Revitalisation project in Dealu Frumos | Romania

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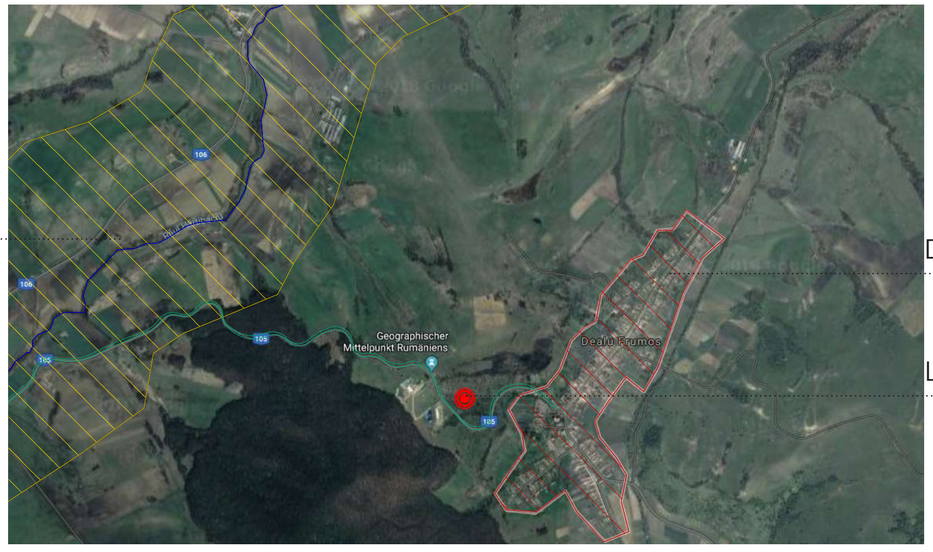
The summer school - Summer semster 2018-, led by proffessor Meinhard Breiling from the Landscaping Institute of the University of Technology, Vienna in collaboration with the Ion Mincu University of architecture- Bucharest, under the guiding of proffessor Marius Voica, had as main purpose the revitalisation of the rural area in the Transilvanian region. As a case study example, Dealu Frumos has been chosen for our concepts and interventions.
We were briefly taken by various experts through the history of the place, and found out that it is a very long and diverse one. The multitude of ethnical minorities plays a decisive role in the architectural space that has been handled. But the main problematic that this region is facing with is the unnatural movement of the saxon ethnie (the one that has also grounded these vilages) that has happend in the post-communist times and the imbalance that came after it. The roumanian and Romma population are now mainly inhabiting the rural space, but the young population, and the one that is still able to work, is constantly emmigrating to the western Europe, leaving behind an alarmigly low number of population.
As a consequence, the handcraft field has suffered also a dramatic loss. The poverty is everywhere present, and the cultural and architectural heritage is on the edge of ruin.
That is why, my personal oppinion is that one should not rely only on the European Funding for Restauration- Conservation of punctually chosen architectural objects, but also try to implement a sort of internal economy that begins from the local inhabitants themselves.

I believe that a sollution for the social, as well as for the economical issues, would be the introduction of workplaces that revive the traditions of the craftwork in the area, and rising the awareness regarding their importance. My proposal would be the establishing of a hand-made brick factory, which has various reasons for it:
- the lost tradition of the brick making has begun since the first settlements of the romma folk in the Transilvanian region, so this can also be a pillar in finding again the identity and heritage of the present local population.
- the soil in the Hartibaciu Valley/ Harbachthal is also propper for the production of this sort, given the fact that it consist mainly of clay. That leads to very low costs for transport and material aquiring.
- this is a facilitation of workplaces that do not require any sort of higher education, and it can be executed by people of various ages. That enhances the chance of finding willig work craft also in this low populated area.
- the main purpose of the end-product can be the restauration- conservation of the many existing projects of this sort, but also for the new building sites that embrace this traditional context of building.
These arguments are, as said before, are working on the economical, social and moral level.

