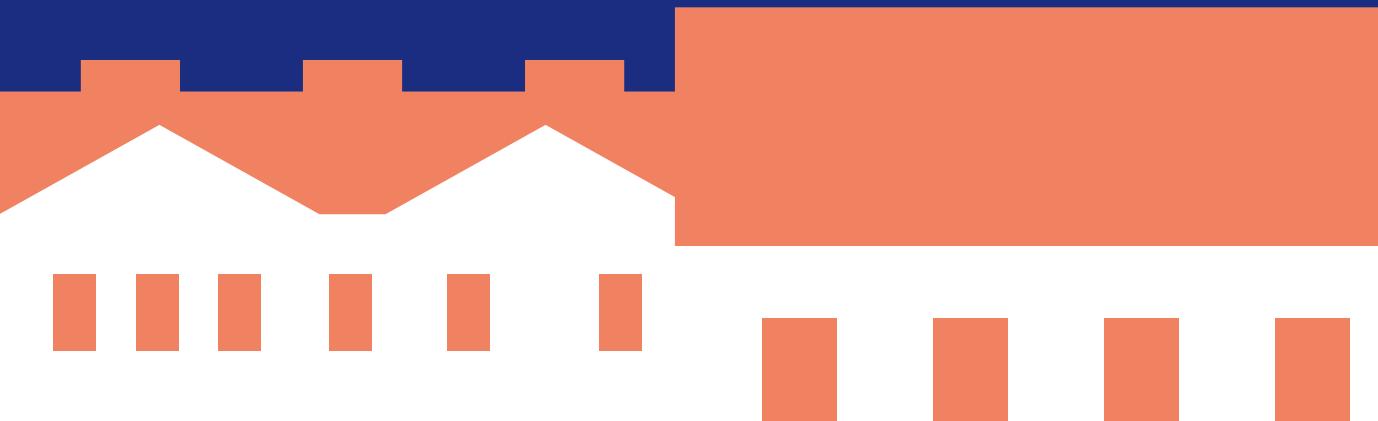


Medený hámor in Banská Bystrica



How a Witness of the Ancient Past Could Come to Life



**When a 500-year-old
Portuguese shipwreck was
found in Namibia a few
years ago, it contained about
22 tons of copper, which was
proven to have come from
the Banská Bystrica copper
mining company¹ twelve
thousand kilometres away.
Unbelievable, isn't it?**

¹ Discovery and story of copper mining and metallurgy is
portrayed in the movie *Cesty medi* (*The Voyages of Copper*)
(2019) directed by Stanislav Manca.

Today, few people can imagine that Medený hámor was a substantial production site for world's copper, which was exported via European ports to virtually all over the world. The copper manufactory, located in the dilapidated site today, was in continuous operation for 500 years. There are few places in Slovakia that are similarly significant for their industrial history. Yet this technical commemoration of immense value has been in disrepair for years.

We can't reconcile ourselves to leaving this treasure of industrialization to the natural forces and not exploring all the stories of Medený hámor. As well as the ZA! MEDENÝ HÁMOR Civic Association, we have undertaken a daunting task – to help preserve Medený hámor and blend it with life of the town. In addition to events and popularization of Banská Bystrica's industrial past, in cooperation with experts, historians, memorials and other enthusiasts, we have formulated steps presented in this brochure to save Medený hámor.

The Unparalleled Company

Medený hámor of Banská Bystrica began its activity in 1496 on the foundations of the older Kollmann's smelter. It was a joint investment of Jan Thurzo and the Augsburg merchant Jakub Fugger, who in 1494 and 1495 signed contracts for a joint Banská Bystrica copper company (Neusohler Kupferhandel) and formed the so-called Thurzo-Fugger's Company. The existence of Medený hámor was linked to its geographical location – in the centre of an area rich in copper ores, which consisted of the villages of Tajov, Harmanec, Špania Dolina, Piesky (Sandberg), Staré Hory, Richtárova, and Ľubietová.



Photograph of Medený hámor about 1900. In the foreground is the chapel of the Calvary trail from Banská Bystrica to Špania dolina.

Source: Kubičková, Klára: *Banskobystrická med. Sprievodca produktom Fuggerovská cesta. Stručné dejiny a návrh na záchranu hmotných pamiatok nášho najcennejšieho technického kultúrneho dedičstva* (2018). Published for the Banská Bystrica GeoPark, o. z. by the INAK graphic studio.

