



Un:chaining – Microhistories of Multi-Local and Global Manufacturing

Annual Conference of the Society for the History of Technology (gtg) and the Interdisciplinary Committee for the History of Technology of the VDI (IGTG), in cooperation with the German Museum of Technology Berlin and TU Berlin (Department of History of Technology)

German Museum of Technology Berlin, **April 3-5, 2025**

Smartphones, T-shirts, or North Sea shrimp peeled in Morocco are striking examples of contemporary manufacturing processes in global supply or production chains. However, multi-local manufacturing is not a new phenomenon of late 20th-century globalization and its post-Fordist reorganization of production. The history of labor and production shows numerous older variations in which production was fragmented into certain stages of production in order to have lower costs, more available labor, and less stringent social, safety, and environmental standards. In other cases, multi-local manufacturing offered an alternative to centralized mass production, enabling quick responses to changing demands in areas of flexible niche production (Piore/Sabel).

Keywords such as "global supply," "value chains" or the "extended workbench" in the system of international division of labor are now ubiquitous, even in research. Yet such keywords not only obscure the concrete work practices and conditions, but also the logistical structures that any spatially disintegrated manufacturing process requires, along with its problematic externalization effects and power asymmetries. In light of this, the conference aims to encourage looking behind such "goods," "production," and "supply chains" through concrete (techno)historical case studies: How did the fragmentation and spatial outsourcing of production stages change labor and production technology? To what extent were multi-local and global production networks dependent on specific technologies? What logistics were necessary, and how were transport, interim storage, communication, coordination, and control secured? What role did technology play in intersectional disadvantages? And to what extent is it appropriate to continue relying on the chain metaphor in our historical narratives and analyses, or should we disentangle this close relationship?

The conference thereby brings a classic field of study back into the focus of the history of technology, narrowing it down to the case of multi-local and global manufacturing—as recently done by global, economic, and gender historians, as well as historians of capitalism. Additionally, the topic invites material history perspectives, which offer extensive potential for museums to convey corresponding multi-local and global histories.

We particularly invite contributions on the following topics:

Outsourcing, Offshoring, and the Shifting Global Power Hierarchies: Historical Case Studies

Outsourcing and offshoring are buzzwords of a fluid economic system that, in recent decades, seem to have dynamically shifted its production and investment locations globally. However, the practice of organizing production processes or the processing of raw materials into goods across different locations can be found in past centuries as well. The history of technology and regional history have particularly highlighted this in the context of pre-modern putting-out systems and early industrialization. Even mass production did not operate without complex networks of formal and informal factories, backyard workshops, and home-based work, as vividly illustrated by the "sweatshop" system of the garment industry. Regional production networks soon grew into global ones, and the outsourcing of certain production stages to low-wage countries began long before the late-20th century.

The history of technology currently offers few explanatory approaches to phenomena like "supply chain capitalism" (Tsing) or the "mechanical Turks" of the gig economy. How multi-local and increasingly global divisions of labor interacted with changing regional and global power hierarchies is a topic currently addressed mainly by studies from economic and newer capitalism history, such as those examining the global networks and shifts in cotton cultivation and processing (Beckert) or other colonial materials and goods. We are interested in relevant examples from both the recent past and earlier periods, such as the pre-modern or industrialization phases.

Linear Chains or Fragile Logistics? – Approaches and Narratives

Recent studies in logistics history speak of "material flows" (Dommann), cultural-historical studies refer to "commodity streams," and economic-historical works have adopted "commodity chain" approaches (e.g., *Global Commodity Chains*, *Global Value Chains*; Grewe, Hesse) to trace the complex paths, networks, and intertwined production stages of globally distributed manufacturing.

However, debates surrounding the controversial European "supply chain law" and its German implementation have raised questions of whether it is even possible to trace these chains down to the last "link." We encourage contributions that critically address the benefits and pitfalls of dominant metaphors and images like "chain," "stream," or "extended workbench." For example, does the metaphor of the chain—linear and uniformly scaled—adequately capture the fluid networks and critical dependencies? What happens in the "in-between" stages of production? What potential lies in microhistories and new approaches to a history of logistics?

Recently, attention has been drawn to the epistemic potential of analyzing material flows through their disruptions and breakdowns (Dommann). How can the conceptual idea of aligning the chains, streams, and stages of goods production—from raw materials to finished products—with the vulnerability, fragility, and crisis susceptibility of outsourced production and its transshipment points, such as due to natural disasters, sabotage, war, or crisis, be reconciled? And what historical narratives could enrich the current debates that, in light of the experiences of the COVID-19 pandemic, the Ukraine war, and changing geopolitical power relations, are calling for "de-risking" and "re," "near," or "friendshoring"?

In the Shadow of the Externalization Society: Between Intersectional Injustice and the Right to Participate

In sociology, "living at the expense of others" (Lessenich) has been described as one of the central characteristics of Western "externalization societies." The connection between the spatial distribution of production—and ultimately disposal—and intersectional inequalities and discrimination is evident. The outsourcing of production stages had and still has not just technical but also social, economic, political, and ecological reasons, such as disparities in employment, wage, and qualification opportunities or lower safety and environmental standards. Previous historical research suggests that such intersectional disadvantage particularly affects women, migrant workers, and socially marginalized groups who produce in "low-wage countries," dismantle toxic e-waste, are under significant mental strain, or train image recognition programs for AI software. The spatially disintegrated division of labor often included informal economies—ranging from traditional home-based work to the digital platform economy, where short-term tasks are assigned to marginally employed individuals or freelancers.

At the same time, recent studies increasingly challenge stereotypical narratives of (post)colonial power asymmetries (van der Straeten/Hasenöhl, Dhawan) and advocate overcoming Eurocentric perspectives that reveal themselves in tensions between (social or environmental) injustice and the right to participate in global supply and disposal chains. In this context, microhistories or "stories from below" (Hård) emphasize the importance of (trans)regional networks and the local conditions of the environment, resources, and knowledge, as well as local resistances and the persistence of indigenous practices.

Individual papers (maximum 20 minutes) as well as entire panels (3-4 individual papers) or formats outside the classic presentation format (by arrangement) may be submitted. Please send your proposal in German or English (abstract of max. 500 words and max. 1-page CV per contribution) by **October 31, 2024** to technikgeschichte@vdi.de

The Conrad-Matschoß Prize for the History of Technology, sponsored by the VDI, will be awarded at the conference.