

Organization and Contributors

The following contributors have kindly agreed to speak:

- Ludwig Bauer, M.A., Deutsches Museum, Munich, Germany
- Prof. Dr. Guillaume de Syon, Albright College, Reading PA, USA
- Dr. Frank Dittmann, Deutsches Museum, Munich, Germany
- Nicole Hesse, M.A., Karlsruhe Institute of Technology (KIT), Germany
- Prof. Dr. Matthias Heymann, Aarhus University, Denmark
- Elisabeth Kölmel, M.A., University of Wuppertal, Germany
- Prof. Dr. Timo Leimbach, Aarhus University, Denmark
- PhD cand. Simon Lobach, Geneva Graduate Institute (IHEID), Geneva, Switzerland
- Dr. Ing. habil. Bernd Lychatz, TU Bergakademie Freiberg, Germany
- Dr. Marius Mutz, University of Augsburg, Germany
- PD Dr. Sybilla Nikolow, University of Bielefeld, Germany
- Dr. Panagiotis Pouloupoulos, Deutsches Museum, Munich, Germany
- Prof. Dr. Manfred Rasch, Ruhr-University of Bochum, Germany
- PhD cand. Boyd Ruamcharoen, Massachusetts Institute of Technology (MIT), Cambridge MA, USA
- Sandra Schiller, GF Piping Systems, Schaffhausen, Switzerland
- Ralf Spicker, M.A., Deutsches Museum, Munich, Germany
- Dr. des Malte Stöcken, University of Bielefeld, Germany
- Claudia Sutter, M.A., Rechtsquellen SH, Schaffhausen, Switzerland

Scientific Board:

- Prof. Dr. Gisela Hürlimann, TU Dresden, Germany
- Prof. Dr. Marcus Popplow, Karlsruhe Institute of Technology (KIT), Germany
- Prof. Dr. Friedrich Steinle, Technical University Berlin, Germany

Host and organization:

Franziska Eggimann and the team of Iron Library and Corporate Archives of Georg Fischer Ltd, Schlatt/Schaffhausen, Switzerland

Conference languages:

The conference will be held in English and German.
English summaries of the German papers will be provided.

EISENBIBLIOTHEK



An event of the Iron Library Foundation, Schlatt, with the generous support of Georg Fischer Ltd, Schaffhausen

Participation by invitation only

All information according to planning, June 27, 2023.
Program changes are possible.

Good, Durable, Safe. Quality and Safety Requirements of Technology in History

43rd History of Technology Conference of the Iron Library

Gut, haltbar, sicher. Ansprüche an Qualität und Sicherheit von Technik in der Geschichte

43. Technikgeschichtliche Tagung der Eisenbibliothek

Friday 17 and Saturday 18 November 2023
Klostergut Paradies, Schlatt, Switzerland

Contact

Iron Library

Klostergut Paradies
8252 Schlatt, Switzerland
Tel. +41 52 631 27 44
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www.eisenbibliothek.ch

