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Newsletter of the International Committee for the History of Technology ICOHTEC

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Editorial

Dear Colleagues and Friends,

Our symposium in Rio will take place in two weeks; Luiz Carlos Soares, the Chair of the Local Organizing Committee, gives useful information again. He reminds the session organisers to upload the abstracts of their sessions on a website of the congress again in order to prepare the conference program; the final deadline is tomorrow, **11 July 2017**.

ICOHTEC's elections to the executive board and the executive committee will take place within the next days by electronic voting. Members will receive a mail with a link to the election's website soon. This issue of the Newsletter gives a bibliography of books, published by ICOHTEC member since 2015.

It will be a great pleasure to meet you in Rio!

Best wishes
Stefan Poser

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I. ICOHTEC – ICHST Symposium in Rio de Janeiro

Dear Colleagues,

This is the ninth newsletter with information about the 25th International Congress of History of Science and Technology, to be held in Rio de Janeiro, Brazil, from 23 to 29 July 2017. The previous newsletters are available at the mailing list archive on the Congress website.

- **INTERNAL ORGANIZATION OF SYMPOSIA**

In a few days we will announce the final conference program.

In order to do so, **we need that all symposium organizers insert on the online system the distribution of papers within their symposium sessions**, as it was explained in an e-mail sent to all symposium organizers on May 29. Several symposium organizers have not done this task yet. **We established next Tuesday (July 11) as the final deadline for settling this internal organization of symposia**. Please do not miss this date, as this would delay the announcement of the final program.

- **STAND-ALONE PAPERS**

We inform all participants presenting stand-alone papers that, taking into account that some other participants did not confirm their registrations, **we had to rearrange the stand-alone paper sessions**. We did our best to not change the day of your presentations, but we had to adjust systematically the time of each presentation. Please see the final program for the stand-alone sessions on the congress website.

- **REMINDER ON VISAS**

We remind that **citizens from a few countries** (including the United States, Japan, India, China, Australia, Canada, among other countries) **must have a visa stamped in their passport before arriving in Brazil**, as it was explained in our third newsletter and emphasized again in the seventh and in the eighth newsletters. **Please notice that this is very important.**

This requirement is based on the diplomatic principle of reciprocity of treatment and applies to citizens of countries which request the same kind of visa from Brazilians to enter their territories.

Obtaining a Brazilian visa is not a complicate process. One must schedule an interview in a Brazilian consulate, pay the visa fee, and attend the interview (please remember to take your congress acceptance letter with you). In some cases, the visa is issued in the same day as the interview. There is virtually no chance of getting the visa application rejected.

- **SPRINGER'S FREE VIRTUAL SPECIAL ISSUE CELEBRATING THE 25TH ICHST**

In order to celebrate the 25th ICHST, Springer organized a free Virtual Special Issue gathering several articles published in its journals about the congress' general theme, namely, "Science, Technology and Medicine between the Global and the Local".

Matteo Valleriani, from the Max Planck Institute for the History of Science, wrote an introduction to this Virtual Special Issue. His introduction and the articles can be found on Springer's [website](#). These articles will be available for free until August 20.

In his text, Valleriani remarks that Lucy Fleet (Springer's Publishing Editor) will attend the congress and will be available to discuss publishing ideas with the congress participants.

- **SOME COMMENTS ON ZIKA VIRUS AND YELLOW FEVER**

Recommendations of the World Health Organization about the Zika Virus

At the beginning of 2016, in the warmest months of the year, various cities along the Brazilian coast faced a Zika virus epidemic, which caused much concern among those traveling to Brazil. Fortunately, this epidemic was controlled and currently very few cases have been registered. In addition, it is important to point out that the 25th ICHST is happening in wintertime (in the Southern hemisphere), the period of the lowest reproduction of the mosquito that transmits the virus. Consequently, the chances of transmission of the disease are very low.

Below, we reproduce recommendations of the World Health Organization about the Zika virus, made in March 2016, when the epidemic reached its peak:

"Tourists and travelers bound for the regions affected by the Zika virus should take basic precautions. The Brazilian government follows all the safety standards of the World Health Organization (WHO) for controlling and preventing the Zika virus. According to the WHO statement issued on March 8, 2016:

- *There should be no general restrictions on travel or trade with countries, areas and/or territories with Zika virus transmission.*
- *Pregnant women should be advised not travel to areas of ongoing Zika virus outbreaks; pregnant women whose sexual partners live in or travel to areas with Zika virus outbreaks should ensure safe sexual practices or abstain from sex for the duration of their pregnancy.*
- *Travelers to areas with Zika virus outbreaks should be provided with up-to-date advice on potential risks and appropriate measures to reduce the possibility of exposure to mosquito bites and, upon return, should take appropriate measures, including safe sex, to reduce the risk of onward transmission".*

For further information about the Zika virus, see the website of the [World Health Organization](#) (WHO). The Brazilian Consulate in San Francisco (United States) prepared a useful [guide about the Zika virus](#).

Recommendations of the Brazilian Ministry of Health and the World Health Organization about the Sylvatic Yellow Fever

In early 2017, some rural areas in Southeastern Brazil—in the states of Espírito Santo, Minas Gerais, São Paulo, and Rio de Janeiro—faced an outbreak of Sylvatic Yellow Fever. **This disease did not reach urban areas and, in particular, there was no case of this disease in the city of Rio de Janeiro** (please notice that the city and the state of Rio de Janeiro are homonyms). **Since 1942 Brazil has not reported cases of urban yellow fever.** As in the case of Zika virus, in the wintertime the reproduction of the mosquito that transmits the Sylvatic Yellow Fever is drastically reduced and therefore the chances of transmission of the disease in rural areas are very low.

The authorities from the Brazilian Ministry of Health and the World Health Organization recommend that international travelers who visit rural areas in the Southeast of Brazil get vaccinated against yellow fever. However, the same agencies have clarified that vaccination is not necessary for those going to urban areas, especially the cities of Rio de Janeiro, Niterói, São Paulo, and Campinas. For further information, see the websites of the [Brazilian Ministry of Health](#) and the [World Health Organization](#).

• TRAVEL AND ACCOMMODATION

Please check the [sixth newsletter](#) for information on travel and accommodation.
We are very much looking forward to seeing you in Rio!

Best regards,

Luiz Carlos Soares (Chair of the Local Organizing Committee)

I.2 Bibliography of Books Published by ICOHTEC Members 2015 -2017

The bibliography gives information about books published or edited by ICOHTEC members since 2015. Special issues of journals are mentioned as well. The last bibliography (2013 – 2015) was published in the ICOHTEC Newsletter, Nº 123, July 2015.

Appleby, C.; Cocroft, W. D.; Schofield, J.: The Home Front in Britain 1914-18. = CBA Practical Handbook 22. Council for British Archaeology, York 2015.

