

Research Interests

Environmental History, History of Science & Technology,
Infrastructure Studies, Maintenance & Repair, Material History, Anthropocene

Current Research and Writing

- Cultures and Costs of Maintenance. The Rise of Creosote and its Precarious Legacy
[Postdoc Project; funded by the German Research Foundation “DFG Eigene Stelle”]

Education

- 2015 – 2021 **PhD (Dr. phil.) in Modern and Contemporary History**
LUDWIG-MAXIMILIANS-UNIVERSITY MUNICH / RACHEL CARSON CENTER
FOR ENVIRONMENT AND SOCIETY
Thesis: *The Birth of Geoengineering. Large-scale Engineering Projects in the Early Stage of the Anthropocene (1850-1950)*
Supervisors: Prof. Dr. Helmuth Trischler & Prof. Dr. Christof Mauch
[defended in July 2019, degree received in February 2021]
- 2011 – 2014 **M.A. in History (M.A.-Programme: *Spaces of Cultural Encounters in Early Modern History*) [“with distinction”]**
UNIVERSITY OF POTSDAM
Thesis: *China as a Catalyst for European Modernity. Cultural Encounters from Three Centuries*
- 2 – 7/2013 **M.A.-Erasmus-Programme**
UNIVERSITY OF ZURICH (UFSP Asia & Europe) & UNIVERSITY OF BERN
(Oeschger Centre for Climate Change Research)
- 2007 – 2011 **B.A. in History and German Philology**
UNIVERSITY OF POTSDAM
Thesis: *Asia Compilations at the Beginning of the Knowledge Revolution of the Enlightenment - Studies on Athanasius Kircher's China Illustrata (1667).*

Employment

- Since 12/2021 **Postdoctoral Researcher**
(“Wissenschaftlicher Mitarbeiter” / DFG “Eigene Stelle”)
DEUTSCHES MUSEUM MUNICH – RESEARCH INSTITUT FOR THE HISTORY OF
SCIENCE AND TECHNOLOGY
- Since 4/2022 **Lecturer (“Lehrbeauftragter”)**
KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT) – INSTITUTE OF
TECHNOLOGY FUTURES (ITZ), DEPARTMENT OF HISTORY
- 5/2019 – 11/2021 **Scholar in Residence (5/2020-11/2021) / Guest Researcher (5/2019-4/2020)**
DEUTSCHES MUSEUM MUNICH – RESEARCH INSTITUT FOR THE HISTORY OF
SCIENCE AND TECHNOLOGY
- 4/2016 – 4/2019 **Research Fellow (“Wissenschaftlicher Mitarbeiter”)**
DEUTSCHES MUSEUM MUNICH – RESEARCH INSTITUT FOR THE HISTORY OF
SCIENCE AND TECHNOLOGY
- 4/2017 **Doctoral Fellow**
GERMAN HISTORICAL INSTITUTE, WASHINGTON D.C.
- 4/2014 – 7/2014 **Marie-Curie-Fellow, IRSES – “WORLD BRIDGES”**
CENTRO DE INVESTIGACIONES FILISÓFICAS, BUENOS AIRES /
UNIVERSITY OF POTSDAM
ESR in the EU-FP7 Programme “WORLD BRIDGES – Philosophy of History and Globalisation of Knowledge. Cultural Bridges Between Europe and Latin America”

- Research stay at the *Centro de Investigaciones Filosóficas*, Buenos Aires, Argentina (4/2014 – 7/2014)
- Member of the Working Group *Production and Circulation of Knowledge* (2014-2017)

7/2010 – 3/2015

Student Assistant – Research & Teaching

UNIVERSITY OF POTSDAM – HISTORICAL INSTITUTE, CHAIR

KULTURGESCHICHTE DER NEUZEIT (Prof. Dr. Dr. h.c. Günther Lottes)

Awards

ESEH Tallinn Dissertation Prize 2021 – “highly commended” (Top 4)

Turriano ICOHTEC Prize 2021 – “honourable mention” (Top 3)

ESEH Poster Prize 2015 – 1st Prize

Publications

Books & Edited Volumes

Beyond the Lab and the Field: Infrastructures as Places of Knowledge Production Since the Late Nineteenth Century, ed. with Eike-Christian Heine, Pittsburgh: University of Pittsburgh Press, 2022 [Intersections: Histories of Environment, Science, and Technology in the Anthropocene, ed. by Sarah Elkind & Finn Arne Jørgensen].

