



## LET'S MAKE "MEDENÝ HÁMOR" COPPER AGAIN

STUDENT:  
SUBJECT:  
STUDIO:  
THESIS SUPERVISOR:  
ACADEMIC YEAR:

BC. RÓBERT LIPTÁK  
DESIGN STUDIO II.  
VA DATALAB  
ING. ARCH. VLADIMÍR HAIN, PHD.  
2025/2026

THE COPPER HAMMER (MEDENÝ HÁMOR) IN BANSKÁ BYSTRICA REPRESENTS ONE OF THE MOST SIGNIFICANT TECHNICAL AND HISTORICAL MONUMENTS IN SLOVAKIA. ITS ORIGIN DATES BACK TO 1496, AND FOR NEARLY FIVE CENTURIES, IT WAS AMONG THE OLDEST AND MOST SIGNIFICANT LARGE-SCALE MANUFACTURING ENTERPRISES IN THE REGION. IT IS LOCATED NORTH OF THE CITY CENTER, AT THE CONFLUENCE OF THE LASKOMERSKÝ STREAM AND THE BYSTRICA STREAM. THE COMPLEX CONSISTED OF SEVERAL HERITAGE-PROTECTED BUILDINGS – FROM HISTORICAL SMELTING FURNACES (SO-CALLED 'HIARTY'), THROUGH WORKSHOPS AND A FOUNDRY, TO A ROLLING MILL AND A WATER RACE THAT ONCE PROVIDED ENERGY FOR PRODUCTION. OVER THE CENTURIES, NOT ONLY COPPER SEMI-FINISHED PRODUCTS AND GOODS WERE CREATED HERE, BUT ALSO TECHNOLOGICAL INNOVATIONS THAT SIGNIFICANTLY INFLUENCED THE DEVELOPMENT OF MINING AND METALLURGY THROUGHOUT THE CENTRAL EUROPEAN REGION. AFTER OPERATIONS CEASED IN 1991, THE COMPLEX BEGAN TO GRADUALLY DETERIORATE. PART OF THE BUILDINGS IS NOW OWNED BY THE CITY, WHILE OTHERS HAVE REMAINED IN THE HANDS OF PRIVATE OWNERS. THE CONDITION OF SEVERAL BUILDINGS IS CRITICAL – LEAKY ROOFS, DAMP WALLS, AND STRUCTURAL DEFECTS REQUIRE EXTENSIVE RESTORATION. IN RECENT YEARS, HOWEVER, STABILIZATION WORKS HAVE BEGUN, AND PREPARATIONS ARE UNDERWAY FOR AN ARCHITECTURAL AND URBAN PLANNING COMPETITION, THE GOAL OF WHICH IS TO TRANSFORM THE COMPLEX INTO A VIBRANT SPACE SERVING BOTH THE CITY AND THE PUBLIC.

**SUBJECT OF THE ASSIGNMENT:**

THE GOAL IS TO PREPARE A PROPOSAL FOR THE COMPREHENSIVE RESTORATION OF THE MEDENÝ HÁMOR COMPLEX AS A UNIQUE INDUSTRIAL AND CULTURAL MONUMENT OF BANSKÁ BYSTRICA. THE ASSIGNMENT STEMS FROM THE NEED TO PRESERVE AUTHENTIC HISTORICAL VALUES, WHILE SIMULTANEOUSLY EXAMINING SUITABLE NEW FUNCTIONS AND CREATING A HIGH-QUALITY PUBLIC SPACE WITH THE PROSPECT OF LONG-TERM SUSTAINABILITY.

**PRESERVATION OF MONUMENTS**

- IDENTIFY AND PROTECT THE MOST VALUABLE HISTORICAL BUILDINGS OF THE COMPLEX (SMELTING FURNACES, WORKSHOPS, WATER RACE, AND OTHER HERITAGE-PROTECTED PARTS).
- PROPOSE A METHOD OF CONSERVATION AND RESTORATION SO THAT THE ORIGINAL ARCHITECTURAL AND TECHNICAL VALUE IS PRESERVED.
- INTEGRATE HERITAGE BUILDINGS INTO NEW FUNCTIONAL RELATIONSHIPS WITHOUT LOSING THEIR AUTHENTICITY.

**EXAMINATION OF FUNCTIONS**

- ANALYZE THE POTENTIAL OF THE COMPLEX FOR NEW USE (CULTURAL, EDUCATIONAL, COMMUNITY, CREATIVE, AND BUSINESS FUNCTIONS).
- ASSESS THE POSSIBILITIES OF COMBINING PRODUCTION, SOCIAL, AND LEISURE ACTIVITIES.
- VERIFY THE CAPACITIES OF TRANSPORT SERVICES, PARKING, AND CONNECTION TO URBAN INFRASTRUCTURE.

**REVITALIZATION OF PUBLIC SPACE**

- PROPOSE NEW URBAN AND LANDSCAPE SOLUTIONS THAT WILL OPEN THE COMPLEX TO THE CITY'S RESIDENTS AND VISITORS.
- CREATE CONNECTIONS WITH SURROUNDING NEIGHBORHOODS, PEDESTRIAN AND CYCLING ROUTES.
- ADDRESS HIGH-QUALITY LIVING SPACES WITH GREENERY, WATER FEATURES, AND STREET FURNITURE.

**COMPREHENSIVE RESTORATION OF THE COMPLEX**

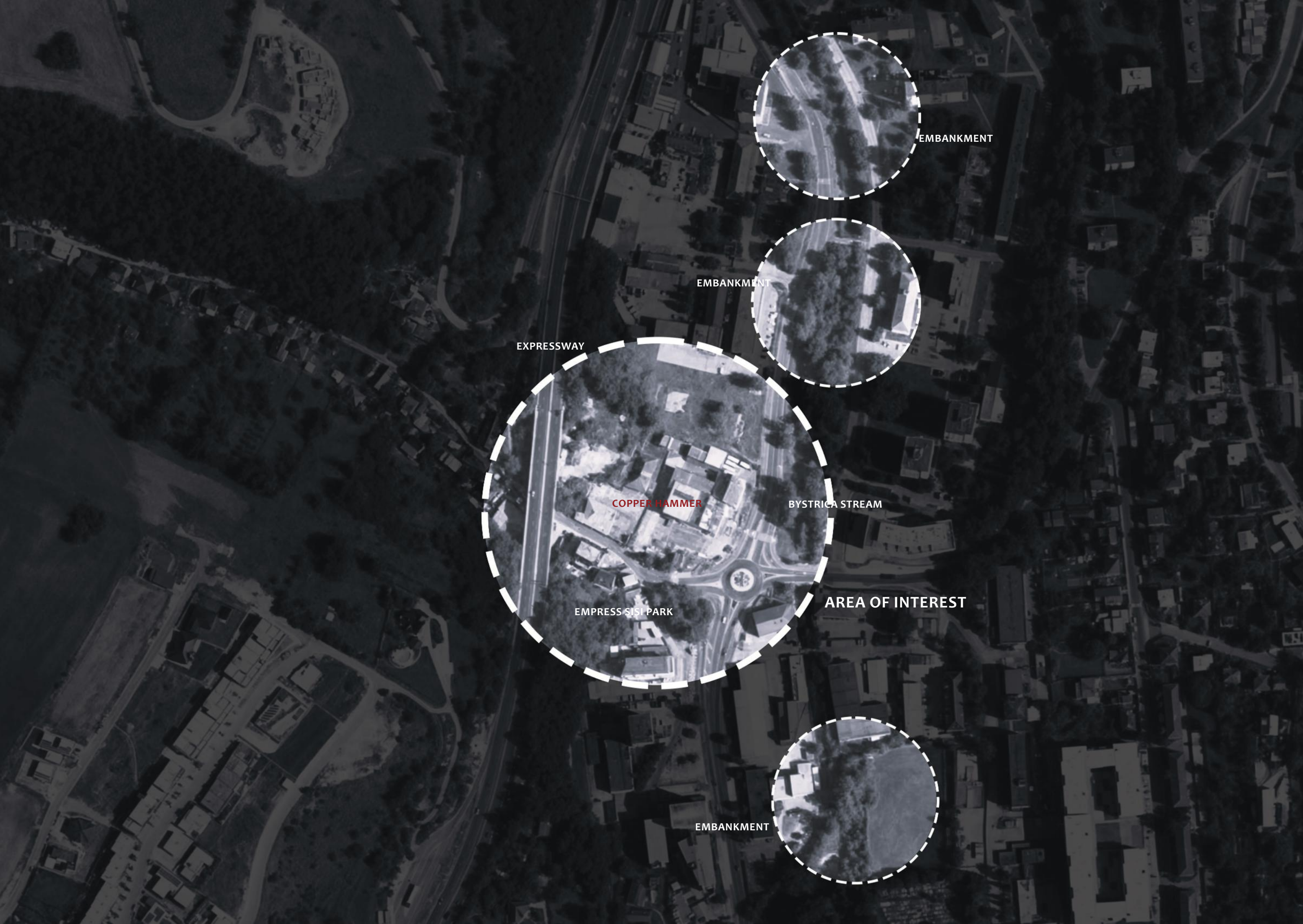
- DEVELOP A RESTORATION CONCEPT WITH REGARD TO THE PHASING OF IMPLEMENTATION AND ECONOMIC SUSTAINABILITY.
- CONSIDER ENERGY EFFICIENCY, ENVIRONMENTAL PRINCIPLES, AND THE ADAPTABILITY OF THE BUILDINGS.
- CREATE A VISION THAT CONNECTS THE HISTORY OF THE METALLURGICAL COMPLEX WITH ITS FUTURE SOCIAL AND CULTURAL FUNCTION.

**OUTPUT:**

AN URBAN-ARCHITECTURAL PROPOSAL THAT WILL OFFER A REALISTIC AND INNOVATIVE VISION FOR THE TRANSFORMATION OF MEDENÝ HÁMOR INTO A VIBRANT, VALUABLE, AND PUBLICLY ACCESSIBLE SPACE IN BANSKÁ BYSTRICA.







EMBANKMENT

EMBANKMENT

EXPRESSWAY

COPPER HAMMER

BYSTRICA STREAM

EMPRESS SISI PARK

AREA OF INTEREST

EMBANKMENT

# S

HISTORICAL AND TECHNICAL VALUE – ONE OF THE OLDEST METALLURGICAL FACTORIES IN EUROPE (SINCE 1496)  
HERITAGE-PROTECTED BUILDINGS WITH AN AUTHENTIC INDUSTRIAL CHARACTER  
STRATEGIC LOCATION – CLOSE TO THE CITY CENTER, CONNECTION TO WATERCOURSES AND THE NATURAL ENVIRONMENT  
STRONG IDENTITY-FORMING POTENTIAL FOR THE RESIDENTS OF BANSKÁ BYSTRICA  
ATTRACTIVENESS FOR CULTURAL, EDUCATIONAL, AND TOURIST ACTIVITIES

# O

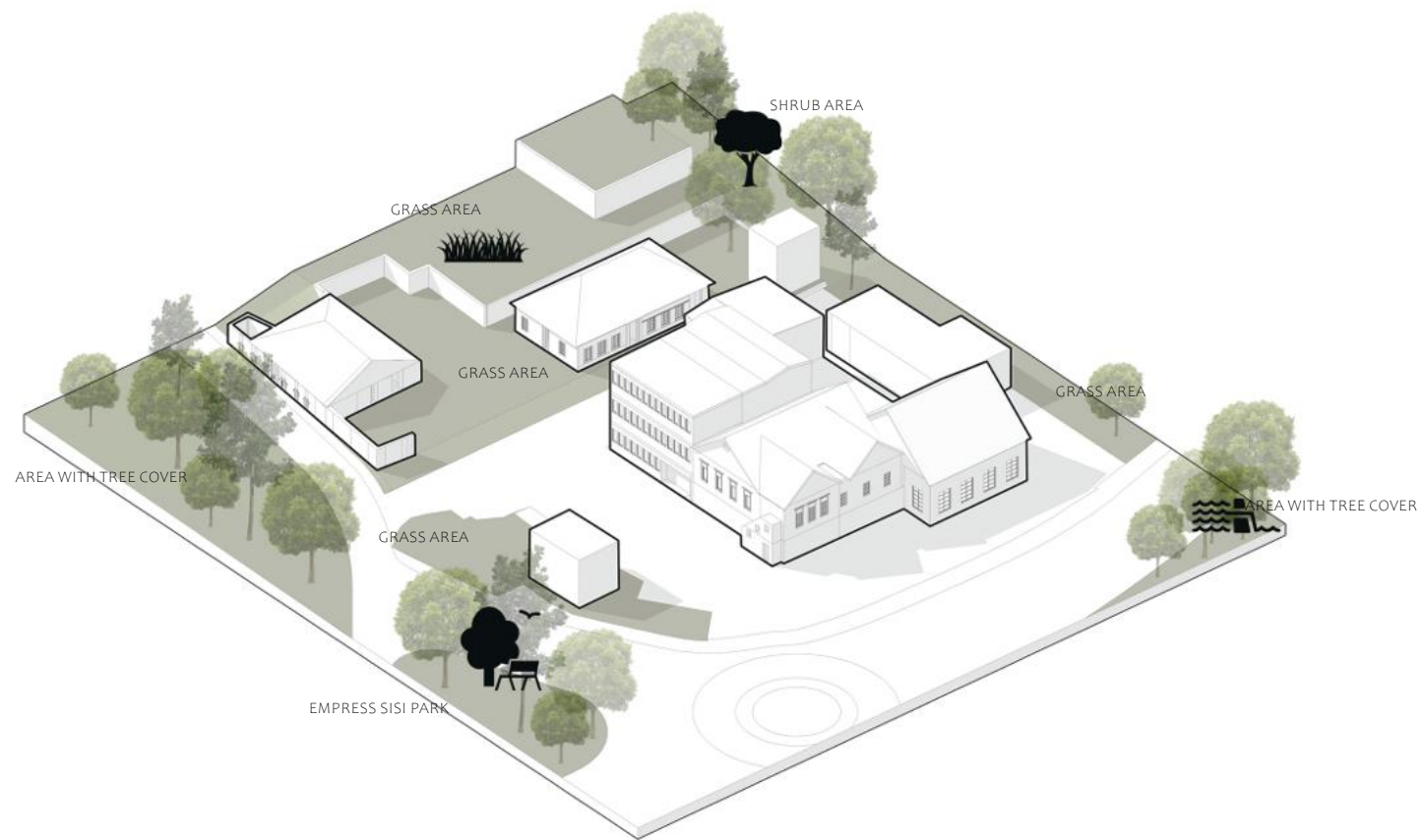
POSSIBILITY OF REVITALIZATION INTO A CULTURAL-CREATIVE CENTER OF REGIONAL SIGNIFICANCE.  
CONNECTION WITH URBAN TOURISM AND THE "INDUSTRIAL HERITAGE OF SLOVAKIA" BRAND.  
URBAN TRANSFORMATION – CREATION OF NEW PUBLIC SPACES, PARKS, CYCLE PATHS.  
ATTRACTIVE SPACE FOR THE CREATIVE INDUSTRY, STARTUPS, CRAFT WORKSHOPS, OR COMMUNITY ACTIVITIES.  
FINANCING FROM EUROPEAN FUNDS, GRANTS, AND PPP PROJECTS.