In the popular western imagination the First World War is most commonly associated with the trench lines of France and Flanders. This book explores how the war affected life on the Home Front in the United Kingdom and the physical traces that remain to be discovered. The conflict was the first great war of the industrial age and many of the places described including airfields, wireless stations and factories are technological products of that era. This national overview provides an example against which the experiences of the other belligerent powers could be analysed.

Braun, Hans-Joachim (ed.): Creativity: Technology and Music. In collaboration with Susan Schmidt Horning. = Studien zur Technik-, Wirtschafts- und Sozialgeschichte, 16. Peter-Lang Verlag, Frankfurt/M. u.a. 2016.

Creativity, by which something new, original, and valuable is formed, has positive connotations. This volume features essays on creative processes in technological invention, engineering design, architecture, music composition, improvisation, sound recording, authenticity in music, and computer music. They deal with significant present-day as well as with historical issues of creativity. They explore what creative processes in different domains have in common, to what extent cognitive science can shed light on them and how they can be modelled. Contrary to some approaches in creativity studies, the authors, if ever possible, try to avoid speculation and come to empirically valid conclusions.

Cámara Muñoz, Alicia (ed.): El dibujante ingeniero al servicio de la monarquía hispánica. Siglos XVI-XVIII [Draughtsman engineers serving the Spanish monarchy in the sixteenth to eighteenth centuries]. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2015.

Authored by project researchers and other specialists, the chapters are grouped under four main sections: Engineers vs architects, design drawing; Describing frontiers; Dissemination: custom and form; and Digital humanities in the DIMH Project. Key aspects of engineers' drawings, applied by the court to a number of purposes throughout the three centuries, are addressed under each heading. Spanish version: Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=24783355&PatronSearches=false>

English version Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/SimpleSearch.aspx?SearchCode=23407171&PatronSearches=false>

Cámara Muñoz, Alicia; Revuelta Pol, Bernardo (coordinators): Libros, caminos y días. El viaje del ingeniero. = Lecciones Juanelo Turriano de historia de la ingeniería, 6. Fundación Juanelo Turriano 2016.

A new volume, the sixth, of the series Juanelo Turriano Lectures on the History of Engineering has now been released. *Libros, caminos y días. El viaje del ingeniero* [Books, roads and days; the engineer's journey] compiles the lectures delivered on the occasion of the eponymous course held in 2015 at the Spanish National Distance University's associated facility at Segovia, organised jointly by the university and Fundación Juanelo Turriano. Mobility, travelling, have characterised the practice of engineering from the outset. Focusing on the sixteenth and seventeenth centuries, the book describes this feature of the profession as experienced by a number of exceptional engineers, from Tiburzio Spannocchi to Agustín de Betancourt, whose career brought to a close an age initiated by the Emperor's engineers. Online version:

https://issuu.com/juaneloturriano/docs/libros_caminos_y_dias-issuu?e=1641776/36883050&utm_source=Newsletter&utm_medium=newsletter&utm_campaign=Newsletter+107+July+2016 PDF for download:

https://www.dropbox.com/s/g2nakdsk8wotqro/LIBROS%20CAMINOS%20Y%20DIAS-INTERACTIVO.pdf?dl=0&utm_source=Newsletter&utm_medium=newsletter&utm_campaign=Newsletter+107+July+2016

Cámara Muñoz, Alicia; Revuelta Pol, Bernardo (eds.): Ingeniería de la Ilustración [Enlightenment engineering]. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2015.

These lectures analyse the role of engineering as one of the tools for driving the progress pursued in Spain during the Enlightenment. They address the extensive body of work authored by eighteenth-century engineers not only on the Iberian Peninsula, but also in the monarchy's other territories.

Cámara Muñoz, Alicia; Revuelta Pol, Bernardo (eds.): La palabra y la imagen. Tratados de ingeniería entre los siglos XVI y XVII [Words and pictures, engineers' treatises in the sixteenth and seventeenth centuries]. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2017.

With the printing press, knowledge formerly transmitted via manuscripts could be disseminated in books and treatises, driving the globalization of engineering in the West. As drawings were indispensable in such treatises, the studies published in this book attach as much importance to the illustrations as to the text descriptions. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=25060341&PatronSearches=false>

Cámara Muñoz, Alicia; Revuelta Pol, Bernardo (eds.): Libros, caminos y días. El viaje del ingeniero [Books, roads and days; the engineer's journey]. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2016.

Mobility, travelling, have characterised the practice of engineering from the outset. Focusing on the sixteenth and seventeenth centuries, the book describes this feature of the profession as experienced by a number of exceptional engineers, from Tiburzio Spannocchi to Agustín de Betancourt. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=24783285&PatronSearches=false>

Cámara Muñoz, Alicia; Revuelta Pol, Bernardo (eds.): Renaissance engineers. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2016.

The English language version of the book entitled in Spanish Ingenieros del Renacimiento [Renaissance engineers] can now be read online or downloaded in PDF format.

Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=24783384&PatronSearches=false>

Cocroft, W. D.; Schofield, J.: Der Teufelsberg in Berlin: Eine archäologische Bestandsaufnahme des westlichen Horchpostens im Kalten Krieg. Christoph Verlag, Berlin 2016.

During the Cold War, Field Station Berlin high on the Teufelsberg, an artificial hill raised from wartime bombing debris, was one of the West's most important electronic listening and intelligence gathering posts. Today, the Teufelsberg stands as a contemporary and spectacular ruin, representing a relic of a lost cyber space of Cold War electronic emissions and espionage, and a rare opportunity to investigate a modern signals intelligence facility. Archival information on the Teufelsberg's technical capabilities and the policy decisions taken as a result of the

intelligence gathered remains beyond the reach of this generation of historians. To counter this lack of historical data this book presents an archaeological investigation of the site, and specifically of the British presence there and elsewhere in Cold War Berlin.

Díaz-Pavón Cuaresma, Eduardo: El hundimiento del tercer depósito del Canal de Isabel II en 1905 [Collapse of Canal de Isabel II wáter deposit three in 1905]. = Juanelo Turriano Collection on the History of Engineering. Fundación Juanelo Turriano, Madrid 2016.

In his study, Díaz-Pavón analyses the failure of the roof over Canal de Isabel II water deposit three, a tragic worksite accident in 1905 in which 30 people lost their lives. Despite the enormous controversy prompted at a time when concrete was still a new material with growing acceptance, the involvement of some of the grandees of the day ensured that the affair would soon be all but forgotten. The research described in this book sheds light on the causes of the accident, while stressing the historical importance of (and especially the historical errors in) engineers' training. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/SimpleSearch.aspx?SearchCode=24625732&PatronSearches=false>

Díaz-Pavón Cuaresma, Eduardo: El hundimiento del tercer depósito del Canal de Isabel II en 1905 [Collapse of Canal de Isabel II water deposit three in 1905]. Fundación Juanelo Turriano, Madrid 2016.