Hartibaciu Valley



Dealu Frumos Village

Localisation of the Factory

Examples of the further use of the Hand-made Brick products

The selcted soil is transported next to the factory place, kept in a 30cm hole in the ground in constant moisture, and then mixed in a big cilinder, which is moved normally by a horse tied to a pull which dictates the rotation movement. out of the cilinder comes the right quantity and material consistance for a brich, which is then put on the tabel and formed in its wooden negative. The operation is not a complicated one, so that in the brick makery that we visited, in Apos village, the person doing this was repeating it approximately 500 times a day.
The first drying phase happens outside on flat groung under the sun, and after that the bricks are moved in a big covered space which has a good ventilation (a barn). After which they have achieved the wanted consistency, the burning process can begin. The ovens can be made between 20.000- to 40.000 brinck per burning, these being only the traditional ovens we are talking about. they always have ventilation wholes in the walls, so that the heat waves have their own movement. The burning process takes up to 5 weeks. The temerature also has its own phases: the first week it starts with lower temperatures, because any sudden change can lead to cracks and loss of the static capacities. the second and third week it is reached a peak point, about 700-800 degrees Celsius, and the next phase is the cooling down, which also has to be made step by step. normally the fuel used in this process is wood, dried grass, coal, aand for one brick is used approx. 1 kg of wood or 0,400 kg of coal.

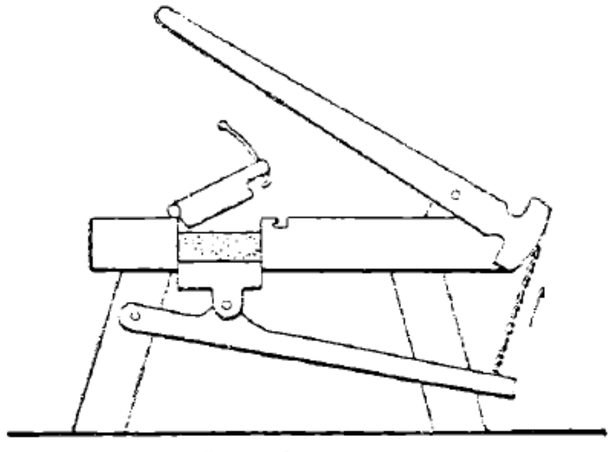
Rooftops in the old town of Sibiu

Fortification wall of Sibiu

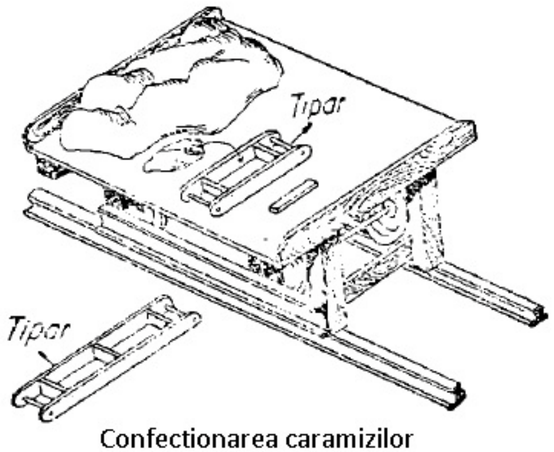
Fortified church in Axente Sever village

The making process of the brick product

Normally there take place only 2 to three burns a year, due to the climate drying conditions, because everything happen more or less in an opened environment, in-spite the rooftops.
Seeing these whole process one has to understand that it is a very specialised niche of work, and that the products should be much more chrished than the industrial ones. The hope is that te awareness for the importance of this whole process can be raised, together with the importance of the cultural identity of the place.



