.

Units are freely downloadable by all users from the ECVET Earth Building website³, but only organizations who signed partnership agreement (Memorandum of understanding – MoU) may issue an Acquis-Terre certificate, with an admission procedure. This approach is both a guarantee of quality and a tool support so that new training organizations become familiar with the framework.

The issued certificates are now recorded in a database for statistical purposes. From 2009 until 2016, more than 500 certificates have been issued. The 9 countries participated in drafting the units (Germany, Bulgaria, Spain, France, Portugal, the Czech Republic, the United Kingdom, Serbia, and Slovakia); the 14 have already used the framework in assessments (Germany, Bulgaria, Spain, Estonia, Finland, France, Italy, Poland, Portugal, the Czech Republic, the United Kingdom, Slovakia, Romania and Serbia.) Contacts exist in Austria, Belgium, Cyprus, Greece, Hungary, Ireland, the Netherlands, Slovenia, Sweden, and Turkey. Beyond Europe, dissemination has begun in several African and Latin American countries. In Argentina, for example, with architect Maria Brown (from ESTEPA organisation in Spain) units for

3 <https://ecvetearth.hypotheses.org/>

wattle-and-daub technique were developed, based on ECVET principles.

The actions that were launched in parallel with the work on the framework were: mobility, being also connected to academic gatherings and others events (first mobility of trainers and students was in 2007), training of trainers (as the principles of ECVET are new to many trainers and associations) and certification strategies (towards the recognition in national certification systems.)

CONCLUSION

National certifications will never cover all units at all levels of the existing and future matrix: it is trans-European cooperation that has led to this product, the strength of the network will continue to guarantee its development and scope.

Serbia, through Fine Art & Craft Club (KFZ) joined MoU signatories in 2022 and since 2023 started organizing courses. This year, there were M2 courses about material, R3 on restoration of earth building and O2 on decoration (two of them being part of EU project We are All Made Out of Mud.)

It would be very good if other West Balkan countries, apart from Serbia, would join the network.



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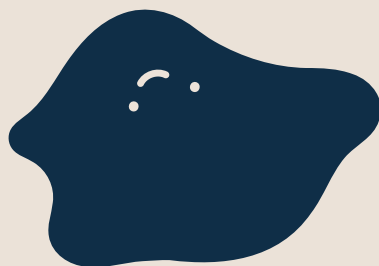
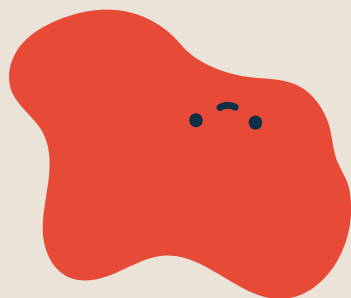
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Women in natural building

While some people think that women have no place on the construction site, others believe that the first human settlements were built by women, because, unlike men, they mostly stayed in one place to take care of the children.

In almost all cultures over the last few centuries, we are usually taught that men are the ones who build, and women are the ones who decorate and maintain houses. However, many exceptions testify that this was not always the case: women built when there were no men in the family, when they died or went to war.

WOMEN IN CONSTRUCTION WORLDWIDE

Unfortunately, there is not much archaeological evidence that women participated in building. The first written record of women workers on construction sites is from the 13th century city of Navarre in Spain in building stone and wooden structures. There are many evidences about women construction laborers and skilled tradespeople from the 13th to the 17th century in England, France, Germany and Spain. But it was very socially unacceptable and seen as immoral, so they are often left off official records and/or noted only by gender. Women were also considered physically incapable, but it seems that they did most of the unskilled work (as they often do nowadays in Africa and Asia!): carried water, dug ditches for foundation walls, thatched roofs and mixed mortar.

Women from the middle-class could learn building trades from their fathers or husbands until 16th and 17th century, when, due to economic crises, it became reserved only for men.

However, Lady Anne Clifford (1590–1676) was the first woman to take an active role in a building project, controlling the designs and building and Lady Elizabeth Wilbraham (1632-1705) made the earliest architectural drawings.

The Industrial Revolution of the mid-18th century brought women back to the construction site with less condemnation. Engineer Emily Warren Roebling directed construction of the Brooklyn Bridge after her husband fell ill. In 1898, Ethel Charles became the first woman in the Royal Institute of British Architects (RIBA.) Alice Perry was the first known female in engineering 1906. Elisabeth Scott first won an

international architecture competition for her design of the rebuild of the Royal Shakespeare Theatre in 1929-32.