Venue

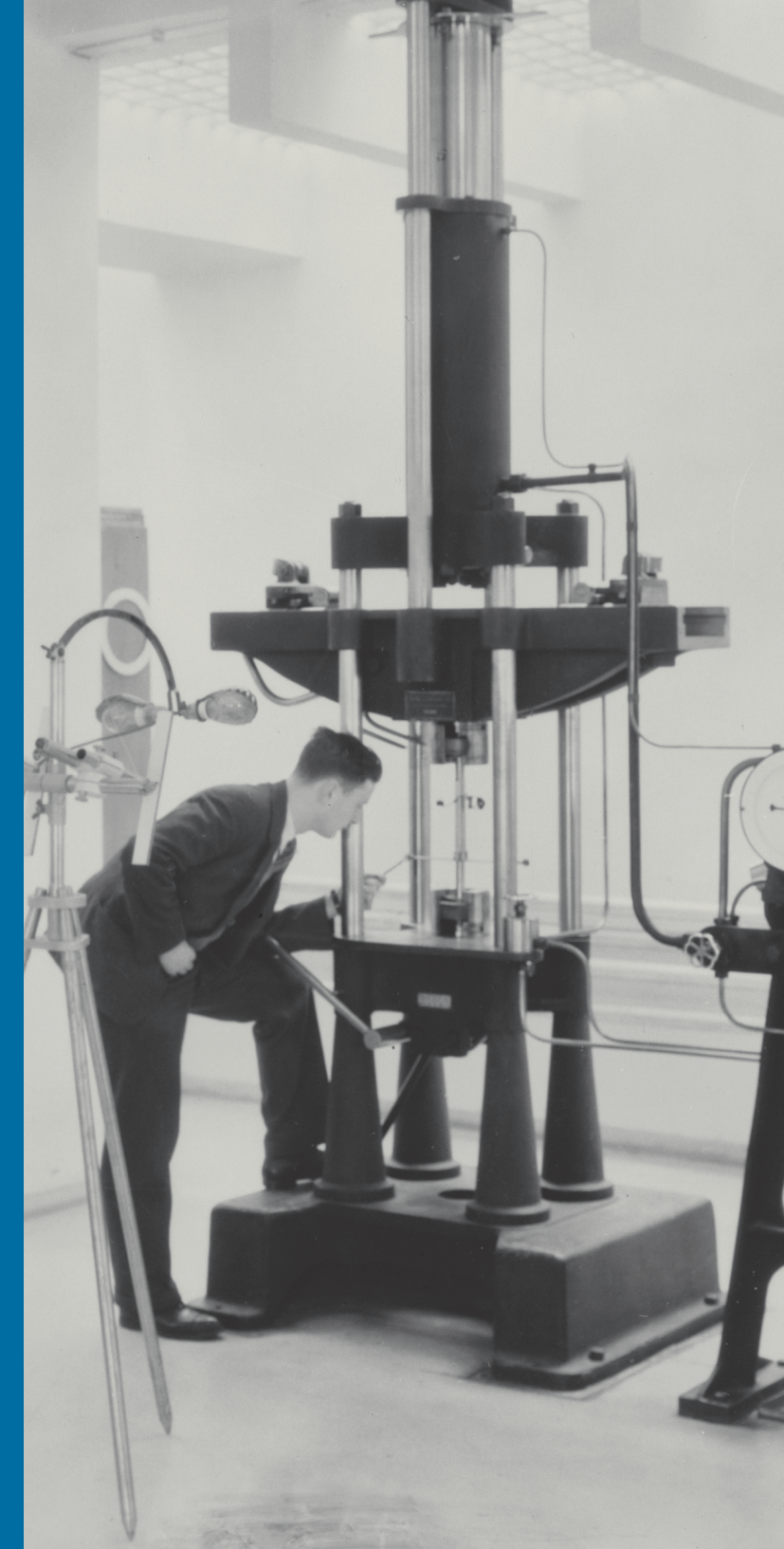
Klostergut Paradies

Klostergutstrasse 4
8252 Schlatt, Switzerland
www.klostergutparadies.ch

Photo: Material strength testing in the Georg Fischer research laboratory in Schaffhausen, 1931 (Corporate Archives of Georg Fischer Ltd)



Iron Library –
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Conference Program

Thursday, 16 November 2023

Arrival (individually)

- As of 18.30 **Pre-conference lecture and reception (optional)**
in cooperation with the Vortragsgemeinschaft Schaffhausen
- Frank Dittmann, Munich
Strom und Sicherheit – eine lange Geschichte [Electricity and safety – a long history]
- An apéro riche will be offered after the lecture. The lecture and apéro are open to the public. All conference participants are also welcome to attend.
- Lecture venue: Rathauslaube, Rathausbogen 10, Schaffhausen
Reception (apéro riche): Hotel Kronenhof, Kirchhofplatz 7, Schaffhausen

Friday, 17 November 2023

Klostergut Paradies, Schlatt

- 8.00 Transfer from Schaffhausen to the Klostergut Paradies
- 8.30 Georg Neuschütz, Vice President Business Development, GF Casting Solutions
Welcome and official opening of the conference
- 8.45–10.00 **Quality control by municipal and court authorities in the early modern period**
Qualitätskontrolle durch städtische und höfische Obrigkeiten in der frühen Neuzeit
Moderator: Marcus Poplow
- Marius Mutz, Augsburg
Qualität, Quantität und Ordnung. Die Prüfung von Technik am kursächsischen Hof und die Etablierung einer dynastischen Trademark [Quality, quantity and order. The testing of technology at the Electoral Court of Saxony and the establishment of a dynastic trademark]

Claudia Sutter, Schaffhausen
Kontrolle durch Fachleute? Gesetzgebung für die Schaffhauser Schmiede in Mittelalter und Früher Neuzeit
[Control by experts? Legislation for the Schaffhausen blacksmiths in the Middle Ages and early modern period]

