Technische Universität Braunschweig Institut für Geschichtswissenschaft

Places of Progress? Re-Evaluating the Sites of High Tech Controversies

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Abstracts & Biographies

List of Participants

Norman Aselmeyer	2
Philipp Aumann	2
Joachim Block	3
Daniel Brandau	3
Robert Bramkamp	4
Verena Butt	4
Ralf Bülow	4
Jana Bruggmann	5
Andrew Cross	5
Maurits Ertsen	6
David Freis	7
Christian Götter	7
Marie-Luise Heuser	8
Stefan Hördler	9
Katarzyna Jarosz	9
Karena Kalmbach1	0
Christian Kehrt	0
Martin Lücke	1
Susan McClamroch	1
Michael J. Neufeld1	2
Anna G. Piotrowska1	2
Dirk Schreiber	3
Constanze Seifert-Hartz1	4
Rajendra Singh Thakur1	5
Erik Thorstensen1	6
Patryk Wasiak1	6
Beate Winzer	7

Norman Aselmeyer

European University Institute, Florence (ITA)

What Sired the Nation? The Uganda Railway and Memory Work in Kenya 1890-2000

The Uganda Railway was among the key infrastructure projects built during the heyday of high imperialism in Africa (1896–1901). Connecting the Indian Ocean with Lake Victoria, the railway line provided the British with easy access to the East African interior and helped consolidate the colonial state. Right from the start, the construction of the railway was highly controversial. It caused major stir in the British parliament and press which earned the line the nickname "Lunatic Express." More importantly, the construction was confronted with stiff resistance by several East African societies, leading to armed conflict and relocation of entire communities. Due to its violent history, the Uganda Railway became the primary symbol of colonial conquest and oppression in Kenya. While the violent memories of the line faded away amidst the efforts for independence and nation building, the railway's history was gradually rewritten. Already in 1971, the Nairobi Railway Museum was established by a group of British railway enthusiasts. It took, however, until the late 1990s to see a change in collective memory. Since then, and reinforced by the replacement of the old line by a new, Chinese-built railway in 2017, the Uganda Railway got popularized as the cornerstone of the postcolonial nation.

Drawing on scholarly publications, newspaper reports, fiction, and interviews, this paper attempts at exploring the reasons and motivations behind the change in Kenyan public memory. Putting the representations of the Uganda Railway into perspective, I argue that the current reading of the railway was the outcome of deliberate memory work advocated by various groups. Their coincidental but simultaneous efforts towards a different reading of the past, although for different reasons, aimed at reimagining the nation. The paper thus shows mechanisms of coming to terms with the colonial past in a postcolonial nation.

CV

Norman Aselmeyer is a PhD candidate at the European University Institute in Florence. He is currently working on a dissertation about socio-spatial transformations in East Africa related to the construction of the Uganda Railway. Before joining the European University Institute, he was a research associate at Freie Universität Berlin. He has held fellowships and research affiliations at the University of Nairobi, the University of Wisconsin-Madison, the German Historical Institute London, and Moi University Eldoret, among others.

Philipp Aumann

Historisch-Technisches Museum Peenemünde (DE)

CV

Philipp Aumann has been head curator of exhibitions, collections and research at the Historisch-Technisches Museum Peenemünde since 2014. He received his PhD from Ludwig-Maximilians-Universität München in 2009 and then worked in several museums. His research focuses on the relationships and interactions between science/technology and society.

Joachim Block

Deutsches Zentrum für Luft- und Raumfahrt, Braunschweig (DE)

CV

Joachim Block is a physicist and received his PhD on acoustic measurement techniques applied on spacecraft structures in 1988. At the German Aerospace Center (DLR) he has been involved in a number of space exploration missions over more than 20 years, for instance ESA's cornerstone mission ROSETTA aimed at the comet 67P/Churyumov-Gerasimenko, where Block was in charge of the whole Lander structure. He is teaching space project management and space exploration at the Technical University of Braunschweig. Since 2011 he has been acting as head of the DLR research sites in Braunschweig and Göttingen.

Daniel Brandau

Technische Universität Braunschweig (DE)

Meta-Peenemünde: Remembering Second World War Technologies in East Germany, from the 1980s to Today

Given Peenemünde's ambivalent military and technological history spanning two very different political and ideological regimes over 55 years, its museumization was considered both a chance and challenge during the time of the deindustrialization of northern Usedom and increasing unemployment in the 1990s. It was met with bewilderment, however, when East German NVA officers readily supported the old Peenemünders to promote an apologetic view of their role during the Nazi era. Through examining minor and major controversies, some still ongoing, Daniel Brandau will explain the complex nature and societal functions of technological remembrance in rural East Germany.

In the second part of the presentation Constanze Seifert-Hartz will give insight into her public history PhD project and visitor research at the Historical-Technical Museum Peenemünde. Two contrasting group discussions with German and American visitors show how Peenemünde is currently being discussed and questioned as a "Place of Progress".

CV

Daniel Brandau is a postdoctoral research associate in the "Meta-Peenemünde" group at Technische Universität Braunschweig. His work focuses on the history of science and technology, modern cultural history and the didactics of history. After studying history, language and literature studies and educational science at Universität Bielefeld (BA, MEd) and the University of Cambridge (MPhil), he completed his PhD at Freie Universität Berlin in 2017 with a dissertation on the cultural history of rocketry (*Raketenträume: Raumfahrt- und Technikenthusiasmus in Deutschland, 1923-1963,* Paderborn: Schöningh, 2019). Brandau has also taught in schools and completed teaching qualifications (both *Staatsexamen*). He has been research associate at the Friedrich-Meinecke-Institut of Freie Universität Berlin, and fellow at the National Air and Space Museum in Washington, DC, and the Institute of European History in Mainz.

