

Changing the mining industry in the heart of Silesia

Zygmunt Łukaszczyk¹ and Marcin Popczyk²

¹ Faculty of Organization and Management, Silesian University of Technology,
Roosevelta 26-28, 41-800 Zabrze, Poland

² Faculty of Mining and Geology, Silesian University of Technology, Akademicka 2,
44-100 Gliwice, Poland

zygmunt.lukaszczyk@polsl.pl

Abstract: The development of coal mining in the Upper Silesian region began in the seventeenth century. Along with the development of this branch of industry, they began to form the new villages, towns and entire agglomerations in the surroundings. Even before the First World War the Polish mining industry employed over 150 thousand miners. This sector is characterized by a high degree of mechanization of work and technical progress. Miner profession from its inception was set on a pedestal by giving it a number of privileges. Mining industry introduced earliest pension and health insurance, and normalized length of the working day. Expansion of class consciousness, trade unions and political parties, resulted that the Silesia from the start was ahead of other mining and industrial regions at least by one generation. There have passed many generations from bloom years of mining to its current form of activity. At present, the global reorganization and restructuring of the industry hit also Polish mining industry.

1. Introduction

It wasn't that mines were established in centres of cities and villages, but the other way round: cities and villages were built around mines. The development of exploitation of galamine and blende at the turn of the 17th and 18th centuries in Upper Silesia resulted in the necessity to build steel plants. These in turn had to be supplied with coal, which caused the businessmen of the day to commence exploitation of coal in the areas of newly established steel plants so as to avoid unnecessary transportation. In Upper Silesia, new villages, cities and whole agglomerations developed along with the robustly developing heavy industry and the construction of mines. Over 150 thousand miners were employed in the Polish mining industry prior to the First World War [1]. This sector was characterized by a high level of work mechanisation and technical advancement. From its very beginning, the miner's profession was cherished, which resulted in a series of privileges. It was the mining industry that was the first to introduce health and social insurance and standardise the miners' working hours. The expansion of class awareness, labour unions and political parties gave Upper Silesia a head start over other regions by at least one generation since the very beginning. All this was related to ensuring tens of thousands of households a modern housing, trade, transportation, sport and cultural infrastructure. With years, new settlements were established, villages transformed into cities and the area of Upper Silesia was developing into an agglomeration.



These processes are best exemplified by the existence of the Nikiszowiec quarter region along with the Giesche residential complex around a well-functioning mine.

Jerzy Giza (his German name was Georg Giesche) was the first one to conduct large-scale extraction of calamine and blende. As early as at the turn of the 17th and 18th, together with Kacper Pielgrzymowski (von Pelchrzim), he extracted calamine and transported it to Prussian cities via the Vistula and Odra rivers.

Since the mid-18th century, the “Giesche” company was run by managers in the name of the heirs, and later, as an enterprise with a legal personality, it transformed into a multi-unit, multi-branch conglomerate encompassing ore mines, coal mines, non-ferrous metals steelworks, as well as factories of porcelain and chemical products such as sulphuric acid and artificial fertilisers.

Thus, it may be said that it has all started with zinc. It should be said that in the past, the Silesia and Dąbrowa Basin was the land of zinc, coal and iron [2]. These products have determined the directions of the dynamic development of the region for hundreds of years.

In the industrial period, in the early 20th century, namely in 1905, the general director of the Giesche heirs corporation – Anton Uthemann, reached the conclusion that a residential settlement should be built for the German miners. The miners who were brought from central Germany were, however, unable to settle and feel at home and they quickly returned home. The Giszowiec colony (initially called Gieschewald) was established in 1907 and was in construction until 1910. Giszowiec was designed by two German designers – Georg and Emil Zillmann (figure 1).



Figure 1. Georg and Emil Zillmann.

The settlement was a “garden city” and the pioneer in such type of development was a British town planner – Ebenezer Howard [3]. The settlement was founded in the middle of the woods belonging to the Janów commune (figure 2).



Figure 2. The primary construction plan of the Giszowiec colony.

Similarly to Giszowiec, the neighbouring Nikiszowiec (figure 3) was established during the rapid industrial development of Upper Silesia in the years 1908 – 1919 and 1920 – 1924. Also this quarter was designed by Georg and Emil Zillman.

