

# **Textile Industry**

**Ndiritu - Mühlefuhr**

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felder**

# Textile industry in Glarus and Ennenda

## Before Textile

Until the 17th century, agriculture and military service were the primary sources of income in the canton of Glarus.

The economy of Glarus was strongly shaped by its natural resources, such as copper and silver mines, as well as agriculture and forestry.

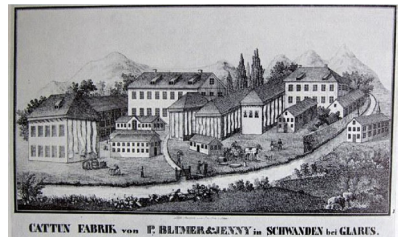
Starting in the 15th century, various industries, such as the production of Schabziger cheese, cloths, and slate tables, helped solidify trade and the economy.



**Slate table called “Glarner Platte”, 1750-1800**

The opening of external trade and the establishment of infrastructure and expansion of the railway, further promoted commerce, while the Glarus wholesale trade began to develop in the 17th century.

The textile industry, starting with the introduction of cotton hand spinning in 1714, played a key role in the economic development of the canton, paving the way for industrialization.



**Company letterhead of P. Blumer & Jenny (today F. Blumer & Cie. AG)**

**In 1813, the Blumer brothers opened the first factory-style spinning mill in Glarus.**

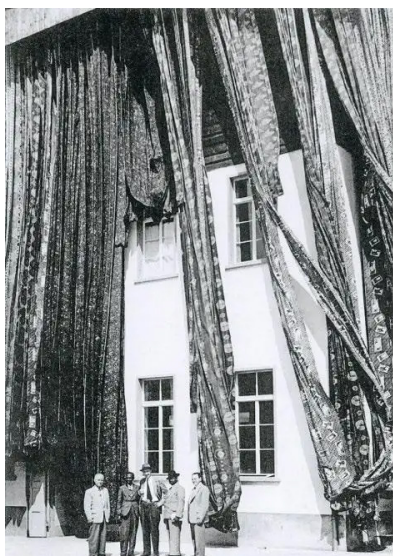


*Drying tower of company the F. Blumer & Cie. AG*

## **Drying Towers (Hänggitürme)**

In the 18th and 19th centuries, textile printing, dyeing, and bleaching industries required specialized buildings to dry long fabric lengths. These so-called drying towers (Hänggitürme) had a distinctive feature: an overhanging gallery under the roof with a slatted frame for hanging textiles.

Depending on their specific function, drying towers varied in construction, shape, and size. Around 1870, nearly 50 different drying towers existed in the Glarus region; by 2013, only about a dozen remained.



*A photograph from the 1950s  
fabrics are drying in the wind*

# Import & export



*A pile of cotton  
in India*

*A page showing  
imports in  
Glarus between  
1842 and 1841*

*Der Kanton  
Glarus, his-  
torisch-geogra-  
phisch-statis-  
tisch  
geschildert von  
den ältesten  
Zeiten bis auf  
die Gegenwart  
- ein Hand- und  
Hausbuch für  
jedermann  
Heer, Oswald  
St. Gallen, 1846*

406 Handelsstatistik.

Einfuhr pr. Jahr. (1842 und 1841 von Seiten  
meistens in Reichswährung)