Medený hámor was one of the oldest manufactories that its equipment represented a direct developmental precursor of capitalist-type industrial production and was absolutely pioneering for that time. The Banská Bystrica's Copperworks, and Medený hámor as a part of it can be considered a centralised manufactory and one of the first enterprises in early medieval Europe at that time. Technology introduced at the end of the 15th century by the Thurzo-Fugger's Company was first applied in the copper metallurgy in a large-scale production in Banská Bystrica. The technology of copper refining by electrolysis, introduced here in 1891, was also pioneering and made it possible to obtain almost completely pure copper.



The painter Dominik Skutezky authentically captured processing of copper and forging copper products in hámor. The *ťažký chlieb* (Harsh Bread) painting from 1912 is the property of the Central Slovak Gallery.

↗ In the newly created Thurzo-Fugger's interactive exhibition in the Barbican of Banská Bystrica, one can virtually walk around the forging areas of the Copperworks at the time of its greatest glory or try to pick up a real copper ingot.

By the term "hámor", we can imagine a large forge where various consumer goods were forged from copper, especially plates, boilers, or tableware. Hámor also produced copper "cány" (rods) – bars that were cut into copper plates. These were then used to mint coins. Copper wire or copper sheets were also produced here, and were used to cover the roofs of houses, especially churches. Copper ingots were also produced in hámor. One may think of them as hemispherical, bar or brick-shaped objects of exact weight and standard size. They were thus ready for export all over the world. Copper was exported from the factory to Germany, Venice, the Netherlands, Spain, as well as China, India, Africa and South America. Each copper ingot was marked by the manufacturing company to easily identify its origin.

The company included a complex of mining, metallurgical and other facilities for the production and processing of copper in Banská Bystrica and its surroundings (Špania Dolina, Piesky, Staré Hory, Moštenica, Tajov, Harmanec, Baláže, and Liptovské Revúce). Since the end of the 15th century to the mid-18th century, the company was considered one of the most important in Europe. At the time of the greatest production boom, the company employed more than 2,000 workers. During its entire lifetime, it produced around 300,000 tonnes of copper and 520 tonnes of silver.

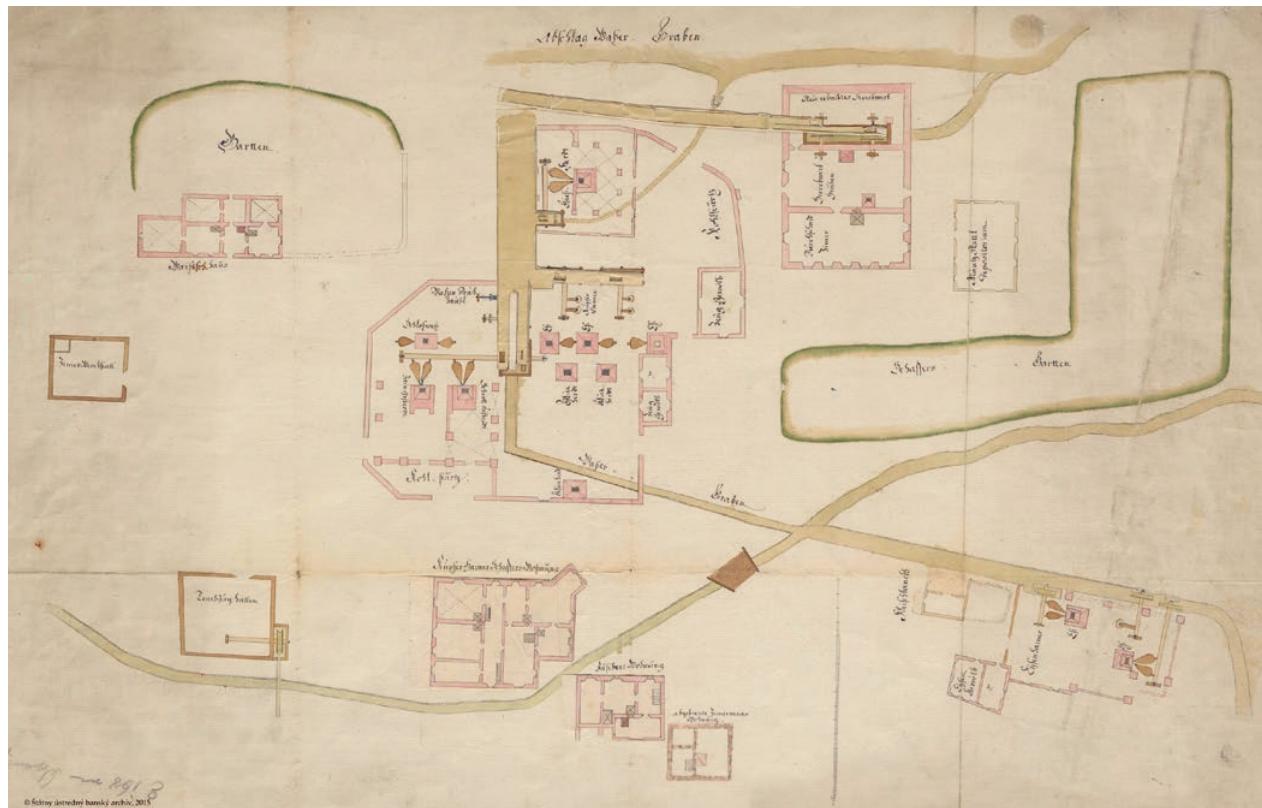
When talking about Medený hámor, it is not meant a single building, but the whole complex with several parts, technological units, buildings from different periods or a raceway. In addition to the most important production buildings, the Medený hámor site also contained carpenters' and grinders' workshops, and warehouses for manufactured goods, timber, and charcoal, as well as the dwellings of the master craftsman, workshop masters, journeymen, and guards. There are currently four historic buildings and a water dam on the site, which are legally protected. The monuments are complemented with newer buildings and until recently, for example, a petrol station operated on the site.