Robert Bramkamp

Filmmaker, Hamburg/Berlin (DE)

Film Discussion "Prüfstand 7" (Teststand 7)

"Teststand7" (2001) builds up a portrait of the rocket as a techno-magic object. In this docufantastic film essay the leading character not only plays a role in space research and warfare but is also encountered in a surprising number of guises. Thomas Pynchon has, for the first time, given permission for a partial screen adaption of his novel "Gravity's Rainbow".

CV

Robert Bramkamp (b. 1961) has spent 35 years making a series of innovative films that combine fact and fiction: "Art Girls" and "Teststand 7" were screened in the EU, China, Russia, South America and India. He has taught at Pasadena Art Center and HFF Babelsberg. Since April 2008, Robert Bramkamp has been Professor of experimental Film at the University of Fine Arts of Hamburg.

Verena Butt

Leibniz Universität Hannover (DE)

CV

Verena Butt studied Landscape architecture at the Universität Hannover and the Landbouwuniversiteit Wageningen. After graduating, she worked in Swiss Landscape Architecture offices. From 2009 to 2015 she was lecturer and research fellow at Leibniz Universität Hannover for the Designing Urban Landscapes chair, where she was project manager for EMiLA, European Master in Landscape Architecture, and nominated for the "Award for excellent teaching". Since 2016 she has been working at the State Capital Hannover in the department of Environment and Urban Greenspace. She is visiting lecturer (AIB Bonn for the Texas A&M and Penn State universities' semester abroad programs and Ostwestfalen-Lippe University of Applied Sciences). Her on-going PhD focuses on landscape design for post-military landscapes in the field of landscape aesthetics, novel ecological concepts and managing conflicting heritage. Her latest publication, titled "Revealing the Heritage of Post-Military Landscapes" is available online at: https://journals.open.tudelft.nl/index.php/spool/article/view/3306.

Ralf Bülow

Historian, Berlin (DE)

Bunker and Bauhaus - Lost Places of Computing History

In the 20th century, several large companies in West Germany produced computers of various sizes. In the age of the smartphone, their machines can only be seen in private collections and public museums, and my talk looks at two of them. In Kiel, the former WWII bunker of the famous Howaldtswerke shipyard was transformed into a computer museum from 2009 to 2011. In Paderborn, the Nixdorf computer company flourished from 1968 until 1990. Its Bauhaus-style headquarters reopened as Heinz Nixdorf Museums Forum in 1996, displaying the history of information technology. The talk closes with looking at further computer-related buildings in Berlin, Dresden and in Southern Germany.

CV

Born 1953 in Gelsenkirchen, Ralf Bülow studied computer science, mathematics and philosophy in Bonn. His 1980 dissertation covered mathematical logics and Artificial Intelligence. In 1983/84 he worked at Siemens Munich, and from 1985 until 2014 he participated in exhibition projects on the history of science and technology, including spaceflight. He has also worked as a journalist. Since 2015 he has been producing a weblog on the history of computing. Ralf Bülow lives in Berlin.

Jana Bruggmann

Leibniz-Institut für Europäische Geschichte Mainz (DE)

CV

Jana Bruggmann (*1985) is a research associate at the Leibniz-Institut für Europäische Geschichte (IEG) in Mainz and a PhD candidate at the Freie Universität Berlin. Her PhD project, tentatively titled "Der Planet im Außenblick. Visuelle Welterzeugung und kulturelle Selbstbeobachtung in Deutschland, ca. 1890-1970", is situated at the intersection of visual history, history of science, and global history. It focuses on visual depictions of the Earth seen from outer space from the end of the 19th Century to the renowned space photograph 'Blue Mable' (Apollo 17, 1972). Bruggmann received a BA in Art and Design Education from Hochschule Luzern Design & Kunst in 2009, and an MA in Curating and Museum Education from Zürcher Hochschule der Künste in 2011. From 2012 to 2013 she worked as research assistant at Kunsthaus Zug. From 2013 to 2015 she was a research associate at Freie Universität Berlin, before working at the Akademie der Wissenschaften und der Literatur, Mainz in 2016.

Andrew Cross

Artist and Curator, Brighton (UK)

An Archaeology of Childhood in Southern England: Rethinking Military Landscape

The presentation of findings from my visual art practice-led doctoral research aims at showing how military technologies impact on the physical landscape and the historical narratives it contains as well as how these narratives are visible through methods and practices drawing on childhood memories. The object focus is the distinctive open landscape of Salisbury Plain in Southern England. Well known for an abundance of prehistoric landmarks including Stonehenge and Avebury, this extensive area of rolling chalk hills has for the past 150 years been the principal training area for the British Army. My research centers on my own early childhood spent during the Cold War years of the 1960s when my father farmed 1400 Hectares of Salisbury Plain leased from the Ministry of Defence. Citing Walter Benjamin's writing on childhood I consider how the imaginative aspects of childhood environment and play — model toys, the collecting of images and a fascination for technology can serve as the methodological basis for an exploration of the past exercised through a visual practice of recording, archiving and recreation.

In landscapes such as this the ghosts of significant global events continue to reverberate in the romantic countryside. A pleasurable 'innocent' childhood memory of an aircraft in the summer sky over rural Southern England can lead directly to the problematic episode of British post-colonial military disengagement in the Middle East during the 1960s. My project proposes a 'landscape of childhood' not so much as an object of observation but rather the 'site' for a personal re-evaluation of wider historical narrative. It offers a model of memory work that is realised through combining aspects of visual art with 'hobbyist' activities drawn from childhood.

A practice and method for excavating the past that situates the personal in relation to the military within a broader cultural context.

CV

Andrew Cross is a visual artist and former curator of contemporary art. His mostly photography and moving image practice is oriented towards an investigation of infrastructural landscape with an emphasis upon the technologies of mobility and the traditions of landscape observation. For a couple of years Cross has explored the relationship between railways and the landscapes of North America. His work has been exhibited internationally. Publications include: "Some Trains in America" (2002), "Along Some American Highways" (2002), "3 Hrs from Here: An English Journey" (2004), "Mogadishu – Lost Moderns with architect Rashid Ali" (2013). Andrew Cross is a visiting lecturer in photography at Solent University and in architecture at the University of Nottingham. He is currently completing practice-led doctoral research at the University of Brighton on "An Archaeology of Childhood: landscape, memory work and visual art practice".