Díaz-Pavón analyses the failures of the roof of the Canal de Isabel II water deposit three in Madrid, which are linked to a tragic worksite accident in 1905; 30 people lost their lives. Despite the enormous controversy prompted at a time when concrete was still a new material with growing acceptance, the involvement of some of the grandees of the day ensured that the affair would soon be all but forgotten. The author sheds light on the reasons of the accident, while stressing the historical importance of (and especially the historical errors in) engineers' training.

Diogo, Maria Paula; Van Laak, Dirk: Europe Globalizing — Mapping, Exploiting, Exchanging. Palgrave MacMillan, New York 2016.

Over the course of 150 years, Europe's protean technologies inspired and underpinned the globalizing ambitions of European nations. This book aims to show how technology mediated European influence in the rest of the world and how this mediation in turn transformed Europeans. Europeans mapped, they exploited, and they exchanged - their interactions ranged from technological and biological genocide to treaties of cooperation and the construction of elaborate colonial infrastructures. Quite aside from the enormous variety of political settings, cultures and colonial programs, interrelations created dependencies on both sides. Cultural transfers were rarely unidirectional, and often a kind of Pidgin-knowledge emerged, a hybrid fusion of European and local knowledge and skills. As observers have rightly pointed out, Europe played both the role of 'Prometheus unbound' and the 'Sorcerer's apprentice'.

Fari, Simone; Moraglio, Massimo (eds.): Peripheral Flows: A Historical Perspective on Mobilities between Cores and Fringes. Cambridge Scholars Publishing, Newcastle upon Tyne 2016., <http://www.cambridgescholars.com/peripheral-flows>.

The main purpose of the eleven contributions to this volume is to reconsider and re-assess the role of cores and peripheries in shaping modern socio-technical systems. From this perspective they explore a terrain of highly complex systems mainly operating on the so-called Western model: Railways, telegraphs, motor vehicles and airports were, in fact, all born in classic cores

areas in the West and then spread out into the peripheries. The approach in itself is not new, but this volume has managed to bring out interestingly innovative elements and viewpoints. The contributors are not content with the traditional definitions of peripheries and flows, but tend to put them to the test, revise them and eventually offer critiques. The result is a tempering of the monolithic and traditional concept of a one-way transfer. No longer, therefore, a simple and linear act of adoption, but a recourse to adaptation – changes in meaning, use and perception. The volume is a starting point for future explorations on the subject of science and technology studies and takes part in a wider discussion of globalisation, global and transnational history.

Giffard, Hermione: *Making Jet Engines in World War II: Britain, Germany, and the United States*, 2016.

Available online at: <http://press.uchicago.edu/ucp/books/book/chicago/M/bo24204781.html>

Our stories of industrial innovation tend to focus on individual initiative and breakthroughs.

With *Making Jet Engines in World War II*, Hermione Giffard uses the case of the development of jet engines to offer a different way of understanding technological innovation, revealing the complicated mix of factors that go into any decision to pursue an innovative, and therefore risky technology. Hermione Giffard's account of the early history of the jet engine combines numerous sources in all three nations, to assemble the most complete and nuanced history of the early jet engine to date. She compares the approaches of Britain, Germany and the United States to the jet engine. Each country approached jet engines in different ways because of its own war aims and industrial expertise. Germany, which produced more jet engines than the others, did so largely as replacements for more expensive piston engines. Britain, on the other hand, produced relatively few engines—but, by shifting emphasis to design rather than production, found itself at war's end holding an unrivalled range of designs. The US emphasis on development, meanwhile, built an institutional basis for postwar production. Taken together, Giffard's work makes a powerful case for a more nuanced understanding of technological innovation, one that takes into account the influence of the many organizational factors that play a part in the journey from idea to finished product.

Gouzévitch, Irina (coordinator): *Papers in honour to André Grelon. Special issue of *Quaderns**

d'Història de l'Enginyeria, vol XV (2016-2017), <http://upcommons.upc.edu/handle/2117/104080>.

The introductory paper is: "Introduction. «L'ingénieur dans tous ses états»: l'essor d'un champ de recherche pluridisciplinaire et transnational", by Gouzévitch, Irina; Cardoso de Matos, Ana; Diogo, Maria Paula; Fontanon, Claudine; Gouzévitch, Dmitri; Martykánová, Darina; Roca-Rosell, Antoni.

There are papers by Anne Bidois, Thérèse Charmasson, Michel Grossetti, Françoise Birck, Virginie Fonteneau, Wolfgang König, Ana Cardoso de Matos, Antoine Derouet, Darina Martykánová, Silvia Figueirôa, Marcela Efmertová, Anne-Françoise Garçon, Maria Paula Diogo, Éric Gobe, Maria de Lurdes Rodrigues, Pierre Vigreux, Claudine Fontanon, Charles Gadéa, Antoni Roca-Rosell, Jesús Sánchez Miñana, Guillermo Lusa, Dmitri Gouzévitch, Irina Gouzévitch, Carles Puig, Nelson Arellano.

Hacker, Barton C. (ed.): *Astride Two Worlds: Technology and the American Civil War*. Smithsonian Institution Scholarly Press, Washington, DC 2016.

An introductory overview by the editor is followed by chapters on Union smallarms-making, heavy artillery transformation, information flows and their military significance, Union veterinary

care, Confederate torpedo boats, personal armor and its meaning, countering balloon observation, and dreams of aerial navigation.

Högselius, Per; Kaijser, Arne; Vleuten, Erik van der: Europe's Infrastructure Transition: Economy, War, Nature. Palgrave Macmillan, 2015),

<http://www.springer.com/gp/book/9780230307995#otherversion=9781137318916>

Europe's Infrastructure Transition reframes the conflicted story of modern European history by taking material networks as its point of departure. Infrastructure both united and divided peoples and places via economic systems, crises, and wars. Some used transport, communication, and energy infrastructure to supply food, power, industrial products, credit, and unprecedented wealth; others mobilized infrastructure capacities for waging war on scales hitherto unknown. Europe's natural world was fundamentally transformed; its landscapes, waterscapes, and aircscapes turned into infrastructure themselves.

Just in time – *technikhistorische Perspektiven der Logistik*. Ferrum, 88 (2016).

This issue of the Iron Library's yearbook Ferrum is dedicated to the history of technology of logistics. It embraces early logistical tasks as well as important contemporary questions.

König, Wolfgang: Das Kondom. Zur Geschichte der Sexualität vom Kaiserreich bis in die Gegenwart. = Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte, Beihefte 237. Franz Steiner Verlag, Stuttgart 2016.