# W

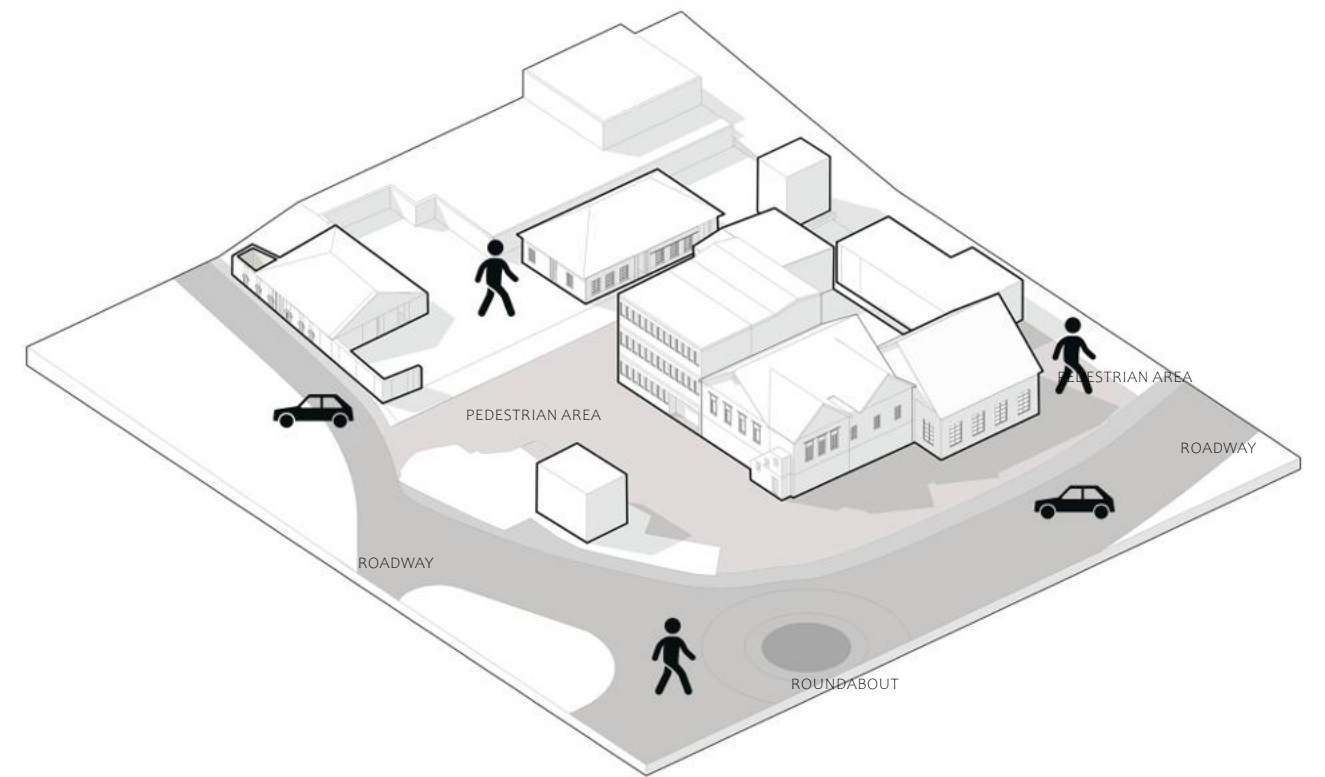
PHYSICAL DEGRADATION OF THE COMPLEX (LEAKY ROOFS, DAMP WALLS, STRUCTURAL DEFECTS).  
NON-UNIFIED OWNERSHIP RELATIONS (CITY + PRIVATE OWNERS).  
INSUFFICIENT USE OF THE COMPLEX AT PRESENT.  
MISSING INFRASTRUCTURE FOR NEW FUNCTIONS (PARKING, TECHNICAL FACILITIES, SECURITY ELEMENTS).  
HIGH COSTS FOR RESTORATION AND MAINTENANCE.

# T

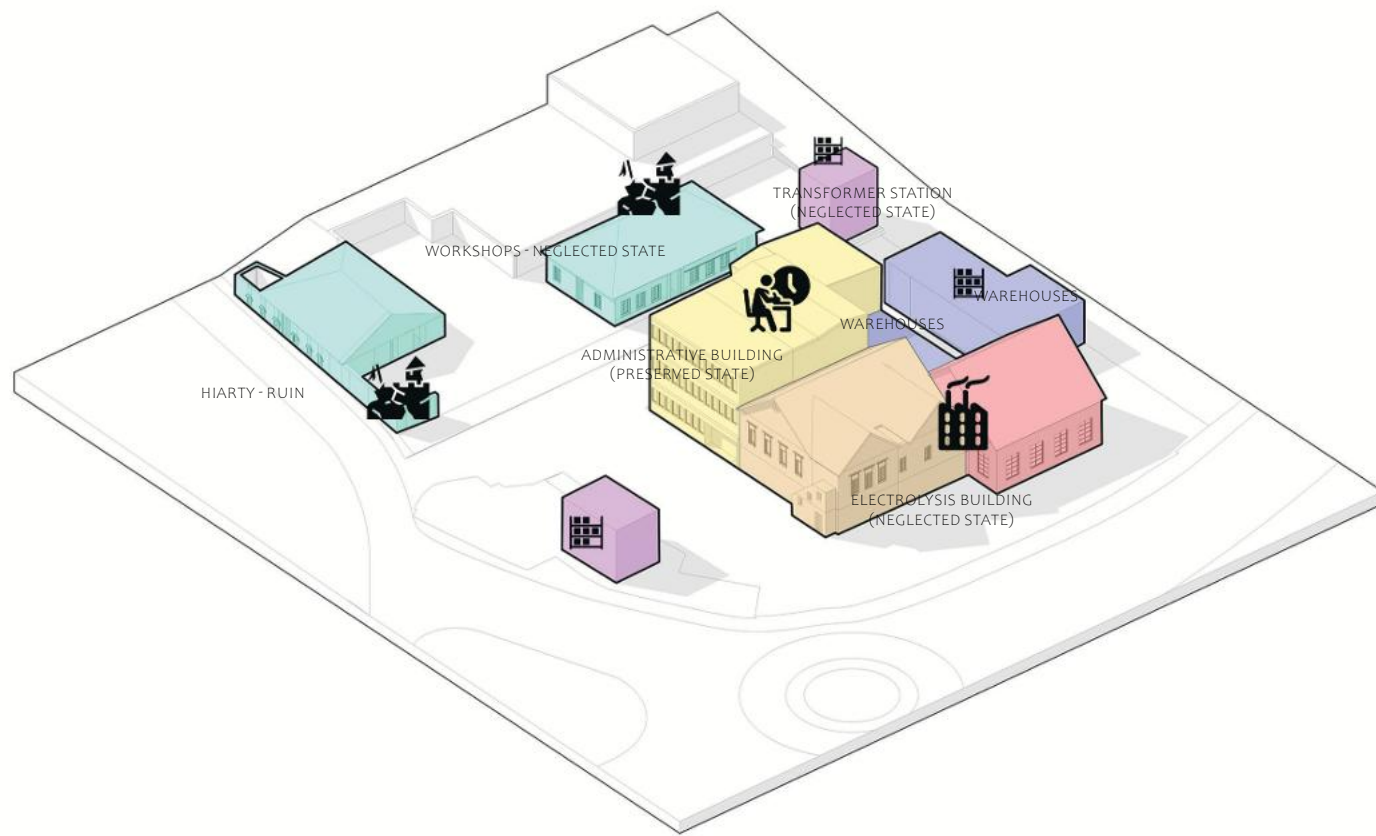
FURTHER DESTRUCTION OF HISTORICAL BUILDINGS DUE TO INACTION OR UNPROFESSIONAL RECONSTRUCTION.  
CONFLICT BETWEEN MONUMENT PROTECTION AND ECONOMIC PRESSURE FOR DEVELOPMENT USE.  
RISK OF FRAGMENTATION OF FUNCTIONS IN THE ABSENCE OF A UNIFIED CONCEPT.  
POSSIBLE PUBLIC DISINTEREST OR POLITICAL INSTABILITY REGARDING LONG-TERM INVESTMENTS.  
ECONOMIC UNSUSTAINABILITY OF THE PROJECT WITHOUT A CLEAR OPERATIONAL MODEL.



