

Birth and Death in a Mining-Dominated Region: Population Movement exemplified by two villages in the Greater Schwaz Area (17th-19th Century)

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This poster examines long-term developments of mortality in the mining area Schwaz from the 17th to the 19th century. Furthermore, possible class-specific differences in the population's mortality are focused on. Main research questions:

- Does demographic data (mortality rates, life expectancy, causes of death spectrum) reflect the specific structure of a population in a mining-dominated area (coexistence of peasants, artisans and miners' families)?
- If so, does the data correlate with the mining-related economic up- and downswings in Schwaz?

In order to answer these questions, a historical-demographic approach was chosen, compiling all family-related data on the parish of St. Margarethen (villages of Buch and Gallzein in the Greater Schwaz area) for a microstudy.

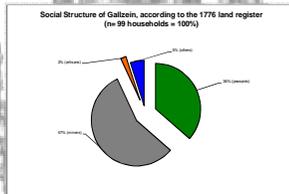


1. Social Inequality before Death?

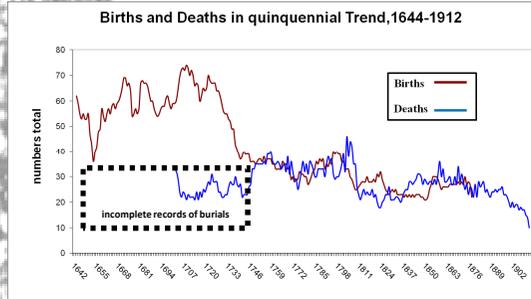
The severe health threats connected to the miner's life only took effect at an advanced age. The everyday risks experienced by miners frequently led to **chronic diseases** and often resulted in **slow deaths** due to the so-called "Bergsucht" or "silicosis". Besides, many miners also lost their lives because of

- accidents due to **carelessness**
- accidents caused by specific **work techniques** (e.g.: blasting with gun powder)
- **rockfalls and water inrush**

Injuries and death as a consequence of mining work were omnipresent. It was part of a miner's daily routine to cope with casualties. PP 02 examines the question as to whether such experiences created a specific mining-related "attitude towards death" and supported the development of a specific "burial culture".



Graph 1: visualisation of the predominant social groups in the village of Gallzein, according to the 1776 official land register, commissioned by Empress Maria Theresia.



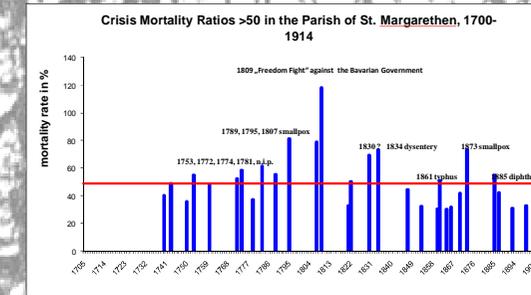
Graphic 2.1: Source: TLA, parish registers of St. Margarethen (1642-1914)

2.1. Births and Deaths in Quinquennial Trend

Graphic 2 illustrates the **entries in the baptism- and burial records** of the parish of St. Margarethen in quinquennial trend, beginning in the year 1644 and ending in 1914. In the first decades the burial records were incomplete thus affecting a representative outline.

Nevertheless, the **long-term development of mortality** in the villages Buch and Gallzein becomes visible: the whole 18th century is characterised by several critical mortality-peaks which are subject to rather wild fluctuations. After those mortality crises, overall mortality dropped to a rather low level within a few years. However, it increased again, reaching its peak at the beginning of the 1870s.

After a slow decline mortality reached its ultimate low-point before World War I. Mortality thus entered a "transitory phase" – phase 3 of Abdel Omran's model of "epidemiological transition", developed in the 1970s.



Graphic 2.2: Source: TLA, database (parish registers of St. Margarethen, 1700-1914)

2.2. Crisis Mortality Ratio

Through the examination of **mortality crises** the long-term trends in the "stabilisation" of mortality become visible. Historical Demography defines a mortality crisis as a phenomenon occurring if mortality rates of one year exceed the average number of deaths of the previous and following five years for more than 50%.

The **CMR (Crisis Mortality Ratio)** for the parish of St. Margarethen shows a striking accumulation of mortality crises in the last third of the 18th century and less frequent peaks in the 19th century. However, we have to assume that also the early 18th century showed several crises years but unfortunately – due to poor registration – sources only provide invalid information.

Entries on death causes allow further analysis of the possible reasons for mortality crises since the 1780s. For earlier periods other studies suggest a **combination of subsistence crises, weak immune defence and extremely lethal epidemics**.

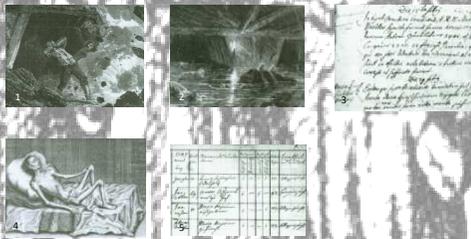


Fig. 1, 2, 6: Simonin, Louis 1867; Fig. 4: Moler, Hans 1532; Pic. 3, 5: TLA, Parish Register St. Margarethen (records 15.2.1784 and 26.1.1785)

3. Example Case: class-specific infant mortality (1780-1805)

Table 1 shows the mortality of babies and children within the first five years, according to the predominant social groups. However, a certain **underregistration of deaths at early age** is to be expected.

Which explanations does historical research give for the higher mortality of babies and toddlers from a peasant background in comparison to the children of miners?

- **higher workload of peasant wives** – Did fieldwork form an additional workload for peasant wives, keeping them from caring for their offspring?
- **breastfeeding duration** – Were miners' wives, due to poverty, forced to breastfeed their babies longer than women in peasant and artisan families?



occupation	mortality rate (deceased infants 0-5 years)	infants death (total number)	infants born (total number)
mining	18,9	88	466
agriculture	22,9	43	187
others (artisans, day labourer, officials)	19,2	39	203
no information provided	41	16	39
not included in baptism records	---	18	---
total mortality rate	20,8	204	895

Tab. 1: Infant Mortality according to fathers' occupation; source: database (church records) parish of St. Margarethen