

# COAL HERITAGE

## RFCS Accompanying Measure Project

### NEWSLETTER

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## Step into the World of Miners: A Virtual Adventure

The micro-adventures initiative in the CoalHeritage Project offers short, engaging journeys through historic mining sites, steam engines, and transport systems. Designed for both virtual and physical exploration, these adventures feature mapped routes, key points of interest, and interactive elements.

Each adventure includes a concise guide with thematic narratives, logistics, and multimedia content. Standardized across regions, they provide a cohesive experience while adapting to local heritage. Through these journeys, we reconnect with Europe's industrial past and its transition towards a sustainable future.

The micro-adventures are accessible through CoalHeritage's European Visual Map Journal platform at the following link: <https://storymaps.arcgis.com/collections/987904b97d664cedb2ea4c161fb0f31e?item=8>

### GREECE

by Christina Karatrantou

Coal mining has played a defining role in Greece's industrial development, with Western Macedonia, Megalopoli, and Evia as key energy regions. Western Macedonia became the heart of Greece's lignite production, home to vast open-pit mines that powered the country's largest power plants, driving decades-long economic growth. In Evia, smaller but significant coal sites, like those in Aliveri, fueled local industries and contributed to regional development. Ptolemaida, located in W. Macedonia, has long been the center of Greece's lignite industry, supplying a significant portion of the country's electricity for decades. Among the key energy facilities, Kardia Power Plant was one of the largest Public Power Corporation lignite-fired power stations. Fueled by lignite from nearby mines, the plant played a crucial role in Greece's post-war industrialization and energy security.



Figure 1. Amyntaio Lignite Mining Site.

The Aliveri lignite mine, located 4 km north of Aliveri near the village of Agios Loukas, began operations in 1873. As one of Greece's earliest coal mines, it played a crucial role in the country's energy production. However, mining in the region faced significant challenges, including natural disasters, such as a major flood that caused severe damage to the facilities. Despite setbacks, the mine remained operational for decades. Today, the site stands as a historical landmark, reflecting both the achievements and hardships of Greece's coal-mining era.



Figure 2. Old industrial locomotive - Lignite mining facilities in the Prinias area.

Visiting these areas offers a unique glimpse into Greece's energy past and present. This journey reveals the country's industrial legacy and its transition towards a sustainable future.

### FRANCE

by Dr. Laurent Beccaletto

The Nord-Pas de Calais coalfield is situated in the north of France, lying at the western extremity of the coal basin of continental Europe. After the Ruhr Area in Germany, the Nord-Pas de Calais coalfield is the largest in north-west Europe. One of its defining features as a major coalfield is that it is entirely below ground. It is 120 kilometers long, 12 kilometers wide and 1.2 kilometers deep. Its geographical location places it at the heart of an administrative region, the Nord-Pas de Calais, which is today a major communications crossroads between Europe's main metropolitan centers.

The property comprises 17 collieries or significant vestiges of them, 21 headgear structures, 51 spoil heaps, 54 kilometers of former railway tracks, 3 railway stations, 124 estates of miners' housing, 45 schools and leisure facilities, 17 churches and chapels, 21 health facilities, the head offices of 3 mining companies and 4,000 hectares of landscape.

We present a micro-adventure entitled “From west to east - a journey through the Nord-Pas de Calais mining basin (UNESCO World Heritage Site)”.

It comprises 14 stages across the coalfield and includes some of its most emblematic assets (from west to east):

- (1) Cité des électriciens, (2) 74 et 74a twins spoil heaps, (3) 11/19 colliery, (4) headgear structure of colliery no.3a of Lens Mining Company’s Colliery, (5) Great Offices of the Lens Mining Company, (6) Lens Union House, (7) 9-9 bis colliery, (8) Sainte Henriette spoil heap, (9) Notre-Dame des mineurs church, (10) Delloye colliery, (11) Lemay development, (12) Arenberg colliery, (13) Goriaux lake, and (14) Sabatier headgear.



Figure 3. Great Offices of the Lens Mining Company (5) (©Wikipedia CCLicense).



Figure 4. Delloye colliery (10) (©Wikipedia CCLicense).



Figure 5. Map of French Microadventure.