I. Industrieerzeugnisse.		
A. Baumwollenes Flachsgarn im Betrage von . . . fl.	70,000	
B. Rohes Baumwollentücher . . . . .	600,000	
C. Stoffenwaren aller Gattung . . . . .	300,000	
D. Alle möglichen Gattungen von Seiden, Baumwollens- und Feinwaren im Betrage von . . . . .	130,000	
E. Schmal, Sehl- und Futterleder im Betrage von . . .	32,000	
F. Papier, Schreibmaterialien u. . . . .	20,000	
G. Seife, Färbert, Del . . . . .	93,000	
H. Chemikalien . . . . .	130,000	
II. Produkte des Bergbau's.		
Reifen, Kupfer, Blei, Eisen und Gußwaren, Zand- und Bansteine aus den Kantonen St. Gallen und Schwyz, u. in Betrag von . . . . .	120,000	
Salz, etwa 1000 Maß im Betrage von . . . . .	20,000	
	fl. 1,515,000	
III. Produkte des Landbau's.		
Kolonialwaaren und Tabak.		
a. Wein für . . . . .	172,000	
b. Baumwein . . . . .	292,000	
c. Getreide . . . . .	500,000	
d. Baumwolle . . . . .	32,000	
e. Kolonialkaffee . . . . .	4,000	
f. Pfeffer . . . . .	23,000	
g. Zucker . . . . .	2,000	
h. Reis . . . . .	1,800	
i. Weinbeeren u. Rosinen . . . . .	200	
k. Zimmt . . . . .	10	
l. Pfeffer . . . . .	32	
m. Reis . . . . .	20	
n. Piment . . . . .	10	
o. Pfeffer . . . . .	9	
p. Pfeffer . . . . .	9	
q. Tabak . . . . .	700	
r. Kardistoffe . . . . .	9200	
s. Zehn und Verschiedenes *) . . . . .	8,000	
t. Welle . . . . .	50,000	
u. Butter und Käse . . . . .	60,000	
v. Vieh aller Art . . . . .	160,000	
w. Holz, Lein u. . . . .	60,400	
	fl. 1,789,000	
Zusatz der wichtigsten Einfuhr: fl. 3,314,000		

\*) Nämlich Glaswaaren, welche oben vergessen wurden.

## Global Trade and Market Expansion in the Textile Industry

The textile industry in Glarus and Ennenda thrived on international trade, sourcing raw materials like cotton from the United States, Egypt, and India. These imports sustained the mills' high-quality fabric production, which was then exported to key European markets such as Germany, France, the United Kingdom, and Italy.

Beyond Europe, Swiss textile merchants actively expanded into the Middle East and

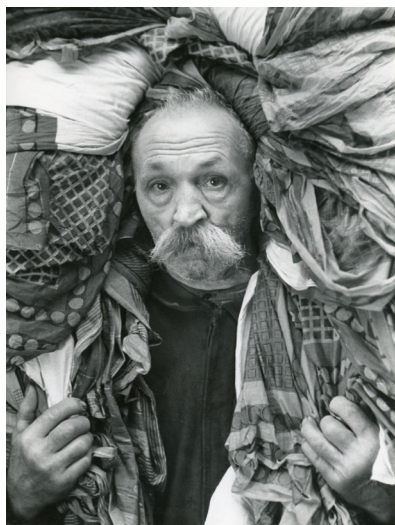


Asia. From Ancona, their trading ships ventured eastward, reaching Constantinople, ports across the Ottoman Empire, Mesopotamia, and Persia to trade in fine cashmere fabrics.

A striking example of this global outreach was Conrad Blumer's journey in 1840. As the head of the Blumer company in Schwanden and a representative of the "India Society" (a consortium of Glarus textile firms), he embarked on an arduous 18-month expedition. His goal was to explore markets in India and Indonesia, understand customer preferences, and bring back

authentic batik patterns to be precisely reproduced in Swiss textile printing.

These market-driven strategies led to remarkable commercial success. The printed textiles from Glarus, featuring intricate designs and a vibrant color palette, were sold worldwide for over 150 years. Interestingly, rather than undercutting local textile industries in these distant regions, the more affordable Swiss production methods made such textiles accessible to a broader population.



**Glarner "Tuechlimannli"**



**Abb. 7:**  
Model for Batik

**Woodblock patterns for batik**



**Exhibition on textile printing products in the attic of the Freuler Palace**

# Fröhlich Brunnschweiler

*Hanna and Samuel Gerson Fröhlich-Brunnschweiler, one of the two company founders in Ennenda*



## Fröhlich Brunnschweiler & Cie

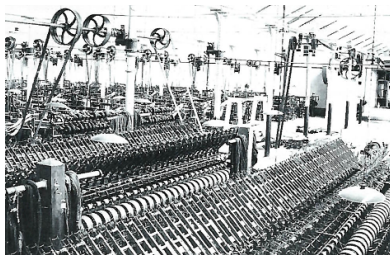
Founded in 1872 by Samuel Gerson Fröhlich-Brunnschweiler and Christian Fürchtegott Brunnschweiler, the company initially thrived, exporting fabrics to England and West Africa.

The company faced difficulties during the Great Depression in 1929, as cheaper competition from England and India made Swiss products less popular. In the 1930s, the company shifted to domestic production but struggled to maintain profitability.