Maurits Ertsen

Delft University of Technology (NL)

The Gezira Irrigation Scheme As A Contested Place Of Progress

Gravity irrigation systems may seem not very high tech. However, huge amounts of money have been poured into building them. For many governments revenues of irrigated agriculture are a cornerstone for their budgets. In the first half of the 20th century, roughly between 1910 and 1950, British colonial rulers, a British firm, and Sudanese farmers changed the Gezira Plain – south of Khartoum between the Blue and White Nile in Sudan – into the Gezira Scheme, a large irrigation system producing cotton. In current irrigation circles, Gezira stands for a former grand scheme that failed because of canals choked with sediments and no control.

However, before World War II, Gezira was the main road to economic development for Sudan. After WWII, Gezira's success or failure seems to relate to one's political view. For Gaitskell, former manager of the Gezira Board, it was clear that the centrally planned Gezira was the model to go for when promoting development in African nations after 1945. Other models for irrigation development, however, soon proved to be more interesting. A small-scale clone of Gezira, the Mwea irrigation system in Kenya, took over the role of "example for development". For sociologist Barnett, who studied Gezira in the 1970s, Gezira represented failed development, as it had not supported a transition to capitalism. In the 1990s, anthropologist Bernal discussed Gezira as an instrument and symbol of colonial oppression of Sudanese farmers.

I would argue that all three authors have a point, and not. How can Gaitskell's model Gezira be defended when many tenants remained in debt? On the other hand, how can Gezira remain a symbol of strong oppression – even failure – when many tenants did actually succeed in making significant economic progress? How can something be a failure when it still exists and supports many people? What is progress?

CV

Maurits Ertsen is an associate professor within the Water Resources Management group of Delft University of Technology, the Netherlands. Maurits wants to know how irrigation realities emerge from short-term actions of (non-)human agents. His work spans current, historical and archaeological time periods. Together with archaeologists, he works on human agency in ancient irrigation to understand human-environmental interactions. His work in environmental history focuses on colonial irrigation – broadly defined.

David Freis

Medizinische Fakultät, Westfälische Wilhelms-Universität Münster (DE)

Hospitals of the Future: The Rise and Fall of the Medical Megastructure in Western Germany

Throughout the history of medicine, prognosis was an important part of medical practice. But it was only with the advent of modern medicine that physicians began to envision not just the future of their patients, but of their own discipline. Since the second half of the nineteenth century, the idea of a 'medicine of the future' became part of the discipline's self-understanding and of the rhetorical legitimisation of modern bio-medicine. In the early twentieth century, new medical and media technologies gave rise to visions of globalized and placeless tele-medicine. In the second half of the century, however, the future of medicine was re-localized as high-tech medical centers became sites and symbols of medical futurity.

In my paper, I will use several iconic examples – the university hospitals of Berlin, Cologne, Münster, and Aachen – to examine how and why the medical megastructures planned and built between the 1960s and 1980s became symbols of the future in Cold-War Germany. For various reasons these sites became issues of controversy in politics, architecture, medicalisation, and the looming dehumanisation of medicine. By the early 1980s, even before some of the buildings were completed, they were already widely considered relics of past futures. Apart from retracing these debates, I will show how the conflicts surrounding the new hospitals were themselves framed in temporal terms and reflected conflicting visions of the future. The historical analysis of past futures, I argue, can provide new perspectives on the history of modern medicine, its self-understanding, its shortcomings, and its promises.

CV

David Freis is a medical historian at the Institute for the Ethics, History, and Theory of Medicine of the University of Münster. He has studied history, political sciences, and gender studies at the University of Bochum and has received a PhD in History and Civilization from the European University Institute in Florence in 2015. He has published a number of articles and book chapters about the history of psychiatry and psychotherapy and was awarded the prize for the best doctoral thesis in 2015/16 by the German Society for the History of Psychiatry as well as the William Bynum prize of the journal Medical History. Currently, he is preparing a book manuscript about the politics of inter-war psychiatry and is researching the history of the medicine of the future in Cold-War Germany.

Christian Götter

Deutsches Museum München (DE)

Lost in Progress? The Displacement of Pre-Technological Perceptions

Nuclear power plants were usually constructed in remote places, far from large centers of civilization. That meant, in most cases, introducing high technology on a scale often described as 'gigantic' or 'monumental' into areas theretofore seen as places of quiet and natural beauty. What is more, the new large-scale technological artefacts were time and again perceived as (potentially) dangerous. In this talk, Christian Götter will examine the transformations expected and experienced by exemplary communities in Britain and Germany, when nuclear power plants were constructed in their vicinity, varying from hopes for progress to feelings of loss of remoteness, quiet and beauty or even fears of endangerment.

Using the examples of Hinkley Point at the coast of Somerset in south-western Great Britain, and Lingen, at the river Ems in Lower Saxony near the German-Netherlands border, Christian Götter

argues that the way the new technological artifacts changed the perception of their locations was not necessarily determined by the specific technology introduced into the area alone. Rather, it was influenced to a large extent by individual as well as structural factors, for example the technology's visibility, the region's economic situation, the opportunity of participation in the siting process, the level of trust bestowed upon the representatives of the operators of the power plants as well as the political institutions authorizing their establishment, or the individual expectations regarding the planned transformations of familiar places. Beyond the results of the research into the two exemplary places presented during the talk, it will be possible to discuss the importance of national as well as temporal factors coming to bear on the expectations and perceptions of natural places being transformed into centers of technology.

