

CHAPTERS OF TECHNICAL HISTORY IN THE SZÉKELY LAND

(Abstract)

The volume is structured in 12 independent chapters, each dealing with aspects of technical history in branches that are specific to the region. These chapters reflect the creativity of the people who live on these lands, there were periods when their creativity was comparable to that of the whole of Transylvania and of Western Europe.

The Székely Land is usually considered to be an underdeveloped periphery compared to Western Europe, yet the chapters of this volume prove that in many areas of life, especially those that involve technologies, the Szekely Land was at a developmental level comparable to that of Western Europe.

Chapter 1. discusses the processing of clay in creating household objects and stove tiles. The author of the chapter being deeply anchored to the historical past of the region, realizes an organic connection between the antique pottery discovered at archaeological explorations and the clay processing technologies from the 12th-13th century era, through the 16th-17th century and up to the 20th century.

The chapter presents the preparations of raw clay, the production of dyes in ceramic production, the enameling, burning of the objects in order to transform them into real pieces of pottery. Different ceramic objects are presented that are specific to the manufacturing centres such as Corund/Korond and Dănești/Csíkdánfalva in Harghita/Hargita county. At the end of the chapter the production of stove tiles is discussed, tiles that have a specific, adequate ornamentation.

Based on a vast bibliography, the chapter is a true retrospective of the oldest technical trade, the obtaining of household items from clay.

Chapter 2. deals with one of the natural riches of the area, mineral resources. Copper and iron are the two metals that could be produced due to the significant resources of copper ore and a large variety of iron ore. By exploiting these resources the copper ore mining of Bălan/Balánbánya in Harghita/Hargita county was born, also the iron ore mining in the Southern area of the Harghita/Hargita mountains and last but not least the processing of the obtained copper and iron could also happen.

The second part of the chapter discusses iron mining and metallurgy. The remains of some forges and the substantial quantities of slag discovered during archaeological explorations are proof of an intense metallurgical process of iron in these lands.

Also in this chapter the mining and forging centres are presented, those were sufficiently productive to provide the necessary quantities of metal for instance in the 16th century, in the age of the Principate of Transylvania.

Mădărași Ciuc/Csíkmadaras and Lueta/Lövéte are powerful centres of iron industry already in the 16th century, due also to the large scale use of water wheels as a source of energy. These wheels were powered by the waters of the mountain creeds which had a relatively constant discharge during the frostless months of the year.

The 19th century iron production is presented through the activity of centres such as Bodvei/Bodvaj, Fília/Erdőfüle from today's Covasna/Kovászna county and Lueta/Lövéte in Harghita/Hargita, the contribution of these to the unfolding of the events during the 1848 revolution in Transylvania and especially the Szekely Land. In the closing part the chapter the author describes several attempts to build iron ore processing factories such as those in Ciumani/Gyergyócsomafalva and Ditrău in today's Harghita/Hargita county, also Papoț/Papoc, Brețcu/Bereck in Covasna/Kovászna county.

A natural sequel of this chapter is Chapter 4. which discusses bell casting in the Szekely Land. The casting workshops of Tg. Secuiesc/Kézdivásárhely and Sf. Gheorghe/Sepsisz-entgyörgy in Covasna/Kovászna county are presented, also those from Miercurea Ciuc/Csíkszereda and Corund/Korond in Harghita/Hargita county. The chapter ends with the presentation of the actual bell casting workshop in Odorheiul Secuiesc/Székelyudvarhely.

Salt mining and salt trade during the years of the Principate of Transylvania can be studied in the 5th chapter.

An important aspect of wood processing industry is the shipping of wood and of wooden products. This rather complex activity is discussed in Chapter 6. The settlement of Comandău/Kommandó is presented with its industry that processed the wood that came from the surrounding forests. The output of the 36 sawmills was shipped to Covasna/Kovászna using a means that exploited gravitational force. The railway cars loaded with the products are launched downhill on special tracks. While the loaded car descended, another empty one ascended, being tied to the loaded one with a steel cable. This is an ingenious and economic system.

Chapter 7. deals with the textile and leather industry. Before the birth of this branch of industry in these areas, the inhabitants made their own textile and leather objects according to their own needs. A type of thick woolen blanket was used as bedsheets and it wasn't the type of object that could be produced in any household. Certain areas in the region possessed the tools that are necessary for preparing, combing and weaving the wool in order to produce such blankets. Chapter 7. comprises all the technological phases of making thick woolen blankets.

A specific product of the Armenian tanners from Gheorgheni/Gyergyószentmiklós was the product named „kordován” obtained by tanning male goat skins. The result of this technology was a fine, soft leather dyed in strong colors such as red, blue or black. This product was very much appreciated and sought after, it was exported including to Western Europe. Tens of thousands were sold each year.

Water mills, their distribution, structure, working and usage are presented in Chapter 8.

The natural conditions, the hundreds of alpine creeks with a relatively constant discharge and a flow speed that is good for moving the wheels were the foundation upon which hundreds of water mills were built for diverse purposes. From those that milled grains to woodworking ones and those that supplied energy to diverse types of machinery, the diversity of these water mills reflects the creativity of the inhabitants of this region.

Glass production in the factories of this area is the topic of Chapter 9. The factories of Borsec/Borszék, Bixad Olt/Sepsibükszád are only two of the settlements where glass production has truly reached industrial scales. The products of these factories were highly appreciated and sought after all over the markets of Transylvania. Mineral water from Borsec/Borszék was bottled in glass bottles made locally.

Glass products from Bixad Olt/Sepsibükszád had a great variety and a pleasant aspect, they were appreciated by the buyers from the big cities in Transylvania.

Connecting certain settlements to the electric power grid, as discussed in Chapter 10, brought significant changes in the inhabitants' way of life. It is remarkable that Comandău/Kommandó was connected to the grid already at the end of the 19th century, earlier than other settlements in Szekely Land, only a short time after Timișoara/Temesvár was.

The spreading of the hydroelectric plants began only in the first years of the 20th century replacing illumination by petrol-based lamps with electric light and facilitating the use of electric power also in the industry of the age.

A subchapter is dedicated to the attempts to build a hydroelectric plant at Lacul Roșu/Gyilkos Lake where just under 1 MW of electric power could be obtained. Due to the two world wars and the dire economic situation that followed, this couldn't be realized.

The last two chapters – nr. 11 and nr. 12 are not strictly connected to the technical domain but they come to show a link between trade and pre-industrial development in the region due to the appearance of the guilds.

Chapter 11. presents the organizing and the workings of guilds in Odorheiu Secuiesc/Székelyudvarhely, the part that those played in the development of the city, the products made within the guilds, their market-type activity and the qualifying of the apprentices.

The topic of Chapter 12. is a perpetual calendar by means of which the exact date of Easter can be calculated according to both the Julian and the Gregorian calendar. This calendar can be found in one of the painted coffers of the Unitarian church of Ocland/

Oklánd in Harghita/Hargita county. It's a curious and ingenious piece of work made by one of the priests who served in the church during the 18th century.

The book is the output of a clective of authors who possess a vaste experience in the field. It's a first attempt to present several aspects of technical history, a part of history, of the peaceful years during which a general development was the main characteristic of the region.