The beginnings of Nikiszowiec are strictly related to the “Giesche” coal mine, where construction of two new shafts – “Carmer” (currently “Pułaski”) and “Nickisch” (currently Poniatowski) in the “Reserve” panel was commenced in order to exploit new coal seams. The Nikiszowiec quarter took its name from the last director of the Gieshe plant in Katowice – Kurt Nikisch.



Figure 3. Construction plan of the Nikiszowiec colony.

To commence the exploitation, however, significant manpower was required and bringing so many people was not easy. The area was a woodland where no settlements or villages existed. The development of the residential buildings was very different from the one known from the old Giszowiec.

The plan of the Nikiszowiec settlement encompassed 10 3-floor buildings including 7 residential buildings, and two closed housing and services buildings as well as an open quarter with flats, shops, bathhouse, laundry, workers’ hotel and the management of the mine [4].

The Katowice – Murcki (figure 4) quarter was yet another area of Upper Silesia where a miners’ settlement was established around a functioning mine. The first written records of extraction of coal in Upper Silesia, from 1657, concern the Murcki coal mine.



Figure 4. Kostuchna 1910.

In the post-war time, the Murcki coal mine was merged with the Boże Dary coal mine and subsequently it continued to operate independently. In the 1970s the mine was once again merged with the Boże Dary mine and the two-section Murcki coal mine was established with the Murcki section and the Boże Dary section. The exploitation of coal in that coal mine continued without interruptions for over 350 years, until 2015 [5].

In the entire post-war period, coal mining was one of the most important sectors of the socialist economy. Simultaneously, it was decisive for the importance of the Silesian region. The incredibly high status of mining in the Polish economy is evidenced by the fact that through nearly the entire period of the Polish People's Republic it had "its own" management at a central level – as early as in 1949, the Ministry of Mining and Power was established, and in 1950, the Ministry of Mining was separated from it and transformed in 1955 into the Ministry of Coal Mining. In the years 1957 – 1976, the Ministry of Mining and Power functioned at the central level, while in the years 1976 – 1981 it was the Ministry of Mining. In the 1980s, the mining industry was managed by the Ministry of Mining and Power. Despite the changes and reorganisation within the 45 years following the war, the coal mining industry had a "visible" management structure at the central level. The central structures, except for a short period in the 1950s, when the plants were subject to the central management of ministries, governed the medium-level management bodies, the so-called "Unions". Their purpose was to organise the individual Upper-Silesian and Dąbrowa Basin's mines.

To exemplify this, the Katowice Union of Coal Industry initially encompassed the following coal mines" „Janów" (later „Wieczorek"), „Kleofas," „Katowice," „Wujek," Mysłowice," and „Eminencja" (later „Gottwald"). In 1968, the Union also encompassed the "Murcki" and "Lenin" (currently "Wesoła") coal mines.

On August 2nd, 1982, by the ordinance No. 164/82, the Unions were transformed into Associations. In Katowice, the Association of Coal Mines encompassed 10 coal mines and 3 auxiliary plants. The mines were a part of the Association for only 2 years. On September 29th, 1984, multi-plant companies were formed, called the Guilds. The Katowice Coal Guild included 10 mines and 3 plants. Another stage in the transformations was the establishment of five multi-plant mining companies at the end of 1988. These companies were called Coal Exploitation Companies [5].

At the onset of the system transformation of 1989, the mining industry was a real power, at least considering the number of persons employed in that sector: 415 740 employees and an output of 177.5 million tons [6].

The political and economic transformation resulting in the switch to a democratic state and free-market economy has had its impact also on this sector. The inefficient structure of the industry (70 mining plants as separate business entities), low capability of generating measures for replacement investments, low work efficiency and the deterioration of the profitability of the coal mining industry has forced the adjustment of the Polish coal mining industry to the conditions of market economy. The processes of these changes were supported – with varying results – by the sector repair programmes implemented in the years 1993-2016, such as [7]:

- March 1993: "The programme for restructuring of the Polish coal mining industry – implementation of the 1st stage within the financial capabilities of the state."
- June 1993: interim adjustment of the restructuring programme: "The programme for the prevention of the bankruptcy of the coal mining industry" – conducted in the period of June – December 1993.
- March 1994: "2nd stage of the implementation of the programme for restructuring of the Polish coal mining industry in the years 1994-1995."
- April 1996: "Coal mining industry – the state's and sector's policy for the years 1996 – 2000. Program for the adjustment of the coal mining industry to the conditions of market economy and international competitiveness." This programme, in a more unambiguous manner, established objectives such as: the profitability of mining, reduction of exploitation costs, and the achievement of an economically rational coal price. Among other methods, these objectives were to be achieved by the reduction of employment by 80 thousand persons and

the decrease in the output by approximately 20 million tons a year. 3 209 million PLN from the budget were allocated for that purpose. It should be added that also this programme has not delivered the assumed effects.

