

## **Peat – Glass – Bricks: Museum at Bürmoos**

### **Greetings - welcome**

The society "History of Bürmoos" bids you welcome to this museum.

Here we are standing in the second-oldest house of Bürmoos, the former general store of the glass factory, built in 1872, and later made into a grocery store by the local Jager family.

The museum was opened in 2013, funded by the town council of Bürmoos and money from the Leader Programme of the European Union. The museum and the archive of local history are run by the society "History of Bürmoos", on an honorary basis.

Numerous exhibits document the history of the peat (turf)-, glass-, and brick industries which led to the foundation of the industrial town of Bürmoos.

Wherever in the exhibition you see a green point, additional information can be found – make your own discoveries in the museum!

### **Entrance**

From Bürmoos to Ibm in Upper Austria, there once spread the largest moor area of the Austro-Hungarian Empire. Only when peat/turf was begun to be harvested around 1850, and certain areas were drained, settlement was possible, and indeed achieved.

Column: Local Bürmoos turf, glass stones (debris), brick material

Map: around 1800. A moor landscape named "Biermoos" and the "Zieglstadlmoos". ("Brick Barn Moor")

### **A Typical Two-room Flat Kitchen**

Through the settlement of peat-, glass- and brick workers from all regions of the Habsburg monarchy a characteristic labour culture developed. In those times living integration of many peoples and languages in a very small space was reality.

A typical flat consisted of two rooms: the live-in kitchen and a bedroom.

See a typical working people's kitchen dating from the 1950s, illustrating the cramped living conditions of families with up to ten children.

Furniture: the peat-fired stove, cupboard, turf coffer, wash-basin, sofa, table+chairs, chamber pot, boot-jack, radio etc.

**Bürmoos:** The youngest municipality in the county of Salzburg.

First efforts at harvesting peat/turf in the Bürmoos moor were made around 1800. The turf was used as fuel by the brick works and the glass factory. From 1881 the glass factory was run successfully by the entrepreneur Ignaz Glaser from Prague, who also started a brick factory.

Ignaz Glaser had numerous blocks of flats built for the many workers who moved to Bürmoos with their families, even some individual houses came into being. By and by

the town experienced an economic upswing, with a diverse population from many nations.

However, in 1913 a considerable part of the workforce migrated to the new glass factory that the Glaser Company ran at Brůx in Northern Bohemia.

When the Bürmoos glass factory was closed due to the World Economic Crisis from 1929 and in the 1930s, 80% of the local population was unemployed, and Bürmoos got the infamous reputation of being the “poorhouse of the county of Salzburg”.

Post 1945 many refugees and displaced persons from south-eastern Europe and the Sudeten German region found new homes in Bürmoos.

From the 1950s to our times, Bürmoos has developed into an industrial community with a population of over 5000.

It became a separate municipality only on July 1<sup>st</sup>, 1967 (before this point in time the settlements were parts of the two neighbouring agricultural communities of St. Georgen and Lamprechtshausen).

The first mayor was **Karl Zillner** ((((( ))) , who created a functioning municipal administration out of next to nothing.

#### **Some important local names:**

**Ignaz Glaser:** 1853 – 1916, factory owner

„Vorwärts, denn Stillstand ist Rückschritt“ (forward, for standstill is regression)

This personal motto of the “founding father” has made Bürmoos an industrial town with a vivid history.

**Dr. Hermann Glaser** 1889 – 1956, factory owner, ran the company after his father’s death until the sale in 1926.

**Josef Waha sen.** 1874 – 1956, brick factory owner, bought the brick factory Zehmemoos in 1921, furthermore the two ring furnaces in Bürmoos, together with vast areas of moors.

**Dipl. Ing. Peter Malata** 1911 – 2004 Owner of W&H Dentalwerke (dentist’s appliances) took over management in 1946, buy-out in 1958, specialists in dental technology (appliances) of world renown, managed by P.M. until 85 years old. W&H Dentalwerk with over 600 employees is one of the major employers in the county of Salzburg, managed by P.M. jr, with the slogan “People have Priority

Digital picture frame: pictures of Bürmoos

Wall relief: ring furnace of the Ignaz Glaser glass factory

Showcase:

Company diary, stationery, coins by Ignaz Glaser

Work contract from 1886, workbook

Midwife’s diary, Poverty study in Bürmoos

Local chronicle of Bürmoos

Drawers: further documents:

**Georg Rendl** 1903 – 1972 – author and painter, spent much of his life in Bürmoos. Numerous novels and paintings chronicling his times, chief work (trilogy) „Die Glasbläser von Bürmoos“, („The Glass Blowers of B.“)

Picture: “The Glass Blowers of Bürmoos”, by Georg Rendl

Exhibits: glass blowers, glass and brick factories, peat field, narrow-gauge railway:

Book: Die Glasbläser von Bürmoos (The Glass Blowers of B.)

