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Le altre montagne

Les autres montagnes / Die anderen Berge
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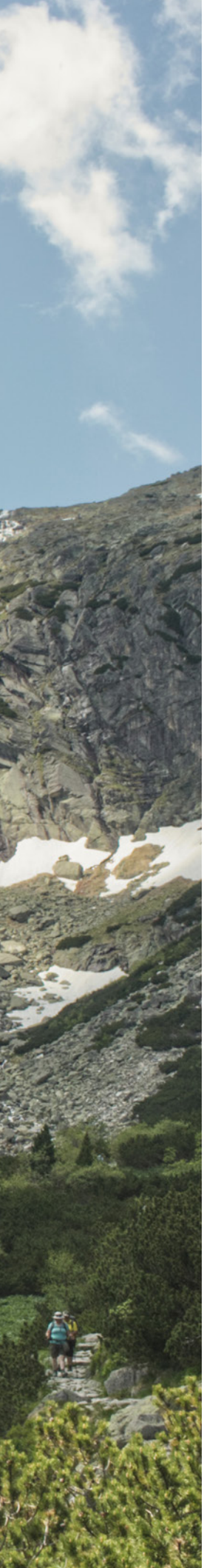
Indice dei contenuti
Contents

3. Memoria

adelina **picone**/vincenzo **te**
daniele **ronsivalle**/antonell
francesco **marras**/matteo **t**
sofia **nannini**/yujin **hirase**/
aleksander **saša ostan**/dari
maja **momirov**/robert jonat
mária **novotná**

nore/katia **fabbricatti**/
o **sanna**/stefano **cadoni**/
empestini/cristian **dallere**/
icolas **del rio**/skye **sturm**/
o **kristić**/andrej **strehovec**/
nan **loher**/eltjana **shkreli**/

3. MEMORIA



Tatras Phoenix. Restoration Architecture in the alpine environment of the High Tatras

The architectural concepts of the High Tatras region reside mainly in the foothills, where they form the basis of mountain tourism. On the exposed terrain of the Tatra Mountains there are huts that were once the result of craftsmanship, but today there is an increased concentration of architectural interest. We are focusing on architectural design in the context of adapting the typology to the visitor's needs or in response to the challenges of extreme environments. The focus involves the structural alteration, restoration or reconstruction of a building that represents an architectural discussion of the alpine environment. The huts under study trace the colonization of different vegetation zones and the different typological standards of the hut. The architectural planning process represents an example of restoration of a post-war modernism work, its reconstruction into a new form and the response to the problem of avalanches in the alpine environment. Through the prism of the social situation and technological innovations, we explore the transformation of the hut typology and its relationship to its setting. At the same time, we look for a connection to the original building destroyed by fire or avalanche or a reflection on regionalism or the general architectural discourse. The article presents a brief introduction to the architectural scene in the High Tatra region from the perspective of socio-political changes. The main question was: what principles does architecture apply in a high mountain environment? Differences and innovations are sought in the context of design in the foothills and urbanised areas, as well as in the context of the social situation and the authors of the project themselves.

Mária Novotná

She graduated in architecture at the Academy of Fine Art and Design in Bratislava. Currently, she is a PhD student at the Faculty of Architecture and Design STU in Bratislava, where her research is focused on modernist architecture in the mountains of Slovakia and their contemporary adaptations.

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Keywords

High Tatras, hut, alpine architecture, reconstruction, contemporary architecture, modernism.

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High Tatras, Europe's smallest mountains, form Slovakia's northern border and frame the northern part of the Carpathian Arc. Throughout history, this high mountain environment has been subject to several state regimes. Until World War I, it was part of the Austro-Hungarian Monarchy and the highest mountain range of the Hungarian Kingdom; in the interwar period, the High Tatras became the alpine territory of Czechoslovakia. During the years of World War II, the mountains of the Slovak state were occupied by partisans and refugees, but also by German soldiers. After the war, Czechoslovakia was restored, but the High Tatras became an area of interest for the development of mass recreation, and nationalized enterprises became a place to grow a socialist society.