Reviews in: H-Net Reviews (H-Sci-Med-Tech) / Technology & Culture / Choice

Die Geburt des Geoengineerings. Großbauprojekte in der Frühphase des Anthropozäns, Wallstein: Göttingen, 2021 [Deutsches Museum. Abhandlungen und Berichte – Neue Folge, Bd. 34].

Reviews in: HSozKult / Tagesspiegel / Das Archiv. Magazin für Kommunikationsgeschichte / WerkstattGeschichte / Industriekultur

Jean Henri Samuel Formey – Wissensmultiplikator der Berliner Aufklärung, gemeinsam hrsg. mit Jannis Götze, Hannover: Wehrhahn, 2016 [Aufklärung und Moderne 36].

Articles in Peer-Reviewed Journals and Edited Volumes

“Coal Colonialism. Envirotechnical Infrastructures and Transactions between Germans and Chinese in Shandong (1897-1914)” (in preparation; invited for “Colonial Transactions: Railways and Colonial Societies” - Special Issue Proposal for *German History*; Contributing Editors: Norman Aselmeyer & Nina Kleinöder)

“Materialities of Maintenance. Re-reading Railway Infrastructure History through Creosote” (under review; invited for “The Challenge of New Materialism for the History of Infrastructure” - Special Issue Proposal for *Technology & Culture*; Contributing Editors: Jan Hansen & Frederik Schulze)

(with Fabienne Will) “Erdsystemisches Lehren und Lernen. Orientierungswissen für eine Geo-Geschichts-Didaktik” (in preparation; invited for *Zeitschrift für Geschichtsdidaktik* 2024, Jg. 23 – “Das Anthropozän”)

“Sicherheit ist Beinarbeit. Polychrone Mobilitäten und envirotechnische Materialitäten im Bahnunterhaltungsdienst zu Beginn des 20. Jahrhunderts” (in preparation; invited for *traverse. Zeitschrift für Geschichte. Revue d'histoire* 1 / 2025 – “Zu Fuss / À pied”)

“Empire, Extraction and Externalization. Wood Impregnation in Early 20th Century Bosnia and its Precarious Legacy,” In *Environmental Histories of the Dinaric Karst*, edited by Borna Fürst-Bjeliš et al. (forthcoming 12/2023).

“Exploring the Earth through its Anthropogenic Scars. Geology and the Construction of the Panama Canal,” in: *Beyond the Lab and the Field: Infrastructures as Places of Knowledge Production Since the Late Nineteenth Century*, ed. by Eike-Christian Heine and Martin Meiske [Pittsburgh: University of Pittsburgh Press, 2022], 43–62.

(with Eike-Christian Heine): “Scientific Bonanzas: Infrastructures as Places of Knowledge Production,” in: *Beyond the Lab and the Field: Infrastructures as Places of Knowledge Production Since the Late Nineteenth Century*, ed. by Eike-Christian Heine and Martin Meiske [Pittsburgh: Pittsburgh University Press, 2022], 3–20.

(with Christian Zumbrägel) “Holz im Zeitalter von Kohle und Stahl. Zur Persistenz und Wandelbarkeit eines Werkstoffes in der Hochindustrialisierung,” *Technikgeschichte* 88, no. 3 (2021), 251–286.

(with Jeroen Oomen) “Proactive and Reactive Geoengineering: Engineering the Climate and the Lithosphere,” *WIREs Climate Change* 12, no. 6 (2021), <https://doi.org/10.1002/wcc.732> [open access].

Articles in Journals, Edited Volumes, and Miscellaneous Publications

“Clio-Guide: Technikgeschichte“, *Clio Guide – Ein Handbuch zu digitalen Ressourcen für die Geschichtswissenschaften*, ed. by Silvia Daniel, Wilfried Enderle, Rüdiger Hohls, Thomas Meyer, Jens Prellwitz, Claudia Prinz, Annette Schuhmann, Silke Schwandt, 3rd extended and updated edition., Berlin 2023, <https://doi.org/10.60693/e458-ba35> [open access].