## **Formation of Moors:**

Moors in our area are wetlands left behind by the melting of glaciers during the last ice age about 10,000 years ago. In the left-over lakes dying plants did not decompose completely and so – over millennia - formed layer after layer of valuable peat.

A one-metre layer of peat takes 1,000 years to form, in Bürmoos the layers were about nine metres thick

Graphic representation: formation of a moor:

## **The Bürmoos Moor – Re-naturalization**

With an area of 2,000 hectares, the Bürmoos moor was the largest cohesive moor area in all of Austria.

During the beginnings of harvesting (done manually) the landscape did not change much. However, when the harvesting was done with mechanical-industrial methods, a dried-up, desert-like landscape was left behind.

Some dedicated locals did not want the moor to die, and initiated a comprehensive effort to re-naturalize the moor, beginning in 1983.

After 25 years and thousands of unpaid working hours of the members of the re-naturalization society a nature-protection area was established which has found recognition on a European level (“European Nature Reserve” - 2008).

Meanwhile, Mother Nature has returned to the Bürmoos moor: Numerous species (amphibians, reptiles, birds) believed to be gone or extinct have returned.

Digital picture frame: harvesting, re-naturalization of the Bürmoos moor

Primeval findings from the area

Bronze pins ca. 1200 – 900 BC from the “Bottomless Lake” in Bürmoos  
Iron hatchet from Lamprechtshausen  
Bronze clasps from St. Georgen 1800 BC  
Fossils (mussel, snail) from Haunsberg, a mountain near by  
Greek roof-tile  
Old glass vessel

## **PEAT – the black gold of Bürmoos**

The mining/harvesting of peat in Bürmoos 1800 – 2000

### **From manual harvesting of household fuel to mechanical/industrial mining of peat and its processing in the Bürmoos plant.**

Turf was used as fuel in private households as well as in the local glass works. Later the peat was used on a larger scale for the industrial production of garden peat and garden mould.

#### **Manual harvest 1800 - 1950**

Before harvest the bog had to be drained.

Using special spades, length and width of sods were determined, the sods were transported on wheel barrows to free areas in the moor to be dried.

Showcase:

Model depicting turf harvest

Digital frame: Film – Manual turf harvest in Bürmoos

Turf sods – black turf (fuel) and white turf (used as litter material in stables)

#### **Mechanical Mining 1967 -2000**

Mechanically mined turf was ground and pressed into bales.

Milled turf was harvested by giant machines.

After drying, the turf was stock-piled in the open air.

Addition of chemicals produced a variation of garden moulds.

### **“Narrow gauge railway“, 1882 – 2000**

Sods were transported in mining carts from the turf fields to the furnaces of the glass and brick factories. Originally, those carts were pulled by horses, later by small diesel engines.

Exhibit: two mining carts outside the museum.

Showcase: model railway, harvesting, bale press.

Drawers:: various garden moulds, turf bricks, turf sods.

Moor products: toothpaste, creams

Digital frame: Mechanical mining of turf in Bürmoos.

Diorama:

Picture: harvesting turf in the Bürmoos moor.

Wheel barrow, turf sods, various tools,

Special horse shoes: designed to prevent sinking of horses in the bog.

## **Glass – a man-made material**

Glass industry in Bürmoos 1872 – 1929, mainly sheet glass.

**Raw materials, various stages of production of mouth-blown sheet glass (window panes), hollow glass (drinking vessels).**

### **Production of glass:**

Raw materials (Silica sand, soda, lime) form a compound under the influence of great heat.

Various additives can tint the resulting glass (e.g. bone meal for a milky whitish tint, copper and gold for reddish tint)

Showcase:

Raw materials: silica sand, soda, lime, metal oxides

Glass pitcher, beaker, painted

Bull's eye pane, marbles, glass stones...

Side drawers:

Various items of sheet glass

Mouth-blown window glass, industrially produced window glass

Bull's eye window glass with lead framing (hand-made– bull's eye pane produced industrially

Mirrors, etc.

