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# Paper Mill in Duszniki-Zdrój



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# Paper Mill in Duszniki-Zdrój

Duszniki-Zdrój 2018



Muzeum Papiernictwa  
w Dusznikach-Zdroju



**DOLNY  
ŚLĄSK**

INSTYTUCJA KULTURY  
SAMORZĄDU  
WOJEWÓDZTWA  
DOLNOŚLĄSKIEGO



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*Paper mill in Duszniki, 1930s, watercolor painting, author unknown*

# Introduction

## A Brief History of Hand Papermaking

The invention of paper is one of the most crucial advancements human civilization has ever made. For many centuries, paper has been manufactured by hand and used for writing and spreading ideas, news, and experiences. As papermaking kept industrializing in the 19th century, paper price decreased and the product itself became more and more popular. The faster a civilization grows and develops, the more paper is manufactured. Nowadays, in the early 21st century, around 400 million tons of paper are produced every year, evidence that the industry's civilizational application has been significantly changing since the Information Revolution in the 1990s. While less and less paper is being used for writing and printing, the demand for packaging and sanitary paper products is steadily increasing.

Paper was invented in 105 AD, in ancient China. The invention is traditionally attributed to the court official, Cai Lun (62-121 AD). Cai Lun used to crush raw materials (wood fiber, hemp waste, and disposed fishing nets) with a wooden hammer. The pulp was then spread on a loosely woven screen, submerged in water. This is how a thin layer of



蔡倫

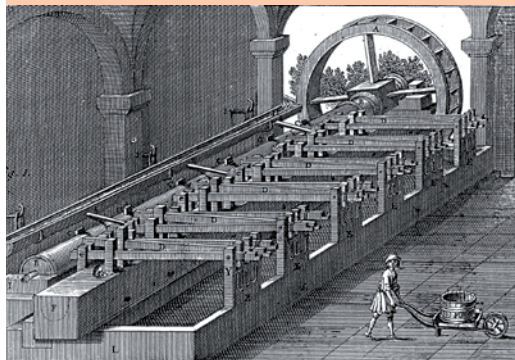
*Cai Lun  
– the inventor  
of paper*

drained and dried papier-mâché turned into a paper sheet. As time has passed, textile screens were replaced with the ones made of thin plant stems (e.g. bamboo).

The spread of the Chinese papermaking craft to neighboring countries took a few centuries. As late as the beginning of the 12th century, the first European paper manufactures were established by the Arabs in the Iberian Peninsula and, allegedly, in Sicily. The Europeans inherited the skills and know-how from the Arabs quickly.

In the 13th century, papermaking procedures were refined in Italy. The first critical improvements (increasing both paper quality



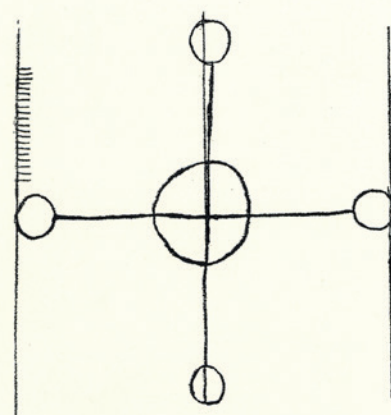


*Stamp mill for rag defibering;  
from J. De La Lalande, Art de faire le papier,  
Paris 1761*

and paper mill performance) were made in the Fabriano province, 200 km north of Rome. The Italians introduced a waterwheel-driven stamp mill, used to process linen or hemp rags. **And this is how the paper-mill era was launched.** Besides, plant-based forming screens were reinvented and replaced with wire ones that not only turned out to be more durable, but also provided smoother paper sheets. It was also in the Fabriano paper mills where the watermark was applied for the first time in the second half of the 13th century. Italian papermakers improved the method of sealing the sheets by adding glue to the paper pulp, using sheepskin-and-hoof-

based glue, dissolved in water. Glue particles penetrated the paper fibers and reinforced its structure, kept the ink on the surface, and made writing easier and cleaner preventing inkblots.

Papermaking spread further north all over Europe, with evidence of paper production in Auvergne, France (around 1326, by Richard de

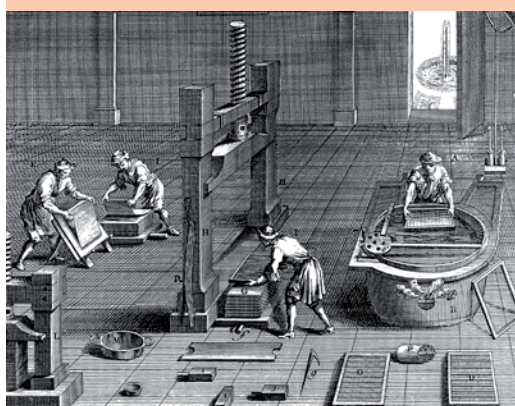


*The oldest watermark ever known:  
Bologne 1282 (a redraw)*

Bas), Nuremberg, Germany (1390), Fribourg, Switzerland (before 1411), on the outskirts of Constantinople (in 1453), in Hertford, England (around 1488), in Prądnik Czerwony on the outskirts of Cracow, Poland (in 1491), and in Moscow, Russia (before 1565).

More quality and performance advancements were made by the Dutch, who, in the second half of the 17th century, built a machine to process discarded clothing into paper pulp, which was more effective than a stamp mill. The machine still bears the name of its inventors: the hollander. Hollanders were eight times more efficient than stamp mills and made paper pulp of significantly higher quality.

However, the invention that launched a proper industrial revolution in papermaking



*Hand papermaking; from J. De La Lalande,  
Art de faire le papier, Paris 1761*



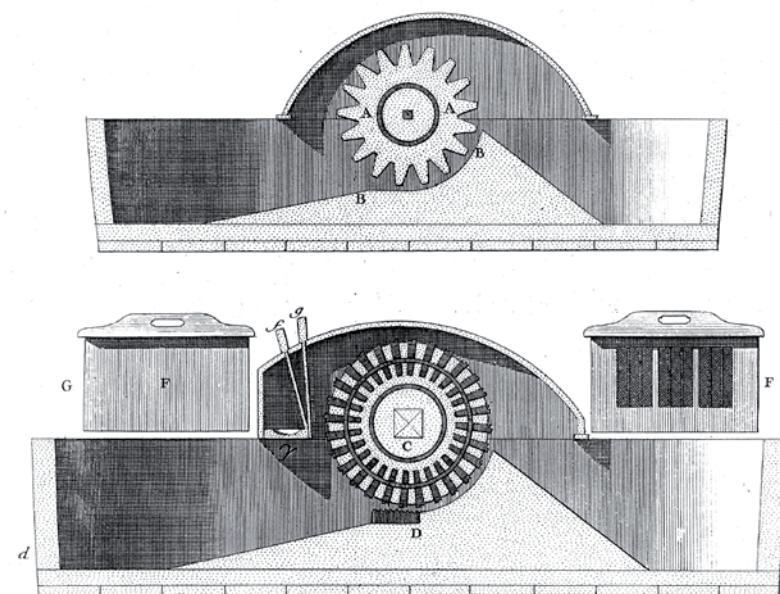
*Watermark from Prądnik Czerwony, 1516  
(a redraw, from the Paper Museum collection)*

and made a clean break between traditional paper mills (based on craft production) and fully machined paper factories was a paper machine, built in 1798 in France by Nicolas Louis Robert. Speaking of key differences be-

tween the pre-industrial and the industrial era: while traditional paper mills had been powered by mechanical waterwheels, the factories took advantage of steam engines or water turbines. The spread of machine production in the 30's and 40's of the 19th century resulted in the decline of the original papermaking craft – due to the competition among factories, paper mills were gradually put out of operation in subsequent decades.