Second World War was, paradoxically, the most important period for women in construction. While the men were at war, women have taken over many jobs previously considered unsuitable for them. Ladies Bridge/Waterloo Bridge was constructed by 350 women during that period. Women being fired from these jobs after the end of the war was one of the reasons for the beginning of the feminist movement in the 1960s.

However, Barabara Res was the first woman to supervise constructing a skyscraper from start to finish only in 1980. Zaha Hadid was the first woman to receive the Pritzker Architecture Prize in 2004. Only in 2019, the Leonardo tower in Africa was built by a team almost completely made up of women.

Pakistan's first female architect Yasmeeen Lari, female Hassan Fati, is known for her involvement in the intersection of [architecture](#) and [social justice](#), awarded the prestigious [Fukuoka Prize](#) in 2016 and the RIBA's [Royal Gold Medal](#) in 2023.

Despite all the efforts of these remarkable women, only 11% of the current construction workforce is female, with female workers making up just 1% of manual trades.

WOMEN IN ARCHITECTURE IN SERBIA

Women in architecture in Serbia have been creating since the beginning of the 20th century. After WWII, the number of women grew, but they often worked within large collectives, mixed pairs or teams, which led to difficulties in identifying and emphasizing their contribution. There is also the lack of archival material and lack of interest to present their works.

Jelisaveta Načić was the first graduated female architect from the Technical Faculty in Belgrade in 1900. Jelena Tomić Bokur was the first woman to be employed in the Ministry, to the position of first-class sub-architect in 1919. Jovanka Bončić Katerinić was the first female graduated architect in Germany at University of Darmstadt in 1913. Milica Šterić (1914-1998) established the Architecture and Urbanism sector in Energoprojekt, a world-renowned construction company.

It's also interesting that, according to Vladimir Kulić's data, the percentage of

female students at the Faculty of Architecture in Belgrade increased every decade and they have been the majority of students since seventies: 1973 – 51%, 1983 – 54%, 1993 – 64%, 2000 – 63%.

WOMEN IN NATURAL BUILDING IN THE PAST

Women have always participated in the construction and maintenance of their homes in various ways: making adobe bricks, mortars, clay plasters, lime painting, and decoration with pigments.

In the preparation, as well as in the use of most of these materials, there are many similarities with cooking: they used flour as glue, salt to reduce the amount of water in the mortar, eggs to stir pigments in it, ash with lime to extract moisture, but also animals' hair, fibers, casein from milk, urine and excrement of cows and horses, etc.

Building with natural materials, such as reed and earth, after WWII, it is less and less in use, especially in cities – as a result of industrialization, the need for rapid construction on a large scale, but also because of fire protection and the supposed obsolescence of these materials. And yet, in the territory of the Western Balkans (but also in many other parts of the world), in the majority of rural areas (even in some urban areas such as Almaški kraj in Novi Sad), a large number of earthen houses have survived, thanks to regular maintenance by women – the owners of these houses.

WOMEN IN NATURAL BUILDING TODAY

There are many remarkable women nowadays worldwide dealing with Natural Building, teaching and training people how to protect their existing or build new houses: [Sigi Koko](#) and [Athena Steen](#) in the USA, [Becky Little](#) in Scotland, [Irmela Fromme](#) in Germany, [Sylvie Wheeler](#) in France, [Isabella Breda](#) in Italy, [Zuzana Kierulfová](#) and [Ľubica Gulašová](#) from Slovakia, [Varvara Valtchanova](#) in Bulgaria, [Alina Negru](#) in Romania, etc.

There are also two women collectives: [Mudgirls Natural Building Collective](#) in Canada and [The Women's Natural Building Collective](#) established in 2020 in Portugal.

Women are more and more interested in Natural Building, they represent 70-80 % of participants in most of the workshops we organize. Some people say: because women are so used to working with earth and with their hands, others say it's because they are more open to "alternative" techniques. Some people even say that there are so many women in this field as long as it's not profitable, but once it's about profit, men take it over.

WOMEN WERE AND WILL BE IN NATURAL CONSTRUCTION, BECAUSE WHERE ELSE WOULD THEY BE?

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Terre & Comuni project in Italy

The “Terre & comuni” project was carried out in Italy between February and July 2015 by the Local Action Group “Versante laziale del Parco nazionale d’Abruzzo” (LAG VERLA).

