

Herbal Institute Danube Delta \_ Rumania



Atmospheric Cross-Section of a Guesthouse - M. 1:50



Facade Close-up - Guesthouse - Scale 1:50

Konstruktion:

The buildings of the herbal institute are divided into three typologies: production, guesthouses, and the academy. Each typology serves a unique function and reflects both practicality and tradition, showcasing a thoughtful integration of modern needs with historical architectural styles.

Production Building

The production building is designed to be a relatively simple and practical structure, allowing for quick construction and efficient use of space. The building features an elevated timber frame with visible forklift supports on the interior, highlighting the craftsmanship and traditional construction methods. The exterior of the building is insulated with 10 cm of wool fiber insulation, ensuring energy efficiency while maintaining a natural look. This insulation is then clad in vertical wooden siding, which helps to preserve the traditional aesthetic of the area, blending seamlessly with the local architecture. The roof of the production building is covered with reeds, a traditional material that not only provides excellent insulation but also reinforces the building's connection to local customs and environmental harmony.

Guesthouses

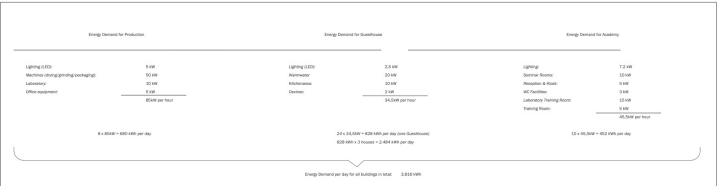
The guesthouses are constructed in a traditional style, emphasizing sustainability and local building techniques. These buildings feature 35 cm thick rammed earth walls, which are set on a solid 30 cm thick stone foundation. This robust construction method provides excellent thermal mass, regulating indoor temperatures and enhancing energy efficiency. The rammed earth walls also bear the structural load of the two-story buildings and are left exposed on the interior, creating a rustic and earthy aesthetic that improves air quality and provides a sense of groundedness.

Externally, the walls are insulated with two layers of reed bundles, totaling 30 cm in thickness. These bundles are secured with horizontal battens and wire, ensuring stability and durability. Additional battens are used as a base for applying traditional lime plaster, which covers the exterior of the ground floor. This lime plaster not only adds to the traditional appearance but also provides breathable, weather-resistant protection. The first floor of the guesthouses is clad in vertical wooden siding, creating a visual contrast that lightens the building's appearance as it rises. This design choice helps to balance the building's mass and integrates well with the natural surroundings.

Inside, the raw, exposed rammed earth walls lend a warm, natural aesthetic to the guest rooms, fostering a comfortable and healthy living environment. The use of natural materials and traditional construction techniques ensure that the guesthouses are both sustainable and culturally resonant.

Academy

The academy buildings, while sharing the same ground floor construction as the guesthouses, introduce a more modern architectural language, particularly in the design of the roof and facade openings. The ground floor features the same 35 cm thick rammed earth walls and solid stone foundation, providing a strong and sustainable base. However, the roof of the academy buildings is a hipped structure made of reed, similar to the production building, but with a distinctive centrally located lantern that acts as a skylight. This lantern, with its slightly slanted internal glass, allows natural light to flood the large hall of the academy, creating a dynamic and bright interior space. The play of light within the hall enhances the sense of openness and connection to the environment, marrying modern design elements with traditional construction methods. The academy buildings are single-story and open up to the roof, providing a spacious and airy environment conducive to learning and collaboration.



Lighting - Energy Demand of the Institute



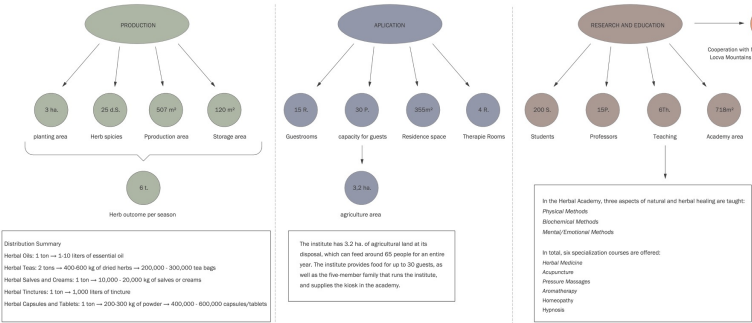
Lighting - Heating Demand of the Institute



Presentation - Use of Materials



Atmospheric Representation of the Herbal Academy



Architectural language:

The buildings of the Herbal Institute in Letea are designed to grow organically from the existing structures of the Popa family, the institute's founders. The production halls are planned as extensions of the traditional family buildings, ensuring proximity for shorter travel distances. The guesthouses are similarly located near the existing structures, positioned opposite the herb production facilities to create a cozy courtyard for relaxation. This layout ensures that production, application, and guest accommodation are in close contact, fostering interaction. The existing building is slightly set back but remains a prominent and tangible part of the courtyard for the guests.

The academy is divided into two longhouses, positioned opposite the production facilities. Both longhouses are set on a one-meter-high base and are connected by a terrace. The terrace level accommodates the buildings and allows for seating steps at the entrance area to the academy. The main building of the academy, Longhouse 1, houses a small lecture room and a large auditorium where lectures and events can take place. In the central part of the building, there are three freestanding cubes that contain service rooms such as the reception, kitchen, and restrooms. These cubes are accessible via external stairs and feature learning areas on their tops, providing a visual connection to the seminar rooms and central areas. The entire building is single-story and open up to the roof, creating a spacious and bright atmosphere.

The distinctive roof design of the academy gives it a modern appearance, setting it apart from the traditional forms. A hipped roof with an added lantern characterizes it, allowing light to flood the interior. The smaller adjacent longhouse of the academy features the same roof design and contains a modular laboratory practice room and a modular natural medicine training room. The connecting terrace serves as a learning terrace and a place where students, professors, and locals can meet and interact. The eastern view of the herb fields and access via a staircase complete the academy.

This design ensures that the academy not only serves educational and research purposes but also becomes a vibrant hub for community interaction, blending traditional knowledge with modern architectural elements.



Elevation - Herbal Academy - M. 1:200