This short guide is intended to provide visitors with brief information on the workshops and collections in the Basel Paper Mill and to help them to understand better the historical methods of paper manufacture, typecasting and printing which are shown in the Basel Paper Mill. Anyone wishing to know more about the historical development is referred to the publications of the Mill and the books available in the Library of the Museum (Museum Shop).

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The main items in the Museum's inventory have come from the Swiss Museum of Paper History which was made up out of the collections of Dr. W. Fr. Tschudi and Sandoz Ltd. From 1964 to 1979 this collection was attached to the Basel Museum of Ethnology and housed in the 'Rollerhof' on the Münsterplatz. It also had a small paper mill equipped in medieval style as well as the collection of historical treasures accumulated during the 400 years of existence of the Haas Type Foundry (Wilhelm Haas Room) which was put together by Eduard Hoffmann-Feer and donated to the Museum.

The present Museum is run by the private 'Basel Paper Mill Foundation' which was founded in 1971. Following a directive of the Grand Council of the Canton of Basel City the Christoph Merian Foundation restored the Gallician and Stegroff Mills and handed them over to the Basel Paper Mill Foundation for use as a Museum. The considerable expenses of the Museum are partially covered by the entrance and guide fees, the rents of the apartments and the profit from the sales of the goods that are manufactured on the premises (paper, prints). Since 1983 the Museum has been recognised by the Swiss Confederation as a place of rehabilitation and a protected workshop for the disabled and since 1985 it has been granted the title of Swiss Paper Museum. 1993 the Museum was awarded the 'European Museum of the Year Special Commendation'.

The Museum is a 'Working Museum', i.e. complementary to the classical Museum, workshops are commercially producing goods for sale, using the old equipment, and visitors are encouraged to try for themselves the hands on experience of performing these old handicrafts. The Swiss Paper Museum specialises in the history of the technologies of written communication, it is located in a genuine historical building and the collections of the Museum include items, tools and documents from all over the world which illustrate the prehistory and the history of writing materials, especially paper, as well as the history and the development of script, type founding, typesetting, letterpress printing and other printing techniques including bookbinding. The Museum is completed by a major specialised library, a centre of documentation (photographs, documentary movies and videos, audiovisuals) and a research department. The majority of the collection is in storage; researchers are granted access on request.

The exhibitions and the workshops are arranged according to topics. Paper is dealt with on the ground floor; the first floor contains the history of scripts and type founding; the print shop is located on the second floor and bookbinding is on the third floor. Information desks are also provided at which the visitor can call up additional information in the form of slides or multimedia productions in three different languages.
In 1083 the Bishop of Basel, Burkhard von Fenis, founded a monastery above the town on the left bank of the Rhine and dedicated it to the Redeemer, to Saint Mary and Saint Alban. It was placed under the jurisdiction of the Abbey of Cluny and was richly bestowed. In the middle of the 12th century water was diverted from the Birs through a canal which then divided into two channels towards the Rhine. Over the years twelve mills were built along these channels and the monastery granted hereditary tenancy for their utilisation. The mills were situated close together on the slope of the bank towards the Rhine in order to take full advantage of the incline to produce power by means of waterwheels. Ten of these mills were converted into paper mills in the late Middle Ages. After the big earthquake in 1356, the monastery and the mills were enclosed by the new enlarged city wall.

Nowadays, along the 'upper' channel the two mills of the Museum, the Gallician Mill and the Stegref Mill, are preserved together with the Rych Mill and the Zunziiger Mill. In the vicinity, around the Schindelhof and on the river front of the Rhine, there are drying lofts, finishing buildings and papermaker's dwellings. On the 'lower' channel the mills belonging to the Stecklin Paper Works have been integrated in the Museum of Modern Art.
The Galician Mill

This flour mill, which belonged to the Klingental Monastery until 1428 and is now the main building of the Museum, was converted first into a hammer mill and then in 1453 by Antonius Galician into a paper mill. The prosperity of this family, which is shown by the magnificent rooms on the ground and first floor of the Museum came to an abrupt end in 1521. The further extensions to the building were mainly undertaken by the papermaking family Thüring (Düring). In 1778 the bookseller and publisher Johann Christoph ImHof-Burckhardt took over the mill. In 1788 he pulled down the manufacturing part of the building next to the channel and replaced it with the present building with its beautiful three-storey roof. In 1850, the tobacco firm Hugo Brothers bought the building; from 1857 onwards it served as a warehouse until its restoration and the installation of the Museum in 1980.