## The Origin of Papermaking in Silesia

The first paper mills in Central Europe were set up in the wake of the Middle Ages. Silesia, then a part of the Kingdom of Bohemia, did not fall behind; the Silesian paper industry dates back to the end of the 15th cen-



*Hollander from the inside; from J. De La Lalande, Art de faire le papier, Paris 1761*



tury. Wrocław (former Vratislav or Breslau) was the first Silesian city with a paper mill, established in 1490. By the end of the 15th century, three other paper mills were set up: one in Świdnica (then Schweidnitz), and the others in Nysa (Neisse) and Racibórz (Ratibor).

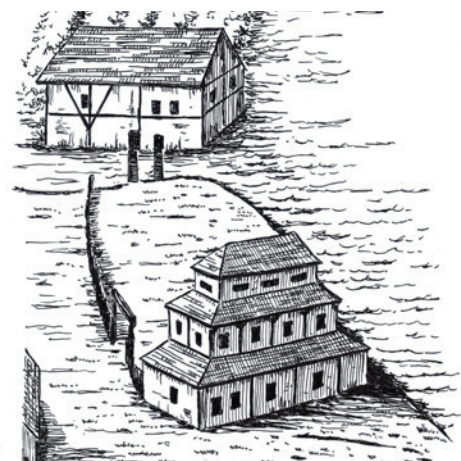
At the beginning of the 16th century a few new paper mills were set up in Silesia: in Opa-  
va, (between 1501 and 1506), Legnica (around 1511) and Głogów (after 1520). In 1526, after the Bohemian and Hungarian branch of the Jagiellonian dynasty had died out, Silesia and the Kingdom of Bohemia were incorporated into the Habsburg Monarchy. No matter how shocking this historical event was, it has not ruined or even endangered the prosperity of the Silesian paper industry. Existing paper mills were flourishing and some new ones started up. A paper mill in Duszniki-Zdrój in Kłodzko province, Poland (formerly Bad Rein-  
erz or Dušňiky in the County of Kladsko), was among them. It was established before 1562.

What managed to impede the boom of pa-  
per industry in Silesia was the Thirty Years'

War (1618-1648). More than half of the local paper mills were destroyed during the war. While there had been fifteen running paper mills in Silesia until 1618, just six of them re-  
mained when the military campaign ended. The post-war era in the Silesian paper indus-  
try was all about recovery; some of the de-  
stroyed paper mills were restored, while oth-  
ers were newly established. In the early 18th  
century, the total number of local paper mills  
reached twenty.

As a result of the Austro-Prussian War (1740-1742), a vast part of Lower Silesia, in-  
cluding Duszniki, was incorporated into the  
Kingdom of Prussia. Under the new rule the  
local papermaking craft boomed. Let the  
numbers speak for themselves: while there  
were thirty-four paper mills in Silesia in 1740,  
by 1800, the number almost doubled (about  
fifty-six manufacturers in the Silesian part of  
Prussia), which makes the second half of the  
17th century the golden era in the history of  
papermaking craft in Silesia.

At the turn of the 18th and 19th centu-  
ries, the Prussian economy stagnated, and it  
wasn't until the 1830s that a strong impact of  
the Industrial Revolution struck. This situa-  
tion (with no industrial competitors in sight)  
was, in fact, very beneficial for manufactures  
and crafts, papermaking included. Silesian  
paper manufacturers prospered until the  
second half of the 19th century. The first  
paper machine in the Prussian Silesia was  
set up in 1834 in Mieroszów near Wałbrzych,  
about 50 km from Duszniki. What followed  
was a rapid development of machine-based  
paper industry in the province. By the early  
20th century, about forty fully industrialized  
paper factories were running here. The only  
traditional paper mill left in the whole Prus-  
sian Silesia, was the Duszniki one.



*View of the paper mill in Wrocław, drawn  
by M. Lemejda, based on the axonometric  
projection of Wrocław from 1562;  
B. Weiner, University Library in Wrocław,  
The Department for Map Collection*

# Three Papermaker Houses in Duszniki

## The Kretschmers, or the Beginnings

When exactly papermaking in Duszniki  
started is not completely clear. The first  
track record of the local paper mill comes  
from 1562, St. Barthomolew's Day, when  
a man named **Abrosius Tepper** sold his  
shares in the mill to **Nicolaus Kretschmer**.  
We do not know much about Tepper: had  
he started the company? How long had he  
been holding the shares? It is safe to say,  
though, that the mill must have been es-  
tablished before 1562. The new owner came  
from Saxony (currently a state in Eastern  
Germany) and started the first house of  
papermakers in Duszniki: the Kretschmers,  
who, until 1706, ruled the mill for 144 years.

Nicolaus' son and his successor, **Gregor**,  
took over the mill in 1588. Gregor Kretschmer  
contributed to improving the quality of the  
Duszniki paper by adding extra water to the  
pulp and making the sheets moth-resist-  
ant. He made both a decent craftsman and  
a good administrator. When a flood came  
in the early 17th century (August 24, 1601  
or 1603; two different track records can be  
found in the sources) to destroy the mill,  
Gregor took advantage of the post-deluge  
damage and rebuilt an upgraded and more



*Watermark of the Duszniki paper mill at the  
time of Gregor Kretschmer (1588-1623);  
a redraw from a diapositive*

flood-resistant mill based on the former  
supporting walls. It was one of many in-  
vestments Gregor made: he also financially  
contributed to building a protestant Holy  
Cross Church in Duszniki, located on the hill  
close to the mill. In 1607, Gregor Kretschmer  
and his brother Georg were granted a coat  
of arms. Soon after, Rudolf II of Habsburg,  
granted them nobility and a nickname "von  
Schenckendorf." The title would be inherited  
by the next generation of the Kretschmers.





*Coat of Arms Certificate for the papermakers Gregor and Georg Kretschmer, 1607, 13 VIII, Prague – National Archive in Wrocław, Kamieniec Ząbkowicki field office*

After Gregor died in 1623, his son **Samuel I** inherited the workshop and ran it until his death in 1640. Not much is known about the mill during his era; that said, it is safe to assume the mill went through difficult times. Both Silesia and Bohemia were a theater of the Thirty Years' War (1618-1648), which wreaked havoc on the region, Duszniki included. Although the mill itself has not been damaged, the production rapidly dropped, especially in the 1630s, when the belligerents took over Silesia in turns, until they ravaged it completely. Another consequence of the war was deep depopulation and increasing poverty, which, due to lack of raw materials, led to decreased production.



*The Kretschmers' Coat of Arms, Paper Museum permanent exhibition, drawn in 1997 by K. Truss*



*Portrait of Samuel II Kretschmer, paper mill's owner around 1645-1656*



*Portrait of Christian W. Kretschmer, paper mill's owner in 1665-1689, face, 1671 – National Archive in Wrocław, Kamieniec Ząbkowicki field office*

In 1640, when Samuel Kretschmer died, his wife **Susanna** took over the mill. Since their only son, **Samuel II**, had barely turned thirteen when his father passed, he had to wait a few years for a position of power in the mill. Unfortunately, he was only twenty-nine when he died in 1656, which made him the shortest-managing owner of the mill. Be that as it may, this was one of the most successful times in the history of the family business: an era of postwar economic boom and restoration of broken professional relationships.

After Samuel II died, the mill was taken over by his wife, **Susanna**, his mother-in-law's namesake. Their son, **Christian Wilhelm**, was only nine years old when his father passed away; it can be assumed, then, that he managed to take the leadership no earlier than the 1660s. Christian Wilhelm ran the mill for over 20 years, until he died in 1689. He managed to get a concession for providing paper to Vratislavian offices. In

1684, he bought a permit for rag collecting in the County of Kladsko. This privilege not only empowered the Kretschmers' mill economically, but also stamped out any potential forthcoming paper manufacturers in the region. It is evidenced that the paper mill in the Kretschmers' era was granted permission to collect rags from the Duchy of Ziębice as well as from the city of Ząbkowice. Christian Wilhelm, his ancestors alike, had been considered a person of standing in the local community, which is supported by the fact that he had served as a city councilor, or, allegedly, as a mayor of Duszniki for a short time.