The site of Medený hámor and its national cultural monuments:

- A Fireplace Building (15th century)
- B Raceway Construction (15th century)
- C Workshop Building (mid-19th century)
- D Laboratory Building (end of the 19th century)
- E Electrolysis Building (late 19th century)

Photo: Martin Kvietok



The oldest plan of Medený hámor from the 1860s. The original is located in the Slovak National Archive – specialized department Slovak Mining Archive in Banská Štiavnica, HKG fund.

Body of the whole company was the wooden bed water distribution system at roof level. Water was the only energy, which powered the production equipment, and its stream had to be able to turn fifteen water wheels. The water wheels set the forge hammers in motion and powered the blowing bellows of smelting and forge furnaces. In the 16th century, advanced water supply system, so-called "Špaňodolinský vodovod" (aqueduct of Špania dolina), was built to supply water to mining and metallurgical operations, and by the early 18th century its length had exceeded 30 kilometres.

You can learn about historical mining technologies in Špania Dolina. At the Historical School of Prof. Jozef Mistrík, there is a working scale model of a stupa (ore crusher). In the local copper museum, there is also a partial model of 1926's Medený hámor, which was created while documenting Czechoslovak technical monuments.



Based on the memorials², we know that even during the socialist era, valuable metals were extracted in the site of Medený hámor by electrolysis technology. Copper, zinc, manganese, or nickel was separated from the waste that was supplied by factories to the site. About 50 employees worked nonstop to produce pure, high-quality metals. Research and development of new technologies for the extraction of chemicals by electrolysis was also carried out there. After the revolution, production continued on a smaller scale, producing, for example, blue feldspar or antimony. Industrial production at the site of Medený hámor ended by 2000. In 2013, the site was sold by the state-owned company Rudné Bane to private ownership. However, the production did not start again, on the contrary, the area began to deteriorate and some of the parts (despite the monument protection) were demolished.

2 We have conducted an interview and inspection with a former employee, Jozef Dráb, who worked at the site from 1 January 1979 to 1 January 2000.

Preservation Steps

On a regional and European scale, Medený hámor is one of the most important artifacts of mining and metallurgical history. Today, when we walk around the oldest parts of Medený hámor and see traces of malachite, copper carbonate, literally soaked into the walls, or touch the remains of the chains used to lift products from the boilers, it makes us think about the future of the site and the responsibility to preserve it for future generations.