Presa de mana



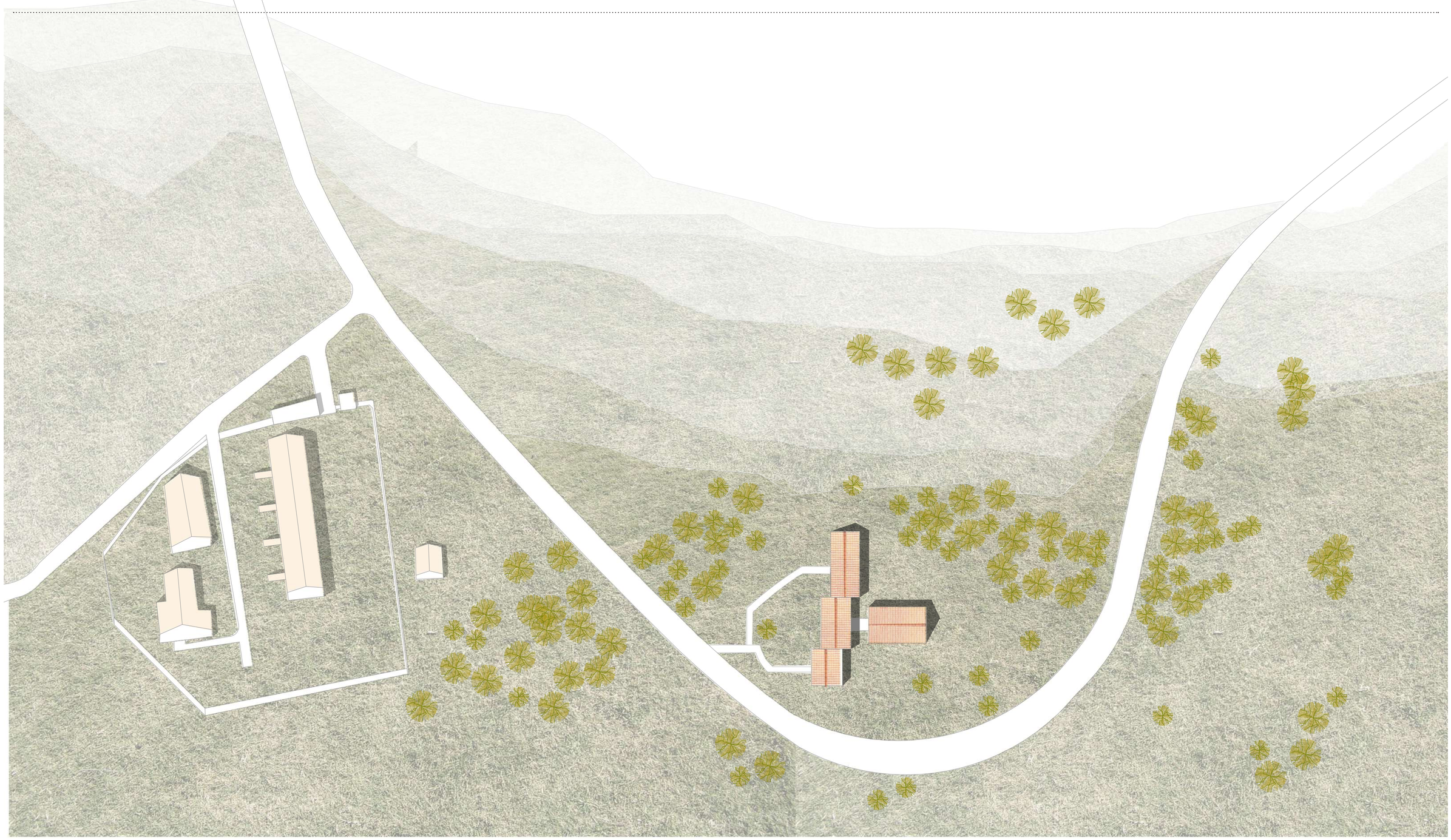
Confectionarea caramizilor de mana

Modeling the brick in raw form

letting the brick dry in the sun

burning the brick in the oven

Localisation Plan of the brick factory | 1:1000