CV

Christian Götter's primary research interest is the cultural history of conflict and communication. He currently works as a research associate at the Research Institute of the Deutsches Museum in Munich. His current project 'Splitting Societies – Local Debates About Nuclear Energy in Britain and Germany' is a cultural history of nuclear technology that combines six local perspectives in an international comparison. Christian Götter studied History and Media Sciences in Reykjavík and Braunschweig, where he was awarded his PhD in 2014 on the British and German military-media-relations during the first half of the 20th century. Before going to Munich in 2017, he had been a research associate at the Institute for History of the Technische Universität Braunschweig since 2012 and has acted as stand-in for the Professor of Modern History at that Institute during the Summer of 2017.

Marie-Luise Heuser

Technische Universität Braunschweig (DE)

CV

Marie-Luise Heuser studied philosophy, history, physics and mathematics at the Heinrich-Heine-University Düsseldorf, where she received her doctorate with a thesis on Schelling's philosophy of productivity. She was a research assistant at the Association of German Engineers (VDI) and taught at the universities of Düsseldorf, Heidelberg, Stuttgart and Braunschweig. From 2002 to 2015 she was scientific assistant at the Department of Philosophy at the TU Braunschweig. Since 2015 she is senior lecturer at the Institute of Space Systems at the TU Braunschweig. She is also managing director of the Society for Space Culture, see www.space-culture.eu. Her main fields of research are the philosophy and history of space travel and science fiction, spatial theories, German idealism and romanticism. Publications include: Romantik und Gesellschaft. Die ökonomische Theorie der produktiven Kräfte, in: Myriam Gerhard (Hrsg.), Oldenburger Jahrbuch für Philosophie 2007, Oldenburg 2008, S. 253-277; Russischer Kosmismus und extraterrestrischer Suprematismus, in: Annette Tietenberg / Tristan Weddigen (Hrsg.), Planetarische Perspektiven. Bilder der Raumfahrt, Marburg 2009, S. 62-75; Schellings Naturphilosophie und die Raumfahrtpioniere der Weimarer Republik (in press); 'Der Mensch ist nicht nur für die Erde da' – Schellings Philosophie des Weltraums (Schelling-Studien, in press)

Stefan Hördler

Georg-August-Universität Göttingen (DE)

CV

Stefan Hördler is teaching at the Universität Göttingen and specializes in twentieth century German history, Holocaust and genocide studies, social and economic history, as well as public, oral and visual history. He has been director of the Mittelbau-Dora Concentration Camp Memorial and curator of the international travelling exhibition "Forced Labor under National Socialism". He has also worked at the German Historical Institute Washington and the Institute of Contemporary History of the University of Vienna. In 2009 he held a Ben and Zelda Cohen Fellowship at the Center for Advanced Holocaust Studies of the U.S. Holocaust Memorial Museum. He earned his M.A. and Ph.D. at Humboldt University, Berlin. Hördler is author and coeditor of several books. Most recent publications are Das Höcker-Album. Auschwitz durch die Linse der SS (Darmstadt: Philipp von Zabern, 2016); Zwangsarbeit im Nationalsozialismus (Göttingen: Wallstein, 2016), or The Final Stage of the Holocaust (special issue of Dapim: Studies on the Holocaust, Oxford/New York: Routledge, 2015).

Katarzyna Jarosz

International University of Logistics and Transport, Wrocław (PL)

Mining the Past: Converting Former Mines into Tourist Attractions

Katarzyna Jarosz focuses her research on the tourism potential of industrial sites, notably former mining areas. In her talk she will establish whether former mines can become tourist attractions, and in what ways they can be transformed. According to projections, two thirds of all European coal power plants are going to be closed between 2020 and 2030. In many regions coal has been a life blood for many years, centuries or in some cases for more than a thousand years. Mines closing and stopping production often mean unemployment for the whole region. Businesses dependent on mining have to adjust and find other ways of surviving. Over the past few years, industrial tourism has been growing and several former mines have been converted into popular tourist attractions.

In her comparative analysis of former mines which were revitalised and transformed into tourist attractions, Katarzyna Jarosz will focus on three case studies comparing the Golden Mine "Rosia Montana" in Romania, the coal mine "Centre Miner de Faymoreau" in France (closed in 1958) and the coal mine "Nowa Ruda" in Poland (closed in 1995). Her research is based on literature studies, an analysis of technical plans and drawings, articles in the local and national press, scientific and popular science articles as well as governmental and NGO reports. She will give an insight into her field work, which has consisted of interviews with the residents of the areas, with the sites' curators and a photographic documentation of the mines in question. Presenting the mines' history and infrastructure, Jarosz will show how transformations into tourist attractions have been done so far and what architectural and spatial technical solutions can be found.

CV

Katarzyna Jarosz is a linguist and archaeologist. She holds a PhD in archaeology and a master's degree in Romance languages. Her research area covers the history of science and museum studies, with a focus on cultural heritage protection and cultural tourism. Her fluent knowledge of Russian, Albanian, Romanian and Swedish allows her to conduct research that is both in-depth and at pace. She is a supervisor of several master's theses on cultural tourism in Central Asia and the author of several peer-reviewed publications on the topic. She works as an assistant professor at the International University of Logistics.

Karena Kalmbach

Eindhoven University of Technology (NL)

The Contested Memory of the Nuclear Age

What memory of the nuclear age do we preserve? Which monuments do we safeguard? Whom do we attribute the status of hero, culprit and victim? These questions form the center of an emerging debate in the nuclear humanities. The establishment of the Manhattan Project National Historical Park in 2015 highlighted the problem: What story is told at these sites — a story about science and technology going mad, or a story about scientific and technological grandeur? For military nuclear applications, the number of immediate deaths in the bombings of Hiroshima and Nagasaki alone makes a purely positive story line impossible. But how about the civil nuclear installations — the reactors, power plants and re-processing plants which were needed to build up the military branch? Some of the earliest installations have reached the end of their lifespan. Dismantling works have started — and there is an increasing call for saving these buildings as cultural heritage.

