

Cartography and Geographic Information Society

PO Box 1449 Rolla, MO 65402 http://www.cartogis.org

March 11, 2023

Aileen Buckley, ICA National Delegate - USA Esri, Inc. 380 New York Street Redlands, CA 92373-8100

Thomas Schulz ICA Secretary General Federal Statistical Office FSO Dissemination and Publications Section DIAM CH-2010 Neuchâtel, Espace de l'Europe 10

Dear ICA Secretary-General:

As chair of the U.S. National Committee for the ICA, a standing committee of the Cartography and Geographic Information Society and the national organisation representing the United States for the ICA, I am pleased to submit this nomination for an ICA Commission on Map Design.

All the required documents are contained herein. Should you need any additional information, please feel free to contact me at abuckley@esri.com.

Respectfully,

AR Bring

Aileen Buckley, ICA National Delegate – USA



Member of the International Cartographic Association

# Nomination for Commission Chair Ian Muehlenhaus PhD, MSc, BA

Ian Muehlenhaus is an educator, researcher, and practitioner of map design with over 15 years of experience of teaching undergraduate and post-graduate students in cartography and map design.

As an academic teacher, Ian has taught courses on principles of cartography, persuasive map design, interactive geovisualization, web mapping, and graphic design for maps. As a researcher, Ian has published a book on web map design, as well as articles on persuasive map design, flow map design, and the geopolitics of NATO expansion.

Ian left the comforts of academia at a Big 10 university in the US to join Esri in January 2022. Esri has enveloped Ian the day-to-day processes of designing map-design software. As a Senior Product Engineer, Ian supports the development of ArcGIS Insights – an entirely drag-and-drop, code-free geovisualization platform. Ian is excited to participate in hands-on software iteration to help enhance and create more accessible, less exclusive thematic cartographic software for the masses. Ian's goal is to make thematic mapping software as ubiquitous and easy to use as reference map apps on cell phones.

Ian continues to support cartographic research and development outside of his role at Esri. He remains a proponent of open-source software and open data. Admittedly, though, he is no open-source zealot. He recognizes many of the most-useful mapping products in the world are produced for proprietary purposes.

Ian continues to teach map design workshops at regional and international conferences using all types of software. He continues to record educational tutorials on map design for his YouTube channel, and also helps promote mapmaking in K12 institutions throughout the United States through outreach.

Ian acts a champion for the layperson cartographer. His goal is to increase knowledge about map design in the public broadly, hoping to instill a sense of critique in every map user. Ian continues to give talks at international, national, and state-wide cartography and GIS conferences on map design, including in Spain, New Zealand, Minnesota, and at NACIS in 2022. Ian engages with cartographic organizations large and small, from the ICA itself to the New Zealand Cartographic Society.

Ian is eager to represent the United States in the ICA as Map Design Commission Chair for one more term. His first tenure was interrupted by a pandemic and a major job chance. A second term would serve as an honor, where he hopes to further expand the commissions reach and push the research agenda into new areas, such as thematic map design for novices, thematic mapping within the metaverse, and interactive geovisual analytics on the web.

Most importantly, Ian has the support of his supervisor at Esri to continue his work as Chair of the Commission on Map Design, which will include the necessary funds to support his duties – something he did not maintain while working at the University of Wisconsin – Madison during his first term.

Ian's experience, ongoing professional and academic collaborations, and position at Esri gives him unique insight and geographical position across the cartographic discipline. He would be honored to serve one more term as Commission Chair. Please see attached CV for more background information.

# Ian Muehlenhaus

## **PROFESSIONAL EXPERIENCE**

## **Senior Product Engineer**

#### ArcGIS Insights, Esri, Inc., Jan 2022 – present

I joined Esri, Inc., in January 2022 to begin working on visualization software daily. My role includes: designing and sharing interactive geovisualizations; using geovisual analytics to explore interlinked datasets for new information; and to help engineer and add new features and enhancements to make the software user friendly.

#### **Director of Program Development**

#### Division of Continuing Studies, University of Wisconsin – Madison, Jan 2020 – Jan 2022

Due to my success in building and managing professional GISc programs in Geography, I was recruited by Continuing Studies to plan and design and ecosystem of graduate professional programs across campus. I helped the School of Pharmacy develop the first Master's in Psychoactive Pharmaceuticals in the United States.

#### **Director of GIS Professional Programs, M.Sc. GIS Development** Department of Geography, University of Wisconsin–Madison, Jul 2015–Jan 2020

Helped build, direct, and manage a brand-new, online master's in GIS Development. I advised over 50 master's students, helped develop new course materials, and oversaw student recruitment and management. I also taught courses in the program.

#### Assistant Professor, Department of Science and Technology James Madison University, Aug 2014 – June 2015

Taught cartography and web GIS at this stellar undergraduate university. Emphasized web mapping, data visualization, and persuasive map design.