“Geologie,” *Wirtschaft und Wissenschaft: Naturwissenschaften und Medizin*, ed. by Michael C. Schneider and Heiner Fangerau (volume in the handbook series on economic history, ed. by Marcel Boldorf and Christian Kleinschmidt; forthcoming).

“The Road to Nowhere” (documentary short film about the construction of the Fontana Dam by the Tennessee Valley Authority and related regional conflicts) – RCC workshop Envisioning Environments –Visual Media for the Environmental Humanities, 18 July 2017.

(with Helmuth Trischler) “Die Geburt des Geoengineerings,” blog post for the DFG web page *KlimaTaucher – Beiträge aus der Klima- und Meeresforschung*, 31 May 2017.

(with Jannis Götze) Die Hebamme Rousseaus. Formeys Emile Chrétiens im Kontext europäischer Erziehungsdebatten des 18. Jahrhunderts, in: *Jean Henri Samuel Formey – Wissensmultiplikator der Berliner Aufklärung*, ed. by Jannis Götze and Martin Meiske, Hannover 2016, 123–40.

Jean Henri Samuel Formey als Enzyklopädist, in: *Jean Henri Samuel Formey – Wissensmultiplikator der Berliner Aufklärung*, ed. by Jannis Götze and Martin Meiske, Hannover 2016, 39–52.

(with Jannis Götze) Einleitung, in: *Jean Henri Samuel Formey – Wissensmultiplikator der Berliner Aufklärung*, ed. by Jannis Götze and Martin Meiske, Hannover 2016, 7–24.

Book Reviews

Sara B. Pritchard / Carl A. Zimring, Technology and the Environment in History, in: *Technikgeschichte* 88, no. 4 (2022), 415–16.

Štanžel, Arnošt, Wasserträume und Wasserräume im Staatssozialismus. Ein umwelthistorischer Vergleich anhand der tschechoslowakischen und rumänischen Wasserwirtschaft 1948–1989, in: *Neue Politische Literatur. Berichte aus Geschichts- und Politikwissenschaft* 64 (2019), 192–94.

Lina Schröder, Der Rhein-(Maas-)Schelde-Kanal als geplante Infrastrukturzelle von 1946 bis 1986. Eine Studie zur Infrastruktur- und Netzwerk-Geschichte, in *Historische Zeitschrift* 308, no. 1 (2019), 272–73.

Christoph Rauhut, Die Praxis der Baustelle um 1900. Das Zürcher Stadthaus, in: *Technikgeschichte* 85, no. 3 (2018), 230–31.

Carl A. Zimring, Aluminum Upcycled. Sustainable Design in Historical Perspective, in: *ICON: Journal of the International Committee for the History of Technology* 23 (2017), 176–78.

Eike-Christian Heine, Vom Großen Graben. Die Geschichte des Nord-Ostsee-Kanals, in *Neue Politische Literatur. Berichte aus Geschichts- und Politikwissenschaft* 61, no. 1 (2016), 107–109.

Conference Reports

European Infrastructures and Transnational Protest Movements, Workshop, 12–13 December 2019, Kerschensteiner Kolleg of the Deutsches Museum, Munich, published on *Seeing the Woods – A blog by the Rachel Carson Center*, 30 January 2020.

The Multifaceted Relationship between Fear and Technology, Interdisciplinary Workshop, 10–12 October 2018, Max Planck Institute for Human Development, Berlin, published on *H-Soz-Kult*, 23 November 2018.

Organized Workshops & Panels

Panel: Economic strategies and their environmental impact in the Northern Dinaric Alps in the 19th and 20th centuries (organized with Meta Remec, Ivan Brlić, and Željko Oset), Bern, 12th Biennial European Society for Environmental History (ESEH) Conference, 22–26 August 2023

Panel: White Coal Revisited. The Promises of Participation and Clean Energy from High Modernity to the Age of Climate Crisis (organized with Annina Boogen, Sibylle Lustenberger and Fabian Zimmer), Aarhus, Aarhus University, 10th Tensions of Europe Conference “Technology, Environment and Resources,” 29 June–1 July 2022

Panel: Scientific Bonanzas – Infrastructures as boundary places of environmental knowledge production (with Eike-Christian Heine, TU Braunschweig), 10th Biennial European Society for Environmental History (ESEH) Conference “Boundaries in/of Environmental History”, Tallinn, Estonia, 21–25 August 2019