Wolfgang Koenig has published the first scholarly book on the history of the condom in Germany. He researches the condom as a material object for contraception and for venereal diseases protection but also as a symbol of sexual behaviour in the Kaiserreich, the Weimar Republic, under National Socialism, and in the Federal Republic of Germany.

León, Francisco Javier; Goicolea, Jose María (eds.): Puentes de piedra (o ladrillo) antaño y hogaño. [Stone (or brick) bridges, yesterday and today]. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2017.

The lectures, delivered from a variety of perspectives by renowned specialists and researchers, address the role, as well as the challenges and potential, of stone (or brick) bridges at the dawn of the twenty-first century. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=24820062&PatronSearches=false>

León, Javier; Goicolea, José María (coordinators): Los puentes de piedra (o ladrillo) antaño y hogaño. = Lecctiones Juanelo Turriano de historia de la ingeniería, 8. Fundación Juanelo Turriano, (Madrid) 2017, available online: https://issuu.com/juaneloturriano/docs/puentes_de_piedra-issuu?e=1641776/46112240&utm_source=Newsletter&utm_medium=newsletter&utm_campaign=Newsletter+119+March+2017

The eighth book of the series *Lecciones Juanelo Turriano de Historia de la Ingeniería* [Juanelo Turriano lectures on the history of engineering] is now available from Fundación Juanelo Turriano's Digital Library. *Puentes de piedra o ladrillo antaño y hogaño* [Stone (or brick) bridges, yesterday and today] contains the lectures delivered during the eponymous course held in 2016 and organised

jointly by the Madrid Technical University's School of Civil Engineering and Fundación Juanelo Turriano.

Lopera, Antonio: Arquitecturas flotantes (Floating architecture). = Juanelo Turriano Collection on the History of Engineering. Fundación Juanelo Turriano, Madrid 2015.

The technical, economic and social conditions prevailing from the second half of the nineteenth through the early twentieth century spawned the advent of and conquest of the sea by new type of vessel: large passenger ships. Designed as complex, constructs in which no architectural detail was left to chance, these vessels are viewed here from a new angle, in which architecture and engineering merge to afford a clearer understanding of only vaguely remembered features of naval construction. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=25189527&PatronSearches=false>

Magalhães Santos, Gildo (ed.): Desafios do progresso. Alameda, São Paulo 2017.

Articles that focus the history of technology in Brazil during the 20th century, including issues like water supply, electrification, airplane industry, engineering schools, open software, traditional fishing methods, as well as aspects of human sciences, like anthropology, art, and public image of science.

Magalhães Santos, Gildo: Ciência e Conflito. Bookexpress, São Paulo 2015.

A collection of articles dealing with the idea of progress in science and technology, from the viewpoint that controversy, not consensus, is the main thrust to advance knowledge. Particular attention is given to the present formulation by the Lisbon School of a causal interpretation of quantum physics, which can disavow the Heisenberg indetermination principle as a general barrier.

Magalhães Santos, Gildo: Um bit auriverde. Intermeios. São Paulo 2016.

An analysis of Brazil's informatics government policy, a nationalist initiative which prohibited importation of small and medium-sized computers in the 1970's and 1980's. The idea was to develop Brazilian-engineered products, and protect the young companies that mastered the knowledge necessary for that. A series of successes and failures ensued, and a general balance is attempted to understand the reasons and contingencies which were part of this history.

Muñoz Corbalán; Miguel, Juan; Verboom, Jorge Próspero: Ingeniero militar flamenco de la monarquía hispánica (Jorge Próspero Verboom: a Flemish military engineer in the Spanish court). = Juanelo Turriano Collection on the History of Engineering. Fundación Juanelo Turriano, Madrid 2015.

This book contains a thorough description of the career of one of the foremost figures in the history of Spain's corps of engineering: Jorge Próspero Verboom. His many works, designs, reports, services and journeys in the service of the Spanish monarchy after his appointment by King Philip V in the early eighteenth century as Engineer General for the Royal Armies attest to the decisive role in national defence and land use and management accorded to Modern Age military engineers.

Navascués Palacio, Pedro; Revuelta Pol, Bernardo (Coord.); Delgado, Daniel Crespo: Modelos y maquetas históricos. Ingeniería y Construcción [Historic mock-ups and scale models. Engineering and construction]. Fundación Juanelo Turriano, Madrid 2017.

From Roman structures such as the aqueduct at Segovia or Alcántara Bridge to technological feats such as the Whirlpool Aero Car at Niagara Falls, Juanelo Turriano's mysterious artifice, the futuristic 'Buda' lighthouse or the earliest underground lines at Puerta del Sol station, the exhibition 'Historic mock-ups and scale models. Engineering and construction' constitutes a journey across 2000 years of Spanish and European engineering. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=24788354&PatronSearches=false>

Navascués Palacio, Pedro; Revuelta Pol, Bernardo (eds.): De Re Metallica. Ingeniería, hierro y arquitectura [De re metallica, engineering, iron and architectures]. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2016.

In De Re Metallica prominent historians, engineers and architects discuss the iron-induced transformation of nineteenth century engineering and architecture that contributed so decisively to shaping modern society. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/SimpleSearch.aspx?SearchCode=24799938&PatronSearches=false>

Navascués Palacio, Pedro; Revuelta Pol, Bernardo (eds.): Ingenieros arquitectos [Architect engineers]. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2015.

The conferences explore the space where civil engineering and more purely architectural endeavours merge and overlap. From that perspective, they address the careers of a series of renowned professionals in the two disciplines, analyse the typologies exemplifying their convergent creativity and characterise the schools where those masters of construction and crafters of form initially trained. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=24783349&PatronSearches=false>

Poser, Stefan: Glücksmaschinen und Maschinenglück. Grundlagen einer Technik- und Kulturgeschichte des technisierten Spiels. transcript, Bielefeld 2016.

Both technology and play have crucial functions in human life. They have strongly influenced the development of societies. Whereas the task of technology in production and in everyday life is to support human activities, technology has the (additional) important task to generate emotions while playing. Therefore research in this field opens new perspectives on the question how and why people deal with technology. Thus, the aim of this book is to analyse mutual influences of technology and play since mid of 19th century. **Keywords:** technology, play, industrialisation, history of technology, cultural history, social history, toys, sports, amusement parks.

Pursell, Carroll: From Playgrounds to PlayStation: The Interaction of Technology and Play. Johns Hopkins University Press, Baltimore 2015.

From Playgrounds to PlayStation explains how play reflects and drives the evolution of American culture. Pursell describes the work of inventors, engineers, manufacturers, entrepreneurs and

consumers in reshaping the worlds of toys, playgrounds, amusement parks, hobbies, and sports, as well as "extreme" sports and video games, from 1800 to the present.

Roman engineering: that the greatness of the empire might be attended with distinguished authority in its public buildings. = Juanelo Turriano Lectures on the History of Engineering. Fundación Juanelo Turriano, Madrid 2016.