The Stegreif Mill

This mill which is named after the last flour miller was bought in 1478 by the Galician brothers and run as a paper mill. In 1887 the mill passed into the hands of the papermaking family Thüring (Düring), and in 1695 it went to the Husler (Heusler) family who were also papermakers. They sold the mill to the firm of Huber in 1804. Paper was produced in the Stegreif Mill until 1924 by the firm of Thurneysen and Osler. The workshop of this impressive, high gabled corner building now houses the administration of the Museum and the Café Papiermühle, which is renowned for its cakes which are made according to very old recipes. The Café is also able to cater for large groups of visitors. In the summer there is an inviting open-air café outside the Mill. Situated across a wooden bridge near the waterwheel, there is a special room for presentations and temporary exhibitions.
The Rych Mill, a former flour mill, is named after the first owners, the noble family Reich von Reichenstein. In 1448 it was bought by the wholesale merchant Heinrich Halbisen. He transformed it into a paper mill, the first in the St. Alban-Tai. In 1467 it was purchased by Michael Gallician, and from 1519 to 1542 the owner was Friedli (l) Hüsler, an ancestor of the papermaking family Heusler. From 1572 until 1622 it was the main seat of the Thurneysen papermaking family. A corner-stone near the pond bears the emblem of this family. In 1695, it went again to the Heusler family, and in 1859 to Hans Rudolf Thurneysen. Trading under the name Thurneysen and Oser, paper was made until 1924. On the ground floor, there are workrooms and a small paper machine, built in 1964 by the firm of Kämmerer Ltd., Osnabrück, has been installed. Access is via the courtyard of the Museum.

In our Shop at the entrance to the Museum not only products made in the Museum are available to purchase. Handmade paper in different sizes, grades and colours, watermarked paper, prints and letters, calligraphic utensils such as inks, nibs and quills, sealing wax, etc. are all available. In the Museum book shop there are technical and hobby books as well as specialist literature on a variety of subjects including paper history, papermaking, printing techniques, calligraphy and coloured paper.

A spiral staircase leads from the shop down to the cloakroom, which is located in the former rag sorting and cutting cellar of the mill. A small tunnel was used to carry the rags to the stamper in the paper mill. In this cellar, the oldest preserved paper press (from ca. 1500) and a predecessor of the European paper stamper, a hemp stamping mill from the Grisons (Switzerland), are on exhibit.
The workshops of the Museum, in which commercial goods are produced as in former times, are an important part of the Museum. The tools and machines form a part of the permanent exhibitions and they are shown working when production is taking place.

They produce not only standardised articles; special orders are also carried out, e.g. paper with special watermarks, distinctive visiting cards, wedding invitations, etc. Our staff will be happy to advise you.

The following workshops are open to the public: paper mill (hand papermaking); paper machine; type foundry; mechanical typesetting; manual typesetting; letterpress printing; copperplate printing; lithography; embossing; bookbinding.

Our range of products contains:

• Handmade paper of different grades and sizes, with or without watermarks, also for special uses for example, prints, calligraphy, aquarelle

• Machine-made paper of A4 and A5 size, with or without watermark, for use in the office or for printing or as stationery

• Single letters, for stamping

• Typesetting (manual or mechanical)

• Letterpress printing (all kinds of work, from visiting cards to whole books)

• Art printing (relief printing; copperplate printing; lithography; embossing)

• Art editions

• Bookbinding

• Book restoring.
The main Museum building, the Galician Mill, has been used for paper manufacturing since 1453. The part of the building adjacent to the mill pond was pulled down in 1780 and was replaced by a new building which houses the present workshops of the Museum. A model of the St. Alban-Tai shows the position of the monastery and the mills on the St. Alban channels which were created by diverting water from the river Birs. The paper mill has been equipped according to the technology of the 18th century. Up until about 1830, rags of linen and cotton were used as the raw material for paper manufacture. After sorting, tearing on the cutting table and rotting (rotting is no longer carried out in the mill), the rags arrive in the stamping mill where they are beaten to a coarse pulp by the metal-studded hammers. The stamping units are run by a middle-shot waterwheel via a camshaft. After beating the pulp passes on to the Hollander beater, a machine invented in Holland around 1660, where it is beaten to a fine pulp. The limestone Hollander pan is dated 1730. The pulp is then diluted in the vat and moulded by the vatman to form a sheet of paper. The mould consists of a sieve of copper or brass wires on a wooden frame. Wire figures sewn onto the sieve protrude into the sheet of paper, thus making it thinner in these places so that they appear lighter when held against the light. These pale designs are known as watermarks and are used as a sign of quality or origin. After moulding the sheet is placed (couched) on a felt by the ‘coucher’. A pile of couched sheets between felts are then pressed in the press. The old press with an iron screw which is on view is of the type constructed in the second half of the 18th century. For production purposes a 19th century cast iron press is used.
After pressing, the damp sheets of paper are separated from the felts by a workman called the 'layer' and are hung up to dry on lines or bars by further assistants. In order to save time and staff, the sheets of paper in our Museum are usually dried on a cylinder machine operated by steam. This machine was built in England around 150 years ago according to the plans of the famous paper engineer Bryan Donkin and was used in an English paper mill until the 1970's.