When Christian Wilhelm Kretschmer died, his eleven-year old son **Wilhelm Jr.** was too young to administrate the mill, which at that time was formally owned by his mother, **Susanna Katharina**, who remarried in 1691. Her second husband, **Anton Franz Rosenberg** (who came from a family of Prague papermakers) ran the mill for several years.





*Portrait of Wilhelm Kretschmer,  
paper mill's owner in 1697-1706*

## The Hellers, or the Golden Age

The Hellers owned the Duszniki paper mill for 116 years, since 1706 until 1822. A founder of the Duszniki line of the family came from Frýdlant in Northern Bohemia, a town with significant papermaking traditions. While there is no evidence of mill re-development in the Kretschmer's era, it is known that in 1709, soon after he had taken over the enterprise, Johan Anton Heller bought a neighboring sawmill and old forge to have it rebuilt and merged with the mill. This investment was huge. The "lower mill" (as it was called) was probably located east of the existing premises. The investment spoke of the growing demand for Duszniki paper; not only did it serve the needs of local customers, but it had also been sold to the offices in Wrocław. In order to provide enough raw materials, Heller regained the concession for rag collection in the Duchy of Ziębice and the city of Żąbkowice in 1713. Johann Anton ran the mill until 1737. He died soon after, in 1742, as an 85-year-old.

His successor, Aton Benedikt, was born in 1704, shortly before the family moved to Duszniki. His era falls during the War of the Austrian Succession (1740-1742), as a result of which Silesia was incorporated into the Kingdom of Prussia. New business opportunities – but also new threats – opened up for the Hellers; for example, in the aftermath of the war, new Prussian-Austrian borders were demarked. As a result, the Hellers were suddenly cut off from their raw material sources in the Broumov district. Soon after, they were compensated with a privilege to collect rags in Upper Silesia.

Beyond this, the first half of the 18th century was when a new method of pulp processing, based on hollanders, started



*Portrait of Anton Benedikt Heller,  
paper mill's owner in 1737-1772,  
by Caspar Rathsmann*

spreading in Central Europe. It is not evident when the first Hollander was installed in Duszniki. What we know, though, is that Anton Benedikt Heller bought it for 1,000 rixdollars. Hollanders brought advantage to the paper industry, both in terms of paper quality and production efficiency. The machine was way more accurate than former stamp mills, which translated into smoother and more durable sheets. Moreover, the hollanders worked faster, which resulted in higher volumes of product. With that being said, it is not hard to see why Heller decided to build a new drying loft, located next to the eastern side of the existing mill. The construction was finished in 1743. For improving the quality of his paper, Anton Benedikt was rightfully proud, to such an extent that he decided to present his product to the Prussian court officials. In recognition of its value, in 1750, Frederick the Great granted him a title of the royal papermaker. Apart from a great symbolic value, the ennoblement actually opened



*Portrait of Anna Franziska Ossendorf,  
née Heller, paper mill's owner in 1779-1802,  
by Caspar Rathsmann*

Heller's door to the Prussian market. The King himself visited the mill on the 16th of August 1764, which was an important milestone in the history of the mill. Five years after, 22 July, 1769, a flood damaged the mill. As a part of cleaning-up and restoration works, some improvements were made: the Hellers got an entrance pavilion and a small bridge across the river Bystrzyca Dusznicka built. Anton Benedikt Heller died in 1772, passing the enterprise to his son-in-law, **Johann Joseph Ossendorf**.

Ossendorf came from a famous family of papermakers, based in Northern Bohemia since the 17th century. Johann Joseph was the youngest son of an entrepreneur, who otherwise owned paper mills in Benešov and Horní Ves, in Chomutov district. It was his older brothers who were supposed to inherit the Bohemian domain, though. Around 1761, after practicing in the Horní Ves mill, Ossendorf moved to Duszniki and married Josepha Antonia Heller. As time



*Watermark  
of the Duszniki  
paper mill at the time  
of Anton Benedikt  
Heller (1737-1772)  
or Joseph Ossendorf  
(1772-1779);  
a redraw from  
a diapositive*



went by, he got promoted to his father-in-law's chief assistant, who trusted him enough to pass him the mill. When Ossendorf took over, he also inherited the title of Court Papermaker. The height of the social status in the Duszniki community, which he had earned even before his father-in-law died, is confirmed by the fact that he became a godfather to fifty-eight children born of local families, including the town's high society.

Ossendorf also invested a lot of money into artworks. Presumably, he had the murals painted in the mill attic – we will get back to them soon – as well as three portraits representing the papermakers from the house of Heller: Anton Benedikt, his wife Anna Franziska, and their son-in-law Johann Joseph Ossendorf. This artistic patronage is probably one of the most significant of Ossendorf's achievements. His numerous successful activities were suddenly interrupted by his premature death on the 1st of January 1779, less than seven years after he had formally taken over the mill.

It was his wife, **Antonia Josepha Ossendorf**, a daughter of Anon Benedikt Hel-

ler and the third person bearing the title of Court Papermaker, who managed the mill after her husband's death. She managed to maintain a high volume and diversity of product. The mill manufactured up to 440 bales of various papers a year. By the 1880s, the manufacturer employed up to forty workers, making it one of the biggest Silesian paper mills. In 1787, a flood haunted Duszniki again and damaged the mill. At the turn of the 18th century, Antonia Josepha Ossendorf invested in façade decorations. Her social status was as high as her parents' and husband's; therefore, she was asked forty-four times to be a godmother for the children born in Duszniki. She was also addressed in a French manner, as "madame", instead of the more ordinary "Frau." After Antonia Josepha passed away in 1802, her fourth daughter **Josepha Antonia Susanna** (1773-1826) inherited the mill.

The last mill owner from the house of Heller was Josepha's husband, **Johann Leo Königer**. Their marriage failed. Soon after they had married, in 1811, Johann Leo had an illegitimate daughter with a woman who later gave birth to two of his children. The Königers ended up divorced. Johann Leo



*Portrait of Joseph Ossendorf,  
paper mill's owner in 1772-1779,  
by Caspar Rathsmann*

failed as a paper mill manager, too. He took over the enterprise in 1806, but, being more of a merchant than a papermaker, he was not able to look after the production. He was probably too occupied with his family issues to properly focus on the business. Admittedly, what has been said above does not do justice to Königer, since the times were exceptionally tough for the paper industry. In the aftermath of the defeat Prussia had suffered in the Napoleonic Wars, a deep financial crisis came. The Kingdom of Prussia was strong enough to overcome the crisis in a short time, but the Königer's enterprise was not. The mill declined. Due to a top-down law amendment abolishing all rag-collecting privileges, the Duszniki mill lost its competitive advantage and had to struggle for raw materials. In 1822, the mill was auctioned. At the beginning Königer was very popular in town and even elected for mayor in 1810. As time went by and the family enterprise collapsed, Königer's fame faded and his social status slipped and, after property loss, he moved to Wrocław, where he died in 1846.



