

Leather Is My Job! -Final Conference-

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Presentation of Kathrin Weber

Why the subject leather?

- Inexperience
- Curiosity
- Negative public representation
- Purpose:
 - Providing an objective overview of the current situation in the leather industry with focus on sustainable aspects

The topic

- Are leather manufacturing and sustainability basically compatible with each other?
- Which is currently the main production country for leather?
- How is the leather industry currently represented in Germany?
- Are there effects of the leather production on sustainable aspects?

The topic

- Research:
 - A comparison of Germany, as a single country, and Asia, as a continent, with in Asia singled out countries, that are an extreme example, should be made with regard to economy, ecology and social issues

The title

Sustainable leather processing
in Germany and in Asia
– ***The leather production
process
and the effect on people,
environment and economy –***

Method

- Research
- Interviews:
 - Mr Prof. Dr. Anders (Retired Professor)
 - Mr Heinen (Lederfabrik Josef Heinen GmbH & Co. KG)
 - Ms Dr. Haaser (SÜDLEDER GmbH & Co. KG)
- Contact with:
 - University Hospital Mainz
 - Informationsverbund Dermatologischer Kliniken e.V. (IVDK)
 - Forschungsinstitut für Leder und Kunststoffbahnen e.V. (FILK)
 - Prüf- und Forschungsinstitut Pirmasens e.V. (PFI)
 - Verein für Gerberei-Chemie und –Technik e.V. (VGCT)
 - Bundesverband der Schuh- und Lederwarenindustrie e.V. (HDSL)
 - Verband der Deutschen Lederindustrie e.V. (VDL)
 - Leather Working Group (LWG)
 - COTANCE

Branches of industry



Leather manufacturing



The three main tanning processes

Vegetable Tanning

- Tanning with vegetable tanning agents (e.g. Mimosa or Quebracho)
- **Hydrogen bonds** connect the polyphenols of the vegetable tannin with the **peptid groups of the collagen**
- Production of heavy leather, e. g. sole leather
 - It is sold by weight

Synthetic Tanning

- Exchange tanning agents (especially Glutaraldehyde)
- Glutaraldehyde **cross-links** with the **amino groups of the collagen**
- Production of Wet White-leather (due to yellow-white colouring)
 - It is sold by surface

Chrome Tanning

- Tanning with chromium(III)-salts
- **Complexing agents** combine the chromium salts with the **side chains of the collagen**
- Production of Wet Blue-leather (due to blue colouring)
 - It is sold by surface

The comparison of the three main tanning processes

- **Development of differences in ecological aspects with the different tanning processes**
- The handling of the three tanning agents is **unproblematic and harmless**, provided the **safety data sheets** are observed and adhered to
- There are **no dangers for the workforce** and **the environment** when dealing with the tanning agents **professionally**

The effect of leather production on **Economy**

Asia: China

- With the production of:
 - Heavy leather from bovine animals
 - Light leather from bovine animals
 - Light leather from sheep and goats
- in 2013, China is the **world's largest leather producer** as well as the **world's largest leather footwear producer**
- Still **growing leather industry**
- Important industry sector
- High export rates of **leather goods**

Germany

- Serious **contraction process**
- Lost its importance as a production site
- Still the third largest leather manufacturer in Europe
- Concentration on the production of **high quality leather**
- High import rates of leather and leather goods

The effect of leather production on **Ecology**

Asia: Bangladesh

- Disregard of the laws:
 - Not existing or inadequate environmental controls
 - Waste water
 - Solid wastes
 - **High environmental pollution** of the entire adjacent ecosystem
 - Air
 - Water (e.g. the river “Buriganga”)
 - Soils
 - Resources for people

Germany

- Strict compliance with the laws and punishment in case of non-compliance:
 - **Ecologically harmless**

The effect of leather production on **Social Affairs**

Asia: Bangladesh, India, Indonesia

- **Leather manufacturer:**
 - Bad working conditions
 - Payment
 - Working hours
 - Health and safety
 - No personal protective equipment (Absorption, Inhalation, Ingestion of chemicals)
 - Outdated and dangerous machinery (Occupational accidents)

- **Resident population:**
 - Health problems due to the pollution of the ecosystem by tanneries