This imposes the question: What story do we tell at these sites? How do we treat the ongoing debate about low-level-radiation health effects in this story — a debate which turns every estimation about victims of the civil nuclear enterprise into a highly political topic? By contrasting these debates with the central role that cultural memory has gained in the long-time planning for nuclear waste storage, this paper sheds light on the multifaceted forms that "memory" takes on in relation to things nuclear and highlights power hierarchies that allow certain memories to form and others not to form.

CV

Karena Kalmbach obtained her PhD from the European University Institute in Florence (Department of History and Civilization). Her PhD thesis: "Meanings of a Disaster: The Contested 'Truth' about Chernobyl. British and French Chernobyl Debates and the Transnationality of Arguments and Actors", won the 2015 Book Prize of the International Committee for the History of Technology (ICOHTEC). Karena holds an MA in History, Political Sciences and Communication Sciences from Freie Universität Berlin. During her MA and PhD, she received numerous fellowships that allowed her to study at Université de Lausanne, École Normale Supérieure Paris, Sciences Po Paris, and University of California, Berkeley.

Before joining Eindhoven University of Technology (TU/e), she was a postdoctoral researcher with the Environmental Policy Research Centre of Freie Universität Berlin where she worked on questions of conflicts, acceptance and acceptability in nuclear waste management. Since 2014, Karena has been the coordinator of the Nuclear International Research Group (NIRG) and in 2017, together with her colleague Claire le Renard (Sociology) set up the network "nuclear_hss — Humanities and Social Sciences Research on Nuclear Issues".

Christian Kehrt

Technische Universität Braunschweig (DE)

cv

Christian Kehrt is professor of history of science and technology at the Technische Universität Braunschweig. He studied history and philosophy at the universities of Tübingen and Stony Brook, NY. His research interests are the cultural history of science, technology and the environment, encompassing the history of aviation, the polar regions and nanotechnology.

Martin Lücke

Freie Universität Berlin (DE)

CV

Martin Lücke is professor of history didactics at the Freie Universität Berlin. His principle fields of focus are the Holocaust and historical learning, the history of gender and sexuality, and theoretical debates within history didactics.

Susan McClamroch

University of New Orleans / Slidell Museum, Louisiana (USA)

Defying the "Huntsville School": The 2001 & 2010 Mittelbau-Dora Exhibitions in Rocket City, USA

At the end of WWII, U.S. agencies sought to legitimize the import of German technology and a team of immigrants who had developed missiles at Peenemünde. The government press releases that touted their service to America resonated with Cold War rhetoric. The rocketeers' team leader, Dr. Wernher von Braun, then launched a private PR campaign to gain national support for rocket development, this time with a space exploration spin. In the 1950s, Colliers magazine published his astrofuturism series with bylines that identified von Braun as director of the newly established Marshall Space Flight Center in Huntsville, Alabama. Seizing the opportunity, Huntsville's boosters supported this sudden notoriety with an enduring "Rocket City" branding campaign. While the state of Alabama established the world's largest space museum, a body of hagiographic literature about the city's rocketeers developed. Huntsville's U.S. Space and Rocket Center, along with publications now labeled "Huntsville School," preserve the legacy of von Braun as the apolitical visionary leader of a group of Germans who molded a progressive city in the notoriously backward-facing American South.

This popular view of the Von Braun Team has been challenged by two exhibitions mounted at the University of Alabama Huntsville. Students and visitors viewed images of a WWII missile construction site and contemplated the fate of concentration camp inmates who labored in a crude underground factory. Exhibition text and public programming linked Huntsville's celebrated Peenemünders with the technology and the human tragedy that define Germany's deadly Mittelbau-Dora historic site. The high level of local, as well as multi-national, institutional support for the university's controversial exhibitions — along with the polarized local reaction to them — is revealed in a talk that ponders why their revisional influence is not publicly evident in Rocket City, USA.

cv

Susan Lloyd McClamroch is a non-traditional American graduate student at the University of New Orleans. There she is pursuing an urban history track PhD in Urban Studies. She is also Curator of the Slidell Museum, where she aims to present the changes in economy and culture based on NASA activities since the 1960s. In addition to her work as an informal educator in museum settings, Susan is a proponent of lifelong learning in academic institutions and has led numerous service-learning courses and community-service projects. Her formal education includes a master's degree in historic preservation from the Tulane University School of Architecture, another in art history from the University of Mississippi, and a third master's degree in southern studies from the University of Mississippi's Center for the Study of Southern Culture. The foundation for her advanced degrees comes from an undergraduate degree in arts administration, earned at the South's premier Jesuit academy, Spring Hill College. Susan's career has evolved from entrepreneurial art enterprises to projects concerning community identity. The

release of her first book "The Art of Appreciation: Artworks and Activism at Tougaloo College" is anticipated in early 2020.

Michael J. Neufeld

Smithsonian National Air and Space Museum, Washington, DC (USA)

The Smithsonian's National Air and Space Museum and "The Romance of Technological Progress"

In 1981, Michal McMahon published "The Romance of Technological Progress: A Critical Review of the National Air and Space Museum" in Technology and Culture. The NASM leadership was not at all happy about this critique of its wildly successful new building, which opened in July 1976 and quickly became the world's most popular museum. McMahon noted that NASM's exhibits presented a one-sidedly positive view of aerospace technology founded in an ideology of progress. Weapons were sanitized, obscuring mass death by bombers and ballistic missiles. While McMahon's critique did not go over well internally, as the eighties progressed and the curatorial corps became dominated by professional historians, it was absorbed and reflected in new exhibitions and programs. After astrophysicist Martin Harwit became Director in 1987, curators could put critical approaches into the museum, notably in a V-2 mini-exhibit that opened in 1990, a new World War I exhibit that was unveiled in 1991, and a series of public programs about strategic bombing that lasted several years in the early 1990s. But this shift came to a crashing halt in 1994, when a huge U.S. public controversy broke out about a proposed exhibit for the 50th anniversary of the atomic bombings of Japan, featuring a major part of the fuselage of the B-29 Enola Gay that had dropped the Hiroshima bomb. The exhibit was cancelled, Harwit was forced to resign, and a very compromised substitute exhibit appeared in its place.