# Assistant Professor, Geography and Earth Sciences

#### University of Wisconsin – La Crosse, Aug 2011 – Aug 2014

Taught introductory and advanced cartography, including web and interactive map design. Also wrote received an NSF grant on flow maps in conjunction with my colleague, Bernhard Jenny at Oregon State, and wrote and published a textbook, Web Map Design.

#### **Faculty and GIS Lab Manager, Geography & Mapping Sciences** University of Wisconsin – River Falls, Aug 2008 – Aug 2011

Taught cartography and web GIS at this undergraduate university. Emphasized web mapping, data visualization, and persuasive map design. Also managed the hardware and software, as well as all large-scale printing requests, in the universities GIS and Cartography Lab.

## **DEGREES & FORMAL EDUCATION**

Ph.D. Geography, University of Minnesota, February 2010

Committee: Robert McMaster (Advisor), Roger Miller (Geography), Scott Freundschuh (Geography), Steven Rosenstone (Political Science)

M.Sc. Geography, The Pennsylvania State University (PSU), August 2002

Committee: Colin Flint (Advisor), Melissa Wright, Lorraine Dowler

B.A. International Studies & Geography, University of Minnesota Duluth, 1999

ian@muehlenhaus.com
 612-251-5124

## **TEACHING EXPERIENCE**

Interactive Cartography & Visualization UW-Madison

**Graphic Design for Cartography** UW-Madison

Internet GIS James Madison University

Advanced Cartography James Madison University

**Cartography and Spatial Visualization** James Madison University

Human Geography James Madison University

Web Mapping / Applied Map Design UW-La Crosse

Maps and Society UW-La Crosse

Fundamentals of Cartography UW-La Crosse

**Geopolitics in Film** UW-La Crosse

Geography of Europe UW-La Crosse

World Realms & Regions UW-La Crosse

Animated & Interactive Cartography UW-River Falls

Human Geography UW-River Falls

**Principles of Cartography** University of Minnesota

**Europe: A Geographic Perspective** University of Minnesota

Human Geography & Global Issues Macalester College

## Avenues of Further Investigation



linkedin.com/in/ianmule

youtube.com/ianmule

twitter.com/imuehlenhaus

ian@muehlenhaus.com

muehlenhaus.com

## PEER-REVIEWED JOURNAL ARTICLES

#### "Reorienting the Narrative: Chapin Jr.'s 'Red China' Map," International Journal of Cartography7(2): 171-177. (2021).

**"Design Principles for Origin-Destination Flow Maps,"** Bernhard Jenny, Daniel M. Stephen, **Ian Muehlenhaus,** Brooke E. Marston, Ritesh Sharma, Eugene Zhang, and Helen Jenny. *Cartography and Geographic Information Science (CaGIS)*. (2018).

B. Jenny, D.M. Stephen, I. Muehlenhaus, et al. (2017). "Force-Directed Layout of Origin-Destination Flow Maps," International Journal of GIS 31(8).

"Looking at the Big Picture: Adapting Film Theory to Examine Map Form, Meaning, and Aesthetic," *Cartographic Perspectives* 77: 45-65. (2014).

"Going Viral: The Look of Online Persuasive Maps," Cartographica, 49: 18-34. (2014).

**"The Design and Composition of Persuasive Maps,"** Cartography and Geographic Information Science (CaGIS, November, 40(5): 401-414. (2013).

"If Looks Could Kill: The Impact of Rhetorical Styles in Persuasive Geocommunication," *The Cartographic Journal*, 49(4): 361-375. (2012).

"Another Goode Method: How to Use Quantitative Content Analysis to Study Change in Thematic Map Design," *Cartographic Perspectives*, 69: 7-29. (2011).

"Genealogy that counts: Using Content Analysis to Explore the History of Persuasive Maps," *Cartographica*, 46(1): 28-40. (2011).

## **BOOK CHAPTERS, PROCEEDINGS & EDITED PUBS**

Guest Editor with Vit Vozenilek and Georg Gartner. Special Issue: "Geovisualization and Map Design," *ISPRS International Journal of Geo-Information*, (2022).

"Banal Cartography: A Critique of Quantitative Content Analysis in Cartographic Research," *Proceedings of the International Cartographic Conference*, International Cartographic Association, July, Tokyo, Japan, (2019).

"Internet Mapping." *The Routledge Handbook of Mapping and Cartography* (A. Kent and P. Vujakovic, Ed.). London and New York (2019): 375-387

Author of ~800-word K12 geography analysis essays. *World Geographies and Cultures*, Online Textbook," Ed. Julie Dunbar, ABC-CLIO . **BESSIE AWARD**, (2014).