The English language version of the book entitled in Spanish Ingeniería Romana, que la majestad de tu Imperio cuente con el adecuado prestigio de edificios públicos [Roman engineering: that the greatness of the empire might be attended with distinguished authority in its public buildings] can now be read online or downloaded in PDF format. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=24783355&PatronSearches=false>

Romero Muñoz, Dolores: La navegación del Manzanares: el proyecto Grunenbergh (Sailing on the River Manzanares: the Grunenbergh Project). = Juanelo Turriano Collection on the History of Engineering. Fundación Juanelo Turriano, Madrid 2015.

German engineers Carlos and Fernando de Grunenbergh, who worked under the orders of the Spanish monarchy in the mid-seventeenth century, submitted a design to the court for an artificial canal to run parallel to the River Manzanares. This book details the history and objectives of a project inspired by the Modern Age aspiration to foster inland navigation in Spain, and the obstacles to its implementation. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/SimpleSearch.aspx?SearchCode=23181240&PatronSearches=false>

Sánchez López, Elena; Martínez Jiménez, Javier: Los acueductos en Hispania: construcción y abandono [Construction, use and disuse of aqueducts in Spain]. = Juanelo Turriano Collection on the History of Engineering. Fundación Juanelo Turriano, Madrid 2016.

This book contains a detailed and updated study of the aqueducts in what in Roman times was known as Hispania. It is divided into two major sections. The first addresses the origin, use, construction and ultimate disuse of these surprising infrastructures. The second, an exhaustive catalogue of the aqueducts on the Iberian Peninsula (66 in all), constitutes an enlightening supplement to the analysis of the region's contribution to one of the most outstanding legacies of the history of civil engineering. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/AdvancedSearch.aspx?SearchCode=24783262&PatronSearches=false>

Sánchez, Ron; Manuel, José: José Echegaray (1832-1916): el hombre polifacético. Técnica, ciencia, teatro y política en España [José Echegaray (1832-1916): man of many talents: engineering, science, theatre and politics in Spain]. Fundación Juanelo Turriano, Madrid 2016.

José Echegaray (1832-1916) was one of turn-of-the-century Spain's most outstanding intellectuals. Highly reputed in all the disciplines in which he engaged, including civil engineering, mathematics, popular science, theatre and politics, he was awarded the Nobel Prize for literature in 1904. This book, published to commemorate the first centenary of his death, analyses and contextualises Echegaray's contributions to engineering, mathematics and physics. The book also reproduces several of Echegaray's own writings.

Sousa, M. Luísa: *A Mobilidade Automóvel em Portugal, 1920-1950*. Chiado Editora, Lisboa 2016.

This book [*Automobility in Portugal, 1920-1950*] focuses on the institutionalization of the sociotechnical system, underlying automobility, in Portugal, from 1920 to 1950. By taking into consideration that the country was technologically peripheral and originally no automobiles were locally manufactured, this work developed along two complementary aspects: the regulation of automobile circulation and the adaptation of roads to the new vehicles. This is a study focusing on the appropriation and construction of this system through the interventions of users, engineers, legislators, automobile clubs, road services and administration. All these actors participated in the construction of a technical discourse and in the negotiations of social and moral norms, as well as of representations at the level of the users' practices, discourses and the materiality of the sociotechnical car system.

Stranges, Anthony N.: *Transforming America*, 2d edition, Kendall Hunt Publishing Company, Dubuque, Iowa, 2017.

An introductory survey that examines and promotes critical thinking about the origin, development, and impact of science in America from colonial times to the present. It is the first historical survey of science in America, and its publication marks a major milestone in the steady growth of college courses on the history of science in America. *Transforming America's* eleven chapters examine eleven themes that have dominated the emergence of science in America. It provides an integrated view of how science developed in the United States and offers a pathway to understanding the emergence and evolution of modern science and how science shaped modern society.

Vleuten, Erik van der; Oldenziel, Ruth; Davids, Mila: *Engineering the Future, Understanding the Past. A Social History of Technology*. Amsterdam University Press, Amsterdam 2017.

The world is in turmoil: we are witnessing steep social and environmental challenges. Technology is identified as both cause of and solution to these challenges. How can we use technology to solve problems - without creating new ones? *Engineering the Future, Understanding the Past* discusses the role of engineering in our age of grand challenges - by drawing lessons from the past. Since the birth of modern engineering roughly two centuries ago, technology has helped to reshape our modern world. At the same time, social challenges have shaped engineering science and practice. This book examines why and how engineers have engaged in solving social challenges - challenges for society, for business, and for users. It also asks why some technological solutions have unexpectedly created new problems. And it studies how engineers have coped with technology's puzzling ability to both help and harm. The book has been extensively language edited to make it easily accessible to engineering students. Please visit:

<http://en.aup.nl/books/9789462985407-engineering-the-future-understanding-the-past.html>

Weber, Wolfhard: *Salze, Erden, Kohlen. Der Aufbruch in die Moderne im 18. und frühen 19. Jahrhundert. = Geschichte des deutschen Bergbaus, Bd. 2*, Münster 2015.

The history of mining in Germany will end in 2018; thus mining is reflected by a series of books published by the German Mining Museum in Bochum. Wolfhard Webers book is dedicated to early modern mining in the 18th and early 19th centuries. He analyses the development in German counties within the European context.

Wittje, Roland: *The Age of Electroacoustics: Transforming Science and Sound*. MIT Press, Cambridge, Mass. 2016.

At the end of the nineteenth century, acoustics was a science of musical sounds; the musically trained ear was the ultimate reference. Just a few decades into the twentieth century, acoustics had undergone a transformation from a scientific field based on the understanding of classical music to one guided by electrical engineering, with industrial and military applications. In this book, Roland Wittje traces this transition, from the late nineteenth-century work of Hermann Helmholtz to the militarized research of World War I and media technology in the 1930s.

Zanetti, Cristiano: *Juanelo Turriano, de Cremona a la Corte: formación y red social de un ingeniero del Renacimiento* [Juanelo Turriano, from Cremona to the court: a Renaissance engineer's training and social network]. = Juanelo Turriano Collection on the History of Engineering. Fundación Juanelo Turriano, Madrid 2015.

The book takes a fresh look at Juanelo Turriano's training and analyses how one of the most emblematic and at the same time bewildering grandees of Renaissance science and engineering gained access to the court. Juanelo's career as a clockmaker of universal prestige, hydraulic engineer, court mathematician and acclaimed inventor is narrated against the backdrop of the social and intellectual setting of the age. Permalink: <http://f10321uk.eos-intl.eu/F10321UK/OPAC/Search/SimpleSearch.aspx?SearchCode=23238514&PatronSearches=false>

II. Report: Heritage of the Water Industry

James Douet, Editor of the TICCIH Bulletin

The International Committee for the Conservation of the Industrial Heritage, TICCIH, is working to establish criteria for selecting industrial sites which have outstanding universal value. The following report is examining the heritage of the water industry. A consultation document is being prepared which will be discussed at a conference in Barcelona in the spring of 2018, before being presented to ICOMOS.