# The Wiehrs, or Turning the Mill into the Cardboard Factory

Joseph II Wiehr, married Maria Under, a tavern-keeper's daughter, in 1836; therefore, he was in charge of both the paper mill and the tavern. Presumably, this is why he handed over his papermaker responsibilities to his youngest brother, **Ernst**, who ran the family business between 1842-1844 and 1853-1956. The middle brother, **Carl I**,

*Watermark of the  
Duszniki paper mill  
at the time of Joseph I  
Wiehr (1822-1842);  
a redraw from  
a diapositive*



In 1822, the mill was sold to the Wiehrs, who owned it for the following 117 years. Joseph Wiehr, a forefather of the Duszniki line of the family, was born in Wolibórz, near Nowa Ruda. Before he moved in, he had been living in Ząbkowice for a short time, where he had been working as a miller. He had been running the mill without any extra investments. Needless to say, the emergence of the first fully mechanized paper factories in Silesia was a historical moment of the first half of the 19th century. In the County of Kladsko, there were a few paper mills competing with the Wiehrs', especially in terms of collecting raw materials. This was not the best perspective for the mill. When Joseph died in 1842, at the age of 61, he left his wife Veronika, née Löffler, and their five children: Veronika, Joseph II, Carl, Ernst, and Johanna. All three sons were trained as papermakers and involved in mill management.

presumably managed the mill since 1844, but definitely since 1856. His first wife, Theresia Freudenreich née Wenke, was 11 years older than him. After she died in 1866, Carl remarried with Maria née Wiehr, his 31-year-old younger distant cousin, so a dispensation was required. Maria gave birth to their three sons: Carl II, Theodor, and Alfred. Carl I Wiehr managed the paper mill until 1899. Hard times came for traditional, craft-based paper mills. A vast majority of them went bankrupt. Quickly developing industrial production with its highly effective paper machines stole both customers and raw materials from the craftsmen. The unification of Germany in 1871, while Carl I Wiehr was running the mill, gave the Wiehrs entirely new business opportunities. The German economy accelerated promptly, thanks to a massive post-war contribution paid by France, among other influences. In the 1870s and the 1880s, many new individual paper companies and joint ventures emerged from

Silesia. In the County of Kladsko, three large paper factories were built: in Nowa Bystrzyca, in Młynów, and in a neighboring town of Szczytna. Wiehr's business was too small to invest, although he never gave up the enterprise, which – given the conditions – was a big success itself.

Following Carl I Wiehr's death his widow – Maria Wiehr – took over. However, the mill was actually managed by their oldest son Carl II who owned the mill until 1939. Maria died in 1905 and only then her son became the formal owner of the mill. In 1905 some crucial investments were made. The old paper mill was improved with a round-screen cardboard machine made by a famous H. Füllner's company from Cieplice. A millwheel was replaced with a modern Francis turbine of 20 horsepower. Despite all these innovations, handmade paper stayed in the company's portfolio for many years. According to the data from 1914, Carl II Wiehr manufactured 400-500 kg of handmade paper and cardboard used for file-binding a day. He employed fifteen workers at that time. Besides a paper machine and a vat, Wiehr's factory exploited as many as three hollanders, a stone mill, a rag-cutter and two calenders.

In the 1920s the Duszniki paper mill was considered profitable and Wiehr was a widely respected businessman. To raise cost-effectiveness of the mill, he manufactured wrapping paper, filter paper, and veterinary cataplasm packages too. As selling problems grew more serious, Wiehr decided to introduce new products to his portfolio – shingles and wooden boxes – in order to keep his employers busy and the factory going. In 1922, he reconstructed a barn and started a glass-cutting workshop. The economic condition of the mill worsened after the Great Depression, starting in 1929. In 1936, a machine park of the company was sold, meaning, the factory virtually ceased



*Portrait of Carl II Wiehr,  
paper mill's owner in 1905-39,  
drawn by M. Lemejda*

existing. As the company's debt grew higher, Carl II Wiehr decided to sell it for public purposes. His will was to open a museum there. In the interwar period, the mill was considered more an industrial monument than a factory; therefore, setting up the museum there appeared to be the best solution for the owner and for the sake of the building itself. In 1939, after long negotiations, the town of Duszniki finally took a loan and bought the ancient mill. Interesting fact: the last installment of the loan was supposed to be paid in 1986 which never happened due to the outbreak of the Second World War and its consequences.

After he sold the mill, Carl II Wiehr and his family still lived there. It was impossible to fund the museum during the war and the town hall only invested in the most urgent renovation works. When the





*Paper mill in the 1930s*

German historic preservation office (who took care of the mill in the war period) made a proposal to reopen the manufacturer, it turned out that Carl II Wiehr was the only person left who remembered how to make paper by hand. He promised to help the office, but he passed in 1941,

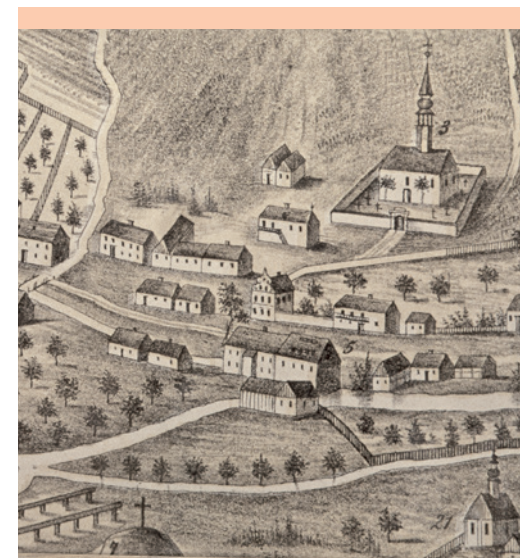
taking his know-how and experience to the grave. His dreams of the museum and the reactivated manufacture came true many years later, in post-war Poland and thanks to the Polish state paper industry. The museum was opened as late as 1968. The first production line was opened three years later.

# The Architecture of the Duszniki Paper Mill

The paper mill in Duszniki is a building complex consisting of three stylistically different buildings: a workshop with a residential zone and a drying room in the attic, a free-standing drying loft built up on the basis of an older house, and a polygonal entrance pavilion with a bridge.

Such variety in terms of both materials (stone, wood, timber framing) and architectural features (bay windows supported on stone cantilevers, gable roofs with typical roof vents) was actually very common for this type of European building complexes. Long abandoned or destroyed paper mills in Lower Silesia (such as the one in Świdnica, located outside of the defensive wall) or in Kępa Mieszczańska (near the medieval Wrocław city center) looked very alike.

Thanks to the location on the north-eastern outskirts of the town, at the southern riverside of Bystrzyca Dusznicka, the mill was the first city building that popped out for the travelers coming from Kłodzko. Its impressive volute gable on the western side, mirroring a baroque gable of the parish church standing across the square, was visible for those who were coming from Náchod. The now-leveled Holy Cross Church, co-founded by one of the Duszniki papermakers, Gregor Kretschmer, not only



*The oldest preserved view of the paper mill, based on a lost drawing by F. B. Werner, from: F. A. Pompejus, Reinerz aus der Vogelschau 1737, a litograph from 1862*

made a significant landscape counterpart to the mill, but was an important venue for the Kretschmer family, serving as their family tomb. Both Gregor (September 13, 1623) and his wife Joanna (1619) were buried there.

What is also missing from the picture is a mill wheel, located next to the southern





*Chronological stratification of the mill building complex, Wrocław 2017,  
by R. Eysymontt, R. Gliński, A. Szelaq*

wall of the factory, and run by a millrace, once flowing beneath a former drying loft. In 1719, an original undershot wheel was replaced by an overshot one, in order to increase power capacity of the millrun. According to a track record from September 13, 1728, an upgraded mill wheel was installed and a new canal built that year. The millrace was buried in 1959.

Actually, one can read the story of the Duszniki paper mill from the architectural form of its buildings, as easy as from an opened book. In 2017, extensive architectural and dendrochronological research was conducted making each phase of the past construction works easier to identify and describe.



*View of the paper mill from the southeast;  
image from the interwar period*

## The Paper Mill

### The Oldest Part of the Mill

The former mill, consisting of a workshop with a residential zone and a drying loft in the attic, was clearly divided into two parts. The western side of the building, originally made of bricks and then rebuilt in stone, has probably served as a warehouse downstairs and an apartment upstairs. The first floor interiors were covered with vaults. The second floor was brick and stone from the southern side only, while the northern part was originally made of timber framing and then rebuilt as a stone construction. There was one window in the southwestern corner of the building, and one door in a Renaissance stone frame.