## GERMANY

by Hernan Flores and Dr. Tansel Dogan

As a part of the CoalHeritage Project Milestone 10, three micro-adventures (Figure 6) have been developed to explore the hard-coal industrial heritage of the Ruhr Valley and its transformation over time. Each route highlights iconic mining sites, former industrial areas, and their new roles in the landscape.

🚲 Micro-adventure Essen – Bochum takes you through Colliery Zollverein, the UNESCO World Heritage Site, and continues to the German Mining Museum, passing through industrial landmarks like Jahrhunderthalle and green spaces like Westpark.

🏠 Micro-adventure Duisburg – Dortmund showcases the Landscape-park Duisburg-North, where old steel structures have been repurposed, and the vibrant Harbour-quarter PHOENIX, a modern district built on former mining grounds.

🌿 Micro-adventure Witten – Hattingen – Hamm follows historic mining trails, including Colliery Nachtigall and Henrichshütte Iron and Steel Works in Hattingen, while also exploring the natural beauty of the RuhrtalRadweg cycling path.



Figure 6. Cover page of each micro-adventure in Germany (modified by Hernan Flores based on map of the “Route der Industriekultur”, <https://www.route-industriekultur.ruhr/>).

These routes can be enjoyed by bike or using public transportation, making them perfect for a day trip. Whether you are interested in history, nature, or industrial transformation, each adventure offers a unique insight into the coal heritage of the Ruhr Area.



Figure 7. Example of micro-adventure Essen – Bochum inside the EVMJ platform.

All three routes have been georeferenced and uploaded to the European Visual Map Journal (Figure 7), where they can be detailed and explored: <https://storymaps.arcgis.com/collections/987904b97d664cedb2ea4c161fb0f31e?item=8>

## POLAND

### KOMAG

by Dr. Kamil Szewerda

KOMAG has developed 7 micro-adventures depicting interesting places related to coal heritage in Upper Silesia, Poland. The themes of the individual micro-adventures are as follows:

- 1. A trip in the footsteps of Steam Engines** – A tour during which we will have the opportunity to see some of the old steam engines working in coal mines.
- 2. A trip in the footsteps of coal-cutting machines** – During this tour, you can see several types of different machines used to dig coal and excavate corridors..
- 3. A trip in the footsteps of Mining means of transport** – During this tour, you will have the opportunity to learn about and see different means of transportation. You will see different types of locomotives used to drive underground railroads for transporting people and materials.
- 4. A trip in the footsteps of Mining Architecture** – During this tour, you will see several examples of buildings and architecture related to coal mines and coal transportation.

**5. A trip in the footsteps of Coal Mine Shafts** – Shaft towers are a distinctive feature of the mining landscape. During this tour, you will have the opportunity to see several shaft towers of decommissioned mines.

**6. A trip in the footsteps of COAL-WASTE DUMPS** – After the coal mining process, there are many materials left behind that constitute production waste. This waste is placed on Dumps and thus affects the landscape of the mining area. Over time, Dumps are reclaimed and their appearance and even function change. You can get acquainted with such facilities on this tour.

**7. A trip in the footsteps of Coal Mine Museums** – There are several museum institutions in Silesia where you can learn about the history of mining, historic machines and technologies, mining customs, etc. In this paper you will find some suggestions for visiting such institutions.

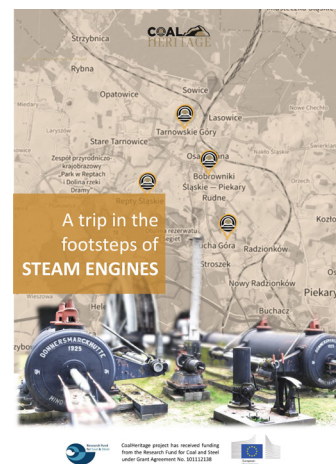


Figure 8. Example of a cover related to the developed microsites.

**COAL HERITAGE** A trip in the footsteps of STEAM ENGINES

**History – Introduction**  
The steam engine was an invention that revolutionized industry. It is a symbol of the first industrial revolution. In mining, the first steam engines were used to dewater mines. Steam engines were introduced by Thomas Newcomen and then developed by James Watt, in England. Thanks to, among others, Friedrich Wilhelm Bessler, a steam engine was brought from England to Tarnowskie Góry, where it was used for dewatering of lead and silver ore mine. The use of steam engines also accelerated and intensified the development of coal mines. Steam engines were used in hoisting machinery, to power pumps, hammers or drive vehicles such as locomotives. During this tour you will have the opportunity to see some of such machines.

