

Zbigniew Hojka (*University of Silesia in Katowice*, Poland) https://orcid.org/0000-0003-2169-1050 zbigniew.hojka@us.edu.pl

SECOND LIFE OF POST-MINING FACILITIES: MINES AS A TOURIST ATTRACTION OF SOUTHERN POLAND

Abstract: The aim of this article is to present a tourist mining path located in southern Poland. This involves coal, silver, gold, salt, flint, chalk, uranium mines and oil wells. It includes some buildings connected with workers and mine-owners as well. These buildings were previously tied to mining. Currently, they function as museums or service-buildings.

Keywords: Southern Poland, mining, tourism

https://doi.org/10.14746/sho.2023.41.1.005

INTRODUCTION

Poland can boast of having a whole series of monuments related to economic development, especially, mining. They are located, mainly, in Silesia and Lesser Poland. Most of such monuments are associated with mining of coal, salts of metal ores including silver and gold. Due to their uniqueness, they have become an integral part of European cultural heritage. A significant part of them has been functioning since 2006 as part of the Silesian Voivodeship Technological Monuments Route. The presented article is synthetic in nature. Its task is to present the forms of use as well as cultural, social or economic role of the most interesting monuments, in terms of tourism and history, related to mining that are located within the borders of the Polish State. Some of the post-mining sites mentioned in this article are presented in a marginal way. Others are presented in more detail due to their uniquely exemplary use and importance for cultural heritage. The author is aware that there are a number of

sites in southern Poland that are noteworthy and not included in this article. One example is the silver mine in Stolec. The article adopts an issue--based layout, consistent with the forms of use of the various sites. With regard to the presented monuments, the focus is on their current state as a tourist attraction. Some of the post-mining facilities are still waiting to be given their new role, thanks to which they can continue to exist as an element of national heritage and, at the same time, be protected from devastation or even total ruin leading to their eventual demolition. They will receive a kind of second life. It is obvious, however, that not all post-industrial, including post-mining, facilities can become museum objects. This is not only impossible and even inadvisable, especially with regard to areas where there is a, particularly, high accumulation of post-industrial objects. Post-industrial sites can also be used for: corporate headquarters, with a completely different purpose from the original, or as restaurants, cultural centres, shopping and business centres, recreation centres and even office and residential buildings. Due to the nature of post-mining structures, some of which are situated underground, their reuse poses a special challenge for decision-makers as well as individuals and companies wishing to invest in them. In the case of listing the buildings as monuments, there is also the problem of preserving their unaltered appearance, that is, limiting interference with the substance of the buildings to a minimum. Thus, this generates additional costs, not fully compensated by state subsidies. It should also be remembered that this limits the scope of use of these structures. This article is a continuation of an issue already taken up by the author several years ago, discussed in the pages of "Historical Tourism" (Hojka, 2017).

Some of the most interesting sites that make up the route of mining monuments in southern Poland include: Krzemionki Opatowskie, Oil Mine in Bóbrka, Gold Mines in Złoty Stok and Złotoryja, Salt Mine and Museum of Żupy Krakowskie¹ in Wieliczka, Salt Mine in Bochnia, Chalk Underground in Chełmno, Gold Mine in Złoty Stok, Mining and Smelting Open-Air Museum in Leszczyna, "Black Trout Adit" in Tarnowskie Góry, Silver Mine in Tarnowskie Góry, Historic Aggregate Mining Mines in Olkusz, the former Nowa Ruda Mine, the Mining and Motor Sports Museum in Walbrzych, the "Preussen" Mine in Bytom, the Mining and Metallurgy Tradition Park at the former "Michał" Mine in Siemianowice Śląskie, The "Królowa Luiza" Mining Heritage Park in Zabrze, the Coal

¹ "Żupa" is the Old Polish word for salt mine.

Mining Museum in Zabrze, the "Maciej" Shaft in Zabrze, the "Guido" Mine in Zabrze, the "Ignacy" Mine in Rybnik, the "President" Shaft Hoist Tower along with the "Sztygarka" complex of buildings in Chorzów, the "Saturn" Mine in Czeladź, "Wilson" Shaft in Katowice, the Exercise Mine of the "Sztygarka" City Museum in Dabrowa Górnicza, the Old "Julia" Mine in Wałbrzych, the Iron Ore Mining Museums in Częstochowa and Bukowno, the Old Uranium Mine in Kletno, the Uranium Mine in Kowary, the Main Heritage Adit in Zabrze. Particularly noteworthy in Lower Silesia are the Nickel, Chrysoprase and Opal Mine in Szklary, the Augusta Barite, Silver and Lead Mine in Kamionki, the St. John Mine in Krobica and the Magnesite Mine in Wiry. As a rule, these facilities are in the hands of state-related entities, mainly, local government units. Only a few have passed into private hands. The latter usually operate on market principles, being able to count on financial support from state institutions in the case of security and renovation works. It should be remembered, however, that inclusion in the list of monuments generates disproportionately high costs of the works carried out and the preparation of very expensive plans. EU funds are also a form of assistance.