In 2021, we became members of a working group appointed by the Mayor of Banská Bystrica, Ján Nosko, with the intention of involving the public, civil and private sector entities, and other partners in the process of creating a plan for the use of the buildings.

As a result of work, mainly of civil activists, experts and politicians who have been appealing for years for the preservation of Medený hámor, the oldest part of the dilapidated complex, the fireplace building and workshops were purchased by the town of Banská Bystrica in 2021. Although the other parts remain in the hands of private owners for the time being, a debate has been opened on what to do with the complex.



From the meeting of the working group Za záchrany Medeného hámra at the Municipal Office Banská Bystrica

What Does the Public Imagine in Hámor?

Since we believe that only a plan that is developed in cooperation with the public, institutions and experts can be widely, agreed, accepted and sustainable, we have initiated an independent participatory process led by the Spolka association. Alongside with various stakeholders and the city of Banská Bystrica, we sought answers to the questions *What next for Medený hámor?* and *How should it function after the restoration?*



Participatory workshop with the participation of different agents

↗ Physical collection of questionnaires in the State Scientific Library



The participatory process consisted of three data collection methods – a questionnaire involving 1,189 respondents, in-depth interviews with six representatives of different stakeholders, and a workshop with agents in form of a planning board game.

In the questionnaire, the public most strongly associates the character of hámor with the mining and metallurgical pride of the town and region. The second strongest agreement being that hámor symbolises development and growth of the town, entrepreneurship, and industrial architecture. Respondents also strongly relates to innovation in both the questionnaire and interviews. There is also a strong element of maintaining the historical function of creating innovation in economic or environmental sustainability.

When considering the function of hámor, there was a tendency among the respondents towards an educational function or a form of a so-called point of contact or crossroads – between generations, the city and the surrounding area, local history, and the future.

The third most mentioned area was various cultural activities. Both in the questionnaire and interviews, respondents were aware of the historic value and importance of site restoration. Other responses suggest that the site should offer a varied functions – in one part it should be a quiet place to relax in the shade of the green, in another part the space should, on the contrary, be lively, full of people, multigenerational.

According to the Questionnaire Respondents, which Example from Abroad Most Closely Relates to Atmosphere of the Future Medený hámor?



Zollverein Park

It represents the preservation and restoration of a monument and an authentic reconstruction. The chosen example shows the industrial form of hámor in relation to its „genius loci“. It is an expression of continuity, the most realistic idea, the immutability of the architectural form. The exterior form does not, however, exclude a variety of uses inside.

Source: landezine.com



Farum Midtpunkt

A site with lots of green and tranquillity. Significant number of respondents cited climate change as a reason – green as a cooling element or an important element of water retention in the soil. It represents linking industry with nature, as progress should always be in harmony with nature, or referring to Banská Bystrica as a city not only industrial but also green.

Source: landezine.com



Tabačka Kulturfabrik

A space that is vivid on a daily basis, full of people (generations), a community place that allows people to come together. It has a 'character of its own' and is colourful, welcoming, relaxing, easy-going, informal (street art), but at the same time preserves the historic character of the monument. Many of the male and female respondents associated the space with culture or refreshment opportunities.

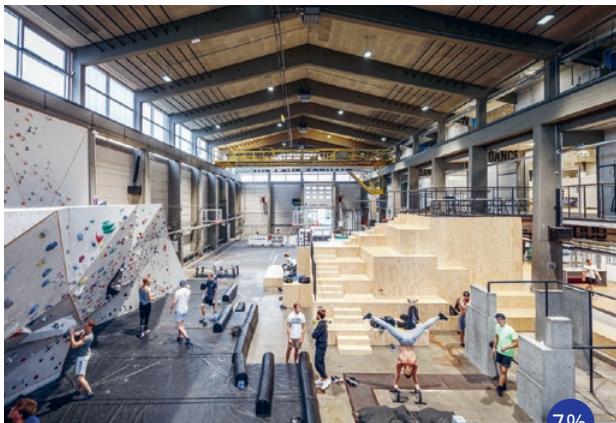


PC Caritas

A fusion of the new and the old. The old is here in the sense of the authentic, the untouched, without much intervention. Respondents prefer a spacious, soft, airy, and sensible space. They want to feel calm and relax, in connection with the green.