The tricky question of scope is largely resolved by a paper written for ICOMOS by Michel Cotte in 2015, *Cultural Heritages of Water*. He proposed a typology which distinguished sites for 'the acquisition, management and control of water to make it available for purposes of human use', and which is the focus for the TICCIH study. This leaves us with an interlinked group of structures for collection and storage (dams, boreholes, reservoirs...), distribution (aqueducts, mains, pumping stations, water towers...), and treatment (filtering and waste). Many may have additional roles in, for instance, flood control, irrigation, transport, hydroelectricity or recreation, but this study is only concerned for their role in water supply. (The TICCIH canals study was published in 1996, and hydropower is in under consideration).

Some properties may stand alone as exceptional for the technical merit of their construction, although currently only aqueducts (Padre Tembleque, Segovia, Tarragona and Pont du Gard) are included in the UNESCO list. But most historic infrastructure will be an integral part of a water system, potentially stretching from dams, reservoirs and upland landscapes through urban distribution networks to waste treatment. Pioneering or complete examples may be outstanding.

The working thesis of the report is that the water industry has universal human value for its contribution to the 'sanitary crisis' which threatened the viability of large urban centres during the 19th century. At the start of this period, industrialization and the associated population growth made urban living conditions far worse or even fatal, as cholera and other water-borne diseases ravaged ill-drained cities. The technical solutions did not yet exist, any more than the administrative, financial or medical capacity of urban administrators to resolve the situation.

But by the end of the century, numerous cities had retro-fitted complex infrastructure to supply potable water and to remove and cleanse sewage and some industrial waste, and the 'sanitary question' for them as for new settlements was largely answered. Much of the design of this infrastructure reflected the huge social value that it had for contemporaries. For example, in 1863 Jules Verne imagined Paris a hundred years later still dominated by spectacular waterworks. As it turned out, steam engines were replaced by submersible electric pumps, and the infrastructure of water became in large part invisible.

Unfortunately for the project, at least in the English speaking world, urban historians and historians of public health have had more to say about water supplies and sewer systems than have historians of infrastructure, who have given little attention to sanitary technologies. Information on the historic experience of cities in Arabia, Latin America, Eastern Europe and Asia is therefore especially welcomed.

Anyone interested in commenting on the consultation document should contact the author by jdouet@movistar.es

III. Conference Announcements

12 July 2017

Technikphilosophischer Workshop zum Buch “Homo Creator” von Hans Poser /Workshop in Philosophy of Technology based on Hans Poser’s Book “Homo Creator”

Berlin Technical University

Hans Poser analyses in his book “Homo Creator. Technik als philosophische Herausforderung” (2016) technology from a philosophical point of view. He combines a history of philosophical approaches to technology with nowadays questions about technology as: what’s about human creativity in the field of technology, what is a technical artefact, how to describe the role of

technological knowledge, and what does it mean to act responsible while dealing with technology?

Please contact Elisabeth Simon (B.A.), TU Berlin, elisabeth.simon@tu-berlin.de

20 – 21 October 2017

Kernkraftwerke. Denkmalwerte und Erhaltungschancen/ Nuclear Power Stations Heritage Values and Preservation Perspectives

Deutsches Technikmuseum, Berlin

Please visit <http://industrie-kultur.de/ik/2017/06/29/berlin-grosse-atomkonferenz-am-20-21-oktober-2017/>

Please contact t.dame@campus.tu-berlin.de

25 – 24 November 2017

The Centre for Arab and Islamic Studies (ANU)

In their words | in our words – Representations of the Other in the Middle East, North Africa and Central Asia

Centre for Arab & Islamic Studies, The Australian National University, Canberra

CFP – Deadline **24 July 2017**

The Australian National University, Canberra is proud to convene its third conference for postgraduates and early career researchers. This two day interdisciplinary conference is open to scholars, students, professionals, and the general public with an interest in the Middle East, North Africa and Central Asia.

Conference theme

In glossy Islamist publications and in the blogs of opposition activists, we seem to have unprecedented empirical access to voices from the Middle East and Central Asia. We are bombarded with images from and about the Muslim world. The Syrian conflict alone has produced a stream of videos, testimonies, counter-testimonies and raw propaganda. The revolution has been live streamed, skyped, tweeted and mapped in real-time. This is a function of both technology and of new forms of media and material. Social media, most notably, has become something of a danger and a boon to analysts and policy makers. Its epistemological promise matches its purported role in disrupting and transforming social and political life on the ground. Words, symbols and media proliferate. The remains of destroyed historical artefacts, the filming of that destruction, and the propagation of such film on social media: each are potential data sets for the scholarly endeavour.

Yet it was almost thirty years ago that Timothy Mitchell argued the European enterprise of knowledge about colonial Egypt actually constituted an idea of Egypt as a picture. Western knowledge of the Orient relied on the idea that the other could be drawn, re-presented, re-figured, re-ordered. Echoing Heidegger's epithet, this was 'the age of the world exhibition, or rather, the age of the world-as-exhibition'. Arguably this picturing of the Other has not slowed

down: the Muslim is described, explained, illustrated in cartoon and prose, delineated in laws and regulations, and filmed in real-time as he crosses the sea. Yet we picture them differently depending on disciplinary background: as construction, as epiphenomenon, as agent, as function of history. So images, symbols, and all manner of representations are more dominant than ever. The Muslim is an image, an idea, an other.

We suggest that words, symbols, images and other representations therefore warrant a dedicated empirical and theoretical investigation beginning from the best of the inter-disciplinary traditions of Middle Eastern and Islamic studies, but welcoming participation from surrounding academic practitioners. We are interested in both the epistemological potential of these symbolic tokens, as well as various theoretical challenges that are raised by them, concerning the Middle East, North Africa and Central Asia.

Call for papers

We are proud to welcome proposals from across the social sciences and humanities on topics broadly relevant to the conference theme and concerning the Middle East, Central Asia or North Africa. We seek proposals that examine topics including but not limited to:

- representations of and by violent or non-violent Islamist and other protest groups
- challenges to representations of the other in the media or scholarship
- the symbolic and rhetorical practices of Islamist, Sufi, feminist or other groups
- the production, use and distribution of new media and other images during and since the Arab Spring
- the development of networks of communication, identity and shared symbolic infrastructure enabled by new technologies
- methodological opportunities and challenges of both new and old sources of data, including maps, images, iconography, poetry, and social media
- theoretical issues and problems related to symbols, images, representations, concerning the geographic region, the society.