→ **Disease of people in and around tanneries**

Germany

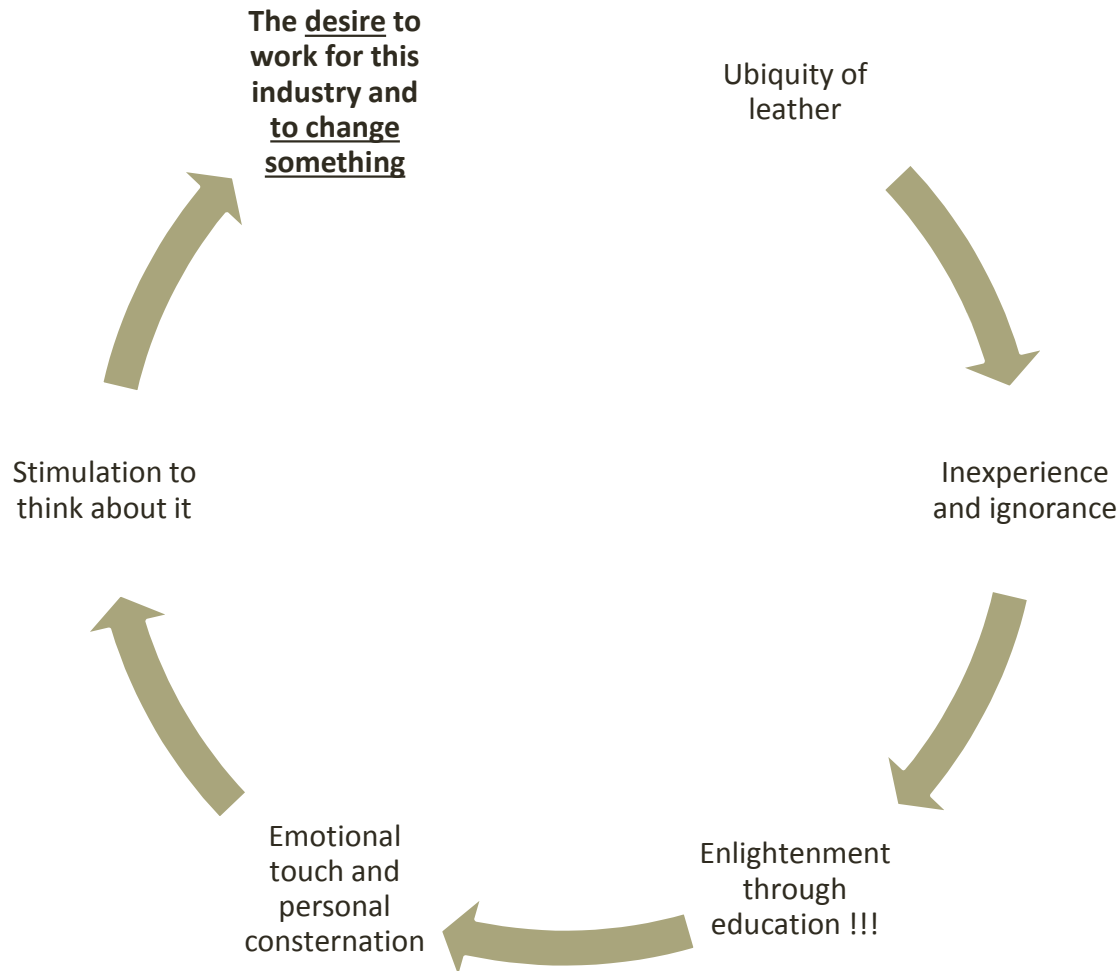
- **Consumer:**
 - Increase in Chromium-Sensitisation by both Chromium (III), and Chromium (VI) due to skin contact with leather goods

Personal conclusion

- Leather is a great and durable material with unique features
- Leather is an upcycling product
- The manufacturing process is very complex and incredibly elaborate
- No designation of origin yet → Labelling requirements absolutely necessary
- Asia: Creating fair working conditions while maintaining jobs!
- Asia: Education Programmes and use of personal protective equipment
- (German) Commercial enterprises must insist on knowing their suppliers and ensuring that international standards are adhered to

→ PRESSURE AND CONTROLS

How to increase the attractiveness for young people



THANK YOU FOR YOUR ATTENTION!