The project took place in the Comino Valley, a territory encompassing approximately 15 rural municipalities in the province of Frosinone. These municipalities are situated on a territory of 250 km² with an overall population of 20,000 inhabitants, and have witnessed two important phenomena in the last 15 years: depopulation as a consequence of economical deprivation and the lack of infrastructure, and the opening of low-threshold and middle-threshold reception centers for asylum-seekers due to the lower costs of accommodation and food in comparison to more developed areas.

This project was part of a broader initiative led by the Rome-based social enterprise “Borghi artistici”, supported since 2014 by the European Social Fund (ESF) and which was aimed at creating new, as well as supporting existing formal and informal networks of locals, asylum-seekers, refugees and migrants. The aim of the project was the experimentation and development of a new model facilitating the integration and social inclusion of migrants, asylum-seekers and refugees in rural areas, where the opportunities for participation in community life are greater.

The project involved an initial training of 100 hours and a one-month internship for 46 unemployed people aged 18-40, both locals and foreigners, living in the area where the Local Action Group operates. The training covered topics such as: entrepreneurship and social entrepreneurship, social agriculture, event planning and management, local history, geography and morphology, asylum and immigration law. After completing the training, ten participants were selected to undergo an internship either at a local association called “Myosotis” or at the Local Action Group (LAG) headquarters.

While those who worked at the “Myosotis” association participated in gardening and Natural Building activities, those engaged within the LAG conducted research on existing best practices adopted to facilitate the integration of migrants in the economic and social context, as well as a census of unused land in five municipalities within the LAG territory, which could potentially be assigned to the unemployed for development purposes. The “Myosotis” association deals with the

concept of educational foresting, managing a forest and agricultural land having the purpose of educating visitors, primarily school, on the local ecosystem. The premises of the association feature outdoor classrooms dedicated to local animals and plants, agroecology and rural history.

The Natural Building activities focused on the construction of infrastructure: a structure for birdwatching and a traditional Malian barn (*bougou*) as well as the creation of a seasonal vegetable garden according to the principles of synergic agriculture. In the one-month period, the 7 trainees, coming from Italy, Mali and Gambia, agreed on the infrastructure to be built according to locally available natural materials and the needs of the hosting association, while keeping into account everybody's knowledge as well as heritage.

The *bougou*, made out of fern, bamboo and mulberry has the double function of a barn and a gathering indoor spot, decorated with messages in all the participants' language about unity in diversity, solidarity and the need to work together within different people and with nature.

The birdwatching tower allows visitors to hide themselves when observing local birds and is strategically placed next to a pond which is inhabited by many different birds.

The synergic garden features vegetables that can be found both locally and in West Africa, such as tomato, zucchini and herbs, and is covered with straw mulch.

The work lasted throughout the whole month of August, while the remaining participants frequently visited the team involved in the internship, and the group took part in several events such as village festivals and manifestations, Catholic festivities and celebrations as well as Ramadan Eid.

The time spent together allowed the group, and the extended circle of participants in the Terre & Comuni projects, to get to know each other, share their worries and constraints as well as plans and projects for the future, exchange information on each other's culture, and introduce one another to friends and relatives.

Soon after the end of the project, 13 participants, among which were 5 between the interns, decided to register the association "Rise Hub" in October 2015, in order to keep operating as a group, having a structure and a legal form.

Amongst the first activities of the association were the “Tomato Project”, which brought together participants in the production of tomato sauce as a way to generate income from fair labour; the launch of a catering service for the supply of multi-ethnic food for small and medium-sized private events; the organisation of cultural and educational activities opened to the wider audience such as language tandems, exhibitions, swap parties, an infodesk on youth mobility and the Erasmus+, and a volunteer-run legal clinic.

Silvia, one of the project coordinators, and the organiser of the activities.

In the project, the goal was to create spaces and opportunities for exchange, training and growth and to create new networks for local youth.

Building the bougou, a structure characteristic of a distant place, built with local natural materials, in collaboration with local organisations, was a very strong symbolic action of exchange and inclusion. Doing things together is one of the most powerful actions people can do, especially in those contexts where young people (migrants and residents) have no voice and no opportunities to invent new possible futures. It was a project that we can place in the world of utopias, which actually in reality generated a very significant impact: the birth of new relationships. As the project brought together young residents and young migrants, it created a strong exchange regarding needs, difficulties and aspirations of both groups. These often turned out to be identical: recognizing one another as young people in the first place helped to overcome cultural differences.

RESOURCES

[European Straw Bale Association](#) →

[STEP Straw Bale Training for European Professionals](#) →

[ECVET Earth Building](#) →

[Natural Homes](#) →

[The Womens Natural Building Collective](#) →