Submission details

To submit a paper or panel proposal, please email "cais@anu.edu.au" an abstract of 200-300 words and a biographical paragraph of 200 words by 24 July 2017.

Important dates

- Deadline for submission of abstracts – 24 July 2017
- Notification of successful panels and abstracts – 15 August 2017
- Deadline for full papers – 15 October 2017
- Conference – 23-24 November 2017

Funding

The Conference organisers expect to offer a limited amount of funding for some presenters, consistent where possible with ANU benchmarks. Funding will be offered on a case by case basis to those presenting papers, and is at the discretion of the organisers. Funding will only be considered for all abstracts and papers submitted in a timely manner by doctoral candidates.

Centre for Arab & Islamic Studies
(The Middle East & Central Asia)
ANU College of Arts and Social Sciences
The Australian National University
Canberra

Please contact CAIS@anu.edu.au

23 – 24 February 2018

Transformative Recovery? The European Recovery Program (ERP)/Marshall Plan in European Tourism

Salzburg, Austria

CFP – Deadline **15 September 2017**

The active involvement of the United States in World War II resulted in sizeable economic growth. In 1945, the U.S.A. literally had half of the world's wealth, but, as had to be expected, the economic boom came to a sudden halt at the end of the war. This situation concerned U.S. economists and politicians who sought to mitigate a recession by boosting domestic production and recovering former and creating new markets. As solution, the US launched in 1948 the world's largest economic aid operation in history, the European Recovery Program (ERP) commonly known as Marshall Plan. Europe would have had tremendous import needs in theory but its most industrialized regions lay in ruins in 1945, followed by a stagnation of the reconstruction in 1947. To stabilize European national economies, to prevent advancing communist and nationalist forces but also to create new markets for American goods and raw materials in Europe, aid was imperative.

The ERP focused on imports of strategic goods and machinery to reinstate domestic economic activities. These would accelerate the recovery of foreign currency stocks in European countries. Tourism also was targeted by ERP experts, who saw investments into accommodation and tourist mobility infrastructure as a quick and easy way for European tourism to earn more foreign currency. In addition to financial support, mainly in the form of loans, the ERP organized knowledge and technology transfer to rationalize the tourism industry according to U.S. standards. Despite the ERP's importance for the reconstruction and transformation of the entire industry and regional livelihoods, the program's positive and negative long-term consequences on the affected regions have not been studied in detail.

With the generous support by Austrian Marshall Plan Foundation we invite scholars from various fields such as tourism-, regional- and environmental-, economic-, political and social history, history of technology as well as of geography or other fields to elucidate the role of the Marshall Plan for tourism development. On the occasion of the 70th anniversary of the Marshall Plan in 2018, a colloquium will be held in Salzburg to discuss their findings. We encourage papers that go beyond narratives of the ERP as expression of American altruism or as tool of capitalist imperialism. We animate scholars to conceptualize the ERP as a framework of processual and practical encounters of stakeholders who took part in the transformation of tourism regions.

We invite papers focusing on tourism under the Marshall Plan emphasizing one of the following questions, but submission are not limited to these themes.

(a) Which environmental and/or socio-economic long-term consequences did the implementation of funding schemes as well as the increasing capitalization of tourism and its infrastructures have in a particular region?

(b) Which effects did the creation of novel alliances between the tourism industry and other forms of industries, but also with the public sector (e.g. road building) exhibit in a particular region? Which role did the ERP play for the emergence of specific industrial clusters and how did these clusters shape regional development in the long term?

(c) In which ways did transnational technology- or knowledge transfers alter tourism education and/or regional development paths? What are the learning outcomes of the historical ERP for today's discourse about tourism development, especially in light of sustainability issues?

Transport and accommodation costs for participants can be covered. We ask for proposal abstracts of approximately 5.000 characters, short scientific CV including a list of a maximum of ten own publications (in a single file) to Robert Groß robert.gross@aau.at and Martin Knoll martin.knoll@sbg.ac.at by 15 September 2017. Applicants will be notified by beginning of October. For further information or in case of any questions, please contact either Robert Groß or Martin Knoll.

Please visit www.hsozkult.de/event/id/termine-34596

Please contact Robert Groß; Institut für Soziale Ökologie/AAU Klagenfurt, Wien, Graz; robert.gross@aau.at and Martin Knoll; FB Geschichte/Salzburg University; martin.knoll@sbg.ac.at

12 – 14 April 2018

The Production of Information: Technologies, Media Markets, and Labour in the Twentieth Century

Museum der Arbeit, Hamburg

CFP – Deadline **30 September 2017**

"I have never seen an industry that is going to be more completely changed in the next decade as a result of automation – nor one which today realizes it less." With these categorical words, American automation expert John C. Diebold described the printing industry in 1963. In Diebold's eyes the industry was a perfect example of both managers and workers turning a blind eye to inevitable technological change. Yet, rather than adopting the automation guru's as normative as self-serving narrative of progress and efficiency we would like to widen the perspective and take a comprehensive view which takes stock of the various, often conflicting ways in which the technological, social, and cultural transformation of print media and its changing production conditions unfolded in the twentieth century.

We are inviting historians of technology, business historians, social and cultural historians, and media studies scholars to investigate the many facets combined in the production of information.

The most popular examples of technological innovation, such as the triumph of hot metal typesetting machines around 1900, the success of web-offset printing in the post-World War II era, and the introduction of cold type and computers since the 1960s and 70s tend to conceal that these processes were often gradual in nature and sometimes inconsistently implemented. They were also intricately entangled with transformations in other fields: changing consumption patterns of readers (and viewers) both reflected and boosted the application of new technologies which, in their turn, also contributed to the advent of multinational media corporations. What new forms of distribution, like mail-order book clubs, meant for sales and consumption, new means of data storage, simplifying and reducing the costs of transfer, implied for the production of mass media. Changing technological paradigms also affected the development of typography, layout, and design of newspapers, for book and magazine illustration, etc. Traditional machine suppliers such as the producers of the famous Heidelberg printing press or Linotype typesetting machines lost parts of their customers or had to adapt by entering new fields, losing industrial leadership to new competitors like Xerox, Apple, and Adobe along the way.

Technological change and the transformation of old and the introduction of new media were often accompanied by competition and conflict in various fields: the scramble for markets; industrial relations; freedom of the press; and intellectual property rights. Both national and international markets for media products became increasingly contested, experienced rapid concentration, and saw new technologies applied to boost efficiency, reduce costs, and ease outsourcing process. Predictably, these developments triggered industrial conflict. In most countries, industrial relations were characterized by specialised trade unions for individual professions, like printers, compositors, bookbinders, and journalists. Only in the course of the second half of the twentieth century did these unions consolidate to form media unions or amalgamate with larger non-media unions. Technological change often had very different connotations for different professions; therefore industrial relations had more frontlines than those between workers and managers, including competition for labour between different professions, skilled and unskilled, male and female, or domestic and foreign workers. Whether or not a particular technological innovation was perceived as a threat or an opportunity depended on the concrete changes in the work progress and on the previous position of the individual employee therein. Simultaneously, debates about the freedom of the press were concerned with the spectre of monopoly, the controversial issue of state subsidies, and with labour strikes, which halted newspaper production. At the same time, intellectual property rights came under pressure with the introduction of increasingly efficient (and, towards the end of the century, immaterial) copying techniques.

