

Timetable and abstracts for –

‘Factory World – Architecture and industrialization over time and space’

A symposium supported by the Birkbeck Institute for the Humanities and the Architecture Space and Society Centre (Birkbeck, University of London)

11.30-6.00, October 31, 2019

Keynes Library

School of Arts, Birkbeck, 43 Gordon Square, London WC1H 0PD

Organized by Mark Crinson and Claire Zimmerman

Timetable

11.30—11.45 – Welcome and introduction

PLAN AND IMAGE

11.45-12.30 - **‘Ancoats, 1826 – or, how to represent a factory’** (Mark Crinson)

12.30-1.15 - **‘The planning of the factory in Germany, 1898-1918’** (Tilo Amhoff)

1.15-2.00 – Lunch

ENVIRONMENTS

2.00-2.45 - **‘Getting to know the shape of smog’** (Peter Christensen)

2.45-3.30 - **‘Between cables, industry and home’: Women, building products and STC Factory, New Southgate in the interwar period’** (Katie Lloyd-Thomas)

3.30-3.45 - Tea

TRANSNATIONALISM

3.45-4.30 - **‘Building the global factory - architectures of transnational clothing production’** (Anke Hagemann)

4.30-5.15 - **‘From Truscon to AMTORG: Moritz Kahn and the global networks of Detroit’** (Claire Zimmerman)

5.15-5.45 - Discussion

Abstracts

PLAN AND IMAGE

1. 'Ancoats, 1826 – or, how to represent a factory'

Mark Crinson

When the Prussian architect Karl Friedrich Schinkel made a brief visit to Manchester in 1826, the town and its industries were in crisis. What he noted and drew, particularly the factories assembled beside the Rochdale canal, is well known but it hasn't been brought together with the conditions of Ancoats (the town's industrial suburb) at this time, and the character and qualities of the factories there, particularly the huge new buildings and cutting-edge technologies of the cotton manufacturers and machine builders, McConnel & Kennedy. Using representations of Ancoats' factories, including those produced by McConnel & Kennedy, the paper discusses the range of architecture-images of the factory that were then possible, in terms of what had coalesced into vision, what was only partly image-able, and what was – given the political economy of the time – deemed surplus. There are five themes in these architecture-images that will be considered: the factory as architecture and as view; the factory as analogous to a palace; workers' dwellings and their strange non-relation to the factory; the factory as a model machine; and the factory in its relation to industrial strife. Running through these issues is another – the world that these factories made and were made from. Schinkel's comments and sketches provide a kind of passage into these themes, but the paper is really about the limits and possibilities of the visualization of the factory at this time.

Mark Crinson is Professor of Architectural History at Birkbeck, London. He has recently published *Rebuilding Babel: Modern Architecture and Internationalism* (2017) and (with Richard J. Williams) *The Architecture of Art History – A Historiography* (2019). He is currently researching *After Shock City: Image and Architecture in the First Industrial City*.

2. 'The planning of the factory in Germany, 1898-1918'

Tilo Amhoff

This paper explores the relations between the factory building and the factory system, and between the plans for the organisation of the industry and the plans for the building of the factory in Germany at the turn of the twentieth century. It will look more closely at two case studies, the machine tool company Ludwig Loewe & Co. AG and the electrical engineering company AEG, in which these two plans were closely linked in the attempts to layout the shop floor and to organise the production process. Therefore, the factory allows drawing out the double notion of the plan, being on the one hand a specific architectural drawing concerned with the layout of space and on the other hand a means for the organisation of the division of labour. This paper discusses the ambitions of their company directors and speculates on the consequences for their workers.

Marx and Engels approached the nature of production in two ways, first in the narrow sense, as the production of goods, and second in the broad sense, as the production of ideas. In that respect the division of labour is also produced in the factory, especially the division between material labour and intellectual work. Following this distinction between the narrow and broad sense of production this paper then traces the production of the intellectual work of planning in the two case studies. The separation between conception and execution of work and the removal of the supervision of work from the shop floor further manifested itself in the separation between production and administration building, between factory and office. In that sense the factory was not only productive of the capitalist mode of production, but also of the functional and spatial division of labour, and of the intellectual work of planning, including the supervision of work.

Tilo Amhoff is Senior Lecturer in Architectural Humanities, University of Brighton, and founder member of *Netzwerk Architekturwissenschaft*. He co-edited *Produktionsbedingungen der Architektur* (2018), with Gernot Weckherlin and Henrik Hilbig, and *Industries of Architecture* (2015), with Katie Lloyd Thomas and Nick Beech.

ENVIRONMENTS

3. 'Getting to know the shape of smog'

Peter Christensen

This paper will examine the early factories of the Krupp company in Essen, Germany. Specifically, consideration will be given to the factory's relationship to pollution and understandings of environmental health from the 1860s through the 1890s. The company's rapid growth in this period coincided with efforts to create comprehensive plans for residential communities in the vicinity of the factory, a model of company town planning that proved remarkably influential in Germany and beyond. Nevertheless, expansive growth and increased industrial pollution were, not surprisingly, seen as anathema to one another and efforts to understand precisely how pollution operated on its environs, especially people in its vicinity, became singularly important for, perhaps, the first time during the long process of industrialization. This paper will examine research efforts by the Krupp company to measure, control, mitigate, and otherwise measure its pollution, in particular smog. Smog, though known as a gaseous substance, was nevertheless widely described as something with a shape and form in corporate research and thus provides a fascinating moment in which pollution took on spatial guise in tandem with the planning of both factories and housing. This paper will rely on unpublished archival records as well as contemporary German scholarship on environmental health to detail this phenomenon and to consider ways in which it may have mobilized certain later aspects of environmentalism as it related to industrial culture and company planning.