**Stop no.1 The Steam Engine Open-Air Museum in Tarnowskie Góry**  
The museum was opened in 1976. The exhibition refers to the history of mining in Tarnowskie Góry, in which the decisive element of dynamic development from the end of the 18th century was the introduction of steam technology, modern for those times. The museum is a part of the Historic Steam Mine, and includes several dozen exhibits. Among others, you can see there:  

- Steam hoisting machine type – drum,
- Steam hoisting machine type – Köpper K.7000,
- Steam engine driving the exhaust (piston fan) in a cooling plant.



**Stop no.2 The square in front of the Guido Mine in Zabrze**  
In front of the entrance to the Guido Mine, there is an area where you can see old mining machinery. One of the exhibits is a steam machine Rheinabahn 59650. It is a two-cylinder steam machine of the mining hoisting equipment.

**Stop no.3 The square in front of the Queen Luiza Adit in Zabrze**  
Old mining machinery can also be found in front of the entrance to the Queen Luiza Adit. One of the largest existing steam hoisting machines in the area is located there. From 1910 to 1995 the steam machine worked in the shaft "Classic" of the coal mine "Siemianowice". In 1995, the machine was donated to the Coal Mining Museum in Zabrze.



Figure 9. Sample page from a micro-adventure related to steam engine.

**COAL HERITAGE** A trip in the footsteps of Mining Architecture

**History – Introduction**  
In many places in Poland and Europe there are coal mines that are being closed and liquidated. When a mine is liquidated, many buildings are left behind, such as galleys, baths, engine rooms, etc. Some of these buildings remember the times of the mine's construction and are entered in the register of monuments and placed under the care of a conservator. Often after restoration and reopening of such buildings they gain a new function. During today's tour you will have the opportunity to get acquainted with old post-mining buildings and admire their appearance in a new light.

**Stop No.1 Buildings of the former "Saturn" mine**  
From 1880 to 1990, the Saturn Coal Mine (from 1950 to 1990 the "Red Guard") was located here. Today, you can admire the revitalized post-mining buildings which now serve completely different functions. In the building of the former mine power plant, the "Power Plant" Gallery of Contemporary Art was established. In the building of the electrical workshops and the transformer plant the Center for Social Services and Local Activity "Saturn" has its headquarters. In the main building of the mine's management, and formerly of the management of the "Saturn" company a hotel and a conference center "Saturn's Palace" was created, and in its basement a sauna and swimming pool complex "Roman Bath" was established. The galleys building, in which it is planned to launch the Zagłębie Coal Mining Museum, and in another building it is planned to create an indoor swimming pool and a climbing wall.

**Stop No.2 The building of the former galleys of the KLEOFAS mine**  
The Kleofas coal mine operated from 1840 to 2004 in Katowice, Zagłębie district. The building of the galleys of this mine was revitalized and given a new function. Today, the building is home to a medical clinic.

**Stop No.3 The complex of buildings including the tower of the Eastern Shaft II of the former KLEOFAS mine**  
Not far from the previous stop, there are other preserved and renovated buildings left from the Kleofas coal mine. Here we can see buildings related to the eastern shaft II. This complex dates back to 1915-1921.

**Stop No. 4 A building of general cargo scale**  
A building of a general cargo scale is located near to the main entrance gate of KWK Rydułtowy coal mine. The scale was organized to weigh three coal allowances issued to miners. Inside the building, in 1984, a chamber of the mine's tradition was organized, with many memorabilia illustrating its history. Date of construction of the building: 1906.




Figure 10. Sample page from a micro-adventure related to architecture.

**COAL HERITAGE** A trip in the footsteps of Mining means of transport

**History – Introduction**  
Transportation is one of the key processes carried out in coal mines. We can distinguish several types of transportation, among others: spoil transportation, auxiliary transportation, crew transportation, heavy transportation, etc. During today's tour you will see different types of locomotives and transport wagons used in mining.

**Stop no.1 Pszowska Street in Pszów**  
There is a battery-electric, flameproof underground locomotive type Udag 05 in the square on Pszowska Street. It was used in mines for underground transport. It was manufactured in 1976. The locomotive pulls a wagon designed to transport coal. The wagon is decorated with graphics made by Antoniusz Przekociński. The graphic commemorates 180 years of operation of the Anna mine, from which the exhibited machine comes.