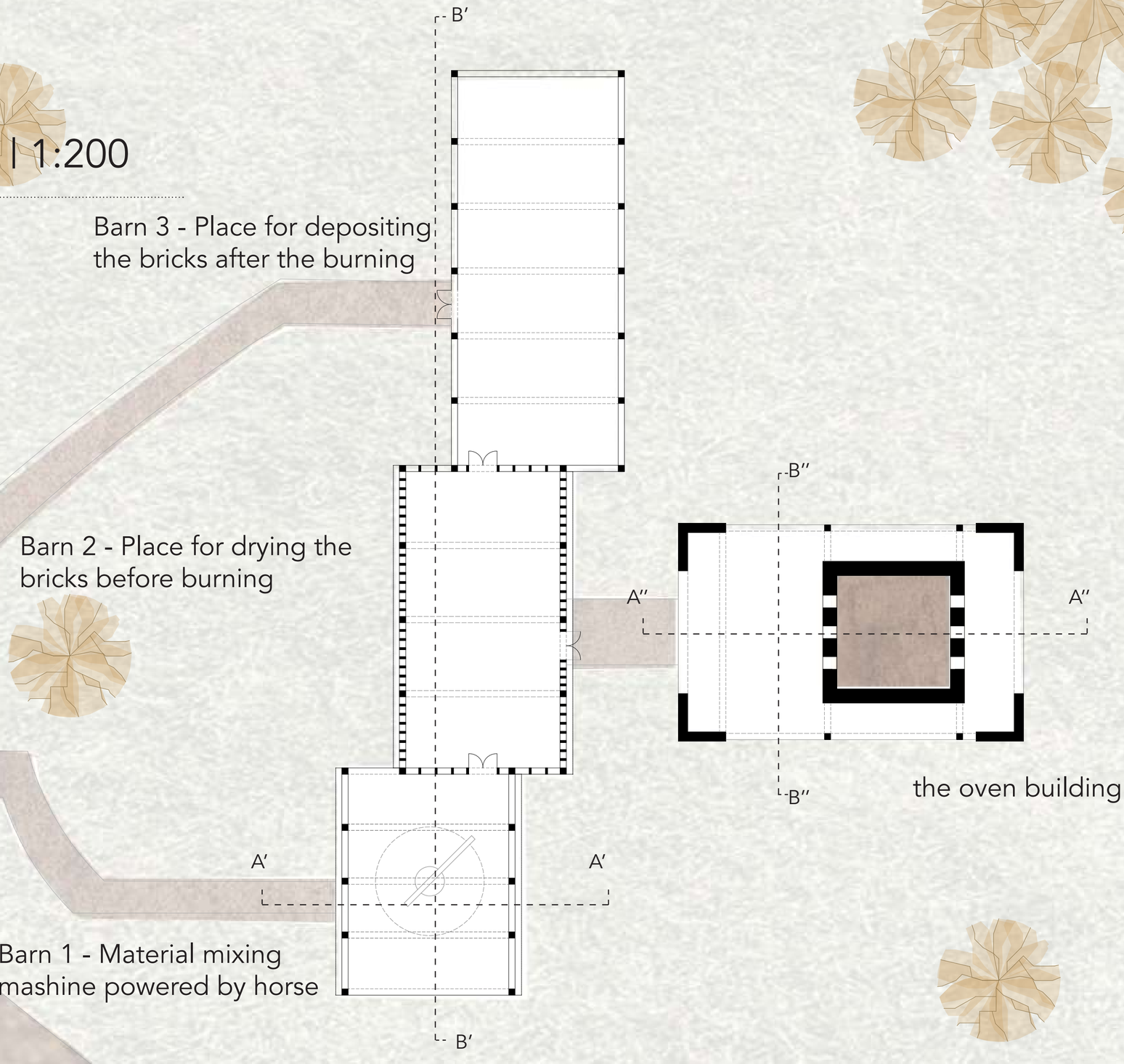
Ground Floor | 1:200

Barn 3 - Place for depositing the bricks after the burning

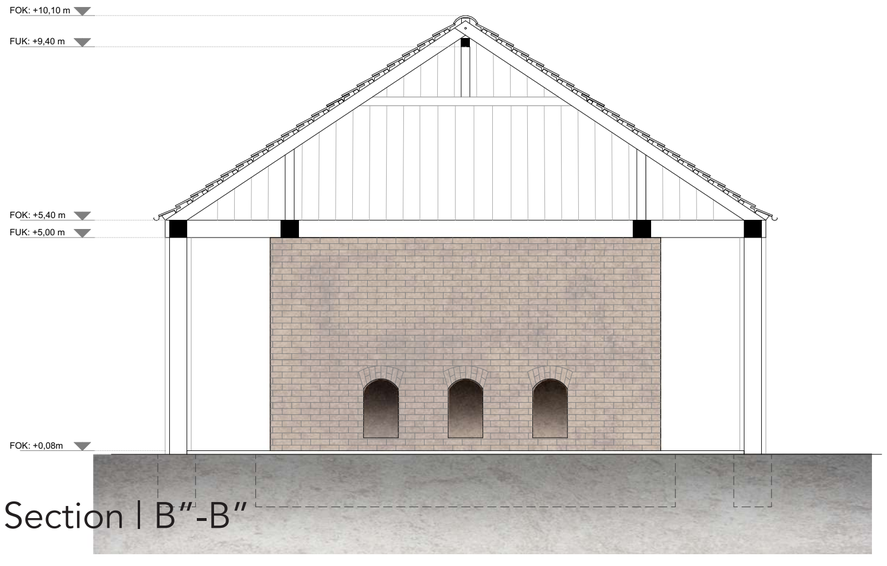
Barn 2 - Place for drying the bricks before burning