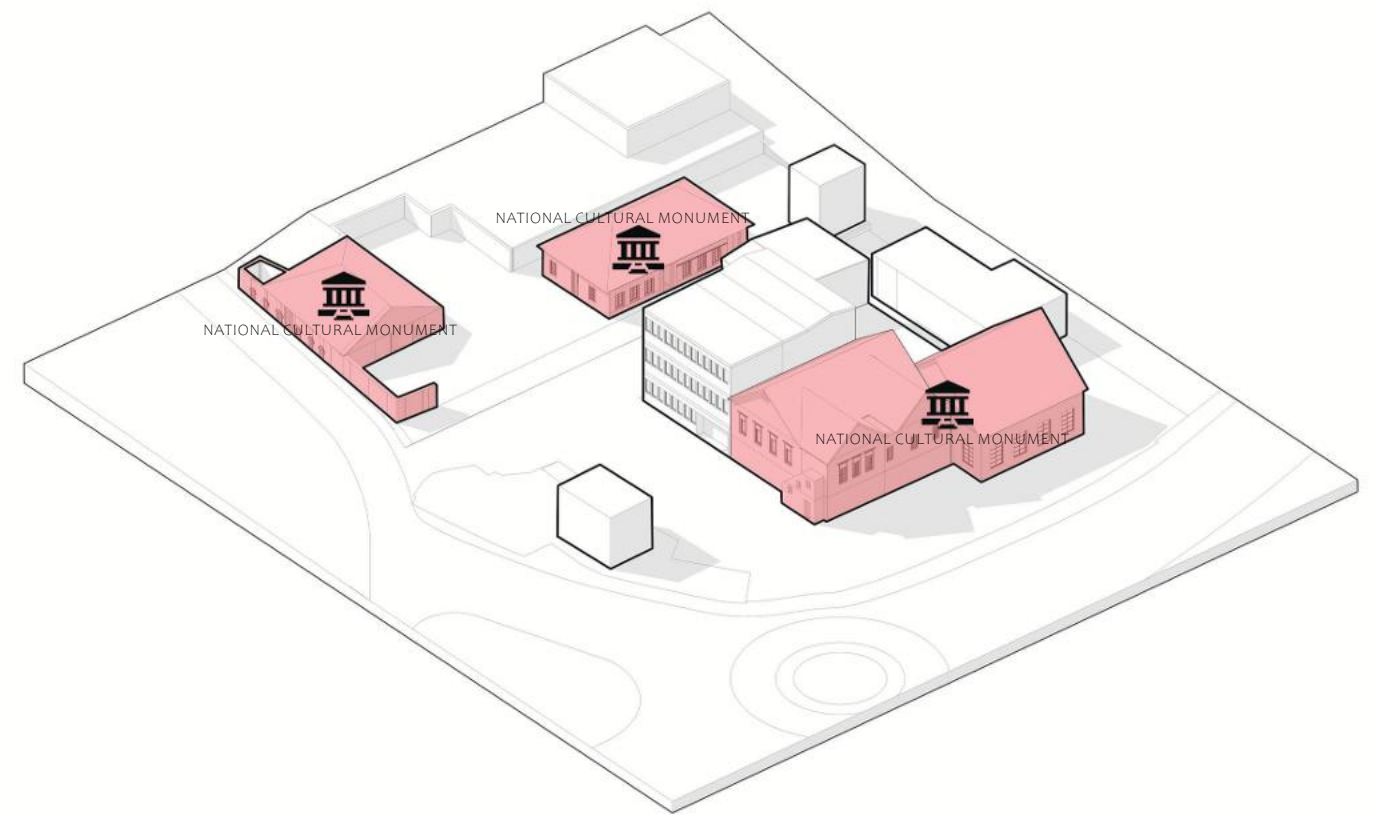
**CURRENT STATE - GREENERY**



**CURRENT STATE - PAVED AREAS**



**CURRENT STATE - FUNCTIONS**



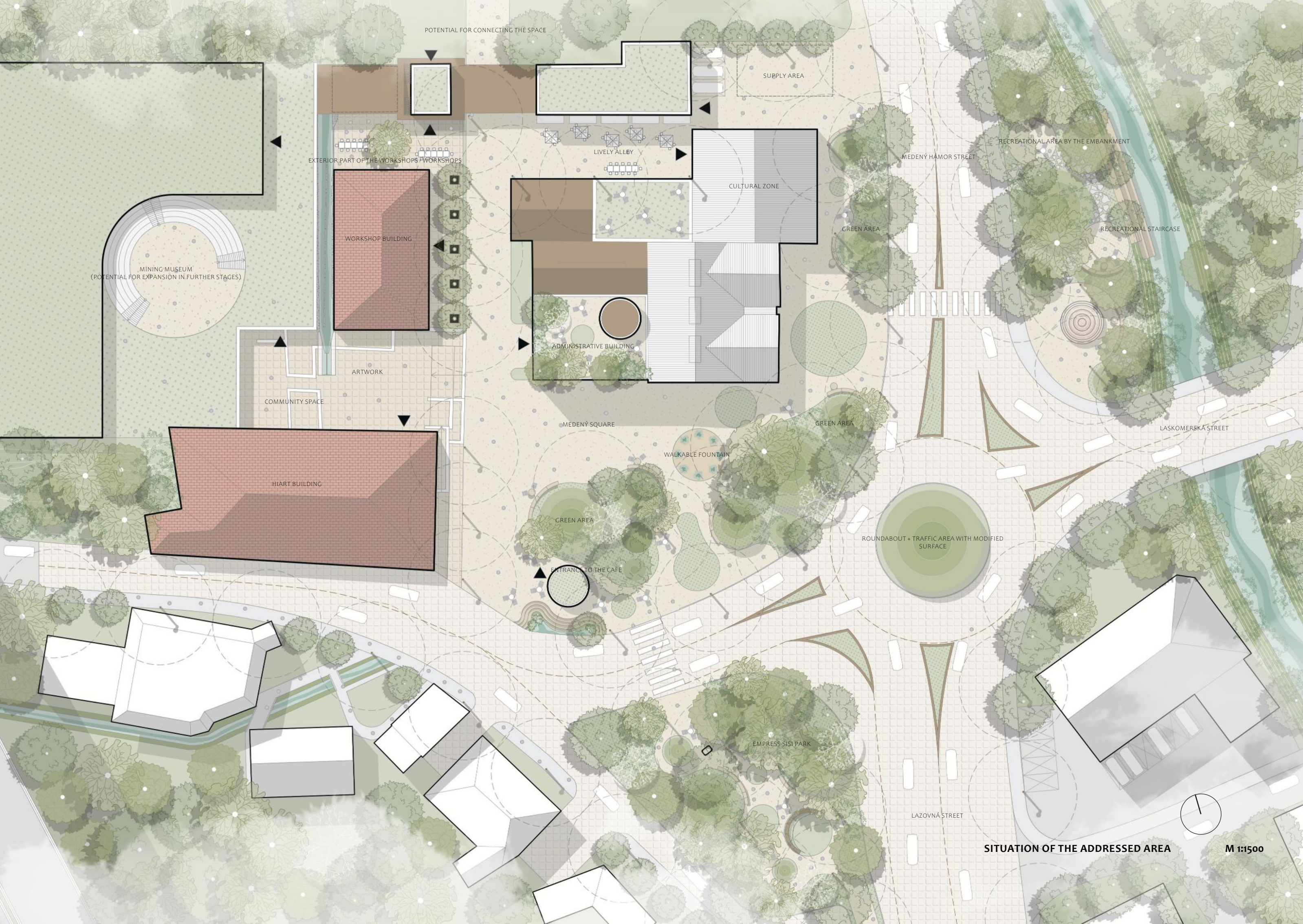
**CURRENT STATE - HERITAGE BUILDINGS**



VISUALIZATION OF THE REVITALIZED URBAN AREA MEDENÝ HÁMOR - DAYTIME VIEW



VISUALIZATION OF THE REVITALIZED URBAN AREA MEDENÝ HÁMOR - EVENING VIEW



POTENTIAL FOR CONNECTING THE SPACE

SUPPLY AREA

LIVELY ALLEY

CULTURAL ZONE

RECREATIONAL AREA BY THE EMBANKMENT

MEDENÝ HAMOR STREET

RECREATIONAL STAIRCASE

MINING MUSEUM  
(POTENTIAL FOR EXPANSION IN FURTHER STAGES)