POST-MINING FACILITIES AS HEADQUARTERS OF CULTURAL INSTITUTIONS

Some of the post-mining buildings today serve functions related to culture in the broadest sense. An excellent example of this include the above-ground buildings of the former mine "Katowice" (until 1936 "Ferdinand"), which operated from 1823 to 1999, and which have been adapted into exhibition pavilions of the Silesian Museum. The "Ferdinand" mine, founded by Count Stanisław Mieroszewski, operated until 1999 (Jaros, 1984: 63). In the Silesian Museum complex, which opened in 2015, the architects used the existing mine infrastructure as much as possible. In their design, they included the revitalisation of the former engine room building and the clothing warehouse and adapted them for a new exhibition function. A café and restaurant were placed in the former engine room of the "Warsaw" shaft for instance. An elevator and staircase were added to the tower of the shaft, allowing visitors to reach a platform from which a panorama of the city can be seen. The former clothing warehouse is now home to the Centre for Polish Scenography. In the carpenter's shop,

the educational space "On Tom's Trail" was placed. The main bathhouse was turned into an exhibition space and the headquarters of the departments of Archaeology, History and Ethnography. The revitalisation work was completed in 2017. Part of the museum was placed underground, which, in turn, refers to the mine corridors and at the same time minimizes interference with the post-industrial landscape. The modern building is crowned with glass structures that illuminate the interiors located at a depth of more than 13 meters, making it possible to admire the collections in daylight. In addition, the main building houses textile conservation studios, lecture and conference rooms, reading rooms, a collection storage room, as well as art and photography studios (kambi, 2013). The building, designed by the Austrian studio Riegler Riewe Architekten of Graz, together with the above-ground buildings of the mine, has become a kind of icon for the entire region. It is part of the wider Cultural Zone complex in Katowice. In addition to the permanent exhibition, the Silesian Museum hosts numerous temporary exhibitions in the fields of archaeology, ethnography, history, photography, modern and ancient art and design, or educational workshops. The institution actively participates in such projects as the Night of Museums and the Metropolitan Night of Theatres ('Muzeum Śląskie', 2023). In 2017, the Silesian Museum was included in the list of the Silesian Province's Industrial Monuments Route ('Muzeum Śląskie...', 2017).

Another example of the use of post-mining space are the buildings of the post-Walbrzych "Julia" ("Fuchs") mine, which house the Old Mine Science and Art Center in Walbrzych. The mine had been in operation since 1770, when the "Consolidirte Fuchs" guild was registered. After World War II, the mine was taken over by the Polish state. It operated successively under the name: "Julia", "White Stone", "Thorez". In 1993, the name "Julia" was restored. Coal was mined at the mine until 1996. Two years later it was finally liquidated (Piątek, 2009). In 1999, the site and postmining buildings were transferred to the Regional Museum in Walbrzych to create a branch - the Museum of Industry and Technology (Piątek, 2009: 2-11, 19-39), which operated as part of the Old Mine Multicultural Park. It included, among other things, some of the facilities dating back to the turn of the 19th and 20th century, belonging to the former mine: the bascule hoisting towers of the "Julius" and "Ida" shafts, the bathhouse, the hoisting machine building, the electrical workshop and a fragment of the 18th century "Fox adit" (Szewczyk, 2002). In 2014, on the basis of the Museum of Industry and Technology, the "Stara Kopalnia Science and Art Centre"

was opened, representing a modern, revitalised complex of facilities built on the site of the former "Julia" mine with a total area of more than 4.5 hectares. The design for the revitalisation of the post-mining area was developed by a Warsaw-based studio Nizio Design International. One of the main attractions is a revitalised cooling tower transformed into an Ecological Tower surrounded by a glass structure, filled with green plant scrolls climbing to its top. The interior of the Tower has been planned as an exhibition space (Stara Kopalnia..., 2022). Visitors to the Museum of Industry and Technology have a choice of two tours: the first - the Historic Mine "Julia" (markovnia building, bathhouse, mining machinery, coal transport equipment, adit model) the second - the Historic "Fox Adit" and the "Sobótka" shaft (shaft seam, adit, mining passages, shaft machinery and mining equipment) (Szewczyk, 2002). Night tours of the mine are organized twice a month and weekly during vacations. In addition, the post-mining facilities house the European Center for Unique Ceramics, a contemporary art gallery and the headquarters of non-governmental and cultural organizations, including the Walbrzych Cultural Center and the Walbrzych Song and Dance Ensemble, performance halls, a dance hall, changing rooms, and rooms for instructors or directors (Stara Kopalnia..., 2022). For children, the facility offers workshops devoted to ceramic techniques, pottery, ornamentation, decals and graphics. The Old Mine also hosts concerts and festivals, and during the holiday season an open-air cinema is organized. Guest rooms are located in the historic Sztygarówka building. The social sphere is complemented by a restaurant. The Old Mine is a complex of revitalised buildings, unique in Poland and Europe, located in the very centre of the once industrial Walbrzych. It is an example of the concentration of institutions conducting cultural, educational events and exhibition activities in one place. It can be said to be the cultural centre of Walbrzych.