Contributions may focus on different aspects of print media, e.g. books, newspapers, magazines, or academic publishing. Topics may include but are not limited to:

- Typography – reconceptualising type: ever since Gutenberg introduced movable type to European printing typography had been a very material art, using literally tangible wood and lead letters. This changed only with the advent of photo and computer typesetting, substituting first film, then mere data. For typographers working within printing cultures, which relied on Latin or related alphabets this implied new means of expression and new possibilities while also forecasting the ambiguous proliferation of typefaces in the age of the personal computer. In the

context of other languages and alphabets, however, abandoning the lead standard meant that typesetting and printing promised to become both easier and cheaper and thus to enhance the availability of print products greatly. Case studies, if possible comparative, will be very welcome.

- Texts and images – the (im)materiality of information: how did images become commodities? Which role did stock photo agencies play, how were markets created? In which ways did these developments transform journalism when it came to researching, writing, and editing? Additionally, how did technological change in other departments of print houses affect journalists? The computerization of typesetting made the composing rooms lose their autonomy (though not necessarily overnight), with compositors' responsibilities becoming mostly technical and ancillary in the process of dematerialization. Journalists on the other hand gained more influence on the final product than they had enjoyed before while also being expected to move beyond purely intellectual work.

- Media production as business – companies and markets: new products (from paperback books to audio and digital formats) as well as innovative forms of distribution, such as mail-order book clubs and the rise of Amazon and its epigones, drastically transformed the industry. The rise of multinational corporations and oligopolistic structures restructured whole markets, introduced cross-media marketing, and challenged notions of plurality and independence of the press, but also those of authorship and property rights. Conversely, the decreasing reliance on capital-intensive machinery meant that access to previously difficult-to-enter markets was becoming easier, allowing new publishers to carve out niches for themselves. Both small and large enterprises seized the opportunities offered by technological innovation: cold type and computerization did not only promise to render typesetting and printing less costly by reducing personnel, with the help first of small, light data storage formats and then of digital communication technology out-sourcing became a viable option. Both composition and printing could be transferred over long distances, even to different countries. Especially interesting is the case of printing behind the iron curtain despite the apparent hurdles of Cold War bloc confrontation (as well as international trade integration). Again, both case studies and industrial overviews would be welcome.

- The media industry and industrial relations: new technology transformed professions, qualifications, and practices. We are interested in how technological and cultural changes affected different professions (journalists, typographers, paper makers, compositors, stereotypers, printers, bookbinders, publishers, et al.). Deskilling seems to have been the most common experience, but there are different stories. Under which circumstances did certain groups benefit from technological innovation while others lost in terms of status, income, or employment? How did gender relations and especially gendered power-relations alter? Which roles should we accord to age and education?

- Technology and machinery: we are looking for researchers exploring the history of technology-in-use, i.e. the ways in which technology users adapted new technologies. Interconnected with these practices is the field of system design and prototyping: how did designers, programmers, and engineers imagine users'/workers' demands? Mostly, the history of printing industry is told as a sequence of technological innovations. However, did the industry experience a "shock of the

old" (D. Edgerton)? Or was incremental change the rule rather than the exception, e.g. with hand-composition continuing for a long period in niches like special type, rarely used languages, and sheet music? Other processes (e.g. bookbinding) temporarily proved less affected by automation. After the apparent triumph of computerised typesetting most corporations introduced hybrid systems (part electronic, part traditional) during a long period of transition. For the interest of business historians and of historians of technology, it is crucial to compare companies' divergent approaches in implementing new technologies on the shop floor. Case studies of both gradualist strategies and "big bang" approaches would be highly welcome.

Timeline for submissions:

We are inviting proposals for inclusion in the conference programme. Submissions should include a short abstract (ca. 400 words) and a brief CV, to be emailed to Kim Christian Priemel (University of Oslo, k.c.priemel@iakh.uio.no) and Karsten Uhl (Helmut Schmidt University Hamburg, uhl@hsu-hh.de) by 30 September 2017.

The conference, kindly funded by the Fritz Thyssen Foundation and the German Research Foundation (DFG), will take place at the Museum der Arbeit (Museum of Labour) – renowned for its printing trade section – in Hamburg (Germany), 12-14 April 2018. Speakers' travel and accommodation costs will be defrayed.

IV. Call for Contributions

Environmental History of Wars in Central Europe

The *Hungarian Historical Review* invites submissions for its third issue in 2018, the theme of which will be "An environmental history of wars in Central Europe".

Full details are available in the call for papers on <http://eseh.org/cfp-eh-of-wars-in-central-europe/>.
Deadline for submissions of abstracts is **30 September 2017**

V. Miscellaneous

SHOT Small Grants Announcement

The Society for the History of Technology is pleased to announce its new Small Grants Award. SHOT will consider proposals from external individuals and organizations to endorse events relevant to SHOT's mission, which is to advance the historical study of technology and its relations with politics, economics, labor, business, the environment, public policy, science, and the arts. We welcome applications such as a workshop on Southeast Asian History of Technology that is scheduled to take place in Malaysia or a Cold War technology conference that will be held in an American city.

SHOT will consider unfunded endorsements as well as proposals for funded endorsements no greater than \$3000. As the budget of the Small Grants is limited, the Small Grants Committee will consider applications for and make recommendations to the President. Deadlines for submitting proposals for funded endorsements are March 15 and September 15 of each year, and should be sent by email directly to each member of the Small Grants Committee. The 2017 Small Grants Committee members include Mara Mills (mmills [at] nyu.edu), Jenny L. Smith (jenny.smith [at] ust.hk), and Honghong Tinn (chair) (tinnho [at] earlham.edu). Applications for non-funded SHOT endorsements will be considered all year round, independent of the specific deadlines. To apply, please see the *Small Grants* sections on our Awards, Prizes, and Grants page.

VI. Join ICOHTEC

An ICOHTEC membership makes you a member of the scholarly network of the UNESCO-based International Committee for the History of Technology, ICOHTEC.

The membership includes:

- Reduced fees for ICOHTEC's conferences
- ICOHTEC's reviewed journal ICON (published annually, ca. 200 pages)
- Electronic access to back issues of ICON (published since 1995)
- ICOHTEC's electronic Newsletter (published monthly – available via mailing list and on the homepage)

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