Panel: Scientific Bonanzas – Infrastrukturen als Orte der Produktion von Umweltwissen, with Eike-Christian Heine (TU Braunschweig), Jahrestagung der Gesellschaft für die Geschichte der Wissenschaften, der Medizin und der Technik (GWMT) 2018, Bochum, 14 September 2018

Workshop: Scientific Bonanzas – Infrastructures as Places of Knowledge Production, with Eike-Christian Heine (TU Braunschweig), Deutsches Museum, München 15–16 September 2017

Panel: Inside Infrastructure: Altered Landscapes and Engineered Environments, with Felix Mauch (TU München) – Chicago, IL, 2017 Conference of the American Society for Environmental History (ASEH), 30 March 2017

Workshop: Locating and Reorganizing Global Spheres. Scientific Experts, the Natural Environment and Transcontinental Fieldwork, with Robert-Jan Wille (LMU), Rachel Carson Center, München, 22 March 2017

Workshop: Jean Henri Samuel Formey – Wissensmultiplikator der Berliner Aufklärung, with Jannis Götze (Universität Potsdam), Universität Potsdam, Historisches Institut, 20–21 September 2013

Talks (Selection)

Mexico City, Instituto de Investigaciones Históricas, UNAM, Coloquio Internacional Ciudades e Infraestructuras en Latinoamérica, 19–20 October 2023: Exploring the Earth through its Anthropogenic Scars. Geology and the Construction of the Panama Canal

Wien, Technisches Museum, 3rd Vienna Workshop on STEM Collections, Gender and Sexuality; “Diverse Infrastructures? Gender, Queer & the Foundations of Society”, 6–8 September 2023: Diverse Cultures of Maintenance. Railway Infrastructures and Gender in early 20th Century Germany

Ingolstadt, Jahrestagung der Gesellschaft für die Geschichte der Wissenschaften, der Medizin und der Technik (GWMT), 13–15 September 2023: Sicherheit ist Beinarbeit. Polychrone Mobilitäten und envirotechnische Materialitäten im Bahnunterhaltungsdienst zu Beginn des 20. Jahrhunderts

Bern, 12th Biennial European Society for Environmental History (ESEH) Conference, 22–26 August 2023: Empire, Extraction, and Externalization. Wood Impregnation in Early 20th Century Bosnia and Herzegovina and its Precarious Legacy

Karlsruhe, Karlsruhe Institute of Technology (KIT) Institut für Technikzukünfte / Department für Geschichte, Kolloquium (Prof. Dr. Marcus Popplow), 13 July 2023: Kulturen und Kosten der Wartung. Der Aufstieg von Kreosot und sein prekäres Erbe

Berlin, Deutsches Technikmuseum, Abschluss-Workshop des DFG-Netzwerks Stoffgeschichte, 6–7 July 2023: Wartungsgeschichte als Stoffgeschichte. Ein Werkstattbericht zum Steinkohlenteeröl Kreosot

München, Deutsches Museum, Gemeinsames Oberseminar des Deutschen Museums und der TUM, 26 June 2023: Kulturen und Kosten der Wartung. Der Aufstieg von Kreosot und sein prekäres Erbe

Wuppertal, Jahrestagung der Gesellschaft für Technikgeschichte (GTG) 12–14 May 2023: Bahninfrastrukturen in Bewegung – Perspektiven aus der Stoff-, Umwelt- und Wartungsgeschichte

Consortium for History of Science, Technology and Medicine – Working Group “Engineering Studies,” 18 November 2022: Beyond the Lab and the Field. Infrastructures As Places of Knowledge Production since the Late Nineteenth Century (together with Eike-Christian Heine)

Hannover, Herrenhausen Symposium, “Materiality and the History of Infrastructure,” 21 July 2022: Materialities of Maintenance. An Envirotechnical Analysis of Knowledge, Labor, and Toxicity in Railway Infrastructures

Aarhus, Aarhus University, 10th Tensions of Europe Conference “Technology, Environment and Resources”, 29 June–1 July 2022: How Green was the New Deal? Hydropower in the Tennessee Valley between Power, Participation and Intensification