A separate group is made up of mining facilities with typical museum functions. In addition to the flagship salt mines in Wieliczka and Bochnia, typical examples are the coal mines "Guido" and "Królowa Luiza" in Zabrze or the gold mine in Złoty Stok. In addition, they serve educational and, even, entertainment functions. The flagship post-mining facility that performs museum functions is the world's unique Wieliczka Salt Mine, which carried out mining activities from the 13th century until 1996 (Jodłowski, 2000; 2006). It has long aroused the interest of travellers. As early as the turn of the 18th century, the first underground tourist route was launched on its grounds. The Cracow Saltworks Museum has existed

at the mine since 1951. It has two permanent expositions: on the surface – "The Saltworks Castle" and an underground exposition – "Wieliczka Salt Mine". Today, the Underground Tourist Route makes available 20 chambers, located at the depth of 64 to 135 meters. The underground of the mine hosts exhibitions, banquets, competitions and sports events, music concerts, balls and all kinds of celebrations. There is a well-developed tourist infrastructure in the underground, including a hotel and restaurant. In 1997 an Underground Rehabilitation and Treatment Centre was opened, running rehabilitation holidays for people with upper respiratory tract ailments ('Górnicze dziedzictwo…', 2020).

The Bochnia Salt Mine, which has existed uninterrupted since the 13th century, serves similar functions (Flasza and Konieczny, 2005). In the 1980s, the mine began to be transformed into a tourist and therapeutic facility. In 1991, due to lack of profitability, industrial-scale salt mining was abandoned at the mine. Four years later, the Bochnia Salt Mine Health Resort Company was established and took control of the underground passages (Zieba, 2009, p. 368). The underground has a 200-meter boat crossing and a geological route for athletic tourists. In addition, a restaurant, accommodation halls, a playground, a cinema and a disco hall are located there. The underground has a specific microclimate, so the facility is used for therapeutic purposes. A rehabilitation centre for respiratory, neurological, rheumatic diseases and musculoskeletal dysfunctions operates there. Inhalation stays are organized (Paprota, 2017; 'Kopalnia soli w Bochni', 2020). The "Royal Salt Mines of Wieliczka and Bochnia" are on the UNESCO World Heritage List and the list of Historical Monuments of the Republic of Poland ('Obiekty wpisane...', 2023).

POST-MINING FACILITIES AS TOURIST AND RECREATIONAL ATTRACTIONS

Among the leading monuments of ore mining, both in Poland and Europe, is the Silver Mine with the Black Trout Adit in Tarnowskie Góry, which has been mining since the 17th century (Hojka, 2017: 207–209; Majorczyk, 1985: 43–51; Piasecki, 1936; 'Zabytkowa Kopalnia Srebra...', 2022). In 1957, in the area of Repty, a part of the adit was opened to tourism, and in 1976 an underground tourist route was opened in the workings of the "Frederick" mine. The tourist route includes, among other

things, three chambers ranging in sizes from 500–2000 m² and a 300-meter-long canal (Mikoś and Chmura, 2001). A multimedia museum showing the history, excavated material and dewatering technology of the Tarnowskie Góry mines was opened in the mine's super shaft in 2012 ('Zabytkowa Kopalnia Srebra', 2023). In addition to the historical exhibition and the adit boat ride, the site hosts events, concerts, exhibitions and baths, known as walrus bathing. The mine's facilities include a cinema and conference room, restaurant, hostel, souvenir and mineral stores. Next to the mine building is the Open-Air Museum of Steam Machines used in the old industry. The Historic Silver Mine and the Black Trout Adit are managed by the Tarnogórska Land Lovers Association. In 2017, the "Lead, Silver and Zinc Ore Mine along with the underground water management system in Tarnowskie Góry" was listed as a UNESCO World Heritage Site. Furthermore, it is on the list of Historical Monuments of the Republic of Poland ('Obiekty wpisane...', 2023; Kuc, 2017).

The museum-educational facility is the site of the former Gold Mine in Złoty Stok, which has been in operation since medieval times, where gold--bearing arsenic ore deposits were mined until 1962 (Mikoś et al., 2009). In 1991, work was undertaken to open the defunct mine to tourism. In 1996, the Museum of Gold Mining and Metallurgy began operations, with the launch of a 1.5-kilometer-long underground tourist route, which included access to adits: "Black Upper", "Gertruda", "Black Lower". There is the only underground waterfall in Poland, 8 meters high. The main attraction of the "Gertruda Adit" is an underground boat ride. Elements of the tour include a demonstration and casting of commemorative "gold bars," gold panning and a demonstration of minting commemorative coins. Associated with the mine is the Medieval Technology Park, which features a replica of a medieval mining settlement ('Złoty Stok...', 2022). The whole complex is complemented by accommodation and catering facilities. Currently, the complex is in private hands. It is constantly undergoing modernization and expanding its tourist offer. The museum and related tourist facilities are the largest employer in Złoty Stok.