WORKSHOP BUILDING

GREEN AREA

EXTERIOR PART OF THE WORKSHOPS + WORKSHOPS

ADMINISTRATIVE BUILDING

ARTWORK

COMMUNITY SPACE

LASKOMERSKÁ STREET

MEDENÝ SQUARE

GREEN AREA

HIART BUILDING

WALKABLE FOUNTAIN

ROUNDAABOUT + TRAFFIC AREA WITH MODIFIED SURFACE

GREEN AREA

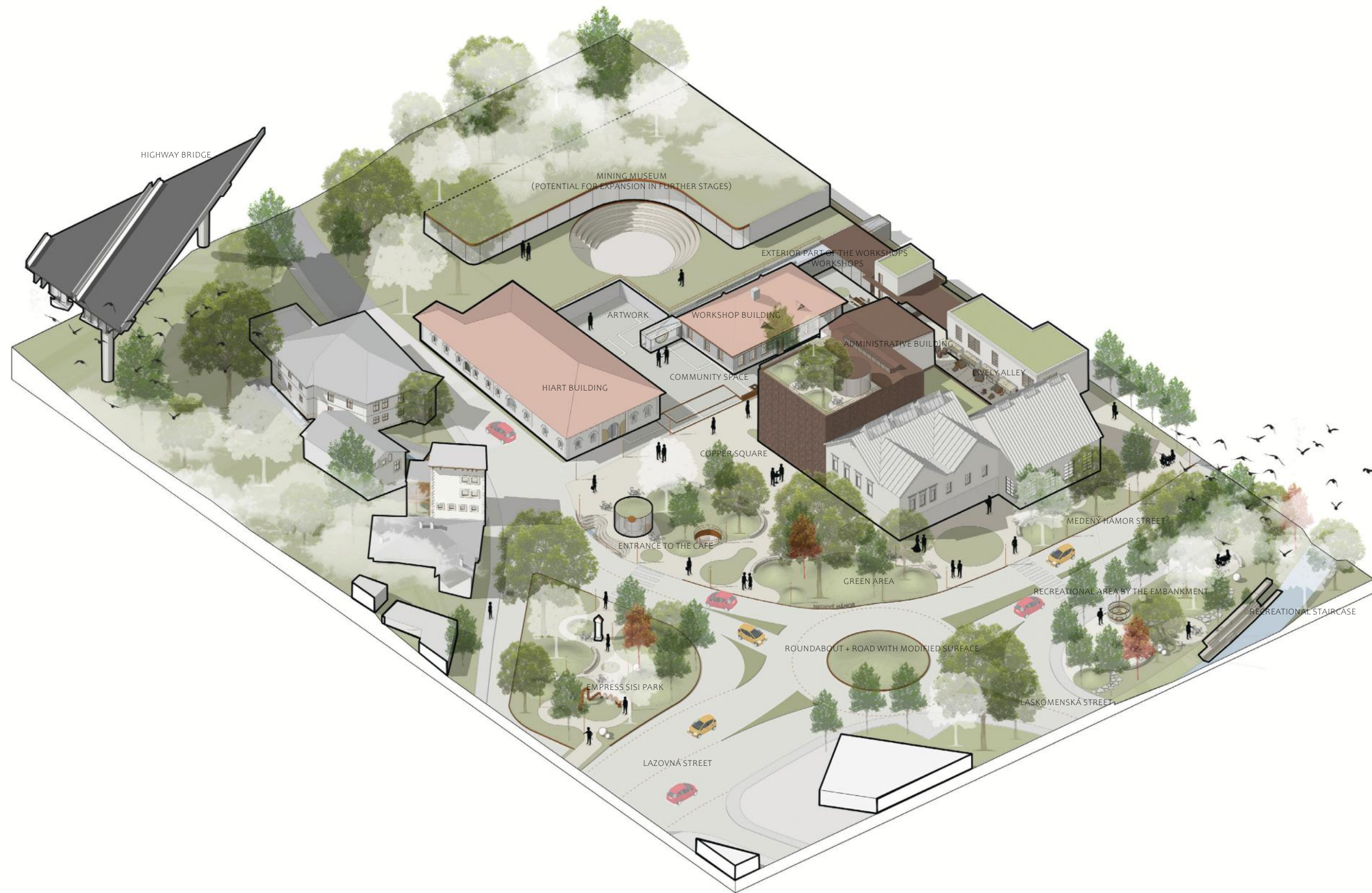
ENTRANCE TO THE CAFE

EMPERESS SISÍ PARK

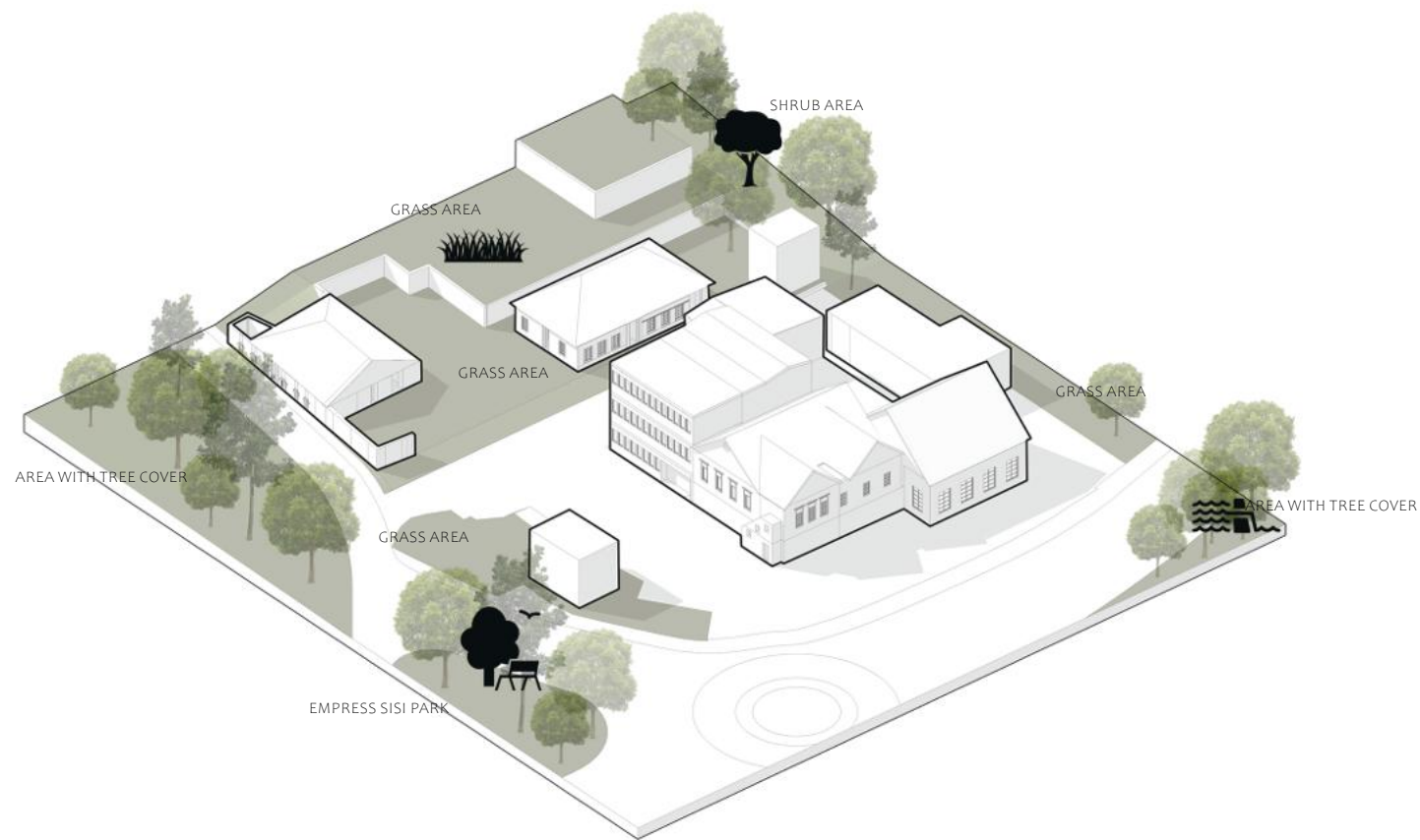
LAZOVNÁ STREET

SITUATION OF THE ADDRESSED AREA

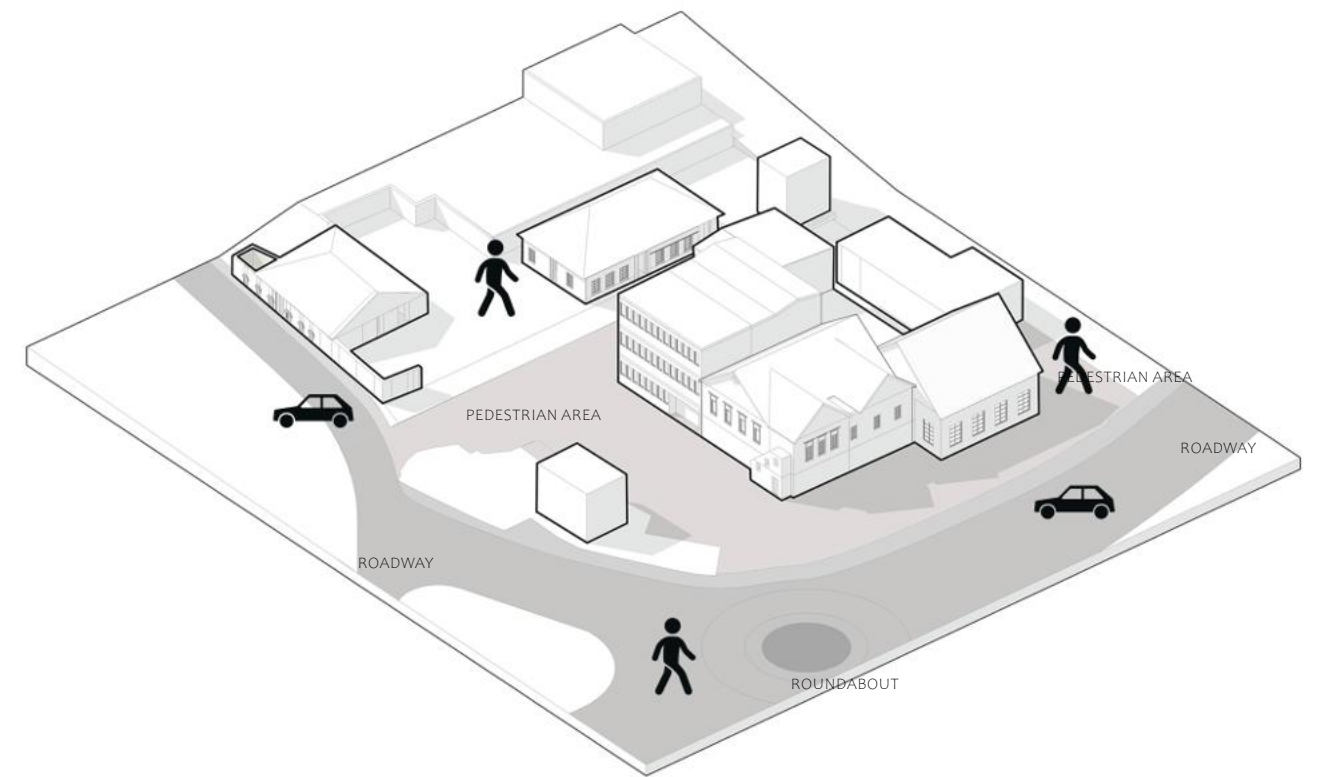
M 1:1500



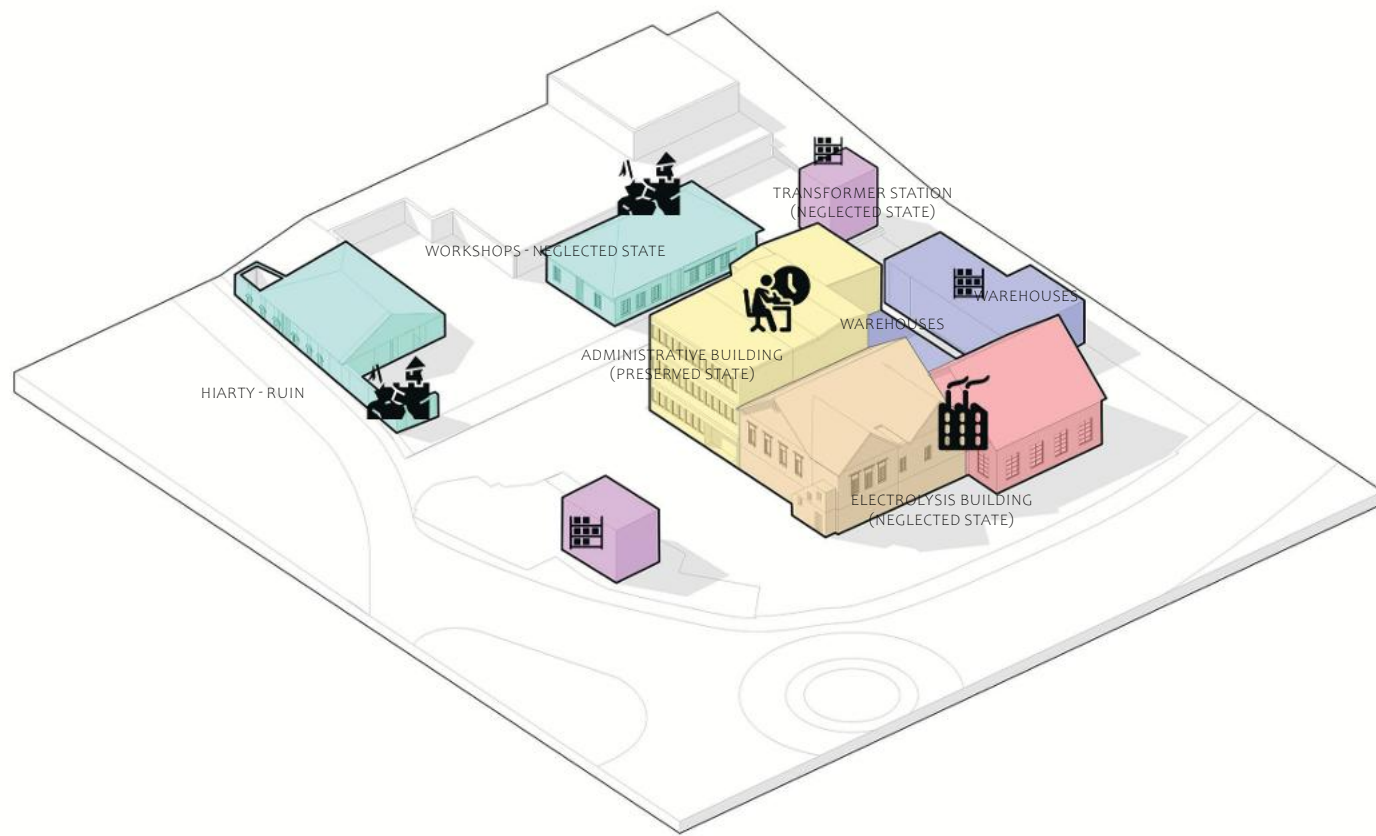
AXONOMETRY OF THE DESIGN



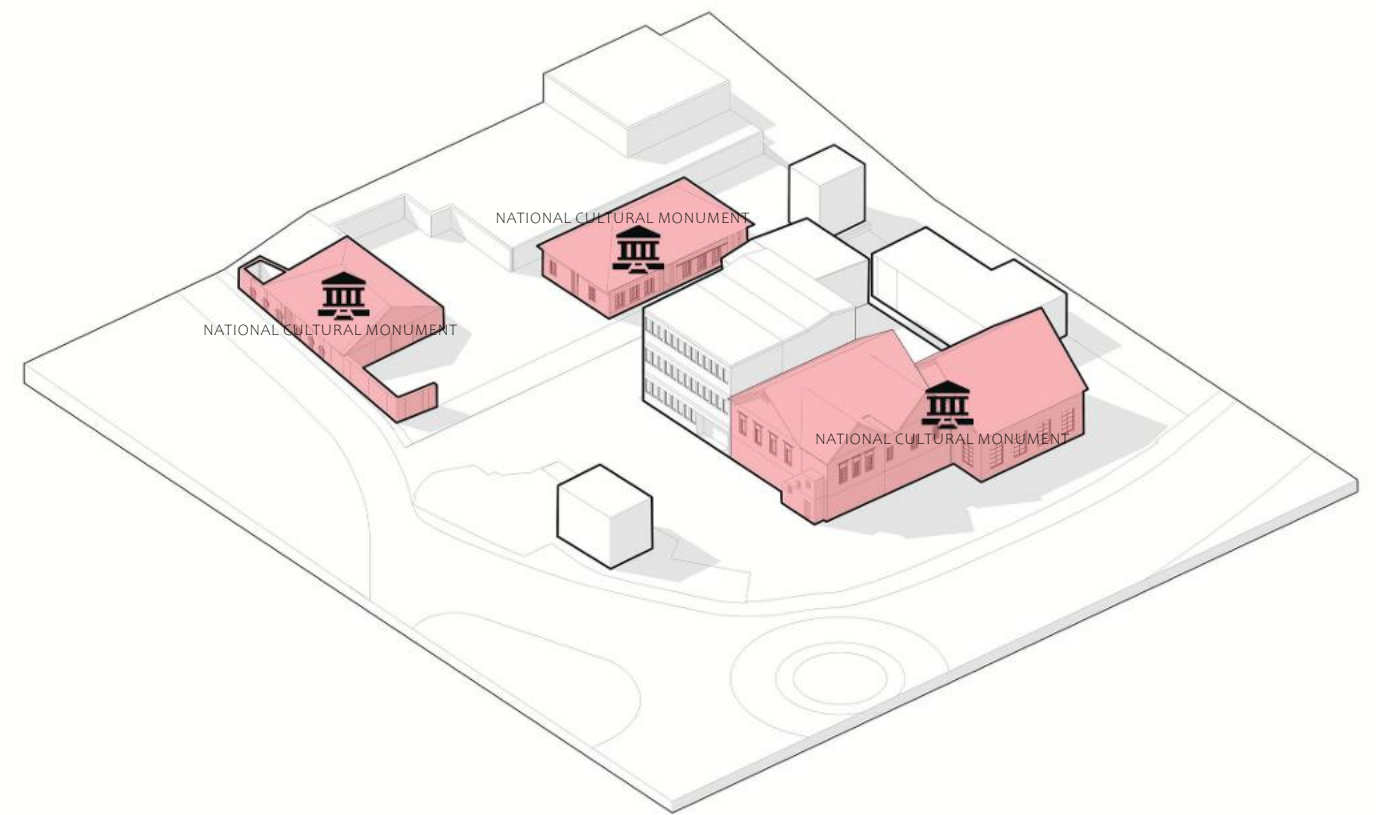
**CURRENT STATE - GREENERY**



**CURRENT STATE - PAVED AREAS**



**CURRENT STATE - FUNCTIONS**



**CURRENT STATE - HERITAGE BUILDINGS**



EVENING ATMOSPHERE IN THE HISTORICAL PART OF MEDENÝ HÁMOR



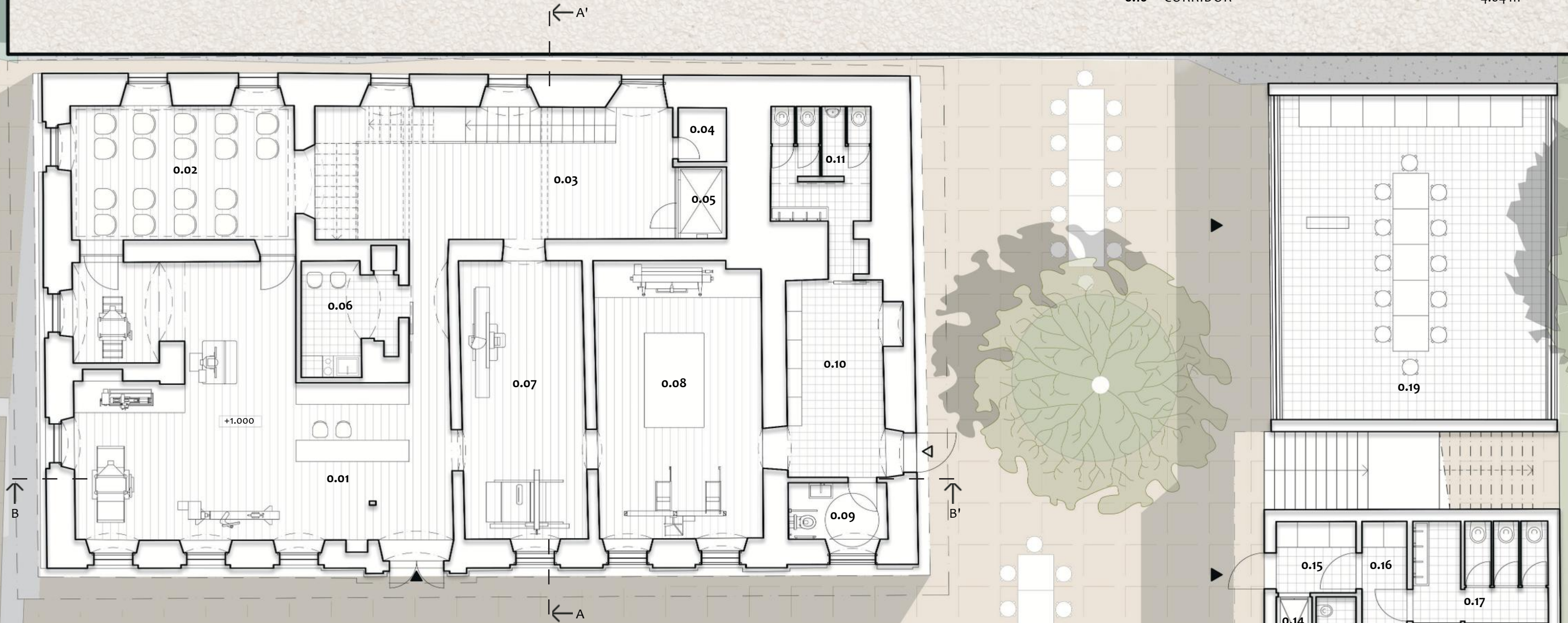
DETAIL OF THE WORKSHOP BUILDING FACADE

FLOOR PLAN OF WORKSHOPS, SANITARY FACILITIES, AND WORKSHOP SUPPORT AREAS

M 1:200



0.12	SOUVENIR SHOP	5.13 m <sup>2</sup>
0.13	FACILITIES	3.00 m <sup>2</sup>
0.14	ELEVATOR	1.50 m <sup>2</sup>
0.15	ENTRANCE HALL	3.58 m <sup>2</sup>
0.16	CORRIDOR	4.04 m <sup>2</sup>



0.01	ENTRANCE PRESENTATION SPACE	76.8 m <sup>2</sup>
0.02	LECTURE ROOM WITH PROJECTION	25.3 m <sup>2</sup>
0.03	CIRCULATION SPACE - ENTRANCE TO 2ND FLOOR	40 m <sup>2</sup>
0.04	STORAGE	2.20 m <sup>2</sup>
0.05	WHEELCHAIR PLATFORM LIFT	3.25 m <sup>2</sup>
0.06	STAFF KITCHENETTE	7.90 m <sup>2</sup>
0.07	EXHIBITION	28.9 m <sup>2</sup>
0.08	EXHIBITION	38.6 m <sup>2</sup>
0.09	ACCESSIBLE WC	4.70 m <sup>2</sup>