Lugano, Università della Svizzera italiana, Laboratorio di Storia delle Alpi (LabiSAIp), Workshop: “Communication Maintenance in Longue Durée,” 24/25 February 2022: The Hidden Cost of Maintenance. Reflections on the Persistence and Long-term effects of Railway Tie Impregnation for Environment and Society

Tübingen, Universität Tübingen, Kolloquium Neuere Geschichte (Lehrstuhl Prof. Ewald Frie), 7 February 2022: “Unfortunately, soils are made by nature and not by man...” – Ein umwelt- und technikgeschichtlicher Blick auf Infrastrukturen in der Frühphase des Anthropozäns

Hannover, Herrenhausen-Symposium, “Material Assemblages. Toward a New History of Infrastructure,” 15 December 2021: Toxic Traces of Maintenance and Repair. Exploring the Rise of Creosote and its Precarious Legacy in Europe

Karlsruhe, Karlsruher Institut für Technologie (KIT), “Technikgeschichte über Mittag,” Online-Vortragsreihe der Gesellschaft für Technikgeschichte (GTG), 3 December 2021: Von Bahnmeistern, Streckenläufern und Rottenführern. Was heißt und zu welchem Ende studiert man Wartungsgeschichte?

Esch-sur-Alzette, University of Luxembourg, The Luxembourg Centre for Contemporary and Digital History (C²DH), Workshop: “Histories of Maintenance and Repair,” 3 September 2021: Cultures and Costs of Maintenance. The Rise of Creosote and its Precarious Legacy

Bielefeld, Universität Bielefeld, Kolloquium Gesellschaft – Wissen – Umwelt (GWU), 15 June 2021: Die Geburt des Geoengineering. Schichtarbeiter im Schatten imperialer Infrastrukturen

München, Deutsches Museum, Forschungsinstitut für Wissenschafts- und Technikgeschichte, Workshop: “Transformative Technologies,” 31 January 2020: „Democracy on the March“? – Hydropower Infrastructures between Power and Participation in the US and Western Germany (1930s-1950s)

Berlin, TU Berlin, Fachgebiet Technikgeschichte, Workshop: “Materialien und Stoffe in der Medizin-, Wissenschafts- und Technikgeschichte,” in der Reihe “Junge Perspektiven” der Gesellschaft für die Geschichte der Wissenschaften, der Medizin und der Technik (GWMT), 29 November 2019: Kulturen und Kosten der Wartung. Der Aufstieg von Kreosot und sein prekäres Erbe

Milan, Annual Meeting – Society for the History of Technology (SHOT), 26 October 2019: Exploring the Earth Through its Anthropogenic Scars. Geology and the Construction of Sea Canals

Regensburg, Universität Regensburg, Professur für Wissenschaftsgeschichte (Prof. Omar W. Nasim) – Kolloquium, 3 July 2019: Schichtarbeiter im Schatten von Großbauprojekten. Meeresskanäle als Orte geologischer Wissensproduktion um die Jahrhundertwende

Bochum, Jahrestagung der Gesellschaft für die Geschichte der Wissenschaften, der Medizin und der Technik (GWMT) 14 September 2018: Schichtarbeiter im Schatten imperialer Infrastrukturen. Die Geologie und der Bau des Panamakanals

Zürich, Universität Zürich / Archiv für Zeitgeschichte der ETH Zürich – Workshop “Global and transnational history, networks and violence,” 30 January 2018: Exploring and Exploiting in the Shadow of Technical Infrastructures. Geology and Sea Canals in the Age of High Imperialism

München, Ludwig-Maximilians-Universität, Institut für Ethnologie – Die Amerikas-Forschungskolloquium, 16 November 2017: Schichtarbeiter im Schatten imperialer Infrastrukturen. Die Geologie und der Bau des Panamakanals

Chicago, IL, 2017 Conference of the American Society for Environmental History (ASEH), 30 March 2017: The Birth of Geoengineering. Building and Managing Infrastructures in the Early Stage of the Anthropocene

Porto, University of Porto – 43rd Annual Meeting of the International Committee for the History of Technology (ICOHTEC), 27 July 2016: The Birth of Geoengineering. Large-scale-engineering projects in the early stage of the Anthropocene (1850-1950)