*The aftermath of a fire outbreak at the weaving factory Mühlefuhr on January 16th 1897*



*Inside the Brunnschweiler Fröhlich weaving factory in Mühlefuhr, Ennenda*



Despite efforts to modernize, the company could not keep up with competition. In 1956, after financial setbacks, it was sold to the Streiff company and converted into a fine spinning mill.

**Gewebe mit quadratischem Rapport**  
**Madras Handkerchief**



*Typ A*  
 Streifen als ein oder mehrere Rapporte in Kette und/oder Schuss, die sich über die ganze Webbreite erstrecken.



*Typ B*  
 Achsensymmetrisches Muster von unregelmässigen Streifen in der Kette und/oder im Schuss.



*Typ C*  
 Zentrale Streifenpartie entweder in der Kette oder im Schuss.



*Typ D*  
 Betonung der Gewebemitte durch Streifen, die sich in der Mitte des Rapports kreuzen.



*Typ E*  
 Aufteilung der Fläche in neun gleich grosse Felder durch Dreiteilung der Seiten.



*Typ F*  
 Aufteilung der Fläche wie Typ E, jedoch beschränken sich die Kreuzungen der Streifen auf die Eckfelder.



*Typ G*  
 Streifengruppen entlang der Randpartien als Bordüre.

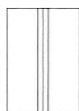
**Gewebe mit rechteckiger Grundform**  
**Keta Cloth, Pestemal, Futa, Kikoi, Hüfttuch**



*Typ H*  
 Längsbordüren oder Kettstreifen entlang den Webkanten.



*Typ I*  
 Querbordüren oder Schussstreifen am Gewebeanfang und -ende.



*Typ K*  
 Kettgestreiftes Innenfeld.



*Typ L*  
 Schussgestreiftes Innenfeld.

**Fröhlich Brunnschweilers typology of stripe and check systems**

## Fröhlich Brunnschweiler & Cie and the Development of Striped Patterns

Fröhlich Brunnschweiler & Cie played a key role in the development of stripe and check patterns, particularly through their work with Madras fabrics. They helped establish a typology for these patterns by simplifying complex designs into basic components. Stripes, often created by altering warp or weft threads, have a long cultural tradition. The introduction of Jacquard looms in 1805 enabled highly intricate striped patterns.

## **Indian Checkered Fabrics in International Trade**

India's warm climate and fertile soil have made it ideal for cotton cultivation, with a history of producing fine fabrics dating back to the 2nd millennium BCE. Indian artisans crafted both simple cotton cloth and luxurious brocades. Textiles became a key export, with muslins reaching Greece and Rome, and goods traded across Asia, Europe, and Africa.

By the 15th century, European powers like the Portuguese, Dutch, and English took control of the textile trade, establishing ports like Madras. Madras Handkerchiefs, striped cotton squares, became highly sought after for export. The production process involved master weavers overseeing artisans, and by the 17th century, these textiles were in high demand in Europe. The term "Madras" came to represent high-quality cotton fabrics.