The western side of the building had significantly thicker walls (110 – 120 cm) than the southern side, east of the bay window (90 cm). This is the oldest part of the complex, probably a remnant of the original mill, dated before 1562. A latrine, supported by tripartite consoles with a rounded profile, is an extremely archaic element of the building, dating back to the Middle Ages. Another Medieval reference,

located in the same part of the building, is a groin vault with sharp underside edges (so called arris rails), which is an interpretation of the Gothic rib vault. A portal located on the second floor of the mill has a Renaissance character.

The southern bay of the building, thanks to its thicker walls, was the one which probably survived the flood in the beginning of the 17th century. The construction has been reinforced with massive arches located as high as the former water wheel. It is plain to see that the façade disposition of the western gable wall used to be different; current windows do not match the window niches seen from the inside.



*Southwestern corner of the mill – possible  
remains of the original mill*



*Latrine on the southern  
façade of the mill*

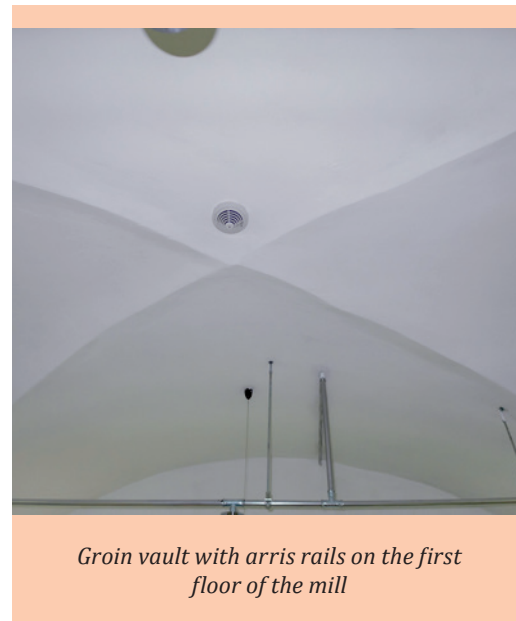




*Renaissance portal*

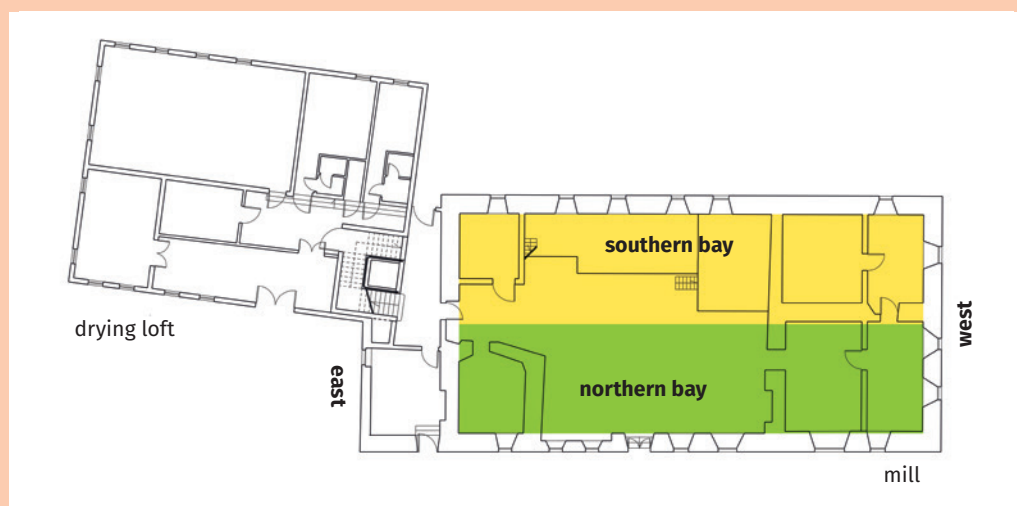
### After-Flood Reconstruction in the Early 17th Century

In 1605, the workshop with the residential zone was extended as a two-bay building, reinforced with masonry and covered with a new roof. The main entrance had



*Groin vault with arris rails on the first floor of the mill*

already been shifted to the northern side of the building, first floor, and framed with a portal with "1605" inscribed on it. The transformations and improvements that were made in the 17th century are not consistent. A case in point: the window frames on the first floor significantly differ in terms of both treatment and shape. These alterations have given the mill its almost-final



*View of the paper mill from the southeast; image from the interwar period*

shape, as we know it. The workshops were located on the first floor and in the eastern part of the second floor. The drying loft occupied the attic. In the largest room on the first floor there were the stamp mill and the rag loft, where the rags were washed and boiled (some remnants of a smoke duct are still here). The sorting room was located on the higher floor, so the rags were dumped to the loft through special holes in the ceiling. The maceration process in the hollanders was performed in a vaulted room. A gluing room and a pressing machine for dry processing were located next to the rag loft and vaulted too. The millrace ran the water wheel, which powered paper-processing machines.

The total value of the paper mill in 1619 and 1623 was 4,000 Meissen sixties. Only two Silesian paper mills could compete with this great value: one in Oława and one in Orłowice. The success was broadly discussed among Silesian chroniclers and travelers. One of them, Georgius Aelurius, in 1625 mentioned the beautiful paper mill in Duszniki, where one could easily buy some paper.

The shape and style of the paper mill simply reflects its economic success. At its peak, the two-bay mill building developed a character of a Renaissance gentry mansion, typical for the County of Kladsko. Based on a regular, rectangular plan divided into two bays, it probably made a model for the further freestanding workshop and apartment. Another archetypical 17th-century features of the reconstructed building is a bossage-looking façade decoration, which has been present in Silesian architecture since 1580, as well as paired windows, typical for manor houses from the turn of the 16th and the 17th centuries. 17th-century wooden ceiling and wall decorations, partially preserved and currently exposed in the museum, speak of the high aspirations of the mill

owners. This gentrified, manor character of the building could be excused by the sole fact that its owner, Gregor Kretschmer, was granted nobility.



*Southern half-timbered brick wall*

### The Timber-Framed Side of the Mill

The eastern side of the mill with a thinner half-timbered brick wall and a gallery on the second floor is free of any brick dividing walls, since it was probably intended to serve as a workshop or a warehouse from the very beginning. This part of the building has been and is still covered with wooden ceilings. There used to be a drying loft in the attic. A dendrochronological research confirmed that the ceilings are later than the original part of the mill, built before 1562. The interiors on the second floor were divided into three bays and three separate rooms, which remains clearly visible today.



### The Stairway

The spiral staircase, with treads supported on a single central column, was probably built in the beginning on the 17th century. The column, with a date “1727” inscribed on the upper side, is made of a single elm, cut down after 1566. It is possible though, that this precious wood has been upcycled, as other elements of the staircase have been made of different kinds of wood. Remarkable staircase stringers with pointed convex-concave underside cutouts and wood-board banisters form a flat handrail, formally referring to similar three-dimensional stone features of Baroque stairwells.

### The Attic

In 1604 the whole building was covered with a high, three-storey roof, containing the attic with a magnificent, fully preserved

timber roof with numbered trusses. Apparently, the timbering must have been built in all at once, since the spruce wood used for the construction had been cut off during one or two subsequent seasons (1602-1603). Note: this dating corresponds with the year inscribed on the northern portal: 1605.

However, the roof was originally a stepped-gable style, typical for paper mills from that era, and it used to be a bit shorter than now. Numerous windows inserted in those steps made paper drying faster and more efficient. Some of the ceiling beams on the upper timber-framed floor have been decorated with colorful painted profiles. Interestingly, they are stylistically very similar to the open parts of non-originating wooden ceiling built under the eaves on the northern side of the building.