**Stop no.2 The area in front of the entrance gates of KWK ROW Rydułtowy**  
A very interesting old means of transport, called KARLIK, used in the coal mine is located in front of the Rydułtowy-Anna coal mine. A small locomotive pulls behind it a wagon with coal. Electric locomotive Ld 21 it can also be seen at this location.

**Stop no.3 The area in front of the Guido mine in Zabrze**  
Several old mining locomotives can be seen in the square in front of the Guido mine. Among others, the following machines can be seen here:  

- Electric mine locomotive Ld 21
- All locomotive type PAK 3 and 6
- Locomotive GLS 30
- Coal carts

**Stop No.4 The square at 3 Maja 16A Street in Zabrze**  
A locomotive G.D.1 with a wagon for transporting miners is exhibited at 3 Maja Street in Zabrze. This locomotive was used in mines for underground transportation. It had a cabin for transporting people, but also ore wagons, rescue wagons or wagons transporting various types of materials or parts of machinery and equipment.




Figure 11. Sample page from a micro-adventure related to mining means of transport.

**GIG**

*by Dr. Sylwia Jarosławska-Sobór*

**Nikiszowiec - A Journey through Time and Culture**

In the heart of Katowice lies a hidden gem perfect for a microadventure - the historic district of Nikiszowiec. This charming workers' settlement offers a rich blend of history, culture, and unexpected exploration, ideal for those seeking a brief yet memorable adventure.

**Step into history**

The origins of the Nikiszowiec settlement date back to the beginning of the 20th century, when the Georg von Giesches Erben concern initiated the exploitation of new coal deposits in the reserve mining field. Nikiszowiec was built in the years 1908-1918, when there was no longer enough space for workers in Giszowiec. The designers of the colony were Emil and Georg Zillmann. By the regulation of the President of the Republic of Poland, the estate was recognized as a historical monument in 2011.

**Your microadventure awaits**

Nikiszowiec is a perfect for a spontaneous day trip. Coal Heritage proposed tour includes 9 stops, visitors can choose all or just a few, and 4 special events.

**Stop 1** - the settlement. Nikiszowiec settlement is referred to as a workers' housing estate (patronage housing estate), which was designed for employees of the nearby Wieczorek mine, ordinary workers, mining supervision employees and mine officials. The architects planned a modern development on 20 hectares of land, including the construction of schools and houses for teachers, drinking and utility water supply facilities, the construction of streets and squares, the establishment of a sewage system, etc.

**Stop 2** - museum of the History of Katowice, Department of Ethnology of the City. The museum houses a permanent exhibition which shows the interior of a Silesian apartment in Nikiszowiec.

**Stop 3** - Saint Anna Church. The construction of the church according to the design of Emil and Georg Zillmann began on May 6, 1914. The construction works were interrupted by the outbreak of World War I and completed in 1927.

**Stop 4** - Wieczorek Coal Mine has been operating since 1883 as a consolidated "Giesche" mine till December 31, 2023.

**Stop 5** - the complex of buildings of the "Poniatowski" shaft of the "Wieczorek" Coal Mine in Katowice.

**Stop 6** - complex of historic buildings of the "Pułaski" shaft of the "Wieczorek" Coal Mine in Katowice.

**Stop 7** - Wilson Schaft Gallery, the largest private gallery in Poland-it's exhibition area is over 2000 m<sup>2</sup>.

**Stop 8** - Balkan narrow-gauge railway, the line on which the trains ran stretched through the area of three districts of Katowice: Szopienice-Burowiec, Janów-Nikiszowiec and Giszowiec, connecting the "Wilhelmina" steelworks

in Szopienice with the "Morgenroth" (Wieczorek) mine.

**Stop 9** - Zimbaro Centre, founded in 2014 on the initiative of the world-famous psychologist professor Philip Zimbaro, as a center of social initiatives, especially dedicated as a meeting place for young people.

In addition, Nikiszowiec offers unique events every year, such as: Nikiszowiec Saint Barbara's Day, Grandmother Anna Fest, Christmas Market and Art-Naif Fest.