Source: arquitecturaviva.com

Photo: Filip Dujardin



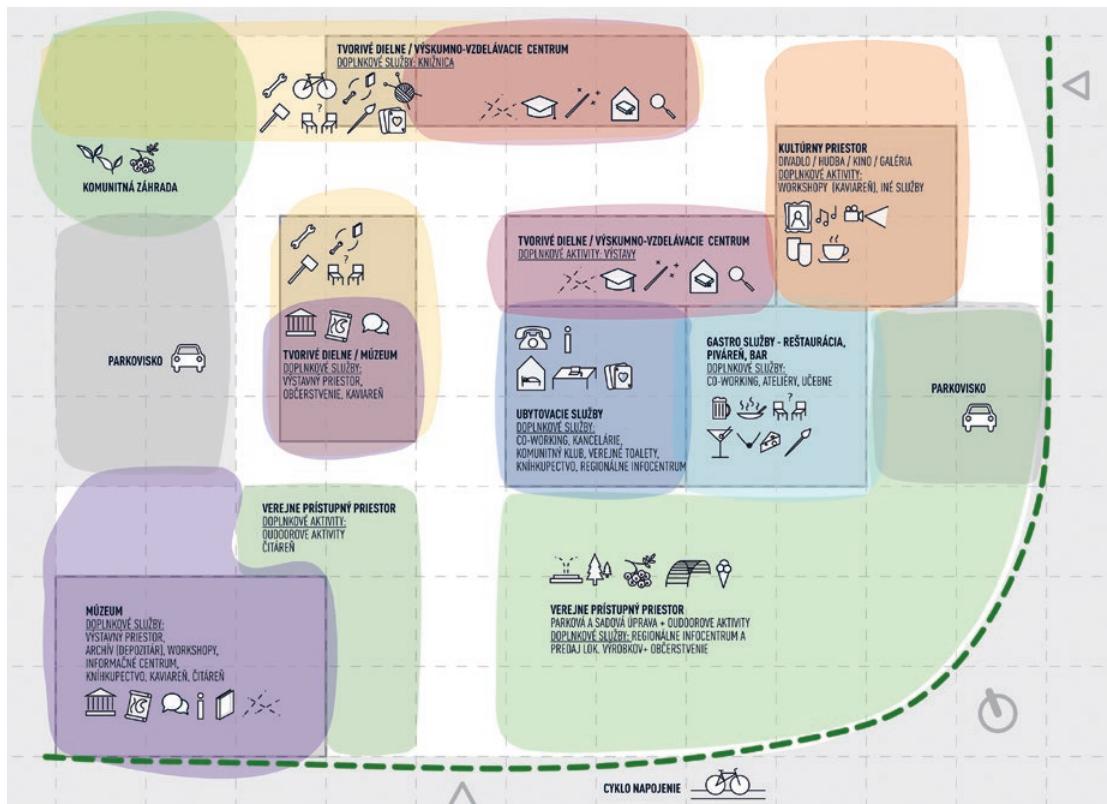
GAME Streetmekka Aalborg

Playful, vibrant used that well blends historic values with new services. The majority were in favour of a multi-sports centre for children and young people that is creative and allows for other activities such as exhibitions or museum.

Source: archdaily.com

What Kind of Activities Could be Held in Medený hámor? What Are the Target Groups? What Organisations or Individuals Would Manage these Activities and Buildings?

The most striking proposal for the future use of the site is a cultural and social centre that presents history as well as educates about history, metallurgy, or other sciences. Also in the planning game, scientific research, and cultural and social activities that are linked to the resolute history of the site and at the same time connected to existing networks of urban and regional significance prevailed.



Layout of the activities on the Medený hámor playground, created during a workshop with selected representatives of institutions and civil society. Source: *Budúcnosť Medeného hámra*. Activity report of Spolka association in contact with the public, 2021

In terms of administration, the respondents are inclined towards the local government (the city of Banská Bystrica with the support of the region) management. Regarding programme design and quality of renovation, they recall involvement of experts or active civil society.

Recommendations for the Future Character of the Medený hámor Site

Unity of Place and Story

The Historical Story of Copper in Banská Bystrica and Genius Loci

The world's past breathes between the walls of the buildings and outside, regarding whole region.

EXAMPLE: Museum and education address the historical contexts of mining, metallurgy, historical economy and innovation directly in the complex that embodies these historical facts.