*Western façade of the paper mill with a Baroque volute gable from the 1730s and decorations from the 18th/19th century*

### The Residential Part – The Attic

The western side of the first attic store held an apartment. One of the wooden beamed walls has been decorated with painted blooming vine scrolls. The wood for the beams was cut off later than 1598 and the oldest parts of the ceilings come from the beginning of the 17th century (the wood cut down in 1604). An original beamed ceiling, decorated with a painted weaving branches motif, was covered with a wooden cassette ceiling with paintings from the late 18th century.

This part of the mill used to serve as a living room and a parlor, where customers were received and negotiations were made. The special reception room represented high aspirations of the Duszniaki papermakers. This is why these rooms were substantially redecorated in the late 18th century,

when the dated beamed-and-painted walls and ceilings were covered with wooden cassettes and painted in a tromp d’oeil or symbolic style, as in one of the rooms, with its all-flat cassette ceiling painted with an illusive vault.

### Mill Redevelopment in the 18th Century

The most significant and characteristic feature of the mill – its western gable – was built as late as the 18th century. The gable wall was visibly attached to the existing roof trusses. The spruce wood used to make a horizontal supporting beam, which was cut down in 1732/33, evidences the date of the construction.

The wooden gable was representative enough to serve as a main elevation of the mill, shown to all travelers heading



*Original gable of the parochial church in Duszniaki, according to a lost drawing by F. B. Werner, F. A. Pompejus, Reinerz aus der Vogelschau 1737*





*Old-Testament scene of Josef tempted by Potiphar's wife, painted on the western wall of the Joseph's Hall*



*Polychrome ceiling in the Hall under the Dome*

to Kłodzko. The scrolled gable, framed in flowing, curved volutes, is typical for brick townhouses from the late 17th or the early 18th century. One of them, the former Duszniki post office, stands on the main city square; another one is located vis-à-vis the mill. The most significant local example of the scrolled-gable is the Baroque façade of the close St. Peter and St. Paul's Church, built in 1708-30. The shape of the mill's gable reflects some Bohemian or Austrian inspirations, too, which is not surprising, given the fact that the Hellers,

leading the mill since the early 18th century, came from Frýdlant in Northern Bohemia. Frýdlant's main square frontage consisted of typical Baroque scrolled gables, some of them preserved until now.

What is unique and atypical in the mill's gable, though, is the fact that both the gable wall, and the Baroque curved volutes have been covered with wooden boards; however, this is not the only example of a boarded gable in the vicinity of the mill: there are a few townhouses on the Duszniki main square, with boarded gables on their rear elevations, and some in the Międzyzylesie's square frontage. Besides the County of Kladsko, boarded gables were really popular in Silesia. None of them were as monumental – but sophisticated – as the mill's. Needless to say, the elaborated volute gable was not only a decoration, it also shielded the vents put in the steps between the roof planes against western wind, very frequent in this region. The vents lead to the upper floors of the building, which held the drying lofts.

Speaking of artistically valuable features of the building: two fancifully painted rooms on the third floor of the western



*Northern entrance to the mill with important dates in the company history inscribed on the portal: "G. K. 1605", referring to the mill reconstruction by Gregor Kretschmer; "AOH" referring to Antonia Josefa Ossendorf Heller and the redevelopment of the mill*



part of the mill cannot be ignored. These sophisticated murals and ceiling paintings, uncovered from lime plaster and preserved in 1969, are absolutely unique in Silesia. The paintings by Caspar Rathsmann come from the 1770s. In terms of composition, the paintings have much in common with the exterior classicistic façade decorations from the 1800s.

In the northern room, so-called Joseph's Hall, there is a mural on the northern wall, based on architectural, landscape and figural elements, a clear reference to theatrical sceneries of that time. The eastern wall is occupied by a tromp d'oeil architecture-themed painting and two portraits: one of the Prussian king, Frederick the Great, another, probably of the mill's owner, Joseph Ossendorf. The western wall is dedicated to an Old-Testament scene of Josef tempted by Potiphar's wife, referring to graphic prototypes from the 16th century. The painting was aimed to present the owner as a man of sound character. The ceiling is divided into nearly quadratic planes filled with a floral ornament.

Murals in the southern hall, called Under a Dome, come from the 1770s (the southern wall) or from the early 16th century (the northern side). The oldest floral decoration refers to similar Silesian ceiling paintings from the 16th/17th century. The newest one consists of alternating real and tromp d'oeil, painted window frames decorated with French-regency-style grids, ribbon ornaments, and campanulas. Another remarkable ceiling decoration in this room, inspired by Andreo Pozzo's works from the late 17th century, is a trompe d'oeil dome, painted on a flat surface, but creating an optical illusion of extra space. Classicistic motives for these decorations may have inspired the owners during the next phase of redecoration in the 18th and 19th century.

### Redecorations at the Turn of the 18th Century

At the turn of the 18th and 19th century, the mill's appearance was enhanced with classicistic decorations. Symmetry and repetition – two key characteristics of the classic architecture – were applied when reconstructing the western façade, finished with two blind windows as a replacement for two missing windows. Walls in the second floor are divided with painted pilasters, supporting an arcade. Semi-round plaques serving as window over-sills are ornamented with relief plaster patterns of simplified rosettes or palmettes. The same ornament garnishes the entrance pavilion. When it comes to Silesian references for these motifs, most of them come from the early 19th century. The time of redecoration is evidenced on the building itself: "A.O.H 1802" – Antonia Ossendorf Heller 1802, says the inscription on the north entrance portal.



*View of the paper mill from the west, with stepped gable roofs; image from the interwar period*

### Paper Mill in the 19th and the 20th Century

During the 19th century, no significant changes were made in the mill. Some construction works did happen though, as the fir wood used to make a massive beam above the current mill comes from 1839.

It was 1905, when the twilight of craft production, and water-based power industry came to Duszniki, represented by three historical events: first, a power plant construction started; second, a railroad to Kudowa was opened; and third, machines were introduced to the paper mill. The vicinity of the mill changed too. In 1933, near the eastern wall of the mill, a bridge across Bystrzyca was finished. In the 1940s some improvements were made on the roof, which,

unfortunately, lost its historical stepped character.

After World War II, a papermaking museum was established in the mill. Former factory and drying lofts were transformed to exhibition rooms and papermaking workshops. The neighborhood kept changing. When in the 1970s a bypass of Duszniki was built, its eastern opening ended up near the mill, across the river. Thanks to its elevated surface, the passersby could see the building directly from their cars. The road, currently European Route E67, brings tourists from all over the globe to the Duszniki paper mill.





*Drying lofts seen from the south*

## The Drying Loft

In the 16th and 17th century, the paper sheets were dried in the attic. There are still some hangers fixed to the timber roof trusses in the western side of the mill left. When a hollander was introduced after 1737 and the production significantly grew, the existing drying space turned out to be too small. The owners decided to build a whole drying loft. The wood was cut off in winter 1742/43, but some up-cycled beams from the late 16th century were used too.

The northwestern corner of the new drying loft has incorporated a backbone of a former log house with a wooden frame. A small building, raised on a dried and buried millrace canal, probably held a rag



*Half-timbered wall in the drying loft, built of logs cut in the 16th/17th century*

laundry. It was built from beams cut off as early as 1593 and at the turn of 16th and 17th century, then presumably up-cycled.

The drying loft was a spacious three-story construction supported by wooden columns with characteristic oblique props. It was covered with a stepped roof with tree rows of built-in vents. The elevations were boarded vertically, which was a reference to the former boarded western gable wall. The boarding, fixed in two rows, suggested a two-story interior, but the building inside was actually three stories. This peculiar finish aimed to polish the rough, industrial character of the building.