0.10	CLOSET	16.9 m <sup>2</sup>
0.11	WC	11.4 m <sup>2</sup>
<b>TOTAL</b>		<b>256 m<sup>2</sup></b>

0.17	WOMEN'S RESTROOM	8.68 m <sup>2</sup>
0.18	WOMEN'S RESTROOM	8.59 m <sup>2</sup>
0.19	WORKSHOP SPACE	54.2 m <sup>2</sup>
<b>TOTAL</b>		<b>88.72 m<sup>2</sup></b>

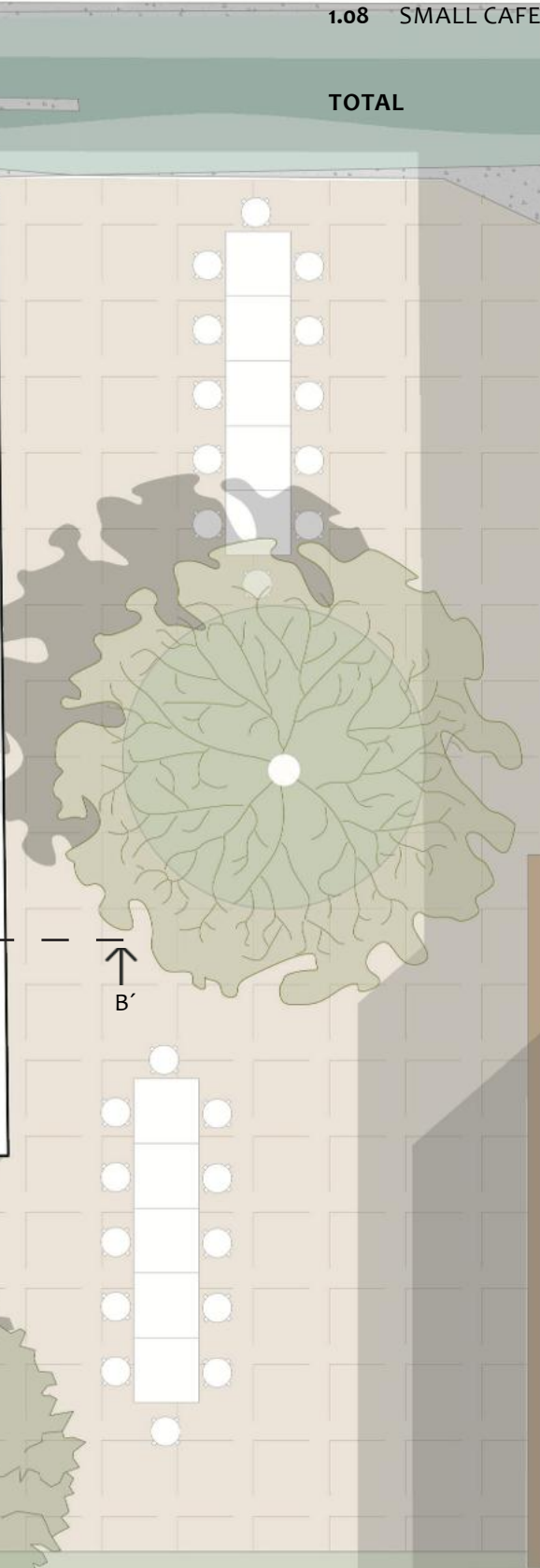
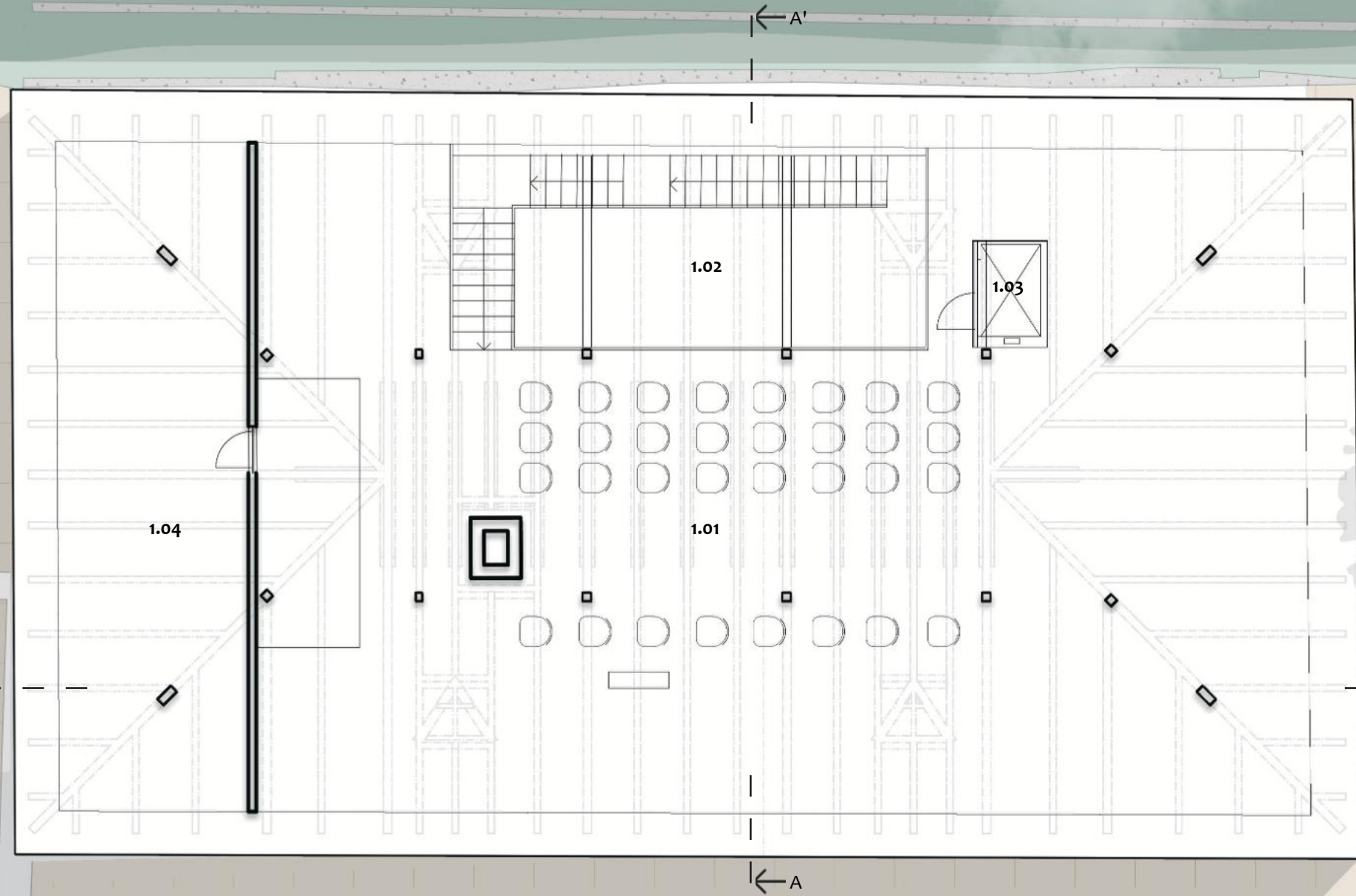
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ROOF PLAN

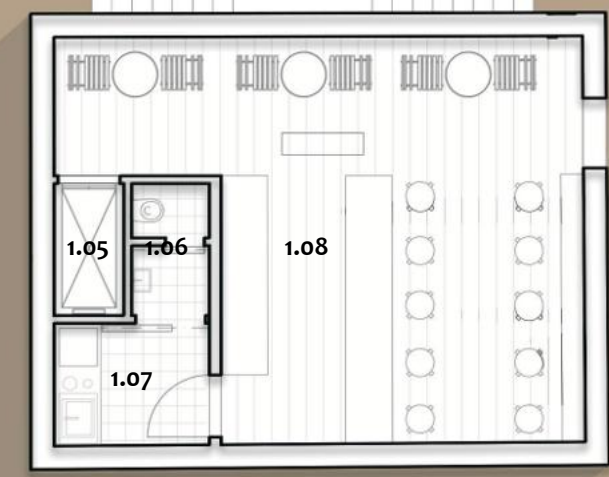
SCALE 1:200

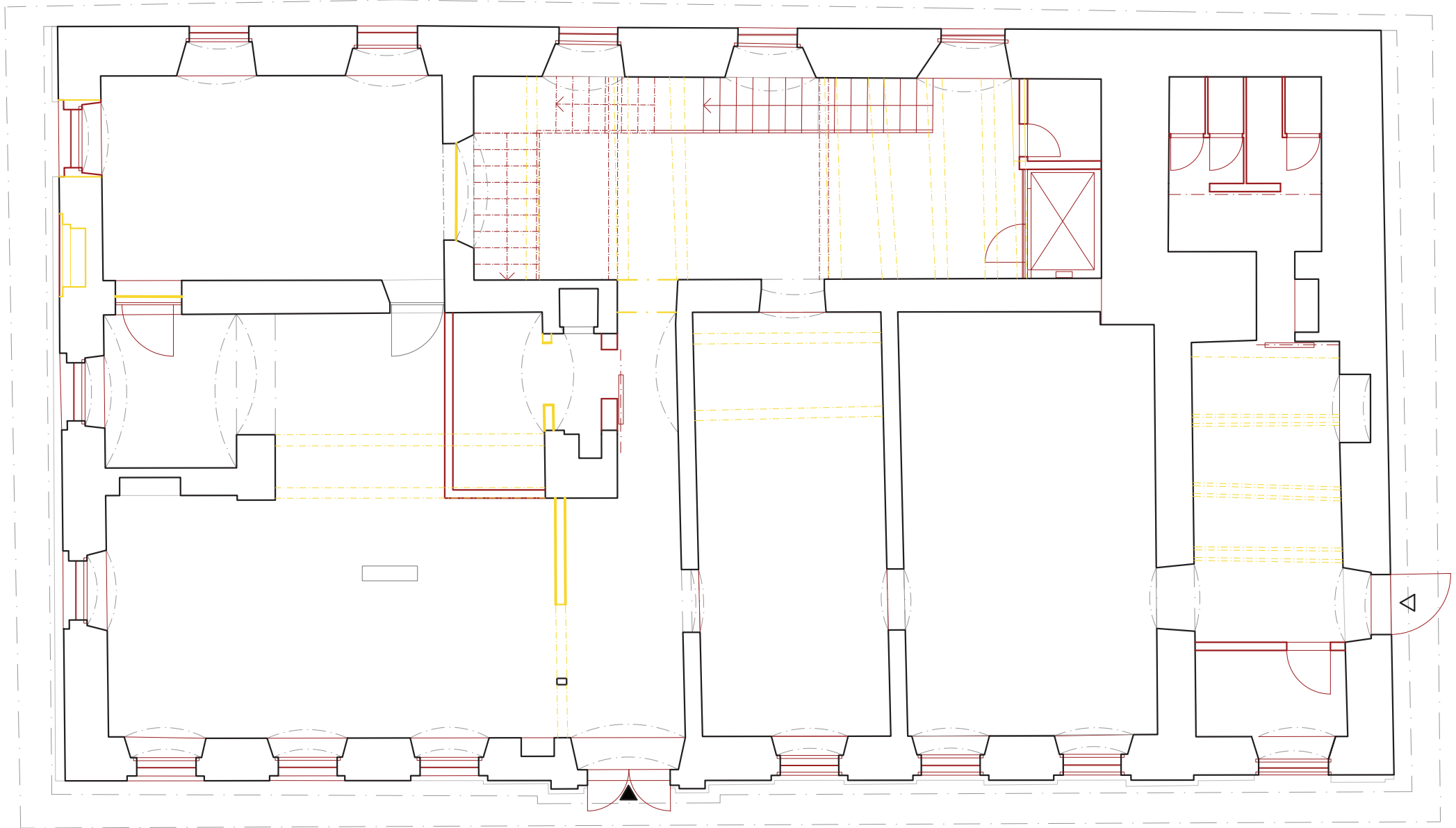


1.05	ELEVATOR	1.50 m <sup>2</sup>
1.06	BACKGROUND	3.00 m <sup>2</sup>
1.07	PREPARATION ROOM	3.14 m <sup>2</sup>
1.08	SMALL CAFE	28.3 m <sup>2</sup>
<b>TOTAL</b>		<b>35.95 m<sup>2</sup></b>