However, the dried sheets of paper cannot be used for writing because the ink would run. For this reason the paper is sized by dipping it in a hot glue solution, pressed again and dried again. The paper is smoothed out under the glazing hammer or by rubbing with an agate stone on an agate glazer. Dry pressing, sorting and packaging complete the production process. There is also an edge runner in the paper mill which is used to pulp cellulose or waste paper.
As a special attraction, visitors are welcome to try papermaking at the visitor's vat and to mould a sheet of paper of their own. The mould used bears the Cross of Basel, the coat of arms of the City, as a watermark. The sheets are couched on felts, then pressed and separated from the felts. Drying is performed on an electrical press in several minutes, in order to allow the visitor to take his paper to the print shop in the 2nd floor for printing.

The historical paper exhibitions extend across the ground-floors of the Gallician, Stegreif and Rych Mills. The old double paper press and the flax beater situated in the cloakroom (access via the Museum Shop) belong to the collections as well. In the hallway of the Gallician Mill display cabinets contain examples of old European watermarked paper from the 14th through to the 19th century, intaglio watermarks (producing an image similar to photography) and advertising by the ancient papermakers with their own mill trademarks and the corresponding printing blocks. Old written or printed papers are also on exhibit in the showcases of other departments on the upper floors.
In the oldest part of the building, the hall leading to the paper mill, the precursors of European paper are on show. Nature and wasps or hornets may be regarded as the oldest 'papermakers'. The papyrus sheet made of strips of pith from the papyrus plant gave our paper its name; it was used not only in Ancient Egypt but also throughout the entire Greek-Roman world. Tapa, made by beating fresh strips of inner bark, which was manufactured on every continent, is the true precursor of paper. Paper which is made using the ‘pouring’ technique which survives only in a few places such as Nepal demonstrates the connection between making tapa and making paper. The Chinese, Japanese and Arabic papermaking are also of great importance, and the journey of paper from China (where Tsai Lun invented writing paper in 105 A.D.) – via the silk road – to Central Asia, the Arab countries and the Mediterranean area is documented.

A short stairway leads down to the old rag rotting cellar of the mill where audiovisual presentations (documentary movies on video) about the Museum and the history of paper, writing and printing are shown. Passing the courtyard of the Museum and the small bridge near the waterwheel, the visitor reaches a room in the Stegreif Mill which is reserved for temporary exhibitions. Our Museum exhibits here items from the stored collections or puts on touring exhibitions in collaboration with other museums and institutions from Switzerland or other countries, which supplement the permanent exhibitions. Special attention is given to the works of artists who use paper, writing or printing as a means of expression.
In the courtyard are two items which introduce the visitor to the world of industrial papermaking: a rag chopping machine and a spherical boiler in which rags were boiled in an alkaline solution. The transition from handicraft to industry was made in several steps. These steps are described on several displays shown in the exhibition room of the Rych Mill. On display are also dandy rolls with watermarks, and a half-size model of the first paper machine producing an endless roll of paper constructed by N.L. Robert, and patented in 1790.
The paper machine which is on display in the Rych Mill was constructed by Kämmerer Ltd. of Osnabrück in 1964. It is ready for use and contains all the parts of a classical paper machine of the Fourdrinier type. It produces paper rolls of A4 trim width. A video documentary informs the visitor of the working conditions in a modern paper factory plant. Quality testing apparatuses and more displays about the modern paper and pulp industry complement this theme.

From the courtyard, a small metal staircase leads the visitor into the fibre garden. There plants from all over the world are shown, whose fibres are used in textile and paper production. The Botanical Garden of Brüglingen near Basel, collaborating with our Museum, grows nearly all the important fibre and dye plants and also commercial trees in its section called 'useful plants'.
The tour round this section begins in the late Gothic living quarters of the Gallician papermaking family dated around the end of the 15th century. Examples of the beginnings of writing, from the notched piece of wood to the development of an alphabetical script, are on show. The other exhibits document the most important writing materials and scripts of advanced civilisations from all over the world: Central American symbol writing, the scripts of the Middle East, of Asia and in the Far East. The Museum holds two of the oldest prints in the world: a Dutch roll printed in Japan in 770 A.D., and a Chinese roll, printed in Hangchow in 975 A.D. Thoth, the Egyptian god of the scribes and inventor of writing, represented as a baboon, watches over the Egyptian section. The history of alphabetical writing is briefly summarised.

A collection of writing tools and implements and a wide variety of seals and stamps from many cultures and eras completes the presentation which includes the development of Greek, Latin and Hebrew writing and the evolution of European scripts from the Middle Ages to modern times. Examples of the handwriting of famous personalities are also on show.