- June 1998: “The reform of the coal mining industry in Poland in the years 1998-2002”, Conducted based on the Act dated 26.11.1998 on the adjustment of the coal mining industry to functioning within market economy and the special rights and tasks of mining communes.
- December 1999: adjustment of the government programme. Reform of the coal mining industry in Poland in the years 1998-2002, adopted by the Council of Ministers on 21.12.1999.

The main objectives of this programme included:

- making the mining industry profitable,
- liquidation of the excessive production capacity of the industry – approx. 36 million tons/year,
- reduction in employment by approx. 115 thousand persons by the end of 2002,
- complete liquidation of 15 mines and partial liquidation of 9.

This programme – the most mature one, based on social dialogue – equipped both with financial and legal instruments as well as a rich package of social protection, has brought the expected results.

- April 2004: “Restructuring of the coal mining industry in the years 2004-2006 and the strategy for the years 2007-2010.”
- July 2007: “Action plan for the coal mining industry in Poland for the years 2007-2015.”
- January 2015: “Repair plan for the Kompania Węglowa S.A.”
- February 2015: “Repair programme for KHW S.A.” (the last two programmes were not intended for the entire sector).

The conducted activities have brought significant results, which should be viewed in domains such as: technology, production, social aspects, economy and safety. As a result of the many years of restructuring, the following reductions took place [8]:

- number of mining plants – from 70 in 1990 to 22 as of 31.12.2016,
- output – from 147.4 million tons in 1990 to 70.4 million tons in 2016,
- total number of employees – from approx. 388 thousand in 1990 to 84 645 by the end of 2016.

Besides the problems of technical and organisational nature, the restructuring gives rise to human problems – both individual and social. This means the perpetual balancing between the expected economic objectives and the concept of sustainable development. The success of such changes is always dependent on skilful social dialogue.

2. Redevelopment of mining areas

A modern mining plant also means social responsibility and care for the environment, so that the effects of the exploitation would be as little burdensome as possible. The pro-ecological activity encompasses, i.a. the areas of protection of surface water, management of mining wastes, reduction of dust and gas emissions to the atmosphere, reduction of noise emissions as well as the reclamation of mining areas. Many thousands of hectares of these areas were provided to mining communes. These areas served the establishment of many sub-zones of the Katowice Special Economic Zone (e.g. in Żory or Jastrzębie), business activity zones and business incubators (figure 5).



Figure 5. Area of the “Warszowice Panel” Pniówek - area of the cancelled coal mine construction – 39.76 ha.

There are 12 companies in that area. Declared investment: 599 000 000 PLN, actually borne cost: 766 000 000 PLN. Employment: 2105 persons (as of the end of 2016).

The large area of the post-mining grounds and the inspirations of contemporary architects also give many architectural possibilities that preserve a certain aspect of the mining culture.

The joinery (adapted as a museum) and the machine room of the “Głowacki” shaft were made available to tourists, who may now view a unique steam powered hoisting machine from 1900. The historic mine is not only a mining museum. The place is intended for a broadly understood museum and cultural activity. The Ignacy coal mine is the oldest ROW mine. Its establishment dates back to 1792. The nowadays historic mine functioned as KWK Hoym and KWK Hoym-Laura coal mine until 1936. It was closed in 1995 (figure 6, figure 7).



Figure 6. Ignacy mine before revitalisation.



Figure 7. Current view of the Ignacy mine.

To exemplify this – there were areas in the strict centre of Katowice that required redevelopment and that were provided to the city by the Katowicki Holding Węglowy. These were the areas of the former “Gottwald,” “Katowice” and “Kleofas” coal mines.