Unified Approach to Restoration

Despite the different ownerships, considering development stages of the whole site and finding a balance between history and the present.

EXAMPLE: The city buys the whole site from private owners, creates a complete study, and restores the site; then delegates it to different administrators.

Innovation Should Continue to Be Backbone

As well as talking about many inventions that have been made in hámor, it is necessary to perceive the principle of innovation, i.e. not necessarily to repeat the examples used, but to lead by example. Let us not talk about innovation but remind ourselves of it through action.

EXAMPLE: Restored hámor should be an “active house” and create positive impact on the environment (green energy production).

Coexistence

Cooperation Between Local Institutions

Great project requires trust and attention to partnerships. Sharing responsibilities can reduce burden of a large investment.

EXAMPLE: City owns the whole building and covers its management, the museum will be managed in cooperation with Banská Bystrica Self-governing Region and Ministry of culture, the cultural and social centre will be managed by a non-profit organisation, the restaurant and co-working will be managed by private enterprises.

International Element and Routes to/from Banská Bystrica

The building allows considering connections to international historical, metallurgy, business, academic, cultural, and tourist (and other) networks.

EXAMPLE: Cooperation with the city of Augsburg, presentation at tourist fairs, international residencies from/to Banská Bystrica with topics related to Medený hámor, creation of a “copper heritage” consortium for applications in Erasmus+, Creative Europe, Urban Innovative Action, etc.

Home for Different Target Groups

Open and safe publicly accessible site for the widest possible range of people, animals, and plants in urban environment. The site offers enjoyment for variety of citizens, including vulnerable groups, seniors, families, immediate neighbours, and their needs.

EXAMPLE: There is a playground and benches, community garden, apple trees for people or rowan trees for birds. There is a source of drinking water and a public toilet. Snacks can be bought for a reasonable price.

Atmosphere

Space of Diverse Experience

Different parts of the campus should offer a variety of atmosphere – from vivid, intense outdoor and indoor gathering spaces to calm indoor and outdoor places of relaxation and learning.

EXAMPLE: Part of the site serves as an urbanised public place that allows cultural and social occasions to be held, in other parts there is space that allows staying in the shade, in the green. Emphasis on space for all generations (space to play, sit, eat, and relax).

Authenticity and Care

Authentic preservation and restoration of the original industrial character of the monument with emphasis on clarity and purity of the site.

EXAMPLE: New interventions are sensitive, dignified, and visible, but do not undermine the original architecture.

Sustainability

Affordable and Accessible Site

Connection to existing and proposed tourist routes, public and cycling transportation, or other forms of mainly so-called clean transport; availability of services.

EXAMPLE: The city-wide sustainable transport strategy considers Medený hámor an important target. The site is accessible 24/7.

Green Future of Medený hámor

When designing site restoration, including the buildings of hámor, we recommend implementing adaptation and mitigation measures to reduce effects of climate change on the town of Banská Bystrica.

EXAMPLE: Linking greener and industry as two distinctive identities of Banská Bystrica and as compensation for 500 years of pollution.
A water feature as a space for cooling, play and education.

Medený hámor Provides Many Stories

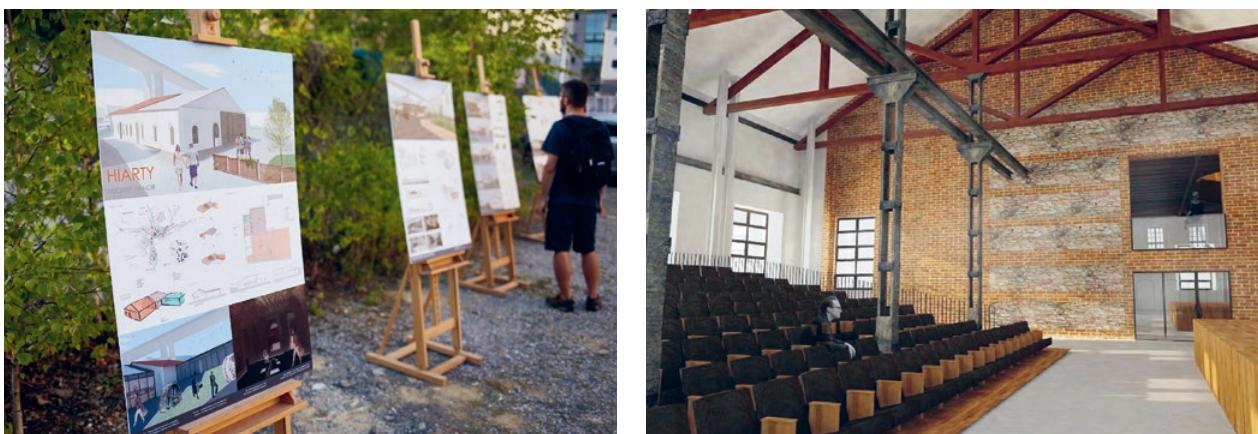
Polyfunction of content and form. Historical dimension also allows for distance in the form of a critical entry into history; the innovative perspective can serve as a tool to find sustainable model for financing operations.