Long-time NASM curator Michael Neufeld, who has the World War II missile collection and was a key actor in the *Enola Gay* affair, will discuss these events and the challenges NASM has continued to face since 1995 in dealing with military technologies. At its core, the museum remains "a place of progress."

CV

Michael J. Neufeld is a Senior Curator in the Space History Division of the National Air and Space Museum, Smithsonian Institution, where he is responsible for the early rocket collection and for Mercury and Gemini spacecraft. He is also the lead curator of the *Destination Moon* exhibit project. Born and raised in Canada, he has four history degrees, including a PhD from Johns Hopkins University in 1984. Dr. Neufeld has written four books, *The Skilled Metalworkers of Nuremberg* (1989), *The Rocket and the Reich* (1995), *Von Braun* (2007) and *Spaceflight* (2018). He has edited five others: *Planet Dora, The Bombing of Auschwitz, Smithsonian National Air and Space Museum, Spacefarers,* and *Milestones of Space*. In 2017 Secretary David Skorton gave him the Smithsonian Distinguished Scholar Award, the highest research award of the Institution.

Anna G. Piotrowska

Jagiellonian University, Kraków (PL)

The Role of Music in the Space of Progress: Revisiting Tron: Legacy

In her presentation, Anna G. Piotrowska wants to claim we need not only talk about places but also about spaces of progress, i.e. such imaginary spheres in which progress is taking place and mediated to us through several channels including oral experiences. Cultural products – be it

musical compositions, books or film can be treated as such non-existent intangible form yet real sites of progress. The film Tron: Legacy (2010) will be treated as an example to demonstrate the role of sonic elements in familiarizing and perhaps appropriating such spaces of progress. In the film the electronic music by Daft Punk becomes the means of facilitating the perception of the technologically advanced universe. Music is transcending the boundaries of different worlds: inside the system, outside the system – as shown in the film, but also surpassing the division between diegetic and non-diegetic reality. Hence, music serves not only as a form of art, or entertainment, but also as a form of communication.

Arguably it is music which softens the fear of technology and the uneasiness of viewers exposed to the new experience of the technologically created, new or even alien to them universe. Thus music – in such spaces of progress – is blurring the boundaries between technology and the human mind proving its role in approximating the technology of the future. In my presentation I will also offer historical and methodological explanations grounding my claims in the scholarly tradition as I will show tendencies to compare music with the sound of the dehumanized factory assembly-lines or the work of machines (Robert Fink) residing outside the 'humantime-scale'. I will also speculate on the boundaries between sound, music and noise as indispensable elements of both places and spaces of progress.

CV

Anna G. Piotrowska studied at Durham University, UK and Jagiellonian University, Poland. She is mainly interested in researching sociological and cultural aspects of musical life. She is the prolific author of several books (e.g. Gypsy Music in European Culture, 2013) as well as numerous articles. She held many internationally renowned fellowships and awards (e.g. Fulbright Fellow at Boston University, Moritz Csaky Preis at Austrian Academy of Sciences, Mellon Fellowship at Edinburgh University). In 2017 she was a Scholar-in-residence at Eisenbibliothek in Schlatt, Switzerland studying musical instruments as machines while also in 2017 she was named a "Future Pilot" for the "Artificial Intelligence and Tomorrow's World" programme by the Volkswagen Foundation.

Dirk Schreiber

Technikmuseum Berlin (DE)

The Me 262 at the Technikmuseum Berlin: An Aircraft between Technical Revolution and Forced Labour

The Deutsches Technikmuseum in Berlin is soon to acquire a new object, a Messerschmitt Me 262 fighter plane. From a historical perspective, the 262 is an ambivalent exhibit. Considered to be the world's first fully operational jet fighter, it was built using forced labour. It also combined the latest technologies with the necessity to save building materials at the end of the Second World War. The public perception of the aircraft, however, is dominated by its transformation into becoming a symbol of the alleged technological superiority of German engineering. The 262 is literally considered to be a "miracle weapon" that, in the hands of legendary fighter pilots, did spread fear among the allied bomber squadrons. Recent studies about the "zwo-sechs-zwo" show that its public reputation is to a large extent a myth. This myth has been nurtured by prominent figures, fighter pilots and historians alike in the decades after the Second World War. Their tales about the Messerschmitt have helped to keep its legend alive right into the present day.

Yet there is also another story to tell, which is far less glorious and to a great extent a 'dark' story: Built by concentration camp prisoners in underground facilities such as "Bergkristall" in Linz, the Messerschmitt was far more than just a ground-breaking aircraft. For it was also a product of inhumane work conditions. As a fighter aircraft it was doubtless a danger for its

enemies but was even more dangerous for its own pilots. It was an expression of the high-tech engineering of its day, yet constructed with sparing use of materials. Another aspect makes the museum's Me 262 a complex exhibit – it is a replica that uses many genuine parts. What is the significance and claim to authenticity of such a replica in a historical exhibition? What history might we as a museum relate with the aircraft, and is it not our duty even to contradict the old myth of the Me 262?

CV

Dirk Schreiber was born in 1989 in Göttingen. From 2009 to 2012, he studied Contemporary History and Philosophy at the Albert Ludwigs University in Freiburg im Breisgau. This was followed by a master's degree in Military History and Military Sociology at the University of Potsdam in 2017. Since 2018 he has been working as a curatorial trainee at the Department of Aerospace at the Deutsches Technikmuseum in Berlin.