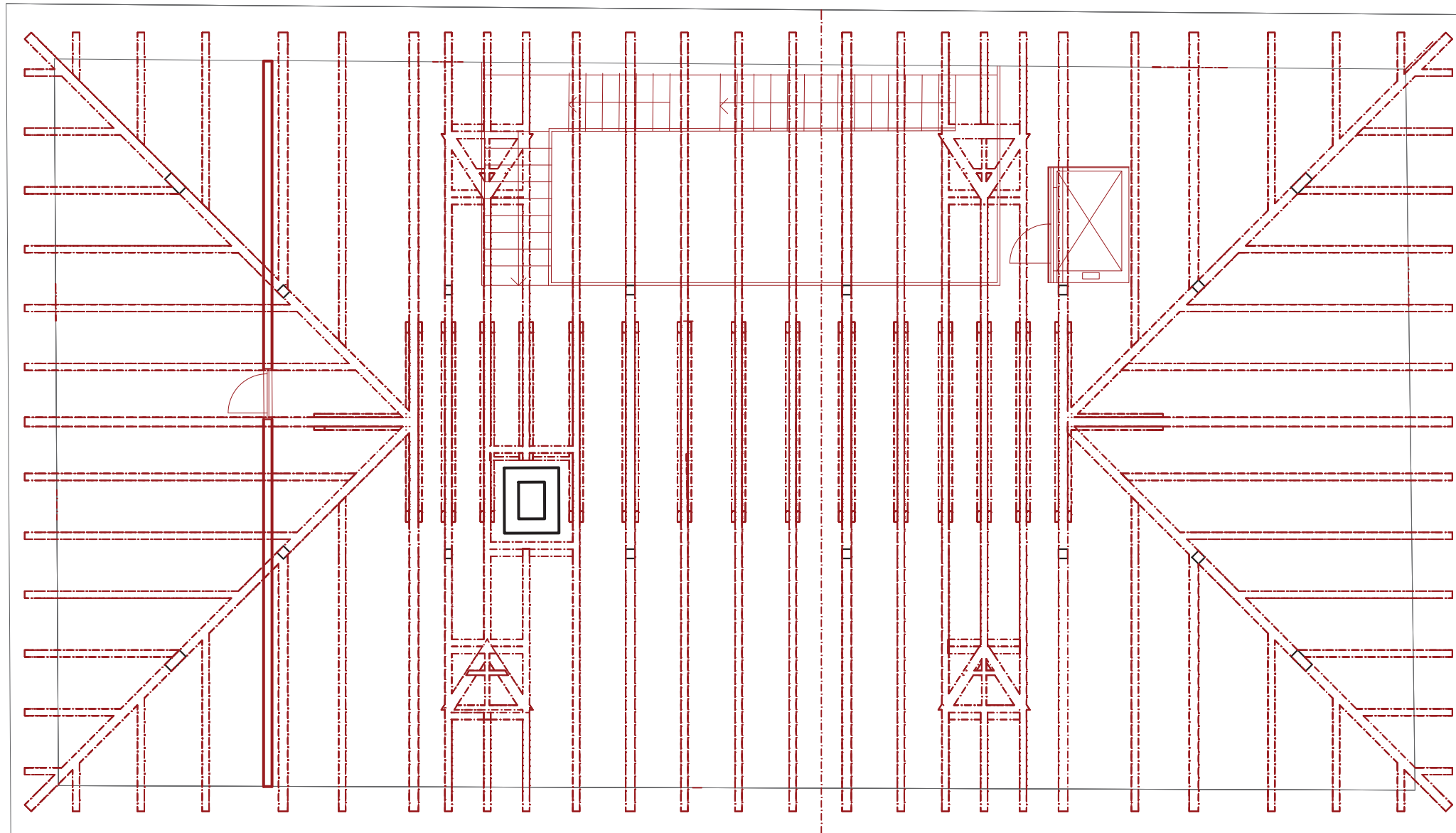
1.01	WORKSHOP SPACE	241.8 m <sup>2</sup>
1.02	STAIRCASE GALLERY	39.7 m <sup>2</sup>
1.03	WHEELCHAIR PLATFORM	3.25 m <sup>2</sup>
1.04	STORAGE SPACES	52.6 m <sup>2</sup>
<b>TOTAL</b>		<b>298 m<sup>2</sup></b>
<b>100% UTILIZATION OF SPACE UNDER THE ROOF</b>		<b>88.3 m<sup>2</sup></b>





**NEW STRUCTURES**

**DEMOLISHED STRUCTURES**



NEW STRUCTURES

DEMOLISHED STRUCTURES



SECTION THROUGH WORKSHOP AND SMITHY BUILDINGS

SCALE 1:500



SECTION A - A'

SCALE 1:200



SECTION B - B'

