# Relics of Technology







# Historical Metallurgical Plant in Maleniec

In 1784 Jacek Jezierski, Łukowski castellan, established an institute consisting of a sawmill, wireworks, and a blast furnace with 11 sledge hammers. In the ironworks they manufactured, among others, steel forging for barrels of famous riffles made in royal factory in Kozienice. Fifty years later the institute was modernized and a rolling-mill, a hammer forge and a hatchet-mill were added. In the mid 19th century they installed fifteen

nail presses for making nails cut out of tinware. Soon after that they also started making spades, shovels and structural hardware. The institute machinery run on three water wheels propelling a system of transmission belts that would start the press, the nail press, the cutters, the sledge hammers and the furnace bellows. In 1950 they stopped making nails. Seventeen years later the institute was closed and the production was moved to a new building.

Historical Metallurgical Plant in Maleniec Maleniec 54, 26-242 Ruda Maleniecka Phone (+ 48 41) 373 11 42 open daily till dusk www.zzhmaleniec.republika.pl



## Old Polish Industrial Region Museum



The construction of a rolling-mill and a puddling furnace in Sielpia Wielka was started in 1821 from the initiative of Stanisław Staszic. Among the equipment there were puddling furnaces, a front hammer for piercing puddled balls, an initial rolling-mill for rolling bloom, and a water turbine designed by Philippe de Girard, which is the pride of the museum. In 1921 the rolling-mill stopped its production and in 1934 it was transformed into a regional Technology and Ironworks Industry Museum. During the war years, 1939-1945, the museum was destroyed and the invaders stole 72 cars of steel, plant machinery and equipment. Among the exhibits of the museum the most valuable are: an iron mill wheel propelling a fly-wheel, a steam supercharger from the 19th century, a

steam-engine from 1858 – the oldest in Poland, and the 19th century front lathe. The last several years there has been a Technology-Tourist Fair "Kuźnice Koneckie" in Sielpia, Maleniec, and Stara Kuźnica when antique machines are activated.

## **Old Polish Industrial Region Museum**

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## Nature and Technology Jan Pazdur Ecomuseum

In 1789 Wąchocki abbot Rupkiewicz founded the construction of the first big blast-furnace in the area of present Starachowice. After 1815 Stanisław Staszic had an idea of a "set of iron plants on the Kamienna River" and in 1841 three big blast-furnaces running on coal were opened. In 1897 the building of a new institute with a big blast-furnace running on coke was started. It was active between 1899 and 19 March 1968. At present there is a Museum of Nature and Technology Jan Pazdur Ekomuzeum where you can see a unique blastfurnace from 1899 with preserved metallurgic machinery, and one of the biggest in the world steam engines which was brought to Starachowice from a Public Exhibition of Industry in Paris in 1889. The exposition contains also display units



of car and armaments technology produced in Starachowickie Plant. Among nature exhibits there are great paleontological collections, for example dinosaurs' fossils from the Jurassic era.

## Nature and Technology Jan Pazdur Ecomuseum

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# Ruins of a Blast Furnace Plant in Samsonów

Metallurgic traditions of the town go back to the 16th century. The first blast-furnace was already mentioned in 1645. Field cannons, cannon balls and helmets were produced here. In 1778 in place of the ruined blast-furnace a new one was built which was in use till 1816. Two years later, out of Stanisław Staszic's initiative, the construction of another ironworks and a housing for its workers were started. The furnace was activated



in 1823 but there is a different date inscripted on it - 1835, which is when the institute underwent another reconstruction. The machinery was propelled by water from the Bobrza River conveyed to the institute in an underground duct. The institute was working till 1866 when it was destroyed by fire and since then it has gone to rack and ruin. In its central part there is the furnace. The highest construction is a tower from which coal, ore and flux were poured into the furnace.

#### Local Work Group "Dorzecze Bobrzy"

ul. Urzędnicza 8, 26-085 Miedziana Góra, Phone (+48 41) 303 22 44 www.dorzeczebobrzy.pl

## **Resistance wall in Bobrza**

There was ironworks and blast-furnace in Bobrza in the 16th century where cannons and cannon balls were produced. A new blast-furnace institute was founded in Bobrza in 1824 by Drucki-Lubecki. The idea was to build five furnaces along the slope of the hill. At the top of the eminence strengthened by the resistance wall there were supposed to be six buildings belonging to the plant. They were also to build a community of more than ten houses for the future workers. Till 1830 the following were finished: a pond with canals, the resistance wall, four coal plant, three furnaces for ore calcination, two storage rooms for the ore and ten houses. It was to be the biggest iron plant but the completing of the whole project was interrupted by the



failure of the November Uprising. As a result, for tens of years the already built rooms were used for a nail press and after the II WW for a mechanical weaving plant. Nowadays the most impressive is the resistance wall, about half a kilometer long and 15 meters high, which protected the hill against landslide and it was also to be used for pouring batch into furnaces from its top. The institute buildings that survived till now are the rooms, the houses and the walls of the coal mill. The pond is also well preserved, which was to be used for storing water, and the canals through which water would reach the water wheels.

# Mechanical Forge in Stara Kuźnica

There is one and only in Poland forgy preserved in its original form with bellows and a sledge hammer, which was propelled by a water wheel. The 19th century pressure hammer is the same type as those that were brought to Poland at the turn of the 17th and the 18th centuries. The hammer was activated by a wheel which propelled a shaft with strong wooden pegs. The other water wheel was propelling bellows, so called Polish, which would grout air into a furnace where steel was heated for smithing. The speed of the hammer descent

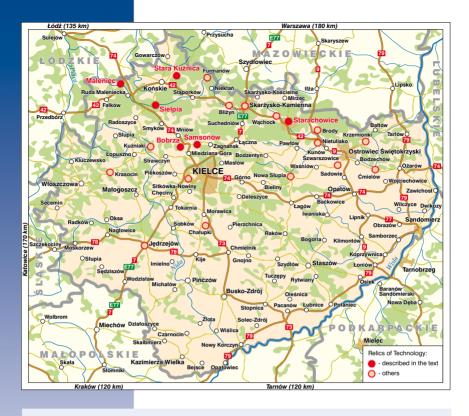
was controlled by the amount of water falling on the water wheel. All these machines, made in the beginning of the 19th century, are preserved in their original state and were working till 1957. In the last years of their activity farm equipment was produced, mainly blades, hatchets, hardware, hooks and clamps. Except for the pressure hammer there is also other smaller equipment: tinware scissors, pincers, pliers and smaller hammers.

Stara Kuźnica is located at the Młynkowska River at the foot of the Koneckie Hills. You can get to it from the Końskie -Przysucha route, taking a turn at Młynek Nieświński.

#### Mechanical Forge in Stara Kuźnica

Stara Kuźnica 46, 26-200 Końskie, Phone (+48 41) 371 91 87





## **Tourist Information Centre**

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