The area of the “Gottwald” coal mine was designated for the construction of the largest shopping centre in Silesia – the Silesia City Center. It was one of the first investments in the region that served

the management of a post-mining area. The design provided for the preservation of two of the plant's buildings – they now hold the St Barbara Chapel, the management of the centre, a restaurant, an art gallery as well as the tower of the “Jerzy” shaft, which is the landmark of the centre. Silesia City Center – one of the largest sales, services and entertainment centres in Poland (fifth in view of the area), with a total area of several hundred thousand square meters, out of which 86 000 m² serves sales, 100 000 m² is a residential area (Dębowe Tarasy estate) and 60 000 m² is an office area (Silesia Office Towers) – figure 8.



Figure 8. Silesia City Center.

The area of the former “Katowice” mine that operated in the years 1823-1999 (figure 10) now holds the new seat of the Silesian Museum (figure 9). The historic buildings from the late 19th century are now an integral part of the museum. The centre of Katowice, with a void left by the mine, went through redevelopment in a scale unprecedented in Poland. One of the assumptions was for the city to put emphasis on culture. The facilities established in that zone are supralocal and stimulate the entire region. At the area of that same company, the Polish National Radio Symphony Orchestra has found its seat (figure 11).

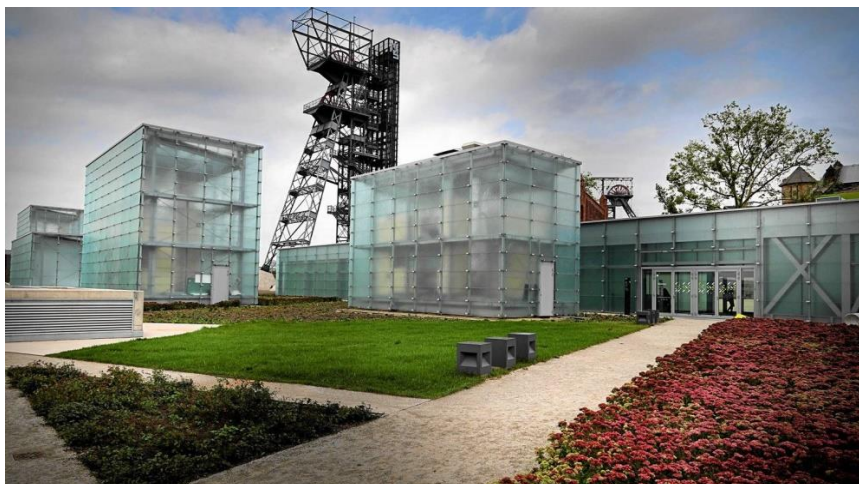


Figure 9. Silesian Museum in Katowice.



Figure 10. KWK Katowice mine before redevelopment.



Figure 11. The symphony orchestra's seat.

3. Description of the cultural transformation

The cultural and economic changes proceeded gradually, by having an imprint in the surrounding reality and often drawing new models from it. On the other hand, the hermetic mining culture has provided the changing reality with numerous positive qualities and phenomena. One should mention the high level of social participation in the business processes, the miners' ethos and culture of work, the pragmatism and the professional and social co-responsibility.

For dozens of years, the development of the Silesian agglomeration has contributed to the formation of a region characterised by specific traits to an unprecedented scale in the centre of Europe. Despite the dynamic development of the Silesian agglomeration and the mining industry, the mining culture and traditions are being cultivated and are now an inseparable element of our region. The mining industry, cooperating in full symbiosis with local governments, adjusts to the conditions of the centres of cities concentrated in the heart of Silesia. The most modern investments in Poland were established around the Silesian mines and at their premises [5].



Figure 12. Srebrne Stawy golf course.

The Srebrne Stawy golf course in Bytom is one of the most interesting and the largest redevelopment investments of a post-industrial area in Poland as well as it is the first golf course opened on a post-mining area (figure 12). Also the largest Polish private hospital was built on a post-mining area (figure 13).



Figure 13. The GeoMedical hospital in Katowice.

On the other hand, the development of mines ensured the development of the Silesian agglomeration. The high level of urbanization, the most developed road and railway infrastructure in the country, was the result of the role that was played by the Silesian mining industry for dozens of years. The rule of sustainable development followed by the mining industry consists in supporting the local communities which live by the mining plants since decades and consider the mines their providers. The capital drawn from their tradition is always an investment in the future [9].

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