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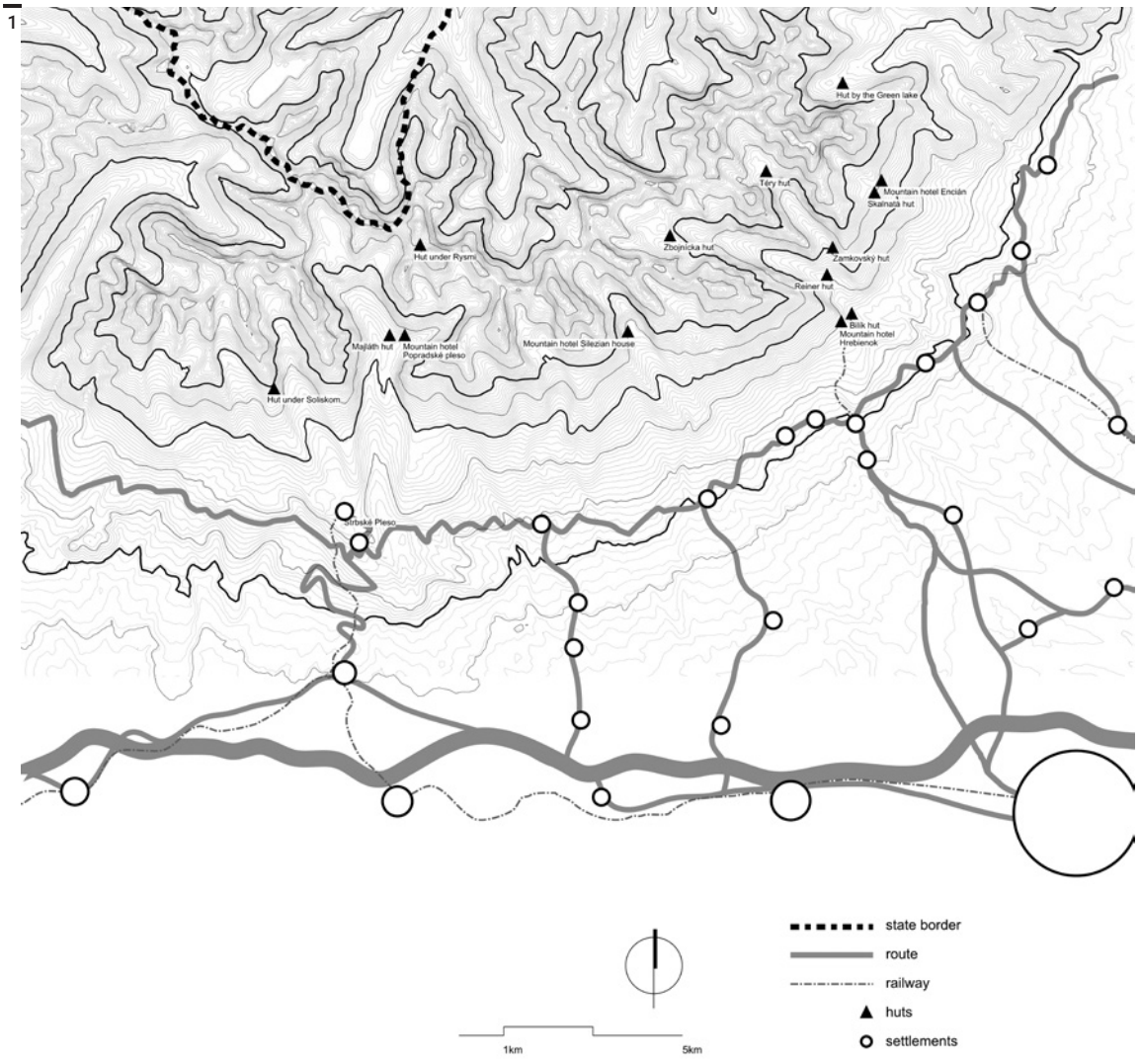
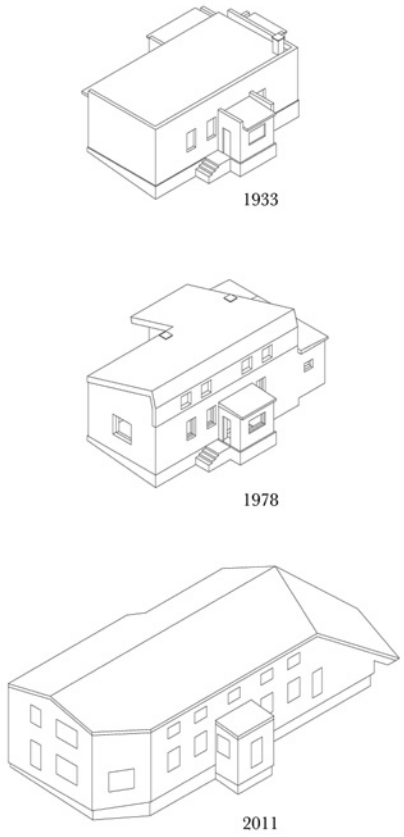


All images and photographs are made by Mária Novotná.

Opening picture
Alpine terrain of High Tatras; Little Cold Valley 2020.

Fig. 1
Map of High Tatras.

2



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The Velvet Revolution in 1989, democracy, the opening of borders and the subsequent (peaceful) division of the country into the Czech Republic and Slovakia caused, privatization and the restitution of property on the one hand, a slight loss of interest in the "national" mountains on the other. This phenomenon of temporary oblivion changed after 2004 when Slovakia joined the EU, and most of the Tatra forests disappeared after the devastating storm Elizabeth.