Barn 1 - Material mixing mashine powered by horse

the oven building



Sections | 1:100



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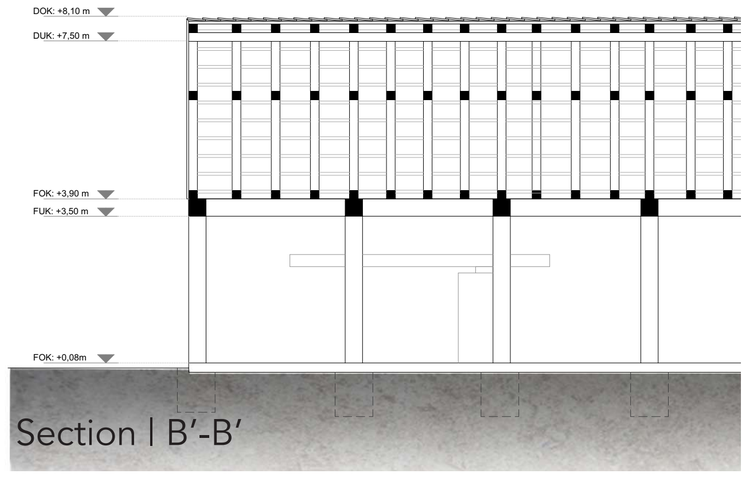