EXAMPLE: Museum, cultural and social centre, an education centre, community centre, innovation hub, restaurant, playground, and park should work in symbiosis.

What Needs to be Done to Revive Medený hámor

Referring to Sprievodca produktom Fuggerovská cesta³ by Klára Kubičková, the heritage of metallurgy in Banská Bystrica and its surroundings represents ideal combination of protected landscape with fragments of technical monuments and living mining traditions (the Herrengrund Mining Brotherhood or the Libetha Mining and Metallurgical Association and their activities).

Historical materials from the mining archives, relevant literature, descriptions of historical production methods, as well as many years of research into the potential of the Medený hámor site by students of the Faculty of Architecture and Design of the Slovak University of Technology in Bratislava within the framework of studio work under the direction of Eva Králová are source of inspiration and basis for honest restoration.



Exhibition of students' works during the Nedele v Medenom hámri (Sundays in Medený hámor) (2022)

↗ Architectural study of Natália Galko Michalová

Sprievodca produktom... calls particularly for a multi-professional team (archaeologists, geologists, historians, conservationists, designers, restorers...) and a steering body, whose task would also be to network the agents, coordinate process, find financial resources and set up cooperation with potential partners (the Monument

³ Kubičková, Klára: *Banskobystrická med. Sprievodca produktom Fuggerovská cesta. Stručné dejiny a návrh na záchrannu hmotných pamiatok nášho najcennejšieho technického kultúrneho dedičstva* (2018). Published for the Banská Bystrica GeoPark, o. z. by the INAK graphic studio.



Board of the Slovak Republic, the Regional Monument Board, the Ministry of Culture of the Slovak Republic, the Ministry of the Environment of the Slovak Republic, the Ministry of Economy of the Slovak Republic, the Banská Bystrica Municipality, the City of Augsburg, universities, the third sector and private donors, for the research and preservation of the monuments of the Banská Bystrica's Medený hámor. Contact with international institutions in the field of industrial heritage conservation and collecting existing literature, documents and artefacts is also essential. Development of Medený hámor should be confirmed in all strategic materials of the local, regional, and state administration. Although, the 2016 initiative to inscribe the proto-industrialisation of copper metallurgy on the UNESCO World Heritage List was not successful, we propose to keep trying and obtain the European Heritage Label as well.

The first step in considering plan development is public agreement and alignment of private and public interests and intentions regarding the site. Intention, agreed upon by representatives of all stakeholders, experts, institutions, leaders, owners, and the public, should become the basis for an urban planning and architectural competition. Necessary basis for the competition is also an urban planning study, which should be reflected in the regulation of the whole site, urban development, and zoning plan.

It is crucial that the site is developed as a whole. Medený hámor is not just a single listed building, but a historical unit, whose links and connections are as valuable as fragments of the buildings. The logical functioning of the site as a whole is also important for financial sustainability, as commercial and non-commercial operations will support each other, and one will not be able to function well without the other. This should be the basis of financially sustainable economic model for the campus. Joint coordination is also essential in order to create one vibrant multifunctional and well-connected public place without fragmentation.

In addition to the process of participation and visioning, the first steps to save hámor include implementation of necessary research (archaeological, architectural, and historical), assessments and ensuring preservation so that the buildings do not deteriorate any further. In cooperation with the Regional Monument Board, conservation works must be carried out as soon as possible.