Constanze Seifert-Hartz

Technische Universität Braunschweig (DE)

Meta-Peenemünde: Remembering Second World War Technologies in East Germany, from the 1980s to Today

Given Peenemünde's ambivalent military and technological history spanning two very different political and ideological regimes over 55 years, its museumization was considered both a chance and challenge during the time of the deindustrialization of northern Usedom and increasing unemployment in the 1990s. It was met with bewilderment, however, when East German NVA officers readily supported the old Peenemünders to promote an apologetic view of their role during the Nazi era. Through examining minor and major controversies, some still ongoing, Daniel Brandau will explain the complex nature and societal functions of technological remembrance in rural East Germany.

In the second part of the presentation Constanze Seifert-Hartz will give insight into her public history PhD project and visitor research at the Historical-Technical Museum Peenemünde. Two contrasting group discussions with German and American visitors show how Peenemünde is currently being discussed and questioned as a "Place of Progress".

CV

Constanze Seifert-Hartz (*1988) began her doctoral studies in history didactics at the Freie Universität Berlin after completing degrees in history, china studies and public history there in 2016. In addition, she has also worked at the history agency "Facts & Files" in Berlin and was part of the editorial staff of "Zeitgeschichte-online" at the Centre for Contemporary History in Potsdam. Since December 2016, she has been a research associate in the project "Meta-Peenemünde" at the Technische Universität Braunschweig, sponsored by the Volkswagen Foundation. In her research project, Constanze Seifert-Hartz carried out field research at the Historisch-Technisches Museum Peenemünde and conducted interviews with curators and employees of the museum. Her research interests focus on an analysis and comparison of the exhibitions as well as the evaluation of visitor books and the moderation of group discussions with visitors about "Peenemünde – a controversial place of remembrance".

Rajendra Singh Thakur

Historian, Chandigarh (IND)

Space Museum in India: Progress versus Development

Thumba, a little known village located near the southern tip of India, shot into prominence when Thumba Equatorial Rocket Launching Station (TERLS) was established in 1962. Subsequently, the space museum was established in the same location. It shows the evolution of the Indian Space Programme from its modest beginning in 1960s to its current formidable seventh position in the global hierarchy of space faring nations as per Futron Space Competitive Index. While the museumisation of the space initiatives has facilitated at the local and national levels to motivate visitors to contribute to the Indian space sector, it has also brought to light the controversies/disagreements about utilization of funds for space projects as opposed to development needs of the country.

The presentation will cover four aspects. Firstly, an endeavour will be made to bring out the culture of remembrance in India. Secondly, how the memories of space-related technologies/achievements have reinforced the spirit of creativity and innovation will be explained. Thirdly, political disagreements over the funding of the Indian space programme as well as the space museum against the backdrop of the many challenges that India faces with regard to human development parameters will be highlighted. The alternate view is to avoid such an expenditure on strategic programmes as it curtails the investment in the social and development sectors and seeks economic growth and all-round development. Fourthly, an endeavour will also be made to investigate what problems exist today in remembering technology through Thumba and other sites of modern high technologies, where some controversies have arisen due to museumisation or other reasons. Analysis of the interactions carried out with the local people around such sites will also be discussed.

CV

Rajendra Singh Thakur (*1963) has been a military professional since 1983 and a historian in India. In 2007, he completed his Master of Management Studies at the Osmania University, Hyderabad. Later in 2010, he received his PhD from the Jammu University for his research on "Role of UNO in Jammu and Kashmir (1948-1990)". He has served as the Indian Army Liaison Officer to the UNMOGIP in Srinagar from 1995 to 1997 and has also completed the NDC 54 Course at National Defence College, New Delhi in 2014.

He has keen interest in space-related issues and has written articles in CLAWS journal, including "India's Mars and Moon Missions: Implications for National Security" (Summer 2015), "Indigenous Cryogenic Technology: Implications for India's Space Programme" (Summer 2014), "India's Rise as a Global Space Power in 2020" (Winter 2012) and "Space as a Future Force Multiplier" (Winter 2011). He has also worked on technology-related issues pertaining to the military. Currently, he is carrying out research on the topic "German Response to the Indian Revolt of 1857" and on the British reprisal against the people of Bundelkhand Region during the Indian Revolt of 1857. He is a member of the Association of Historians of Germany (VHD) and has presented papers in Germany and Poland.

Erik Thorstensen

Oslo Metropolitan University (NOR)

Adventure and Tragedy: The Norwegian Petroleum Museum's Exhibition on Climate Change

"Oil is temporally and spatially as well as naturally and culturally produced. Climate change is both a temporal and a spatial phenomenon. It occurs globally and locally, and it situates in the past, present and future. We will explore the times and the places of climate change in the new exhibition." (The Norwegian Petroleum Museum)

Norway, one of the larger oil producing countries, exhibits its oil history in The Norwegian Petroleum Museum in Stavanger, a coastal town that also serves as the infrastructural center for oil extrication. Oil becomes Norwegian and acquires meaning through a range of strategies in this museum, such as the placing of oil within contexts of national storytelling. Other national strategies include political practices of naming oil fields after persons, places and events in the Nordic saga landscape, thus establishing connections between the Viking age as an epoch of national pride and the contemporary oil industry

What happens when The Norwegian Petroleum Museum displays climate change in its permanent exhibition? There is a causal connection, but how does the museum tell the story of the connection between oil and climate change? How is petroleum temporally constructed, and is climate change situated in the past, present or future? Are these locations in time established through the work of the visitors or didactically produced? An analytical point of departure is taken from within science and technology studies and the belief that both time and place come into being through relations and practices. In his talk, Erik Thorstensen will discuss how places of progress and places of catastrophe emerge, surrounding the relations between the Norwegian oil adventure and the global climate tragedy.

CV

Erik Thorstensen, OsloMet – Oslo Metropolitan University, is currently finishing his PhD in Responsible Research and Innovation. He has published in ethics, religion, cultural history, science and technology studies and sociology on the IPCC, Atheism, Hungary, Carbon Capture and Storage, AI, and GM Salmon – as well as more theoretical themes. He has a background in the history of religions and has worked at the University of Oslo, the National Committees for Research Ethics and the Center for Studies of Holocaust and Religious Minorities.