Unique in the country and Europe is the Guido Mine in Zabrze, which has been in operation since the mid-19th century (Hojka, 2017: 209–211; *Historia Kopalni Guido...*, n.d.). After Zabrze was taken over by Poland in 1945, the former "Guido" mine was subordinated to the "Makoszowy" mine and in 1967 the experimental mine "M-300" was established on its basis, which was transformed into an open-air mining museum in 1982. In the years 1996–2007 the open-air museum was closed to tourists (*Kopalnia*

Guido w Zabrzu..., 2013: 170; Barszczewska and Srokosz, 2002). A special attraction is the tourist routes on the 170 m and 320 m levels with a total length of 3,000 m, as well as the complex of shaft buildings. Authentic machinery and equipment of mining industrial technology are presented at the mine, as well as a geological exposition, including the layered geological structure of the rocks. On level 170 there are, among other things, underground stables for horses and a chapel, still in operation, where services are held during important church and mining holidays. On the 320 level, in turn, we find the workings preserved as they existed when mining was discontinued. On the same level, part of the workings have been converted into a restaurant and a service and entertainment hall, where theatrical performances, concerts, conferences are held and films and photos about work in modern mines are broadcast.

In Zabrze, on the site of a mine dating back to the late 18th century, there is the "Luiza Mine" open-air mining museum (Hojka, 2017: 211-213). It showcases mining techniques and coal mining equipment, as well as a 50m underground railroad (Bugaj and Jurkiewicz, 2006). The above--ground section presents post-mining facilities dating back to the second half of the 19th century. The open-air museum includes an exhibition of antique vehicles. The chain bath building houses a tourist service point, a restaurant with catering and social facilities, as well as exhibition halls. Part of the open-air museum is the Main Key Heritage Adit (Hojka, 2017: 213-215), built in 1799-1863 for dewatering mines and transporting mined coal (Bugaj and Jurkiewicz, 2006). However, with the mining of coal at lower levels and the development of technology, it ceased to be profitable quite quickly. Its functions were reduced and, in the 1950s, finally discontinued. Since 2000, efforts have been made to revitalise it and make parts of it available for tourism. The Association for the Restoration and Promotion of the Queen Louise Adit in Zabrze "Pro Futuro" was established (Jurkiewicz et al., 2009). In 2009-2018, revitalisation works were carried out on a 2.5-kilometer-long section, thanks to which the Zabrze section of the adit was opened to tourists. A special attraction is an underground boat ride along a 1,100-meter section (Bugaj and Jurkiewicz, 2006; Nauka, 2017; 2018). The adit, along with other mining sites in Zabrze - the "Guido" and "Królowa Luiza" mines - is on the list of Polish Historical Monuments ('Obiekty wpisane ...', 2023).

The "Guido" mine, together with the "Królowa Luiza" mine, which are components of the Mining Museum in Zabrze, has a rich educational offer for **kindergartens**, **primary and secondary schools**. It has been pre-

pared based on the unique infrastructure of underground mining corridors and two open-air theme parks: Park 12C and the Military Technology Park. Unique, not only in the country, but also in Europe, is the event in the form of a game "Bajtel Szychta" during which children take on the role of a miner and feel the hardships of working underground firsthand.

Museum facilities also include the "Ruben" mine in Nowa Ruda, which was established in the late 18th century (Bandurski et al., 1989: 10–18). After the takeover of Lower Silesia by Poland, the mine was nationalized, at the same time its name was changed to "Nowa Ruda." High mining costs and the threat of gas explosions resulted in the decision to close the mine in the early 1990s. Mining ended in 1994 (Borzęcki et al., 2016). Two years later, the Mining Museum was established on the site of the former mine on the basis of the Exercise Adit of the Mining School Complex. Currently, the facility belongs to the Coal Mine Tourist Services Company, owned by Barbara Korbas. An evanescence of the facility is its status as a private enterprise (*Dawna Kopalnia Nowa Ruda*, 2023).

Few coal mines functioned as exercise mines. In addition to Zabrze's "Guido," such a function was performed by the Exercise Mine in Dąbrowa Górnicza (Hojka, 2017: 218–219) located in the mining field of the "Paris" mine. Until 1994, classes in geology, mining mechanics, underground surveying and ventilation were held there. Unfortunately, an erroneous educational policy towards vocational education led to its liquidation. Four years later, on the basis of the "Sztygarka" Museum of Geology and History of the S. Staszic Vocational School Complex of the Coal Community, the "Sztygarka" City Museum was established in Dąbrowa Górnicza, which took over the 'training in mining' belonging to the school. An 800-meter underground tourist route comprising excavations was opened in 2010. The mine has a chapel of the patron saint of miners, St. Barbara. The Military and Historical Park "Reduta" operates at the Sztygarka City Museum ('Kopalnia Ćwiczebna...', 2023; Katalog Zabytków..., 2012: 3).

The nickel, chrysoprase and opal mine in Szklary Huta is an example of a mine extracting semi-precious stones and nickel. Mineral and stone mining was carried out there from medieval times until 1993 (Wieczorek, 2018). In 2013, the Warsaw-based Polish Tourist Organization launched a 500-meter-long underground educational route in the former pits. In the rocks of the pits in the geological reserve, one can see so-called "walls of lightning," veins of magnesite, serpentinites, green chrysoprase veins and opals. The most valuable specimens are exhibited in a communist-era atomic shelter.