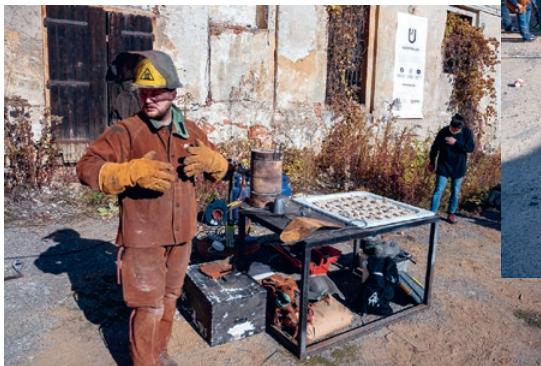
Photos from Events Organized by the Initiative and Later by ZA! Medený hámor Civic Association



Bus tour, exhibition, and discussion on christening of the *Map of Technical Monuments of Banská Bystrica* (2018)
Photo: Ivan Golembiovský, Jakub Havlík



Screening of *Cesty Medi*
(*The Voyages of Copper*)
movie at the amphitheatre and guided tour in
Medený hámor (2021)
Photo: Martin Dubovský



Event Neděla v Medenom hámri (Sunday in Medený hámor) (2021)
Photo: Martin Dubovský,
Róbert Ragan





Workshop cleaning
voluntary work (2022)
Photo: Martin Dubovský



Nedele v Medenom hámri
(Sundays in Medený hámor)
(2022)

Photo: Ivan Golembovský,
Hana Kasová



Members of ZA! Medený hámor
Civic Association

About the ZA! Medený hámor Civic Association



The founding member of the association, Juraj Havlík, has been working on the issue of Medený hámor since 2017 (then as part of his project at the Socrates Institute). Together with architect Natália Galko Michalová, who dealt with restoration of the site in her diploma thesis at the Faculty of Architecture and Design of the Slovak University of Technology in Bratislava, and the Čierne diery association, they participated in the creation of the first *Map of Technical Monuments of Banská Bystrica*. Since then, they have undertaken several activities, prepared the exhibition *Klíčenie industrializácie (Sprouting of Industrialization)*, organized several guided tours, discussions, and media appearances. Together with urban planner Lívia Gažová, and tourism and regional development expert Iveta Niňajová, they founded the civic association in 2021 to encourage restoration of Medený hámor.

Our Activities

2017

- Mapping of technical monuments in Banská Bystrica and its surroundings

2018

- Public appeal to save the Medený hámor site
- Initiating the first working group Za záchranu Medeného hámra (For the preservation of Medený hámor) in the town of Banská Bystrica
- Creating the first *Mapa technických pamiatok Banskej Bystrice (Map of Technical Monuments of Banská Bystrica)*
- Discussion, exhibition of works by Slovak University of Technology in Bratislava students and guided tour (Špania Dolina, Transmitter of Slovak National Uprising, Medený hámor, Herritz Brewery) on the occasion of christening the map
- Exhibition *Kličenie industrializácie (Sprouting of Industrialization)*

2020

- Extension of the initiative to save Medený hámor

2021

- Initiating the second working group Za záchranu Medeného hámra (For the preservation of Medený hámor) in the town of Banská Bystrica
- Establishment of ZA! Medený hámor Civic Association
- Initiating and co-organizing participatory process with the public to develop a plan for the future use of the Medený hámor site
- Screening of the films of *Cesty medi* (*The Voyages of Copper*) at the amphitheatre with a guided tour of Medený hámor
- *Nedele v Medenom hámri* (*Sunday in Medený hámor*) event with a bronze jewellery casting workshop, guided tour, and a concert
- Cooperation with the town of Banská Bystrica in applying for subsidies to focus on objects and necessary researches

2022

- Workshop cleaning voluntary work
- Involving volunteers in mapping the memorials and former workers of Medený hámor
- Three *Nedele v Medenom hámri* (*Sundays in Medený hámor*) events with guided tours, concerts, exhibition, and discussions
- Arranging meetings of representatives of the Ostrava industrial area Dolní Vítkovice and the Moravian-Silesian Region with Banská Bystrica representatives, Banská Bystrica Self-Governing Region representatives, and the public

www.zamedenyhamor.sk
facebook.com/zamedenyhamor

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MESTO BANSKÁ BYSTRICA
REALIZOVANÉ S FINANČNOU PODPOROU