## Entrance Pavilion

A flood struck again in 1769 and damaged the mill. It may be assumed the new bridge and the polygonal entrance pavilion were built in the aftermath of the flood. The pavilion is mentioned in the chronicles from that time. The summer pavilion, leading directly to the second floor, met the need to separate the workshop (accessible from the northern portal on the first floor) and the upper floors, holding more representative spaces, like the reception rooms on the third floor, with wall and ceiling paintings. At the turn of the 18th and 19th century the façade of the pavilion was finished. Each of the six windows were ornamented with a simplified rosette or palmette above the frame.



*Paper mill seen from the west*





*Entrance pavilion*



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A unique architectonic character of the mill makes it one of the most significant elements of the city and the region of Duszniki. The main building benefits from – and fully integrates – three different architectural traditions: a gentry's mansion (typical for the County of Kladsko), a Baroque town house, and a Silesian or Bohemian church, while Baroque garden buildings inspire the entrance pavilion.

The paper mill has been determining and still determines the urban landscape of Duszniki Zdrój, formerly a trade town, and a mountain resort from the beginning of the 19th century till present. The mill is one of the oldest preserved paper mills in Europe and one of the oldest industrial buildings in Lower Silesia. It stands out not only with its age, but architectonic diversity and complexity too. Moreover, the painted decorations of the apartments, are absolutely unique for this type of buildings. The collection of portraits, depicting the mill owners, is based on a consisted iconographic program, which speaks of their cultural competency and artistic aspirations, going way beyond their social status as artisans or factory owners. These are the reasons why the Duszniki mill remains unrivalled amongst all European paper mills, in terms of both historical, and architectural values.





*Paper mill seen from the southeast in the 1960s*

# Tourism

## Foundation of the Papermaking Museum

In 1945, in the wake of the World War II, Duszniki Zdrój, as well as the whole former County of Kladsko, was incorporated into the Polish People's Republic, politically and economically subordinated to the Soviet Union. One of the political consequences of the new world order in Central Europe was the Centrally Planned Economy. All factories and plants were nationalized and centrally managed by the government. The paper mill in Duszniki, which had been sold to the German town council in 1939, was nationalized and started reporting to the paper factory in Młynów. The facilities were in poor technical condition, requiring some serious renovation. The manager in the Młynów factory got the most urgent renovation works done in the mill and was planning to reopen a traditional paper workshop. He never managed to do it though, as the politics of the factory changed. Finally, in January 1952, the city council (then the so-called Town National Council) regained the ownership of the mill. However, the city lacked a con-



*Mill in 1960*

ceptual approach and nothing happened.

Luckily for the mill facilities, it drew the attention of the national Historic Preservation Office, who enrolled the mill on the official national heritage list, providing it legal protection. Turning the factory into a museum became a much-disputed issue. Finally, in 1961, the Town National Council founded an Organizing Committee for the museum foundation. In 1962-1965, a restoration and preservative renovation, co-financed by the Voivodeship Preservation Office based in Wrocław, was made. In the 1960s, the project was led by Jan Michał Kowalski, who started with a conceptual plan for the emerging museum.



The museum was supposed to represent the history of papermaking, by means of both traditional exhibitions and displays, and a papermaking workshop located on the first floor. Six of the total fourteen employees of the museum were to be the manufacture workers. In 1965, J.M. Kowalski was trusted to lead the organization. Founding the museum was too expensive for the city. This is why it was decided that the museum would be indirectly financed by the Ministry of Forestry and Wood Industry (via the Association of Paper and Pulp Industry) and would report to it. The Association controlled and administrated all state paper and pulp factories in the country. As for operative issues, the museum was accountable to the Paper and Pulp Factory in Bardo, the closest industrial paper mill.

After a few years of preparation, on July 26, 1968, the first exhibitions were opened for the public. For J.M. Kowalski the papermaking museum became a life mission. Unfortunately, he died soon after the venue was opened. Władysław Kazimierzczak, a long-time papermaking specialist, continued his work. In 1971, Kazimierzczak launched living-history-style demonstrations of the making of paper,



*Museum opening on July 26, 1968;  
Mr. J.M. Kowalski standing  
third from the right*



*Main exhibition presented  
in 1968-1993*

which shortly became a main tourist attraction of the Duszniki museum. Another interesting event at his time was the exhibition of paper processing industry achievements, opened in 1976. Fanciful stationery, then in painfully short supply due to the socialist planned economy and its generic supply-demand incompatibility, mesmerized the visitors. The children went especially crazy about the notebooks and crayons. In 1969, polychrome paintings were accidentally discovered in two third-floor rooms, although they had to wait as long as almost twenty years to be properly preserved and displayed.

In 1982, after W. Kazimierzczak had retired, a new museum manager, Zbigniew Strzygocki, was nominated. After two years, he was replaced by Bożena Makowska, who managed the museum for 22 years. She immediately pursued getting polychrome paintings preserved and raised the money from the National Cultural Fund. In the 1980s a deep financial, economic and social crisis haunted Poland. The managing paper factory lost its interest in the museum, which finally became a branch of the Paper Mill in Bardo that was itself struggling with grow-



*President of the Republic of Poland visiting  
Duszniki; head of the museum, Bożena  
Makowska, standing next to the president,  
February 7, 1994*

ing financial and technical problems. The events in 1989 resulted in the abolishment of Communism and restoration of democracy and the free market economy. The Paper Mill in Bardo experienced many structural and financial problems during the transformation, which had a direct impact on the museum too. The government decided to subject the museum to the Ministry of Industry and Trade, which was accomplished in 1992, thanks to the effort of Bożena Makowska. The new owner of the mill provided sufficient capital for restorations, new permanent exhibitions, and employment for more people to organize the museum inventory and curate exhibitions. Slowly but surely, the institution turned into a professional museum.

In 1997-1998, the museum opened a few permanent exhibitions, but shortly before the 30th anniversary of the foundation, one the eve of July 23, a massive, destruc-



*Flood, water level on July 23, 1998*

tive flood came to Duszniki. Stirred water caused much damage to the mill. The most dangerous of them was the washing-out of the northeastern corner. To eliminate the consequences of the deluge took the whole museum team – lead by Bożena Makowska – a few years. In 1999, due to a top-down administrative reform, the town of Duszniki was incorporated into the Dolnośląskie Voivodeship and subjected to its council.

By the end of the 1990s, the papermaking museum became a professional research institution. During the last decade of the 20th century, its employees have published numerous papers and in 2000 the museum published the first monograph on papermaking history in Silesia. In 2001, the first Paper Festival open to the public took place in the museum courtyard. Since that time, every July, over 10,000 visitors attend the event. They vis-





*Paper Festival in 2015*



*Paper Festival in 2017*

it the exhibitions, take part in the making and explore the historical building. In 2004, the museum held the International Congress of Paper Historians (IPH). In the late 2005 Bożena Schweizer-Makowska retired and was replaced by Maciej Szymczyk.

The last two decades were rich in renovations and transformations of the mill rooms into the displays. In 2007-2008, a new conference and exhibition room was adapted in the attic. In 2009-2012, the roof was thoroughly restored: the timbering (partially) and the roof planes (completely) removed and replaced. Both investments were co-funded by the government and the self-government of the Dolnośląskie Voivodeship. In 2014-2017, the museum invested as much as 10,000,000 PLN, raised from the Norwegian Funds, the EEA Grants, and the Dolnośląskie Voivodeship subsidies, to fire-protect the mill with an advanced water mist extinguish-



*Museum's employees and friends during the Paper Festival in 2017*



*Commissioning of water mist extinguishing system, 2017*

ing system and transform the drying lofts into new exhibition halls, inventories and classrooms. The investments were led by the assistant manager of the mill, Joanna Sereżyńska.