Patryk Wasiak

Polish Academy of Sciences (PL)

Abandoned Sites of Polish Electronics Manufacturing Plants and the Imaginary of an Alternative Socialist Modernity

This paper investigates the use of the imagery of abandoned and decaying electronics manufacturing plants in the public discourse about the lost chance of building an alternative socialist modernity. In state socialist Poland, particularly in the 1970s and 1980s, the government extensively invested in the expansion of the domestic electronics industry. Designing and mass-scale manufacturing color TV sets, video cassette recorders, Hi-Fi audio systems and personal computers became key points in propaganda narratives on technological progress in state socialism. After its fall in 1989, virtually all domestic state enterprises from the electronics industry, unable to compete with western products in market economy, went into bankruptcy.

In his paper, Patryk Wasiak will examine how photographs of the sites of abandoned and decaying or even demolished factory buildings are used in contemporary media narratives and

internet culture. He argues that these photographs are used as 'lieux de memoire' to consolidate cultural memories of the positive side of state socialism as a successful modernization project. Furthermore, they are also used as vivid illustrations of the downside of the transition to market economy when, supposedly, remarkable achievements of the modernization project were lost. Grim photographs of the site of the Chernobyl nuclear plant are used as visual imagery that illustrate the huge human and environmental cost of communist rule. On the contrary, photos of decaying Polish electronics factories, juxtaposed with the imagery of thriving work at such sites before 1989, are used to show that state socialism actually offered a viable possibility of building an alternative modernity. Patryk Wasiak will give an insight from his ongoing research project on the design of home technologies in state socialist Poland and the imaginaries of technological modernity. He will show how using visual culture artifacts as historical sources can enable cultural historians and historians of technology to better de-construct narratives of technological progress and modernity.

cv

Patryk Wasiak (1978), adjunct, Institute of History, Polish Academy of Sciences. He holds MA titles in sociology and art history (Warsaw University) and PhD in cultural studies (Warsaw School of Social Sciences and Humanities). Former fellow of the Volkswagen Foundation, the Center for Contemporary History Potsdam, the Netherlands Institute of Advanced Study, and the Andrew W. Mellon Foundation. His research interests include the cultural history of the Cold War, and history of home technologies. Currently he works on the history of industrial design and communist ideology in state-socialist Poland. His current project is supported with a 3-year research grant from the National Science Centre of Poland.

Beate Winzer

THF33-45 – Förderverein zum Gedenken an Nazi-Verbrechen um und auf dem Tempelhofer Flugfeld e.V. (Association Airport Tempelhof), Berlin (DE)

Infrastructures and Heritage: Segregate Memories at the Former Tempelhof Airport

Once one of Berlin's oldest airports, Tempelhof has been out of use since 2008. Of its many facilities and still-existing buildings, its "new terminal" stands out. It was built from 1936 and never completely finished. Client and owner of the new building was the "Reichsluftfahrtministerium" (RLM), whereas the magistrate of the city of Berlin owned the grounds. The facility was built to military standards and as administrative center of the "Amt A" of the air ministry – the air force. Despite its name "Weltflughafen Germania" (World Airport Germania), it was intended that mainly air force and air industry departments were to be housed in the same building. Research institutions, testing fields, the department of meteorology, aviation medicine, the air force industry council – they all were to be moved into the airport. The intention was to bring research, processing and fabrication management together onto the same floors. The airport was to embody the 'modern' state and help to assert an image of the Third Reich as a hub for scientific research and technological development. In the long term, 'Germania' was to serve as a government airport only, although it was also called an "experimental airport" due to the planned usage by the German Research Institute for Aviation Department's ("Deutsche Versuchsanstalt für Luftfahrt") for crop dusters.

On the eve of World War II, those plans were partially abandoned: The war-relevant aviation industries had to open offices and facilities within the airport, but only few government departments moved in, such as those of the Air Force General Head Quarter and their medical offices, departments of the technical office, one experimental flight division, departments of the meteorology office, a headquarter of military airfields commandants and a section of the industry council of the "Reichsluftfahrtministerium". The Air Ministry of the Reich ("Reichsluftfahrtministerium") developed enormous decentralized and large-scale research

infrastructures, which were efficient in their collaboration and coordination with the industry council as well as army offices and ministries.

New technologies developed or tested here, like analog computers, remote control, radar technology and bioelectronics, were not exclusive to Tempelhof or even the German war machine as a whole. And much of the knowledge produced at Tempelhof was obtained and transferred by the victorious allied forces in 1945. In 1948 and 1949, the airport became a major stage of the Berlin Blockade and the 'Airlift', and so became associated with another narrative: the post-war protection of Western freedom. As the politics of collective memory have become mindful of the chapter of forced labour, this also had an impact on how the airport has been remembered. Nowadays, those narratives often stand next to each other without a coherent concept of an exhibition or presentation, the place seems almost interchangeable. At the same time, it lacks broader critical perspectives on the history of technology, medicine and industrial production, which could also consider contexts and tackle some of the more long-term trends and problems in European and Western societies.

CV

Beate Winzer studied political science and history at the Freie Universität Berlin. She is a founder and board member of the association THF33-45 e.V., researching the history of the Tempelhof field and former airport. She engages in various research projects, historical education "Spurensuche auf dem Tempelhofer Feld" and publications, e.g. "Die Unzufriedenen. Revolution und Konterrevolution auf dem Tempelhofer Feld 1918-1919" (The Dissatisfied – Imperial Period and Revolution), "Fliegen und Funktechnik – Die Flugzeugfabrik der Luftwaffe Berlin-Tempelhof 1933-1945" (Flying and Radio Technology – The aircraft factory of the Luftwaffe Berlin-Tempelhof). At the moment she is conducting a dissertation project about "Das Luftfahrtmedizinische Forschungsinstitut der Luftwaffe 1934-1945" (The aeronautical medical research institute of the Luftwaffe).