### **Production of mouth-blown sheet glass**

Sheet glass means mirrors, window- and pane glass

The glass blower blows a ball (1-3),

which, through blowing and tilting, develops into a cylinder (4-5).

Both caps of the cylinder are cut off (6-7).

When the cylinder has cooled off, it is cut up lengthwise (8)

and ironed out into a flat sheet in a special furnace at 900° C (9).

### **Production of mouth-blown hollow glass**

Hollow glass denotes glass vessels (bottles, drinking glasses).

The pre-formed glass ball is blown into a dampened wooden mould. Then the difficult process of gluing a stem and a base follows.

Showcase:

Stages of production of a drinking glass

Various tools for the production of hollow glass

Wooden moulds for glasses, various scissors

Glass cylinder for the production of window glass

The medieval sign for glass: a combination of the infinity sign (=durability) and the cross (=fragility).

### **The glass furnace**

In the glass furnace, a fireproof clay basin, the raw materials (sand, soda, lime, additives) were melted. Melting temperatures ran as high as 1,450°C

### **Mechanical production**

Nowadays, glass is melted and subsequently rolled out or blown by machines.).

Picture: the Bürmoos glass works.

### **The glass blower's pipe**

Syrian craftsmen invented the glass blower's pipe around 200BC. It was an iron blow pipe.

The glass blower heats up the end of the pipe in the furnace, and then takes up some liquid glass, blowing constantly.

Sharing of blow pipes caused lots of problems with contagious diseases

Diorama:

Picture: In the glass works of Ignaz Glaser in Hackenbuch , Upper Austria

Glass blower with glass pipe, clay basin, glass stones (debris)

Digital picture frame: production of window

Various production tools, wooden moulds

Mouth blown storage vessels with air enclosures

Glass blower's pipe from Bürmoos – test the weight!

Showcase in the middle:  
Vessels and glasses, partly refined using various techniques

Showcase at the side:  
Glass pen for writing – try it out!  
Toy: “Glass devil“ in the bottle – try it out! Make the devil dance!  
Drawer: glass buttons, pearls, marbles

**Bricks**: a building material used for millennia  
Brick production at Bürmoos 1802 - 1976

### **The production of bricks, from hand-hewn block to industrial production**

#### **Clay:**

Clay forms through degradation of rock, consisting of varying proportions of clay, silt and sand.

The colouring of the brick results from different minerals. The greater the proportion of lime, the paler the brick will appear.

Cut through a brick, showing the texture

Digital picture frame: The Waha brick factory, industrial production.

### **Manual production**

Clay mining: manual mining with spades.

Processing: The clay was trodden with bare feet (mostly by women and children) until it was smooth enough for further treatment

Shaping: The wooden mould was sprinkled with sand, the clay was pressed into the mould, skimmed and knocked out of the mould.

Drying: took 4-6 weeks, in special sheds.

Kilning: Bricks were stacked in furnaces, with fuel in between, openings were sealed with clay. The furnace had to be fired around the clock for up to 6 weeks.

## **Mechanical production**

Clay mining: with chain bucket excavators

Processing: special machines pressed the clay through a sieve

Shaping: A big press forced the clay through a shaping nozzle, with the bricks being cut off automatically

Drying: The bricks were put on transport carts and dried with waste heat from the furnace

Kilning in the ring furnace: "The fire wanders" around the ring. Through this method (simultaneous loading, burning and unloading) the brick furnaces could be run for months without interruption.

Kilning in the tunnel furnace: "The brick wanders"

The first tunnel furnace was installed in 1957. Bricks were stacked on fire-proof carts, to be carted through the various temperature zones

Picture: Bürmoos brick works – ring furnaces

Exhibits

Wooden mould for brick manufacturing

Hand-hewn bricks in various shapes

Heat-deformed bricks

Exhibits

Brick animal head from a premium local butcher's shop, a good customer

Brick with Emperor's crest.

Roof tile imprinted "Ignaz Glaser"

Floor tile imprinted "Ignaz Glaser"

Water conduit pipe, brick wine rack

## **Production of roof tiles**

Manual Production:

Roof tiles were produced following the same methods as regular bricks, or were pressed into wooden or iron moulds.

Mechanical production

Production in a shaping press.

Exhibits: roof tiles, glass roof tiles, ceiling bricks.

Translated by Reinhard Auer