Peter Christensen is Associate Professor of Art History at the University of Rochester. His specialization is modern architectural and environmental history, particularly of Germany, Central Europe and the Middle East. He is the author of the book, *Germany and the Ottoman Railway Network: Art, Empire, and Infrastructure* (2017).

4. 'Between cables, industry and home': Women, building products and STC Factory, New Southgate in the interwar period'

Katie Lloyd-Thomas

House-building was one of the few buoyant sectors in the difficult economic years following WWI, and as a result many manufacturers targeted the building products industry, with new lines of paints, roofing materials, corks, boards, components, appliances etc. appearing on the market. This paper looks at the Standard Telephone and Cables company, who during the 1930s developed a gleaming new factory in New Southgate. Photograph after photograph shows women working in many areas of production from the assembly line to machining and spraying, to wiring up switchboards and testing cables.

Women's employment on the factory floor in the interwar period is less well recognised than their recruitment as *consumers* of new products. At the same time these women were moving to the new cottage estates developed by the LCC and other local authorities, such as the Watling Estate in Burnt Oak, a few miles away from the new factory. They were the target market for these new products and lived in buildings that might have used them in their construction. In addition they were ideally placed and mobilised to act as intermediaries selling these new products to other women.

Taking the cable as an analogy, this paper considers work, home and the building products industry as connected in a circuit. The house-building boom did more than provide homes for heroes. It also provided a market for the sale of commodities, with profound changes for women in the home and at work as they entered and altered technical realms.

Katie Lloyd Thomas is Professor of Architectural Theory and History (University of Newcastle) and Co-Director of Architecture Research Collaborative (ARC) and a founding member of the feminist art architecture collective **taking place**. Notable edited collections include *Material Matters* (Routledge, 2007) and with Tilo Amhoff and Nick Beech *Industries of Architecture* (Routledge Critiques, 2015).

TRANSNATIONALISM

5. 'Building the global factory. Architectures of transnational clothing production'

Anke Hagemann

Dense textile districts in inner-city Istanbul, sprawling greenfield factories in the city's western hinterland, sewing workshops in Bulgarian mountain villages, and large-scale industry zones in the outskirts of Ethiopian cities seem to have nothing in common at first glance – but all these places are linked through shifting production relations. Today, manufacturing of most consumer goods is organized within global production networks, which connect diverse locations of production, distribution and consumption around the world. These complex and dynamic socio-spatial formations have significant effects on the built environment as they rely on wide-ranging physical structures on the ground, from the architectural object to the operational landscape. However, global production networks and

the related literature have hardly received any attention in architectural research to date. This paper explores the architecture of particular buildings and their functions within such production networks. More precisely, it traces spatial transformations on architectural and urban scales in relation to economic shifts at global scale: a striking diversity of buildings, formal planning approaches, adaptation, and bricolage emerges, reflecting the dynamics and disparities of the globalized industry. Individual buildings at clothing industry locations in Turkey, Bulgaria, and Ethiopia are discussed as parts of a wider transnational production network catering to west European fashion companies and markets. The paper argues that such relational analysis of mundane industrial architectures and the ways they are developed and adapted over time in order to accommodate globalized production opens up a new conceptual perspective on the transnational constitution of space, reflecting the interplay of local and global forces at work in present-day urbanization.

Anke Hagemann is an urban and architectural researcher at the Habitat Unit, Technische Universität Berlin. Her PhD investigates the spatial division of labour in Istanbul's globalized clothing industry. Together with Elke Beyer she has conducted the research project Transnational Production Spaces (2016-2019).

6. 'From Truscon to AMTORG: Moritz Kahn and the global networks of Detroit'

Claire Zimmerman

In a firm that began building internationally from its founding at the turn of the century, Moritz Kahn stands out among the Kahn brothers of Detroit for his work on two fronts of global industrialization. Dispatched by brother Julius to London in 1905 to set up a London branch of the Trussed Concrete Steel Company (Truscon), Moritz tapped into the extensive commercial networks of the British empire. There he published a book codifying procedures and theories of industrial architecture. After his return to Detroit in 1923, Moritz worked at brother Albert's firm until he was dispatched to establish and run the firm's Moscow office. As scholars have recently detailed, Albert Kahn Incorporated negotiated with AMTORG (*Amerikanskaya Torgovlya*, a quasi-official Soviet trade delegation in the US) for contracts in 1929 and 1930 that would result in a suite of industrial campuses scattered throughout the Soviet Union. In the years intervening between these two enterprises, the firm built industrial plants all over the world. Framing industrial construction operationally and theoretically in his book and many articles (some published under Albert's name), Moritz organized and systematized the firm's construction work, making it more than the sum of its parts, and endowing it with greater theoretical depth. In Russia, members of the office met the realities of Soviet life in the late 1920s; Moritz and his team returned with the benefit of the Soviet example to further complicate their thinking about building in the years that followed, culminating in the Kahn firm's production upsurge for WWII. This paper considers Moritz's work in globalizing the manner of construction developed by the Kahns for industrial work. Based on family letters, manuscripts, newspaper journalism, and publications, the talk seeks to enlarge our knowledge of a critical period in the globalization of the fossil-fuel intensive 'Second Industrial Revolution'.

Claire Zimmerman teaches architectural history at the University of Michigan. Current projects include *Daylight Eclipsed: Detroit's Albert Kahn Inc and the Transformation of the*

Built Environment 1900-1961. Photographic Architecture in the Twentieth Century appeared in 2014; she recently co-edited *Grey Room 71: "The Costs of Architecture,"* and *Neo-avant-garde and Postmodern: Postwar Architecture in Britain and Beyond* (2010, with Mark Crinson).