The former mine site also includes the Bat Ecological Path The pits also host field classes for geology students ('Kopalnia Niklu...', 2022).

Some of the post-mining facilities have typical recreational functions. The Aurelia Mine was opened for tourist traffic in 1973 (the name "Aurelia" was given in the 1990s) and 5 years later the Gold Museum in Złotoryja. The area to be visited was gradually expanded. Numerous side passages and a ventilation shaft, inhabited by bats, diverge from the main walkway. There is a recreational gold panning basin near the mine entrance ('Kopalnia Złota "Aurelia"...', 2023). Similar recreational and educational functions are performed by the Leszczyna Mining and Smelting Open-Air Museum located on the site of a former copper mine (Maciejak, Maciejak, 2016). In 2000, the Złotoryja Society of Mining Traditions began organizing "Dymarki Kaczawskie", the main attraction of which was copper smelting demonstrations. At the same time, the creation of a medieval mining and smelting open-air museum was started, which included the reconstruction of smoke houses. A 3-kilometer educational path "Leszczyna Syncline" was made available to tourists. In addition, didactic activities are organized in the framework of cognitive and creative workshops of old crafts and dying professions (Denenfeld, 2023).

In some mining sites, mining was completed back in the 19th and 20th centuries. An example is the non-ferrous metal mining mines in Krobnica in Lower Silesia, where the origins of mining date back to the 16th century ('Pogórze Izerskie...', 2003; 'Góry Złote', 2003). Cassiterite (tin ore), cobalt ore and copper were extracted there. In the early 21st century, the sites preserved from mining activities in the vicinity of Krobica were decided to be used for tourism. Steps were taken to create a tourist and educational path in the Mirsk municipality. As a result, in 2010–2012 the "Geopark – Traces of old ore mining" was created, consisting of an underground tourist route "St. John's Mine" and an above-ground route, which includes twelve sites with 19 different post-mining objects and three viewpoints. A "Geopark", including the mine, is open on weekends from the beginning of May to the end of September. In the remaining months, the mine is a reserve – a bat wintering ground (Lipin, 2013; 'Geopark...', 2022).

A thoughtful example of the use of post-industrial facilities is the Lift Tower of the "President" shaft together with the complex of buildings "Sztygarka" in Chorzów (Hojka, 2017: 215–217; Jaros, 1962: 9–43) which are the remains of the oldest coal mine in Upper Silesia, operating since 1791–1995 (Szewczyk, 2013). Near the shaft were the air liquefaction plant, the entrance gate, the company fire station, the foremen's resi-

dential building, and the casino. They function to this day under the common name "Sztygarka". Nowadays, the following are located in them: a restaurant, a café, a guesthouse, a wellness center, and the "Fire Brigade" gallery. The Sztyg.art Association operates at the "Sztygarka", organising, among other things: Industriada, "Chorzów Garden Theatre", jazz concerts, blues evenings.

An interesting example of the use of post-mining buildings is the engine room and guildhall with bathhouse of the "Gliwice" mine (Jaros, 1984: 45), which are part of the plant dating back to the early 20th century. They were built to a design by industrial "architectural virtuosos" Emil and Georg Zillman. Until 1999, coal was mined at the mine, after which the plant was decommissioned. The above-ground buildings of the mine underwent revitalisation in 2005–2010 as part of the "Nowe Gliwice" project. Since 2010 they have become the headquarters of the "Nowe Gliwice" Education and Business Centre. The Artistic Casting Branch of the Gliwice Museum was located in the building of the former engine room ('Muzeum w Gliwicach...', 2022). In addition, the complex houses the Gliwice Higher School of Entrepreneurship and the College of Foreign Languages of the Silesian University of Technology. The buildings contain lecture halls, conference rooms, specialized laboratories and teaching stations equipped with industrial machinery ('"Nowe Gliwice"...', 2020).

Educational and recreational purposes are realised in the former Uranium Mine in Kletno (*Jaskinia Niedźwiedzia...*, 1989) on the territory of which an underground tourist and educational route was launched in 2002. In mid-August, the International Polish Mineral Exploration Championships are held annually on a heap adjacent to the former mine. The facility hosts classes in mineralogy, geology, history and ecology (*Kopalnia uranu...*, 2023). Similar functions were performed by former mines: uranium mines in Kowary (Adamski, 1989: 179–189; Klementowski, 2009; 2010) and magnesite mines in Wiry near Świdnica (Labyrintharium) (Matthias, 2017). In 2019, the tourist route in Wiry was closed due to the planned resumption of mineral water mining. In the future, the mine can be used for sanatorium purposes. It contains radon air, typical of spas, in concentrations indicated for people with upper respiratory tract problems (O_Slider, 2017).