***Indian weaver  
in Madras***

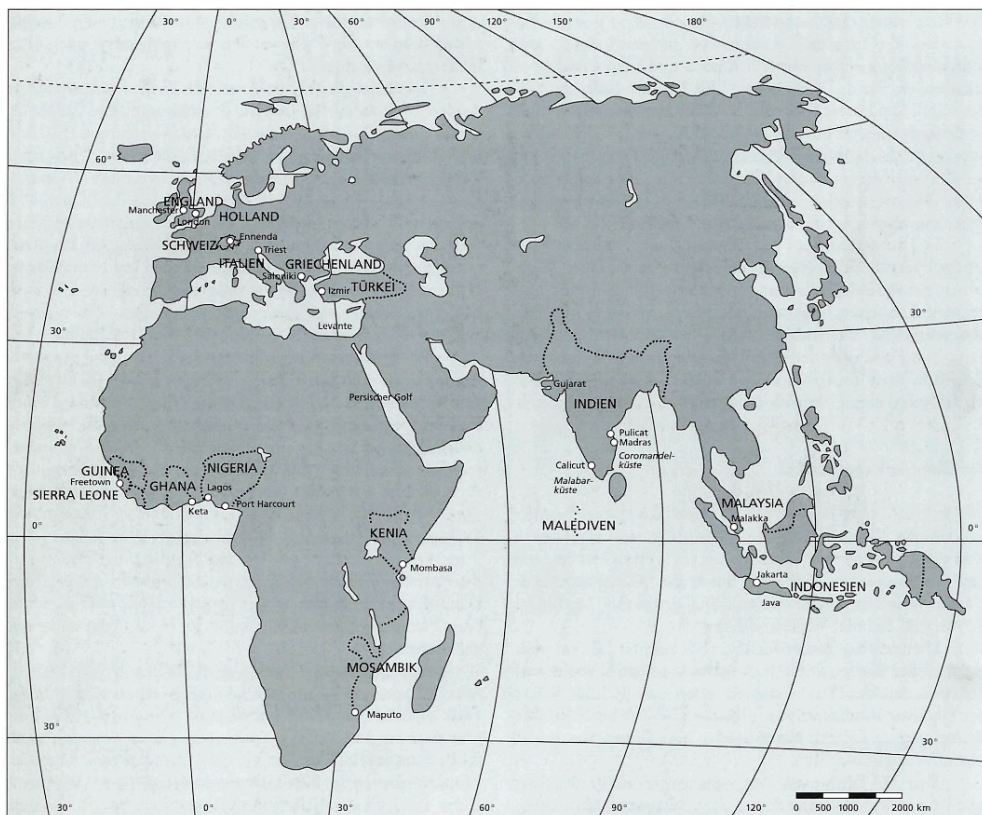
## **Trade with Africa**

The East African coast played a key role in the journey of Arab and European ships to India, serving as a stop for trade and to acquire food and water. In the 16th century, Portuguese traders introduced Indian textiles to West Africa, where striped or checkered fabrics became highly admired for their vibrant colors and non-fading dyes.

The journey of Madras Handkerchiefs to Africa was complex. The English East India Company would ship them to London, where they were auctioned and sold to the Royal African Company or private traders for shipment to West Africa. The handkerchiefs would then pass through multiple intermediaries before reaching the local buyers.

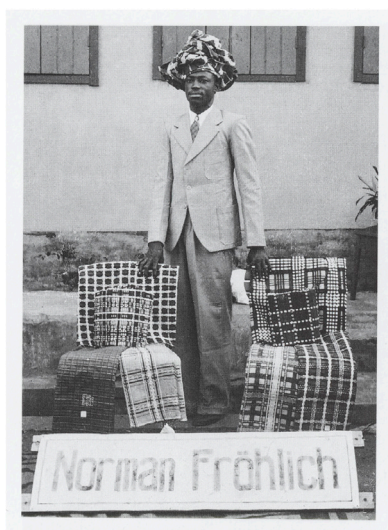
The European trade focused on acquiring cheap raw materials, but for West Africa, it had tragic implications. Indian textiles were often exchanged for slaves. Madras Handkerchiefs were even used as cheap clothing for enslaved workers. After their liberation in the early 19th century, freed people in the Americas rejected these fab-





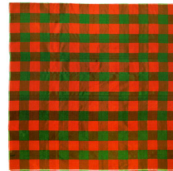
### ***Places related to the trade within textile of the Madras handkerchief***

rics, seeing them as symbols of enslavement. However, in West Africa, Madras Handkerchiefs remained popular despite their association with the slave trade. Direct trade between Indian producers and West African customers began in the late 1920s when Indian companies established operations in Nigeria.



**The Nigerian employee Amusa Erogbogho shows in front of the shop how the handkerchiefs are worn, 1938**

**Handkerchiefs**  
**"Straw Check"**  
**Opobo**  
**1924-28**



## **Nigeria**

Madras Handkerchiefs became deeply integrated into local traditions. The Ibo people, for example, used Madras in rituals, with women intricately altering the fabric to create geometric patterns. Similarly, in Akwete, both men and women wove their own distinctive patterned fabrics, later influenced by the Madras designs.

Over time, these handkerchiefs became essential in daily life, worn as headscarves or body wraps, often adjusted to reflect social status or ceremonial importance.





*Handkerchiefs  
"Freetown  
Fancy"  
Freetown  
1924-28*



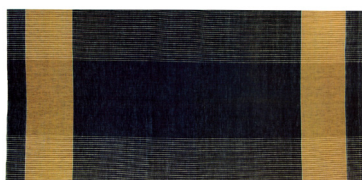
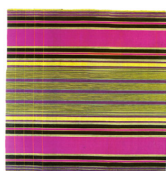
## **Sierra Leone**

In Sierra Leone, Madras handkerchiefs were worn tightly, inspiring local weavers. Fröhlich Brunnschweiler & Cie produced imitations, with Freetown favoring bright colors and Bonthe preferring blue-and-white or black-and-white designs.



