

39th History of Technology Conference

Synthetic Materials.

Synthetically Transforming the World

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Date 18–19 November 2016
Venue Klostergut Paradies, Schlatt, Switzerland
Organizer Iron Library, Foundation of Georg Fischer Ltd
Deadline 31 March 2016

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Call for Papers

The 39th History of Technology Conference will be held at the Klostergut Paradies in Schlatt near Schaffhausen, Switzerland on 18 and 19 November 2016. The Conference has served as an outstanding platform for the exchange of ideas between research, teaching and industry since 1978. The speakers and the invited guests come from universities, libraries, collections and museums or contribute their business and industrial experience. The conferences are renowned for the breadth and topicality of the papers presented. You can find information on previous conferences at: www.eisenbibliothek.ch.

This international and interdisciplinary event is organized by the Iron Library (Eisenbibliothek), Foundation of Georg Fischer Ltd. Responsibility for the content of the conference is in the hands of a scientific advisory board consisting of Kilian T. Elsasser (Museumsfabrik Lucerne), Dr. Gisela Hürlimann (ETH Zurich), Prof. Reinhold Reith (University of Salzburg) and Prof. Friedrich Steinle (TU Berlin), and it is they who decide on the selection of the speakers.

We kindly invite interested persons involved in research, teaching and practice to apply to present a paper.

Conference topic in 2016:

Synthetic Materials. Synthetically Transforming the World

Seen from the viewpoint of human history, *homo faber* initially used natural materials, i.e. materials taken from nature, that he then shaped and fashioned. In the history of technology, interest has focused primarily on production technology, or modifying materials by means of machines, and on exploiting the possibilities that such processing opens up. At the 2016 Conference on the History of Technology, in contrast, the discussion will spotlight the materials themselves and their transformation. The focus will be on synthetic materials, or the modification of natural materials up to and including the creation, development, production, and use of synthetic materials. In historical terms, the Conference will cover a broad spectrum, ranging from early alloys to alchemy (which always involved specialists for transforming materials and creating new materials) and to the synthesis of new dyestuffs and the plastics revolution in the 20th century. Papers may deal with individual materials such as lacquers/resins, glass, porcelain or even stucco marble, which because of its malleability is considered the quintessential synthetic material of the baroque age. Many artificial materials functioned as surrogates or imitations. Synthetic processes, in other words the industrial transformation of materials, for instance for dyestuffs, pharmaceuticals, rubber, lubricants, textiles and of course plastics in the narrower sense, were driven by such factors

as high prices, scarcity or limited availability on the world's markets. Ultimately, the aim was to disconnect materials from the limited productivity of nature.

This "longue durée" approach to the development of synthetic materials does not ignore the fact that as a result of new synthesizing processes the output and demand for plastics has exploded since the 1950s. In recent years, synthetic materials have experienced a boom in areas such as machine building, construction and vehicle engineering, and network infrastructures. In the context of the third industrial revolution, these materials have been combined with digitally controlled production methods with the aim of creating hybrid natural-synthetic products and smart materials that will in the near future be able to adapt flexibly to their environment.

As a counterpoint to the opportunities afforded by synthetic materials – their superiority to natural materials in terms of purity and color, etc. and their ready availability – new challenges have emerged, such as production methods that are hazardous for man and the environment, the emission of pollutants in the soil, air and water, the issue of obsolescence, and a worldwide (plastic) waste crisis. These topics may also be dealt with in the papers and discussions.

Format

The papers may be delivered in German or English and should not be longer than 20 minutes. Papers that have been prepared to scientific standards may be selected for publication in the specialized journal *Ferrum*, which is published annually by the Iron Library.

Synopsis

Interested applicants are kindly invited to submit a synopsis of their paper – no longer than two A4 pages (4'000 characters) – in German or English, along with an up-to-date resume, by 31 March 2016 to the Head of the Iron Library, lic. phil. Franziska Eggimann (franziska.eggimann@georgfischer.com).

Organizational matters

The Iron Library, Foundation of Georg Fischer Ltd, will assume speakers' travel expenses and the cost of room and board during the Conference. We expect that speakers will attend the entire Conference.

Timelines

We request you to submit your synopsis by 31 March 2016.

The selection of the speakers will be completed by the end of May 2016 at the latest.

Contact person

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