Some of the post-mining facilities underwent gradual devastation after the mine's operation ended. An example is the Siemianowice "Michał" mine, which operated from the 1880s until 1994 (Hojka, 2017: 217–218; Jaros, 1984: 30; Derus, 2012: 33). The process of destruction was halted in

2008, after the authorities of Siemianowice Śląskie decided to use the postmining facilities for cultural and entertainment purposes. After revitalization, the Mining and Metallurgy Tradition Park was created in them, which was officially opened in 2012. The hoist tower of the "Krystyn" shaft, together with the engine room building, was adapted into a multifunctional facility with an auditorium. A bar and restaurant, a museum room and an imitation of a mining walkway were placed in its underground ('Siemianowice Śląskie...', 2012).

POST-MINING FACILITIES AS CORPORATE HEADQUARTERS

Post-mining facilities were used for other purposes on an ad hoc basis with the end of mining. They were leased to small private companies. This prevented a rapid process of their devastation. Such a solution, however, did not solve the problem, as these companies basically did not invest in them, and only limited themselves to exploiting them. As a result, their slow degradation inevitably followed. An example is the Rybnik mine "Ignacy" ("Hoym"). After the end of mining in 1995, some of its surface buildings were demolished (Zabytkowa Kopalnia..., 2023). The remaining buildings began to be adapted for museum purposes. The mine was opened to the public as an open-air mining museum in 1999. The water tower was adapted into a lookout point. There is an underground route on the 400m and 600m levels, but it has been temporarily closed to tourists ('Zabytkowa kopalnia...', 2022). Most of the above-ground buildings of the Miechowice ("Preussen") mine in Bytom, which operated until 1999 (Dybeł, 1988: 9-30; Kantyka, 2013: 41; Recław, 2015: 210; Kubacz, 2017), were gradually devastated and then demolished. Only the buildings of the western ventilation shaft superstructure and the hoisting machine, dating back to 1908, have survived, and in 2017 they were entered into the register of monuments of the Silesian province. The surviving buildings have not yet been opened to tourism.

The facilities that have passed into private hands have, in a few cases, become well-functioning enterprises. An example of private investment in post-mining buildings is the "Wilson" Shaft Gallery (Hojka, 2017: 215) in Janow, which was placed in the guildhouse and bathhouse of the "Richthofen" and "Hulda" ("Wilson") shafts of the former "Gische" ("Wieczorek") mine, which had been in operation since the 1820s. After

coal mining in the area of the "Wilson" shaft ceased in 1997, the buildings above the shaft were sold to private investors Johann Bros, Monika Paca-Bros, who, after revitalisation in 2001, opened there a gallery. The 2,500-square-meter space hosts art exhibitions, art workshops, conferences, concerts, happenings and festivals. Theatrical performances and film screenings are also staged. The gallery is owned by the foundation: "Eco-Art."

Post-mining facilities have often taken on new functions. An example is the "Maciej" shaft in Zabrze (Hojka, 2017: 213; Szczech et al., 1993: 3–10), which is a remnant of the "Concordia" mine, which has been in operation since in 1841–1993. After the coal deposits were exhausted, the DEMEX mining company launched a deep well on the basis of the "Maciej" shaft. Over time, the above-ground buildings and equipment were transformed into an open-air mining museum. A restaurant was launched in the above-ground buildings (Żabicka-Barecka and Barecki, 2013: 23–24).

An interesting example of the use of post-mining facilities are the above-ground buildings of the former "Teresa" mine (former "Neue Consolidierte Caesar") in Walbrzych, decommissioned in 1991, purchased in 1997 by rally driver Jerzy Mazur, who restored some of the buildings and placed in them a car showroom and a private Museum of Mining and Motor Sports (Kosmaty, 2007; 'Muzeum Górnictwa i Sportów...', 2020).

Another example of the transformation of post-mining buildings is the "Power Plant" Contemporary Art Gallery in Czeladź (Hojka, 2017: 219–220) housed in the former "Saturn" mine, which dates back to the 1870s (Jaros, 1984: 37). In 2004, due to the high cost of mining coal, the plant was placed under liquidation ('Kopalnia Saturn...', 2022). After the plant was closed, the buildings and above-ground equipment were revitalized. In 2005, the Power Plant Contemporary Art Gallery "Power Plant" was opened in the power plant building, where, in addition to temporary exhibitions, old mine steam engines and the first electrical equipment are displayed. In the reconstructed building of the management of the "Saturn" Society, there is a hotel and conference centre "Saturn Palace", within which a recreational complex "Roman Baths" was built.

In turn, a small part of the "Gottwald" (until 1953 "Eminence") mine, which operated from 1907 to 2004 (Rzewiczok, 1999: 33–35, 70), was used by the "Silesia City Center" shopping and leisure complex in Katowice, which opened in 2005. It features exhibits related to mining, including the tower of the "Jerzy" shaft. The building of the former boiler room of the hoisting machine houses, among others, the management of the complex

and the "Almi Decor" gallery. In the building of the engine room of the "Jerzy" shaft, St. Barbara's chapel was furnished (Bulsa, 2012: 54).

Museum-like post-industrial facilities are still owned by thriving companies. An example is the Bóbrka Oil Mine, which is part of the Ignacy Łukasiewicz Museum of Oil and Gas Industry, owned by the Polish Oil and Gas Company ('Kopalnia Bóbrka', 2022).