*Women with  
handkerchiefs/  
headscarves,  
1912-1940*

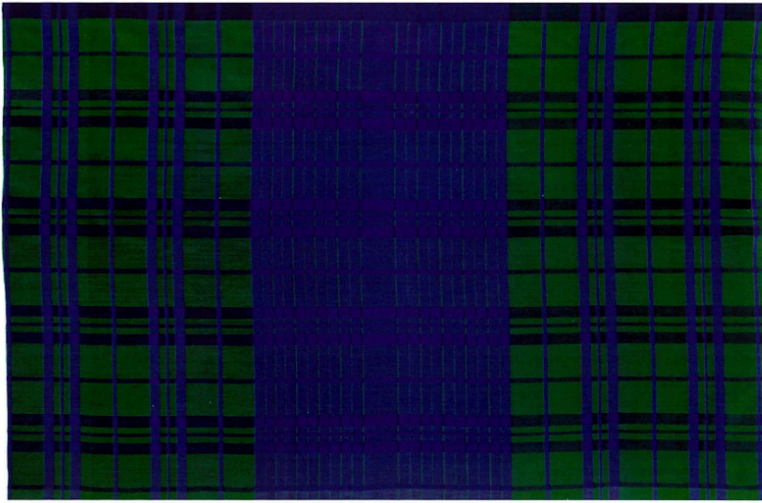
**Pestemal / Futa**  
**1910-1914**



**Turkey**

Fröhlich Brunnschweiler & Cie supplied textiles to Turkey from the late 19th century until World War I, focusing on striped cotton fabrics like Pestemals, Futas, and belt cloths.

Unlike its Madras handkerchiefs, the company followed Turkish designs rather than creating its own. Pestemals featured striped borders and balanced color distribution, while smaller Futas emphasized weft stripes.



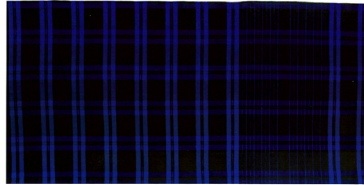
**Sarong**  
1920 - 1930

## Java

Java, with Jakarta as its capital, is the smallest of the Greater Sunda Islands and part of Indonesia. It played a key role in the spice trade and is renowned for its intricate Batik textiles, a dye-resist technique perfected on the island.

The Sarong, a common garment for both men and women, is typically made from Batik or plaid fabrics. Java historically used natural dyes but adopted synthetic dyes after 1900.

From 1840, Swiss textile manufacturers, inspired by Javanese Batik, successfully adapted its patterns for European markets.



**Woman from  
Java with sa-  
rong, 1920**



# Factory Workers

## Child Labor and Workers' Rights in Glarus

In the 19th and early 20th centuries, child labor was common in Glarus' textile mills. Children as young as 7 worked long hours, often 12-14 hours a day, under harsh conditions with low wages. They were involved in tasks like operating looms and sorting materials, facing dangerous environments and health issues. The Swiss Factory Act of 1877 introduced basic protections, limiting children's work hours. By the early 20th century, the Swiss Federal Law on Factory and Workshop Labor (1908) further restricted child labor. Meanwhile, labor unions, especially the Swiss Workers' Federation, pushed for better working conditions.

1846: Ban on child labor under 12 in mechanical spinning mills, workday limited to 14 hours.

1856: Expansion of child labor restrictions to all factories.

1858: Sunday work prohibited.

1864: Workday limited to 12 hours; night shifts banned.

1872: Normal workday limited to 11 hours.

This legislative progress coincided with the growth of foreign markets and factories, such as in Mitlödi, which employed 390 workers in 1867. Despite economic growth, working conditions struggled to improve, and factory owners maintained significant control.

***Women  
working in the  
textile industry  
in the early  
1900s, while  
men dominated  
as company  
leaders***





*The sample issue of the Arbeiter-Zeitung from October 8, 1864 (State Archives of the Canton of Glarus)*

*The first workers' newspaper in Switzerland, published by the Central Workers' Association of Glarus, which was formed in 1864 with 800 members. In 1865, the newspaper was renamed 'Schweizerische Arbeiterzeitung' to reach a wider audience, but its publication ceased in 1866 due to financial difficulties.*