Figure 12. Nikiszowiec today (photo: Sylwia Jarosławska).



Figure 13. Poniatowski Schaft engine room (photo: Adam Rostecki Korfanty Institute).

**SLOVENIA**

*by mag. Matjaž Kamenik and Tadeja Jegrišnik*

**A Journey through Velenje's Mining Heritage**

Embark on a fascinating journey through the industrial heart of Velenje, where coal mining shaped the region's history for nearly 150 years. This micro-adventure follows in the footsteps of miners and engineers who built a vast underground network of shafts and tunnels, each with its own unique story.

The adventure begins with a glimpse into prehistoric times, as the fossilized remains of a mastodon, found in Škale, remind us that Velenje's history stretches far beyond the age of coal.

The journey continues with the Crown Prince Rudolf Shaft (1887) – the first mining shaft in the Šalek Valley – followed by the Emperor Franz Joseph Shaft (1888), which played a key role in transporting lignite. The tour proceeds through a series of ventilation shafts, including the Western Ventilation Shaft (1904) and the Preloge Ventilation Shaft (1958), both essential for ensuring safe mining conditions. As technology evolved, so did mining infrastructure. The New Preloge Transport Shaft (1984) and the Šoštanj Ventilation Shafts (1978, 1988) marked major advancements, while the recently commissioned New Preloge II Ventilation Shaft (2024) demonstrates Velenje's commitment to modern safety and efficiency.

Beyond mining, the journey unveils the Old Velenje Power Plant (1929) – a pioneering project in Slovenia's energy sector – and the Dominion Mine Skip, which transported millions of tons of lignite to the surface.

The JOY Longwall Shearer, which concludes our adventure, was the first computer-controlled twin-drum mining machine in the Velenje coal mine, operating from 1997 to 2012.

This trip is not just a tour – it's a step back in time, revealing the resilience, innovation, and spirit of those who built Velenje's mining legacy.

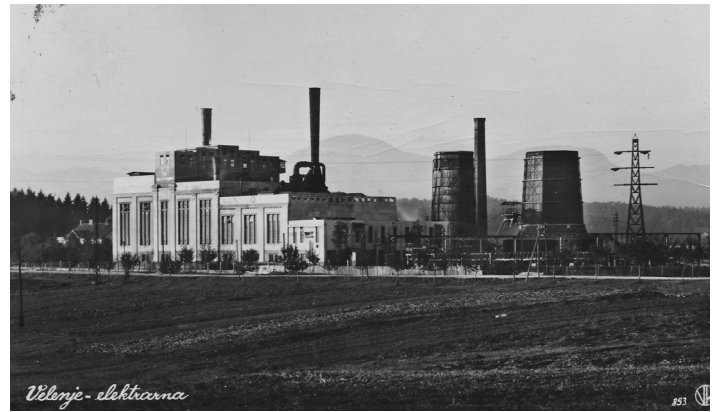


Figure 15. Old Velenje Power Plant (photo: PV archive).



Figure 16. New Preloge II Ventilation Shaft (photo: PV archive).



Figure 17. The Dominion Mine Skip (photo: PV archive).



Figure 14. The Emperor Franz Joseph Shaft (photo: PV archive).



Figure 18. The JOY Longwall Shearer (photo: PV archive).

## Upcoming Event: CoalHeritage Stakeholder Workshop

On April 1st, the follow-up stakeholder workshop on coal heritage preservation and stakeholder awareness will take place in Bochum, organized by the Research Center of Post-Mining at THGA. This time, the workshop will not only present the current progress of the project, but also reveal key findings from the stakeholder awareness analysis conducted across EU participant countries. These insights will be discussed and analyzed in working groups in order to understand better perceptions, acceptance, and interest in the transformation of former coal mining areas.

The event will bring together local representatives, scientific experts, community members, and students engaged in coal heritage and industrial preservation. The day will feature talks from local representatives and institutions, showcasing: best practices for structural change in the Ruhr Valley, transformation process in coal regions by integrating nature and industrial heritage and innovative ways to document and visualize structural change.

Join us for an engaging and insightful discussion on the future of coal heritage. Network with experts, researchers, and stakeholders—build valuable connections and share your perspective!



Figure 19. Invitation to CoalHeritage Stakeholder Workshop to be held on April 1<sup>st</sup>, 2025.

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