The former barite, silver ore and lead mine "Augusta" in Kamionki near Pieszyce may be used for tourism purposes in the future (Mączka and Stysz, 2006: 223). Its interiors are currently only an object of penetration by explorers ('Kopalnia "Augusta"...', 2023). In the future, the postmining pits, after digging and securing the drainage adit, may serve as an underground tourist route. There are more than a dozen similar sites in the Pieszyce area, which, together with the Augusta mine, could create an interesting tourist route. However, this requires raising funds. An ore mining museum is planned in Olkusz in the future. Its component parts would be the localized remnants of the mines in the area of the "Stefan" ventilation shaft and a 2.8-kilometer-long underground tourist route in the area of the excavations of the decommissioned "Olkusz" mine (Wrzos-Lubaś, 2012).

Also associated with mining are residential complexes inhabited by miners and mine workers: the "Ficinus" workers' colony in Ruda Śląska-Wirek, workers' estates in Katowice Nikiszowiec, Giszowiec, Czerwionka-Leszczyny as well as the palaces of mine owners. The latter group is very richly represented, despite the destruction of some of them in the period after World War II. The "Ficinus" colony, after revitalisation in the late 1990s, has a residential and service function, among other things, a branch of the library has been placed there since 2020 ('Kolonia Robotnicza...', 2023).

CONCLUSION

Monuments related to mining are, undoubtedly, distinguished by their originality. Their vast agglomeration, especially those related to coal mining in the area of Upper Silesia, the Dąbrowa Basin and the Wałbrzych-Nowa Ruda Basin, provides great cognitive opportunities. In addition to coal mining, objects related to salt mining, which are counted among the flagship monuments in Poland, are very well displayed. Unfortunately, the accumulation in a relatively small area and the erroneous policy pur-

sued by the Polish state in the 1990s led many of them to annihilation or great devastation. Some of the post-mining buildings passed onto private hands during this period. Only a few of them have found new development. Others were the basis for extortionate loans from banks, and their new owners took no interest in them, as a consequence they became ruins. The listing of the sites on the list of the conservator generates enormous costs and prevents their use according to the investors' plans. Post-mining objects are often located in ecologically devastated areas, which generates additional costs, since the reclamation of the area, especially of the soil, requires, particularly, large financial outlays. Many post-mining objects are already worthy of display or used for other purposes, not only museums. They delight with their architectural shape, the flair of their builders and constructors. Some monuments of mining technology are still waiting for adaptation and worthy display. A characteristic feature of monuments related to mining is the existence of underground tourist routes, which undoubtedly increase their attractiveness for tourism. It should be noted that a significant part of post-mining facilities, especially those located in Lower Silesia, are areas with structural unemployment. Therefore, their reuse gives an opportunity, admittedly small, to a group of residents to find jobs where they live or to open tourist facilities indirectly linked to the monuments, such as accommodation or catering facilities. Thus, it protects small towns from complete depopulation.

Zbigniew Hojka, PhD, professor at the University of Silesia in Katowice. Since 1987, an employee of the University of Silesia. Research interests: history of Poland in the first half of the 20th century, with particular emphasis on the history of Silesia, history of the Catholic Church, savoir vivre, history of industry. Selected books: Silesian Maccabeus. Father Józef Czempiel and his parish, Chorzów 1997 [co-author J. Kurek]; Joseph Rymer. Political biography. Katowice 2002; Combined government and autonomous administration in the Silesian Voivodeship (1922–1939) – origin, organizational structure and scope of activity. Katowice 2005; Polish Trade Movement in the Silesian Voivodship in the years 1922–1939. Political face. Katowice 2006; Stanisław Janicki (1884–1942). Political biography. Katowice 2015 [co-author K. Pikuła]; A Gentleman's and a Lady's Handbook. Savoir vivre in company and business. Bielsko-Biała 2016; Polish Catholic sobriety movement in Prussian Upper Silesia and in centers of emigration from Silesia in Westphalia and the Rhineland until the outbreak of World War I. Katowice 2020; Professor Józef Pieter and his times. Warsaw 2020.

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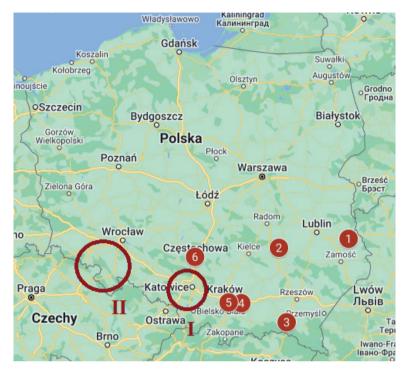


Figure 1: Map of post-mining facilities in Poland

Source: https://www.google.pl/maps/@50.29888,18.9530112,14z?entry=ttu. Accessed 30 May 2023.