Discussion

10.00 Coffee break

10.30–12.15 **History of knowledge and institutionalization of materials testing**
Wissensgeschichte und Institutionalisierung der Werkstoffprüfung
Moderator: Friedrich Steinle

Ralf Spicker, Munich
Eine Wissensgeschichte über die Versuche A. Wöhlers und ihre Etablierung als Methode der Werkstoffprüfung
[A history of knowledge of the experiments of A. Wöhler and their establishment as a method of materials testing]

Malte Stöcken, Bielefeld
Erforschung und Prüfung von Metallen für Behörden, Industrie und Militär: Das preussische Materialprüfungsamt 1871–1945
[Research and testing of metals for authorities, industry and the military: The Prussian Materials Testing Office 1871–1945]

Bernd Lychatz/Manfred Rasch, Freiberg/Bochum
Von der Zerreissprobe über den Röntgenapparat zum Elektronenmikroskop/EBCS: Qualitätssicherung in Industrie und Wissenschaft in der Eisenhüttenkunde in Deutschland
[From the tensile test to X-ray apparatus and the electron microscope/EBCS: Quality assurance in industry and science using the example of iron metallurgy in Germany]

Discussion

12.15 Lunch in the refectory

13.45–15.00 **Control over steam and wind: the operational safety of power machines**
Kontrolle über Dampf und Wind: Betriebssicherheit von Kraftmaschinen
Moderator: Gisela Hürlimann

Panagiotis Pouloupoulos, Munich
Optimising Operation, Reducing Risk: Aspects of Quality and Safety in the Development of the Steam Engine

Nicole Hesse, Karlsruhe
Sicherheit und Effizienz: Windenergienutzung im Spannungsfeld von Ressourcenbedingungen und Technikentwicklung seit 1900
[Safety and efficiency: Wind energy use in the field of tension between resource conditions and technological development since 1900]

Discussion

15.00 Coffee break

15.30–16.45 **Negotiation processes in product development: prosthetics and aviation**
Aushandlungsprozesse in der Produktentwicklung: Prothetik und Luftfahrt
Moderator: Friedrich Steinle

Sybilla Nikolow, Bielefeld
«Ein zur Arbeit brauchbares Ersatzglied schaffen». Ansprüche an die Armprothetik im Ersten Weltkrieg
[“To create a substitute limb suitable for work”. Demands on arm prosthetics in the First World War]

Guillaume de Syon, Reading PA
Safety, Speed and New Standards: Building an Engineering Culture around the Concorde Prototypes

Discussion

16.45 Closing and transfer

17.15–18.45 Guided tours of the research laboratory of GF Casting Solutions and of the GF Corporate Archives

18.45 Transfer

19.00 Conference dinner at Pavillon im Park, Schaffhausen

Saturday, 18 November 2023

Klostergut Paradies, Schlatt

8.00 Transfer from Schaffhausen to the Klostergut Paradies

8.30–10.15 **The establishment of quality standards by the state and industry**
Etablierung von Qualitätsstandards durch Staat und Industrie
Moderator: Gisela Hürlimann

Elisabeth Kölmel, Wuppertal
Prüfen, Forschen, Regulieren zwischen Staat, Militär, Wissenschaft und Industrie. Die Nachfolgerinstitutionen der Chemisch-Technischen Reichsanstalt 1945–1961
[Testing, researching, regulating between state, military, science and industry. The successor institutions of the Chemisch-Technische Reichsanstalt 1945–1961]

Timo Leimbach, Aarhus
The silver bullet or how to kill the quality “beast”

Sandra Schiller, Schaffhausen
Safe is safe? Quality and safety standards in product development at GF Piping Systems

Discussion

10.15 Coffee break

10.45–12.00 **The environment as a disruptive factor in regulatory processes?**
Umwelt als Störfaktor von Regulierungsprozessen?
Moderator: Marcus Poplow

Boyd Ruamcharoen, Cambridge MA
Testing Environments: American Standards for Communications Technology in the Tropics in a Decolonizing World, 1950s–1980s

Simon Lobach, Geneva
Environmental regulation and corporate off-shoring in the aluminium sector

Discussion

Resumé

12.00 Matthias Heymann, Aarhus
Conclusion and closing remarks

12.15 Franziska Eggimann, Iron Library
Closing words

12.30 Visit to the Iron Library/Lunch in the refectory

13.30 Transfer to Schaffhausen train station (Arrival ca. 13.50)