The frequent changes in the state system and the absence of original settlement structures caused the architecture of Tatra to become significantly international. The first architects did not have a local reference point on which to build but used models from the environment of the Alps and Budapest (Moravčíková, 2013). Building activity in the area of the High Tatras has been connected with the development of tourism, spas, hiking, entertainment and winter sports since its very beginnings. The current architectural discourse reflects the effort to restore Tatra architecture to its former glory. Long neglected buildings needed to be renovated. At the same time, the ego of the builders had to leave a trace of their contribution with an expression of architecture that was subject to the current short-term trends in the tastes of the average visitor. Of the three main periods – the eclectic 19th century, the functionalist interwar and the post-war modernist – investors only treated the first one with respect. Not only did they start restoring timbered buildings of imported Alpine style, but the objects of the exceptional architecture of the later periods were lost under the overlay of false façades made of polystyrene and nostalgic aesthetics. Moreover, objects that, however valuable, did not suit the activities of investors, began to disappear completely. Nowadays, the foothills of the High Tatras, which form the backdrop for alpine tourism, is a sort of Disneyland with apartments of a compressed urban layout devoid of architectural quality.

Just like the Alps, the Tatra heights, saddles, and peaks have been the destination of adventurers since the times of Romanticism. To protect them, a network of tourist shelters was built, separated from the urban structure of the foothills. The shelters, which later became full-fledged huts, were not the focus of architects or the architectural discourse. The simplicity of the constructions derived from a combination of limited possibilities of craftsmanship, difficulty of the terrain and locally available building materials. Redundancies, such as ornaments, was reduced to a minimum, and the layout to bare necessity. However, the lack of knowledge and experience in building objects in high mountain conditions resulted in low technical quality,

Fig. 2
Evolution of the Hut under Mt. Rysy, isometry is showing the change of the mass.

Fig. 3
Hut under Mt. Rysy, the south-west elevation.

4

frequent damages and the need for numerous repairs. The first hut that changed this paradigm was Téry's hut by architect Gedeon Majunke in 1899. In its construction, its combination of traditional techniques, innovative materials and proto-modernist solutions resisted the historicizing influences of foothill architecture (Novotná, 2022). At the time, it was the highest hut in the High Tatras. It was built by the Hungarian Tourist Club and was de facto the highest building in the entire Kingdom of Hungary. In the 1930s, the Czechoslovak Tourist Club managed to build what is now the highest hut, the Hut at the foot of Mt. Rysy, the highest in Czechoslovakia. The choice of location for mountaineering facilities was unfortunate, as it was in the avalanche-prone hillside, resulting in frequent construction changes. Another architectural intervention in the alpine environment of the High Tatras did not occur until the late 1950s. In the forest vegetation zone, a large-capacity hut was built by the architects Ferdinand Čapka and Ladislav Bauer in the style of the retreating socialist modernism, strongly inspired by the folk tradition (Dulla, 2019). By then, the tourist board no longer existed, and the huts had been nationalized and looked after by various state enterprises.

Fig. 4
Hut under Mt. Rysy, the north-east elevation.

Nevertheless, in the 1960s, the Czech architect Jaromír Sirotek succeeded in reconstructing the burnt-out building of the Silesian House according to the architectural forms of post-war modernism. Other important architectural designs of the second half of the last century remained on paper. One such project concerned a burnt-out hut at the upper edge of the forest: the Kežmarská hut. For it, three design studies were prepared in the 1980s, but none were built. The non-profit organization and the municipality worked out an architectural competition in 2014, but the realization has not yet occurred (Kežmarská chata, 2013).

The huts have generally resisted the architectural discourse of the foothills and the city. The construction of alpine shelters and huts began as architect-less creations with the intent of a functional minimum resulting from necessity, simplicity and craft, rather than philosophy or trends. Throughout the 20th century, builders sought the ideal balance between economy, weight, time and durability. The investors could not afford significant investments or long-lasting renovations. They had to take advantage of a climatic window to build or reconstruct a hut, which in the worst case only lasted four months. Helicopters were considered

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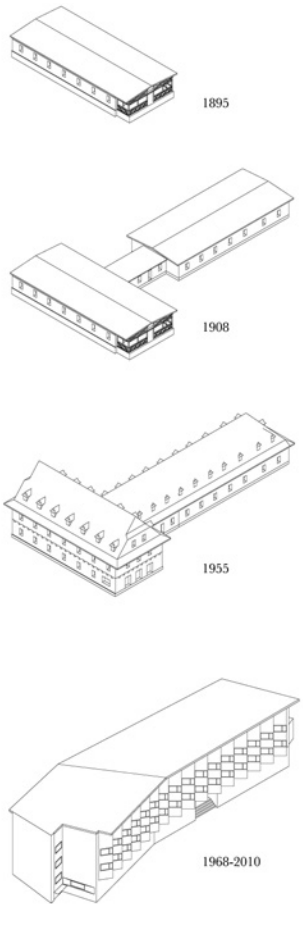

Fig. 5
The Silesian house in Velická valley.