The museum's fame kept growing. In 2009, the Polish Tourism Organization en-

rolled the mill on the list of the best Polish tourist attractions; in 2011, Bronisław Komorowski, the President of Poland, granted it an honor title of the National Historical Monument. He visited the mill in person on October 29, 2013. In the same year, the Papermaking Museum was listed



*Deputy prime minister Przemysław Gosiewski visiting the mill on August 18, 2007*



*Cardinal Henryk Gulbinowicz visiting the mill on October 14, 2008*





*President of the Republic of Poland Bronisław Komorowski visiting the mill on October 29, 2013*

on the prestigious State Museum Register, featuring the most significant collections and the most efficiently managed museums in Poland. In 2016, by decision of the Committee for the World Heritage in Poland, the museum applied for being listed on the UNESCO World Heritage Tentative List.



*The mill in cold season*

## Museum Exhibitions

The museum holds numerous permanent exhibitions, dedicated to the world, Polish, and Silesian history of papermaking, as well as to the history of the mill. As for the most interesting exhibits, among them are a room of historical paper sheets coming from various Polish paper mills from the Middle Ages until present, and one for ancient paper examination tools. The interactive part of the presentation begins in the mill, where each visitor is invited to watch the making based on a traditional Medieval technique.

The mill itself, considered to be one of the most remarkable industrial monuments in the world, is definitely worth seeing, too. The visitors will see the rare polychrome paintings, speaking of wealth and the aspirations of the owners. What sparks



*Papermaking demonstration*

the curiosity of the tourists the most is the old-testament Joseph and Potiphar's wife scene.

In 2017, there were two new multimedia exhibitions opened in the drying lofts. The first one is the only paper art gallery in Poland. Another one tells the story about



*"Paper Craft" exhibition, presented since 1997*





*"Papermaking Technologies of the 19th and the 20th Centuries" exhibition, presented since 1998*

the history of Polish bills issued since 1794. The visitors are invited to work in a numismatic "laboratory" and try out modern money authentication machines, for example UV or infrared lamps and microscopes for examining micro-printing.

In the courtyard, large paper machines (such as a wood grinder for wood pulp production or a stone mill to rag and waste paper processing) and printing machines are displayed. There is also a small theme garden presenting various fiber plants.

Besides the permanent exhibitions, the museum holds up to ten temporary exhibitions on papermaking, ecology, history of technology, or local history each year. There were 150 exhibitions held until 2018, "Waste Paper: the Resource of the 21st Century" (2000), "Human Fate" (2006), "The paper on which I am writing, comes from Bad Reinerz. Frédéric Chopin in Duszniki" (2010),

"European Union Passports" (2011), or PaperK – Paper Art" (2016-2017), to name the most visited.



*"Polish Bills" exhibition, presented since 2017*



*New paper art gallery*

## Education and Research

The Papermaking Museum is famous for its museum classes called "Handcrafted Paper". Classes begin with a visit to the exhibitions. In the mill, students live in the shoes of the old papermakers for a while. They are supposed to manufacture a sheet of paper by hands, according to a Medieval procedure. They can bring the paper home, as a souvenir. Other theme classes, popular among the students, are decoupage courses, or creating cards, Christmas decorations and small objects of handmade paper.

In 2017, some new courses were introduced. The most visited workshop, called "Is your tenner real?" is dedicated to money authentication. The students visit the ex-



*Embossing workshops during the "Polish Bills" exhibition*

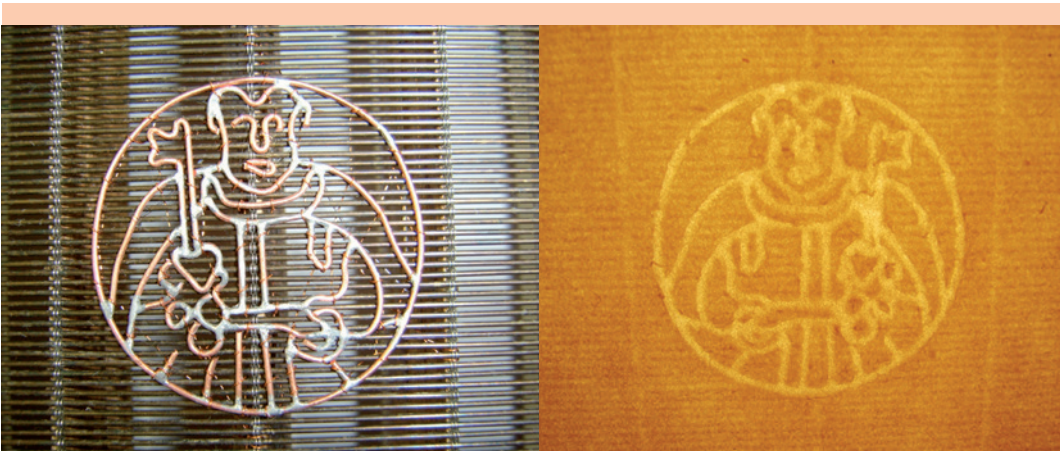


hibitions, learn about the history of money and money securing, and then examine the bills by themselves.

The museum lessons are available for an organized group of visitors, starting from kindergarteners, up to universities of the third age. Individual visitors, smaller groups, or families are invited to participate in workshops. The most popular one deals with manufacturing, watermarking, and customizing paper in the mill. A hand-

made paper sheet makes a great souvenir from Duszniki.

The museum leads and participates in research projects on the history of paper-making in Poland. The research has intensified in the last few years, after the museum applied for the UNESCO enlistment. Top researchers from the University of Wrocław, the Technical University of Wrocław, or the Technical University of Lublin take part in the museum projects.



*Contemporary watermark of the Papermaking Museum, based on the oldest preserved watermark of the Duszniki paper mill: an embroidered screen on the left, a watermark on the right*



*Museum classes*





*Northeastern elevation of the drying loft*

# The Private Owners of the Duszniki Paper Mill

Ambrosius Tepper: ? -1562

## THE KRETSCHMERS

Nicolaus Kretschmer: 1562-1588

Gregor Kretschmer: 1588-1623

Samuel I Kretschmer: 1623-1640

Susanna I Kretschmer: 1640-around 1645

Samuel II Kretschmer: around 1645-1656

Susanna II Kretschmer: 1656-around 1665

Christian Wilhelm Kretschmer: around 1665-1689

Susanna Katharina Kretschmer: 1689-1691

Anton Franz Rosenberg: 1691-around 1697

Wilhelm Kretschmer: 1697-1706

## THE HELLERS

Johan Anton Heller: 1706-1737

Anton Benedikt Heller: 1737-1772

Johann Joseph Ossendorf: 1772-1779

Anna Franziska Ossendorf née Heller: 1779-1802

Josepha Antonia Susanna Königer née Ossendorf: 1802-1806

Johann Leo Königer: 1806-1822

## THE WIEHRS

Joseph I Wiehr: 1822-1842

Joseph II Wiehr: after 1842 (in turns with his brother Ernst)

Ernst Wiehr: 1842-1844 and 1853-1856

Carl I Wiehr: 1856-1899

Maria Wiehr: 1899-1905

Carl II Wiehr: 1905-1939





*Decorative element on the bridge leading to the entrance pavilion*

## Heading for UNESCO



*Letter of intent of Homburg, Duszniki-Zdrój, and Velké Losiny paper mills ceremonially signed on December 1, 2017*

The letter of intent, covering Duszniki-Zdrój, Velké Losiny, and Homburg paper mills cooperation, was signed in Duszniki-Zdrój on the 1st of December, 2017. The agreement gives an opportunity for an international collective UNESCO enlistment of the three facilities. The document was signed by (from the left): the Homburg paper mill's executive, Johaness Folmer, the manager of the Duszniki-Zdrój Papermaking Museum, Maciej Szymczyk, and the Velké Losiny paper mill's manager, Petr Fouček, as well as by the representatives of the local government: the president of the Dolnośląskie Voivodeship, Cezary Przybylski, the deputy president of the Olomouc Region, Milan Klimeš, and the deputy mayor of the Main/Spresart county, Harald Schneider.





Paper mill seen from the fiber plant garden

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