Legend

- 1. The Historic Chalk Mine in Chełm the Chalk Underground (Zabytkowa Kopalnia Kredy w Chełmie Podziemia Kredowe).
- 2. The Opatów Silica (Krzemionki Opatowskie).
- 3. Ignacy Łukasiewicz Museum of Oil and Gas Industry Historical Monument (Muzeum Przemysłu Naftowego i Gazowniczego im. Ignacego Łukasiewicza Pomnik Historii).
- 4. The Bochnia Salt Mine (Kopalnia Soli w Bochni).
- 5. The Salt Mine and Cracow Saltworks Museum in Wieliczka (Kopalnia Soli i Muzeum Żup Krakowskich w Wieliczce).
- 6. The Museum of Iron Ore Mining in Częstochowa (Muzeum Górnictwa Rud Żelaza w Częstochowie).



Figure 2: Map of post-mining facilities in Poland - district I

Source: https://www.google.pl/maps/@50.29888,18.9530112,14z?entry=ttu. Accessed 30 May 2023.

Legend

- 7. Pomorzany Mine Historic ore mining mine (Kopalnia Pomorzany Zabytkowa Kopalnia Górnictwa Kruszcowego).
- 8. The Ore Mining Museum in Bukowno (Muzeum Górnictwa Rud w Bukownie).
- 9. The Exercise Mine of the City Museum "Sztygarka" in Dąbrowa Górnicza (Kopalnia Ćwiczebna Muzeum Miejskiego "Sztygarka" w Dąbrowie Górniczej).
- 10. The "Wilson" shaft in Katowice (Szyb "Wilson" w Katowicach).
- 11. The "Saturn" mine in Czeladź (Kopalnia "Saturn" w Czeladzi).
- 12. The Mining and Metallurgy Tradition Park at the former "Michał" mine in Siemianowice Śląskie (Park Tradycji Górnictwa i Hutnictwa przy dawnej kopalni "Michał" w Siemianowicach Śląskich).
- 13. The "President" shaft of the Sztygarka complex in Chorzów (Szyb "Prezydent" Kompleks Sztygarka w Chorzowie).
- 14. The Black Trout Adit (Sztolnia Czarnego Pstrąga).
- 15. The Historic Silver Mine (Zabytkowa Kopalnia Srebra).
- 16. The "Preussen" mine in Bytom (Kopalnia "Preussen" w Bytomiu).
- 17. The Main Key Heritage Adit in Zabrze (Główna Kluczowa Sztolnia Dziedziczna w Zabrzu).
- 18. Królowa Luiza Adit (Sztolnia Królowa Luiza).
- 19. The Coal Mining Museum in Zabrze (Muzeum Górnictwa Węglowego w Zabrzu).
- 20. The "Guido" mine in Zabrze (Kopalnia "Guido" w Zabrzu).
- 21. The "Maciej" shaft in Zabrze (Szyb "Maciej" w Zabrzu).
- 22. The historic "Ignacy" mine in Rybnik (Zabytkowa Kopalnia "Ignacy" w Rybniku).

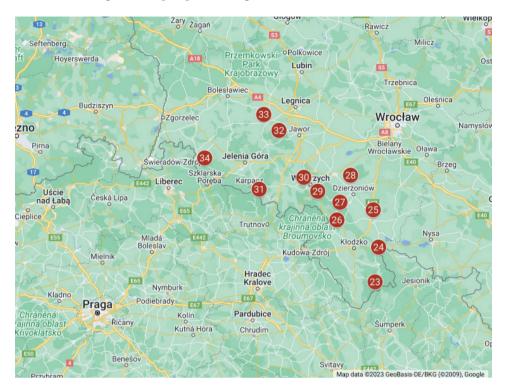


Figure 3: Map of post-mining facilities in Poland - district II

Source: https://www.google.pl/maps/@50.29888,18.9530112,14z?entry=ttu. Accessed 30 May 2023.

Legend

- 23. The Old Uranium Mine in Kletno (Stara Kopalnia Uranu w Kletnie).
- 24. The Gold Mine in Złoty Stok (Kopalnia Złota w Złotym Stoku).
- 25. The Nickel, Chrysoprase and Opal Mine in Szklary (Kopalnia Niklu, Chryzoprazu i Opalu w Szklarach).
- 26. The former Coal Mine in Nowa Ruda (Dawna Kopalnia Wegla w Nowej Rudzie).
- 27. The "Augusta" Barite, Silver and Lead Mine in Kamionki (Kopalnia Barytu, Srebra i Ołowiu "Augusta" w Kamionkach).
- 28. The Magnesite Mine in Wiry (Kopalnia Magnezytu w Wirach).
- 29. The Museum of Mining and Motor Sports in Wałbrzych (Muzeum Górnictwa i Sportów Motorowych w Wałbrzychu).
- 30. The Old "Julia" mine in Wałbrzych (Stara Kopalnia "Julia" w Wałbrzychu).
- 31. The "Podgórze" uranium mine in Kowary (Kopalnia Uranu "Podgórze" w Kowarach).
- 32. The open-air mining and metallurgical museum in Leszczyna (Skansen Górniczo-Hutniczy w Leszczynie).
- 33. The "Aurelia" gold mine in Złotoryja (Kopalnia Złota "Aurelia" w Złotoryi).
- 34. "St. John Mine" in Krobica ("Kopalnia św. Jan" w Krobicy).