Fig. 6
Evolution of the Silesian house, isometry is showing the change of the mass.

expensive solutions for lifting materials but have been occasionally used since the 1970s. Most of the material was transported by mountain porters. These aspects are still relevant today, although the huts reflect more economic compromises, bringing them closer to both ordinary and foothill construction. The growing interest of tourists influences the current status of Tatra huts in the alpine environment, which is directly related to the construction activities to expand capacity and improve services. The law of the national park prohibits the construction of new objects. These activities are sometimes in conflict with the ideas of activists, conservationists and architects, whose projects aim at the symbiosis of the environment and its built elements. The debate is thus divided into two factions where some want to build, expand, do business, innovate, and others rather protect, conserve and not build.

The case studies show an exceptional approach to building in the high mountain terrain of the Tatras. Differences such as the investor, type, environment, and terrain also divide the architectural approach. One is a new building based on the original design, and the other is the restoration of an existing building. The different problems they address, avalanche

7

Fig. 7
The zig-zag façade of the Silesian house within the context of the environment.

resistance and the improvement of the general conditions of the building, unite them in the representation of the 21st century architectural discourse in Tatra architecture.

The hut under Mt. Rysy, originally of local granite, was built by the experienced construction company of Jozef Šašinka in 1932-1933 (Bohuš, 2011). It underwent a significant reconstruction in the 1970s, when architects Milan Marenčák and Igor Petro realized a steel-plated superstructure (Repka, 1978). It was intended to serve as independent dormitory and at the same time to resist the pressure of avalanches. At the turn of the millennium, it was hit by avalanches, which destroyed the roof and severely damaged the statics of the walls. A complete reconstruction was undertaken, whose design and authorization process lasted from 2002 to 2011. Officials from the national park and the ministry did not allow the hut to be built in another location that was safer in terms of avalanche danger.

Therefore, architect Rudolf Kruliac and structural engineer Miroslav Mačičák designed a snow-proof bunker. An "avalanche tail" was added to the reconstructed original mass of the hut, which breaks up the rolling snow and absorbs the force of the avalanche. Despite the innovative nature of this solution, the conventionality of the materials used is surprising. Instead of the lightweight wooden construction often used in the Alps or the local stone masonry, a composition of aerated concrete bricks was used. The nature conservationists wanted the hut to blend in with its surroundings as much as possible and requested that the façade be clad in rubble stone with no distinctive coloured features. However, the importance of the hut's visibility in fog and storms proved to be more critical, so the hut was left with distinctive red shutters. The façade cladding was made of highly durable titanium and zinc sheeting, whose properties eliminate humidity problems in the structure. The form of the building is partly based on the function of the avalanche tail, but from a southwestern perspective, it follows the tradition of vernacular houses with gabled roofs. This innovative design is exceptional in the context of architect Kruliac's work, which oscillates between the restoration of 19th century buildings and their imitations.

A successful example is the renovation of the Silesian House. The project, carried out in 2010 by the Bratislava studio GFI, is almost a heritage restoration. The architects renovated a post-war modernist building (1968) in a high-altitude envi-

ronment, adapting it to contemporary standards and modernizing the interior furnishings. They read the architectural values that Jaromír Sirotek put into the building. Sirotek used construction techniques similar to those in the foothills, like the structure of steel frames and reinforced concrete. The zig-zag façade emphasises the exceptional views and frames the panorama from the room. The timber cladding responds to the 'mountainousness' or 'regionality' of the building. However, it should be underlined that timber as a building material does not occur naturally above the forest zone. Sirotek's construction carried with it the aesthetics of brutalist buildings, where traces of formwork were visible and subtle horizontal structures contrasted with the massiveness of the mountains. Those values were lost in the GFI reconstruction, which was subjected to new standards. Other external qualities were retained or enhanced, such as the breaking point of the mass. The Silesian house that Sirotek built on the site of the original one partly follows the original plan trace. However, the compact modernist composition was not possible due to the topology of the terrain, which is why the mass breaks in the middle and deviates from the slope. GFI architects marked this point of the mass break with a cladding. The choice of material was necessary due to fire protection requirements, but its admitted solution was a pleasant surprise. After all, the change in layout for which the GFI architects were responsible is in line with today's visitor's needs for mountain recreation (Bujna, 2013). The constantly poorly lit lounge area of the dining room and reception area is subject to criticism, but this problem has been present since the original construction in 1895. The mountain hut was originally built by the Silezian section of the Carpathian tourist club of Wroclaw. In 1995, mountain hotel Silezan house was visited by Pope John Paul II. ■

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