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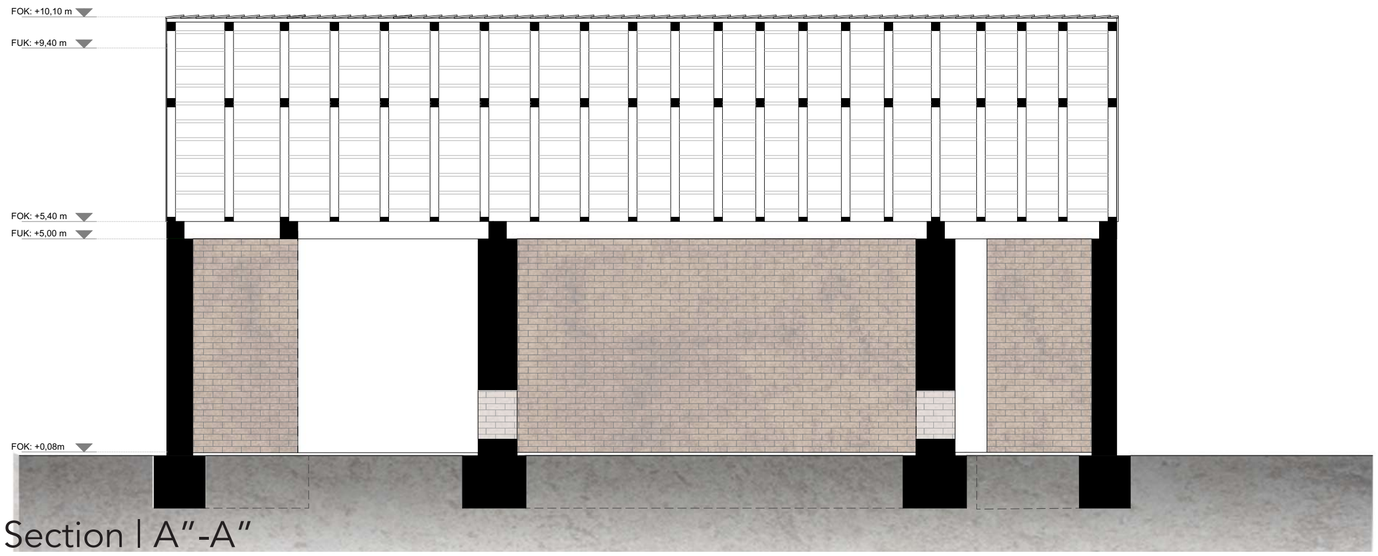
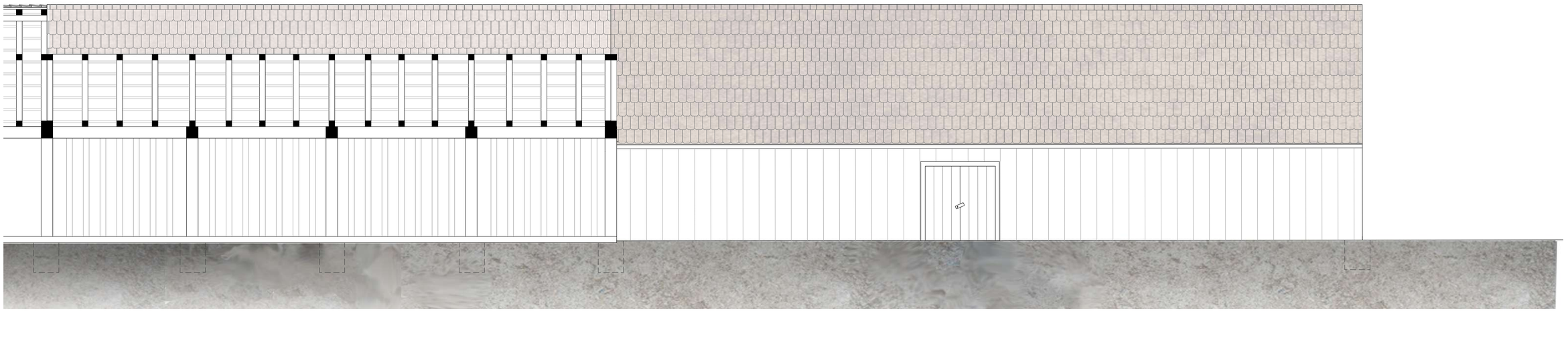
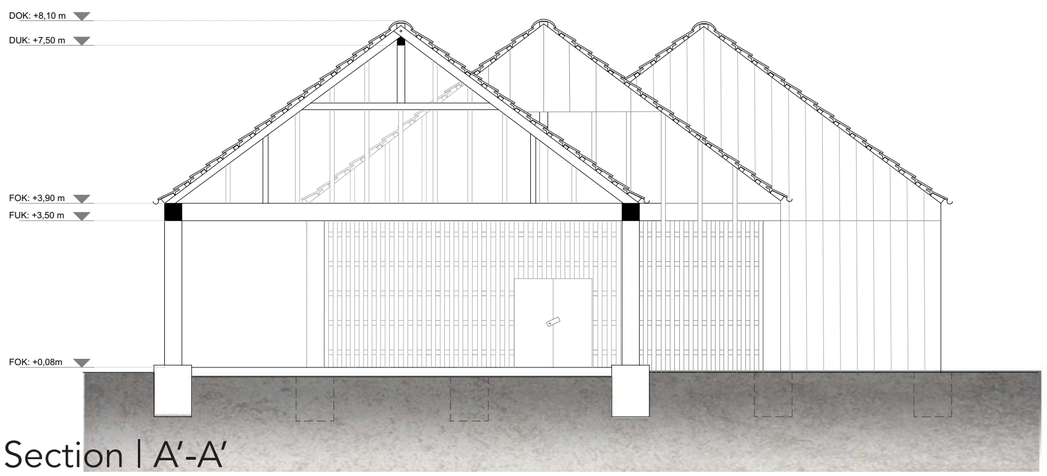


Section | A”-A”





Section | A'-A'

Hands-On | Conservation and Restauration project

Another aspect of our excursion in Romania was the extension of the week with a practical course which implies the deeper understanding of the restauration work through taking part in the actual physical intervenions. Experts in the domain have been guiding us through the whole two weeks process. The balance between the theoretical part and the practical one was a great input and help, that considerably raised our awareness, involvement and education regarding these architectural objects.
The course had been taking place in Daia village, also a small former saxon settlement, with a fortified church, that is on the edge of ruin. The work itself was the re-building of a fallen barn guarding the entrance through the fortification wall. The first week started with the research and plans consisting in the original construction and binding details. After that it has been decided which parts of the old substance can be saved and reused. The step that followed were the theoretical explanations regarding the details and filling with the new substance, and then we applied it. The techinoques we used through the whole process were only the traditional ones, and we tried to stick to the original construction principles even where we udes new wood. We did the same thing the following week by restaurating the wall itself, we have completed it with the old unaffected bricks and new ones, but hand made.
The experience of working in field was one that deepened my understanding about restauration processes, and also inspired me in planning the brick factory project, because the barn principle is an efficient and generally useful one, encouringing also further adaptive reuse.