SCALE 1:200



AXONOMETRIC VIEW OF THE WORKSHOP INTERIOR



VIEW OF THE ENTRANCE PART OF THE EXHIBITION WITH A VIEW TO THE REAR ENTRANCE



VIEW OF THE ENTRANCE PART OF THE EXHIBITION



VIEW OF THE ENTRANCE PART OF THE EXHIBITION WITH A VIEW INTO THE LECTURE HALL



VIEW OF THE STAIRCASE AND THE LIFTING PLATFORM



LECTURE HALL - LECTURE VARIANT



LECTURE HALL - PROJECTION VARIANT



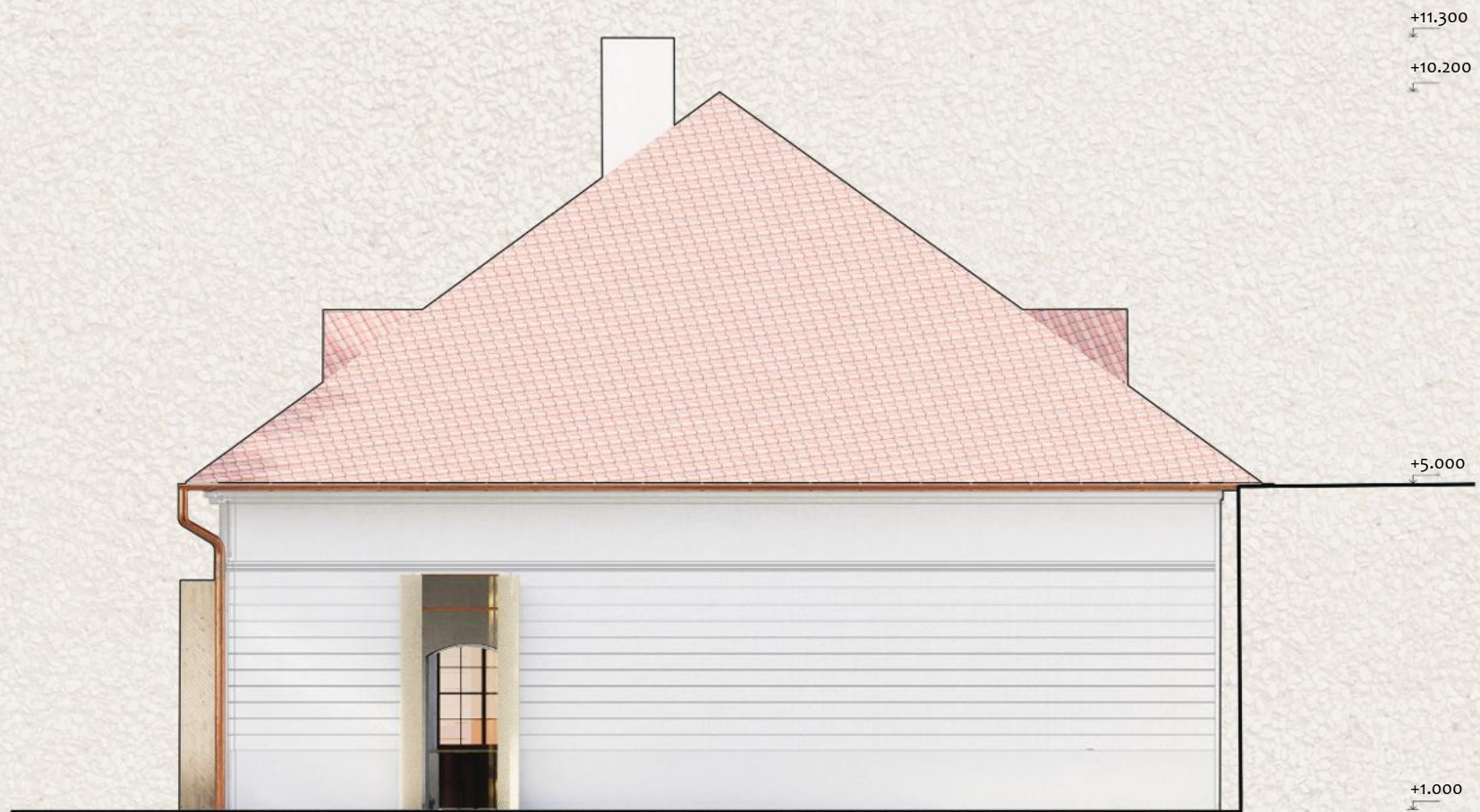
SOUTHEAST VIEW

SCALE 1:200



SOUTHWEST VIEW

SCALE 1:200



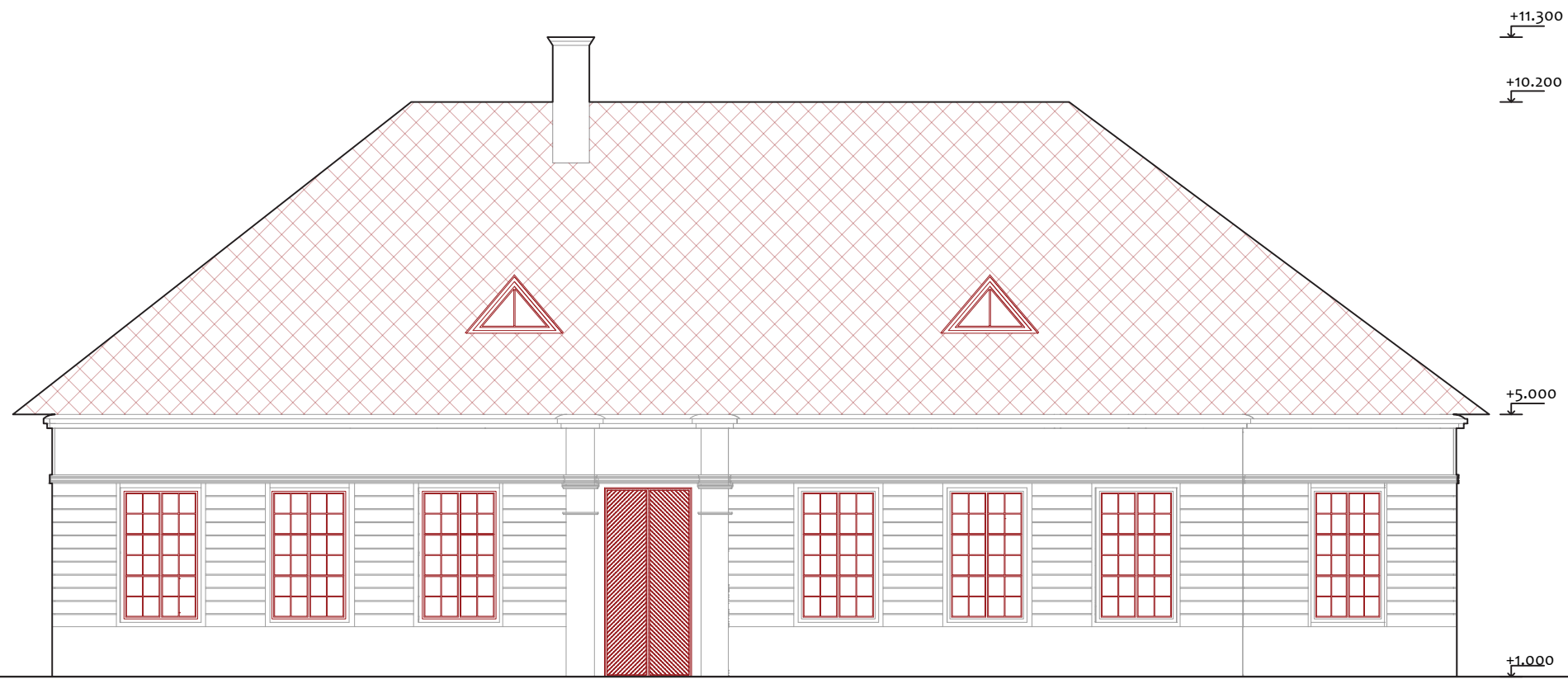
NORTHEAST VIEW

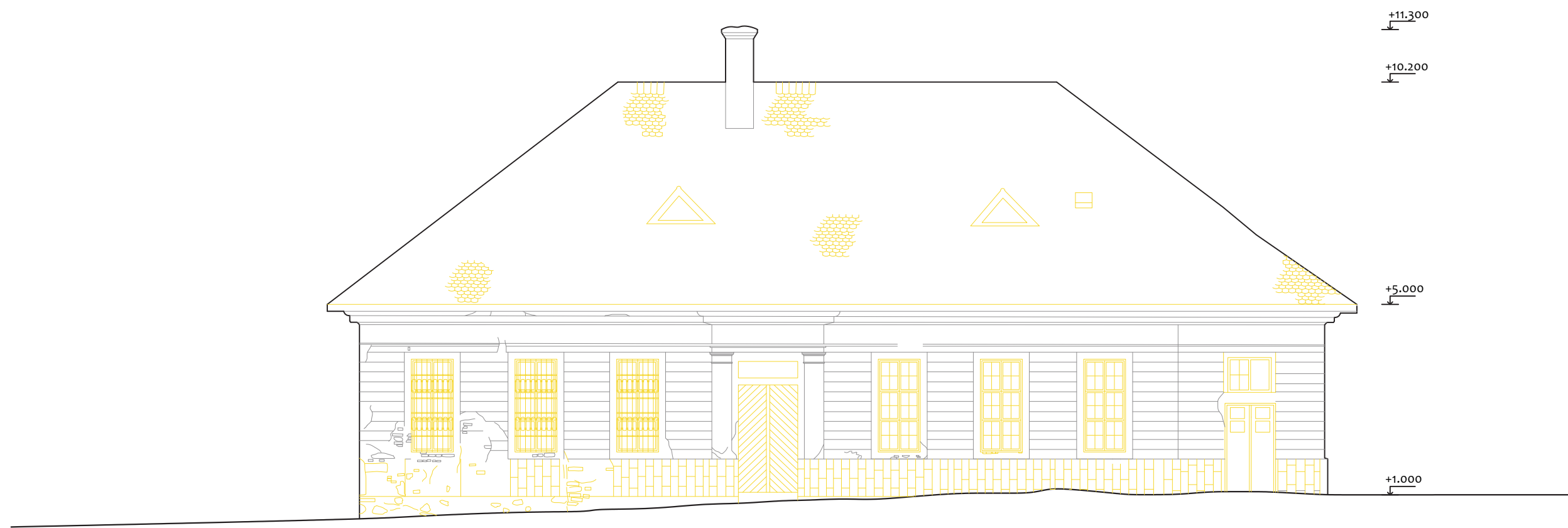
SCALE 1:200

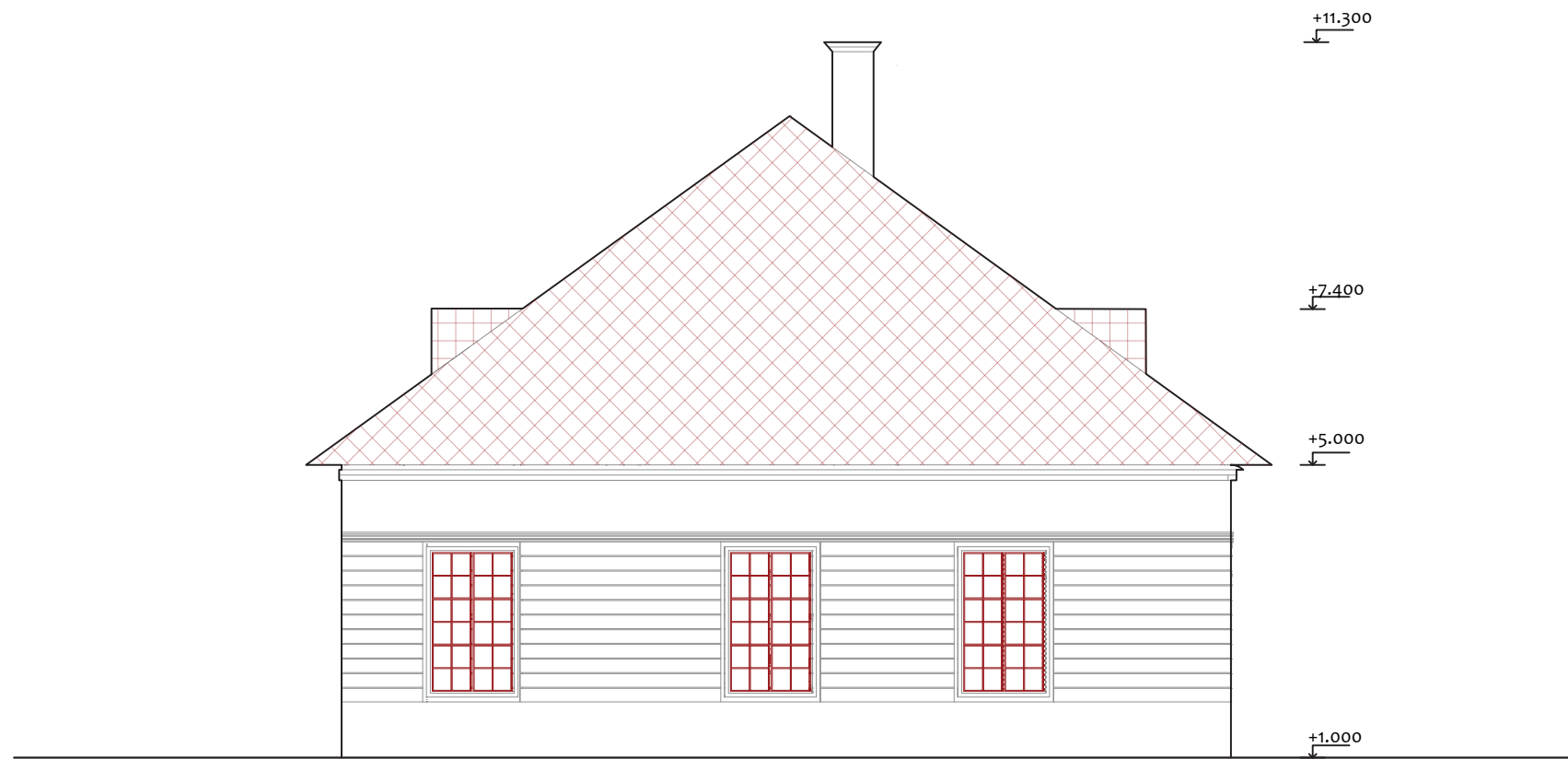


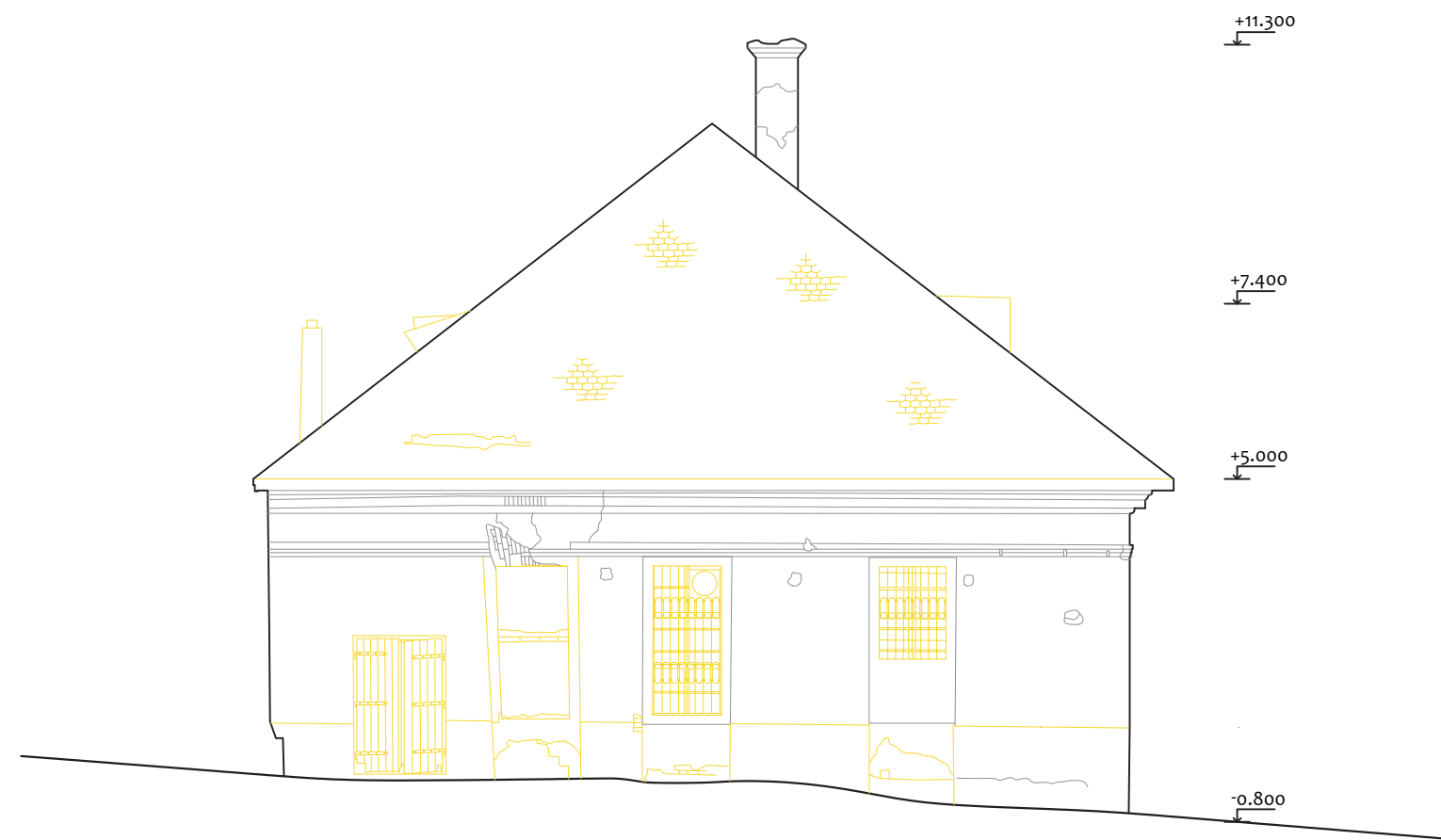
NORTHWEST VIEW

SCALE 1:200

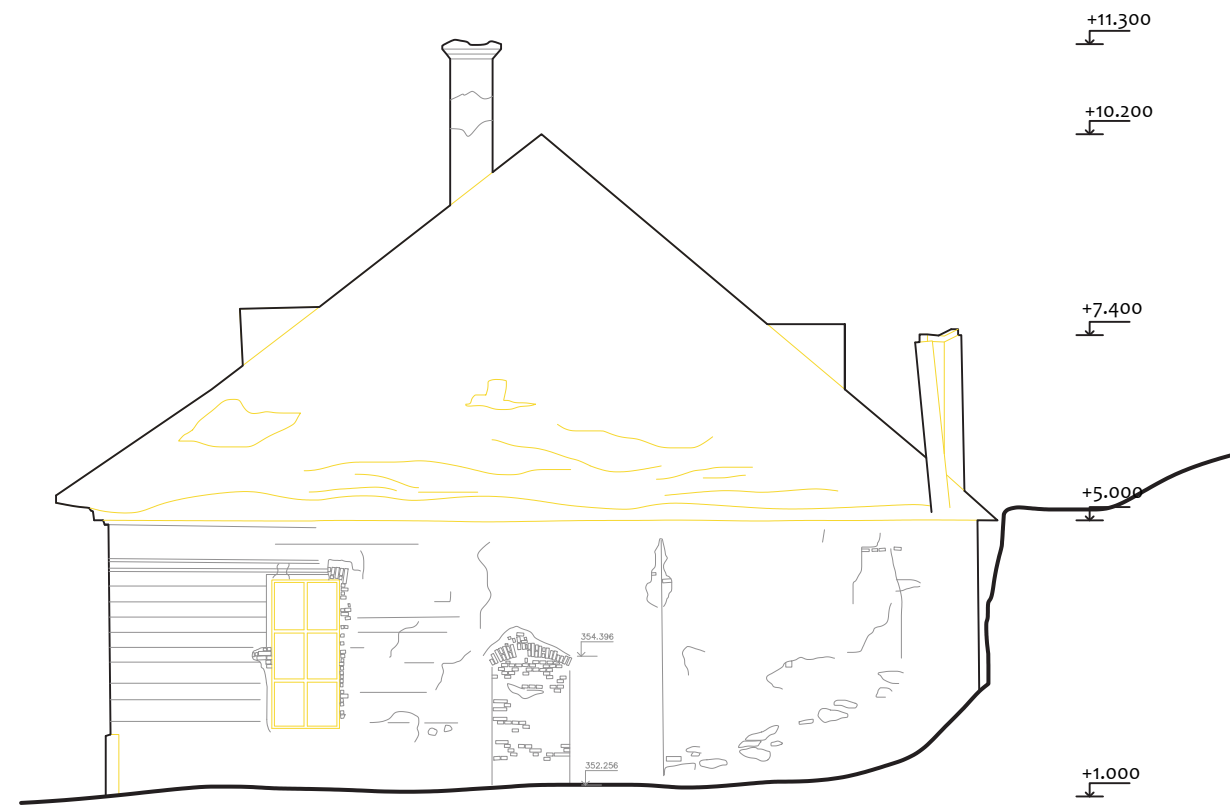


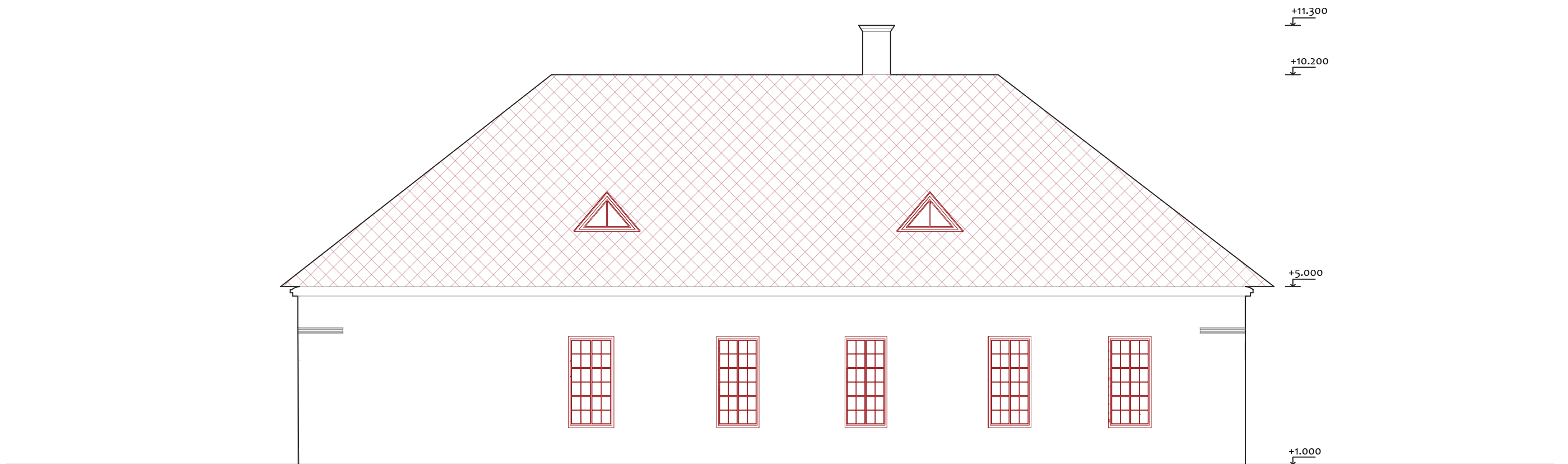


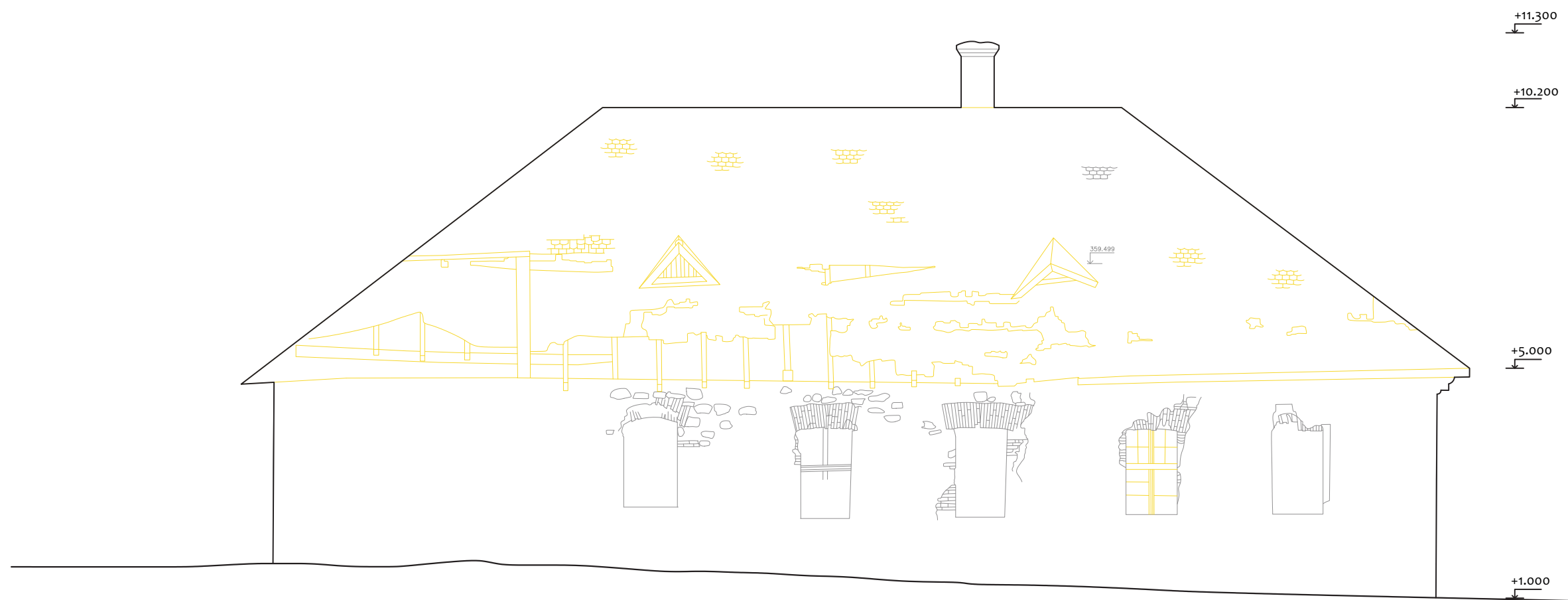












NORTHWEST VIEW - DEMOLITION WORKS

SCALE 1:200



WORKSHOPS - EXHIBITION



WORKSHOPS - EXHIBITION



WORKSHOPS - CHANGING ROOM



WORKSHOP SPACE BEHIND THE WORKSHOP BUILDING



ROOF TRUSS INTERIOR - WORKSHOP VARIANT



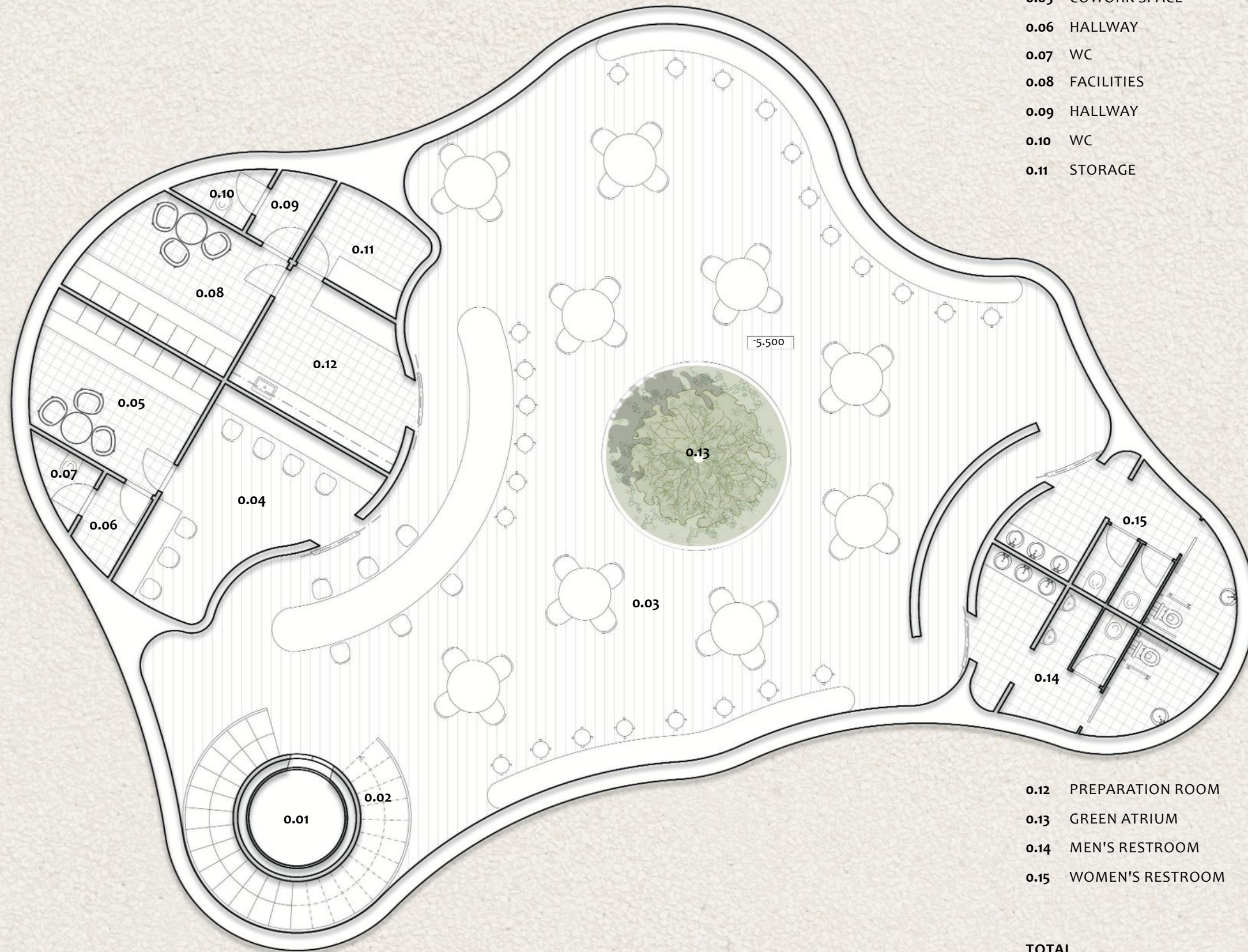
ROOF TRUSS INTERIOR - PRESENTATION VARIANT (LECTURE)



VIEW OF THE HIARTOV BUILDING FROM A TERRAIN PLATFORM

COWORK CAFE

COWORK CAFE FLOOR PLAN



0.01	ELEVATOR	6.54 m <sup>2</sup>
0.02	STAIRCASE	11.33m <sup>2</sup>
0.03	CAFE AREA	208.3 m <sup>2</sup>
0.04	COWORK SPACE	15.9m <sup>2</sup>
0.05	COWORK SPACE	11.77 m <sup>2</sup>
0.06	HALLWAY	2.23 m <sup>2</sup>
0.07	WC	1.75 m <sup>2</sup>
0.08	FACILITIES	11.8 m <sup>2</sup>
0.09	HALLWAY	2.23 m <sup>2</sup>
0.10	WC	1.75 m <sup>2</sup>
0.11	STORAGE	5.17 m <sup>2</sup>

0.12	PREPARATION ROOM	11.04 m <sup>2</sup>
0.13	GREEN ATRIUM	13.08 m <sup>2</sup>
0.14	MEN'S RESTROOM	14.33 m <sup>2</sup>
0.15	WOMEN'S RESTROOM	14.12 m <sup>2</sup>

**TOTAL** 331.34 m<sup>2</sup>



COWORK CAFE INTERIOR



-5.500

SECTION THROUGH THE CAFE

SCALE 1:200



COWORK CAFE INTERIOR



COWORK CAFE INTERIOR

# ACCOMPANYING REPORT

## OVERALL SITE CONCEPT

The proposal for the revitalization of the Medený Hámor site focuses on the comprehensive renewal of public space, the functional adjustment of existing buildings, the landscape concept of the area, and the design of individual structures. The area is currently in a significantly neglected state, despite its historical value and importance as a former center of copper processing. The goal of the proposal is to restore the identity of this place, increase the quality of the environment, and reintegrate it into urban life. The basic principle of the design is a significant increase in the green coefficient in the area and the creation of a continuous landscape structure that naturally flows through the entire public space. The design works with amorphous green forms that connect individual parts of the complex, soften the spatial structure, and create new recreational and community zones. Buildings registered as national cultural monuments are reconstructed in accordance with heritage protection principles, with an emphasis on preserving their historical and architectural value. Other buildings that are not subject to heritage protection are revitalized in the spirit of the motto "Let's make Medený Hámor copper again," thereby emphasizing the continuity of the site's historical legacy in a contemporary architectural interpretation. A new green square is being created in the forecourt of the buildings, which serves as the main social space of the area. It includes a fountain and gradually expanding elements of greenery that visually and functionally connect Medený Hámor with the Empress Sisi park. The park is also part of the revitalization proposal, creating a connected system of public green spaces. A cafe is inserted into the underground of the square, which activates the public space and creates a new meeting place. The design also connects the area with the embankment, which is also revitalized and supplemented with a seating staircase and new public spaces oriented towards the water. In the nooks between existing buildings, smaller community spaces are emerging, supporting social interaction and daily use of the area.

## LANDSCAPE CONCEPT OF THE AREA

The landscape concept of the design is based on the idea of gradual revitalization of the neglected area through layered greenery, which creates a natural transition between architectural objects, public space, and the surrounding landscape. The chosen vegetation composition respects local climatic and soil conditions and emphasizes low maintenance, ecological stability, and year-round visual quality of the space. The skeletal greenery of the area consists of deciduous trees, mainly small-leaved lime (*Tilia cordata*) and Norway maple (*Acer platanoides*), which are traditional tree species of the Central European environment. These trees create a shading layer, define the main recreational spaces, and support the microclimatic comfort of the area. At the same time, they refer to the historical character of the place and its relationship to the surrounding landscape. The shrub layer is complemented by species such as Japanese deutzia (*Deutzia crenata/japonica*), common privet (*Ligustrum vulgare*), and red osier dogwood (*Cornus sericea*). This layer fulfills not only an aesthetic but also a functional role – it helps to divide the space, creates semi-public and community nooks between buildings, and improves the biodiversity of the area. The color of the leaves and flowers ensures