Beijing, Renmin University of China, Center for Ecological History – Workshop “Transformations of the Earth,” 22 May 2016: The Birth of Geoengineering: Large-Scale Engineering Projects as Laboratories of the Anthropocene

Versailles, Université de Versailles Saint-Quentin-en-Yvelines – 8th Conference of the European Society for Environmental History (ESEH), 3 July 2015: Poster Presentation, The Birth of Geoengineering. Large-scale-engineering projects in the early stage of the Anthropocene (1850-1950)

Teaching

Spring 2024 ***Infrastructure Studies. Interdisciplinary Introduction to a Key Issue in the History of Technology, the Environment and Science***
KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT), KARLSRUHE

Fall 2023/24 ***Stoffgeschichte – The Materiality of Science and Technology (Montagskolloquium)***
DEUTSCHES MUSEUM, MUNICH
organized with Prof. Dr. Helmuth Trischler

Spring 2023 ***The Anthropocene. Environment, Society and Technology on a human-made Earth***
KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT), KARLSRUHE

Spring 2022 ***“Environmental Justice Now!” – The Concept of Environmental Justice from its Beginnings to the Climate Crisis***
KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT), KARLSRUHE /
UNIVERSITY OF ARIZONA, USA

- Spring 2021 ***Green Germany? Environment & Society from the Enlightenment to Fridays for Future***
WAYNE STATE UNIVERSITY, USA / LUDWIG-MAXIMILIANS-UNIVERSITY, MUNICH
together with Dr. Katrin Kleemann
- Spring 2020 ***Green Germany? Environment & Society from the Enlightenment to Fridays for Future***
WAYNE STATE UNIVERSITY, USA / LUDWIG-MAXIMILIANS-UNIVERSITY, MUNICH
together with Dr. Katrin Kleemann
- 2010 – 2015 **Student Assistant – Research & Teaching**
UNIVERSITY POTSDAM – HISTORICAL INSTITUTE

Grants & Fellowships

- German Research Foundation - DFG Sachbeihilfe – “Eigene Stelle” for the postdoc project: *Kulturen und Kosten der Wartung. Der Aufstieg von Kreosot und sein prekäres Erbe. [Cultures and Cost of Maintenance. The Rise of Creosote and its Precarious Legacy]*; duration 2021-2024 – 311.450 EUR.
- German Research Foundation - DFG Sachbeihilfe (applicant: Prof. Dr. Helmuth Trischler; project manager: Martin Meiske): *The Birth of Geoengineering. Large-scale Engineering Projects in the Early Stage of the Anthropocene (1850-1950)*; co-written application; after approval: project manager with comprehensive responsibility for management and realization; project completed on schedule & positively evaluated; duration 2016-2019 – 172.000 EUR.
- Doctoral Fellowship, German Historical Institute Washington DC, 4/2017 – 3200 EUR.
- RCC Travel Grant 2015 – 500 EUR.
- ESEH Travel Grant 2015 – 100 EUR.
- Funding for the Workshop *Jean Henri Samuel Formey – Wissensmultiplikator der Berliner Aufklärung*, Universität Potsdam 2013: Stiftung Preußische Seehandlung – 2000 EUR & Universität Potsdam, Phil.Fak., Kommission für Forschung & Nachwuchsförderung – 800 EUR.
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- Funding for a workshop aimed at a wider public, including international discussion panels, family and youth programme, visual arts & music under the title: *Greening the Balkans. The Fight for Environmental Justice in Southeastern Europe*, 10/2022; organized with Asmir Sabić; funded by the City of Munich - Kulturreferat & Referat für Klima- & Umweltschutz, balkaNet e.V., Mikado UMDieWELT - Aktion Mensch, Zukunft für Bosnien e.V. – 9.480 EUR.

Memberships

- Gesellschaft für Technikgeschichte (GTG)
Member of the Programme Committee (=member of the board) (since 2023)
Member of the Working Group “Technology & Environment” (since 2019)
- European Society for Environmental History (ESEH)
- International Committee for the History of Technology (ICOHTEC)
- Gesellschaft für die Geschichte der Wissenschaften, der Medizin und der Technik (GWMT)
- Interdisziplinäres Netzwerk für Stoffgeschichte

Working Languages

German, English, Serbo-Croatian, French