the seasonal variability of the space. The lower vegetation layer consists of perennials and ornamental grasses, especially shrubby cinquefoil (*Potentilla fruticosa*), glossy honeysuckle (*Lonicera nitida*), and zebra grass (*Miscanthus sinensis* 'Zebrinus'). These species are used to create amorphous green structures that flow smoothly through the public space, soften hard paved surfaces, and visually connect individual functional units. Grass areas are designed with a combination of tall fescue (*Festuca arundinacea*) and low-maintenance lawns, which allow for recreational use but also withstand higher loads. The grasses are complemented in places by extensive green areas with a natural character, which support the ecological stability of the territory. The overall landscape concept works with the principle of greenery "overgrowing" between the architecture and the public space. Greenery becomes the main connecting element between Medený Hámor, the revitalized Empress Sisi Park, and the embankment. The result is a fluid, layered, and ecologically valuable landscape structure that supports the recreational character of the area and restores its relationship to the natural environment.

## PUBLIC SPACE CONCEPT

The main public space of the area is a new green square in front of the Medený Hámor buildings. It is formed by soft curves of paved surfaces and green islands, which allow for flexible use of the space for everyday leisure as well as social events. A dominant element of the square is a fountain, which acts as a landmark, a meeting place, and also as a microclimatic element cooling the space during the summer months. Paved surfaces are designed with an emphasis on accessibility and natural pedestrian movement. Organic lines of paths lead visitors through the area without sharp boundaries between movement and leisure, thereby encouraging spontaneous use of the space. In places where paths widen, recreational areas are created, complemented by mobile and fixed seating made of natural materials, which allows for a variable arrangement of the space. The public spaces include several types of seating – from mobile urban furniture to integrated stone benches and recreational stairs. The recreational staircase, situated towards the embankment, creates a natural transition between the elevation levels of the area and also serves as an informal amphitheater for relaxation, meetings, or smaller cultural events. In nooks between the buildings and in contact with the workshops, smaller community spaces with a quieter character are created. These spaces are complemented by an artwork that reflects the industrial history of copper processing and strengthens the identity of the place. The public space thus acquires not only a recreational but also a cultural-educational function. An important part of the concept is the work with light. Public lighting is solved by several types of luminaires – from classic park lighting, through linear and point elements integrated into the paths, to hanging and illuminating elements at the café and in the front spaces of the buildings. Light highlights the curves of the space, navigates movement, and creates a pleasant evening atmosphere without light pollution.

## WORKSHOP BUILDING CONCEPT

The workshop building represents one of the key functional elements of the revitalized Medený Hámor area. Its concept follows the historical character of the place as a center of production and material processing, while reinterpreting this tradition in the contemporary context of education, craft, and public presentation of creation. The entrance to the building is led through an entrance presentation space, which serves as an interface between the public exterior space and the inner world of the workshops. This space allows for visitor orientation, short-term stays, and the presentation of current activities taking place in the building. The main functional content of the ground floor consists of workshop and exhibition spaces, intended for practical creation, craft activities, and smaller educational events. The ground floor also includes sanitary and technical facilities, including an accessible toilet, storage spaces, and auxiliary rooms, which ensure the full functioning of the building. The layout respects the principles of accessibility and allows for comfortable movement for all users. The vertical dominant of the building is a staircase with a stair gallery, which connects the ground floor with the space under the roof truss. This element has not only a communicative but also a spatial and experiential function – it allows for the perception of the volume of the historical roof structure and creates a visual connection between the individual levels of the building. The space under the roof is conceived as a generous open workshop space with the possibility of variable use. The preservation and exposure of the roof structure emphasizes the industrial character of the building and refers to the original production function of Medený Hámor. Supplementary storage spaces are situated so as not to disturb the main open space while ensuring its functional support. The workshop building is in a direct relationship with the public exterior space. The front spaces of the workshops are complemented by paved surfaces and recreational zones, which allow for the expansion of workshop activities into the exterior, informal meetings, and the presentation of the results of creation.