"Four Rhetorical Styles of Persuasive Geocommunication: An Initial Taxonomy," **Proceedings of the International Cartographic Conference,** International Cartographic Association, August, Dresden, Germany. (2013).

"Beyond Biased: Exploring the Relationship between Map Design Style and Map Reader Persuasion," **Proceedings of AutoCarto, Cartography and Geographic Information Society,** September, Columbus, OH. (2012).

"How Technology Has Changed Perceptions of Human Geography," **Online Critical-Thinking Essay for ABC-CLIO Publishing,** Online Geography Textbook. (2011).

"From Print to Mobile mApps: How to Take Adobe Illustrator Files, Add Pinch-to-Zoom, and Place them on the Android Market," *Cartographic Perspectives*, 69: 55-66. (2011).

"Cartographic Symbolization and Visualization," in the *Manual of Geospatial Science and Technology, 2nd Edition* (J. Bossler, Ed.). CRC Press: 611-632. (2010).

"Shifting the Iron Curtain of Kantian Peace: NATO Expansion and the Magyars," in the *Geography of War and Peace* (Colin Flint, Ed.). **Oxford University Press,** 395-414. (2005).

I am the sole author/presenter except where noted.

## **BOOK PUBLICATIONS**

Web Cartography: Map Design for Interactive and Mobile Devices. (2014). Boca Raton, FL: CRC Press. 262 pages.

Geography Today: Concepts, Issues, and Technology (I. Muehlenhaus, Ed.). ABC-CLIO. Winner of the 2020 Choice Outstanding Academic Title Award.

## PUBLISHED BOOK REVIEWS

"The World at Their Fingertips: Eighteenth-Century British Double Hemisphere World Maps," by Geoff Armitage and Ashley Baynton-Williams. *Cartographic Perspectives*, 76: 81-83.

"Visualize This," by Nathan Yau. *Cartog-raphy and Geographic Information Society Journal*, 39(3): 170-2.

"GIS Cartography: A Guide to Effective Map Design," by Gretchen Peterson. *Cartographic Perspectives*, 70: 66-67.

"Designed Maps," by Cynthia Brewer, *Cartographic Perspectives*, 67: 75-77.

"American Empire: Roosevelt's Geographer and the Prelude to Globalization," by N. Smith. **Arab World Geographer**, 7 (3), 211-214.

"The Atlas of Cyberspace," by M. Dodge and R. Kitchin. *Annals of the Association of American Geographers*, 93(4), 946-947.

Geopolitics and Globalization in the Twentieth Century," by B. Blouet. **Political Geography,** 21, p. 955-957.

"Nested Identities," G. Herb and D. Kaplan, Ed. **Professional Geographer**,

## **SELECTED CONFERENCE PAPERS & PROFESSIONAL TALKS**

**"From Exclusive to Collaborative: Map Design for Everyone,"** Ian Muehlenhaus, Atlases in Time Conference, ICA Commissions on Atlases, Map Design, and Toponyms, National Geographic Institute, Madrid, Spain, April 2022

"Visualizing Maps at Numerous Scales: Review in Research and Practice," Guillaume Touya (IGN-Paris), Ian Muehlenhaus, Maieul Gruget (IGN-Paris), International Cartographic Conference (ICC), Florence, Italy, December 2021

**"Re-designing Online GIS Education: The UW-Madison Professional Master's Project,"** *Minnesota GIS/LIS Annual Conference,* IAN MUEHLENHAUS and I-Pang Fu, October 28, 2016

"Rethinking Online GIS Education: The UW-Madison Experience," ESRI Education Conference, San Diego, CA, June 2016

**"Personalized Learning in an Online Program: A Journey of Instructional Design, Assessment, and Educational Programming,"** *Teaching and Learning Symposium*, UW - Madison, I-Pang Fu, Kristi Gruely, and Ian Muehlenhaus, May 18, 2016

"Innovative Education: UW-Madison's Online Professional Master's in GIS," *Geospatial Summit*, UW-Madison, IAN MUEHLEN-HAUS and I-Pang Fu, April 2016

"Deconstructing and Testing Flow Map Design for Future Automation," Association of American GeographersAnnual Conference, Chicago, IL, April 21, 2015

"Adapting Theories of Form, Meaning, and Style for Map Design," North American Cartographic Information Society (NACIS) Annual Conference, Pittsburgh, PA, October 9, 2014

"And Action! Adapting Film Theory to Analyze Map Meaning and Narrative Form," AutoCarto Conference, Pittsburgh, 2014

"Crossing the Line: Adapting Film Theory to Analyze Map Narrative, Form, and Aesthetic," Association of American Geographers Annual Conference, Tampa, FL, April 2014

"Web Mapping 2.0: Cartographic Design for Web Maps," UW - La Crosse Faculty Research Day, UW - La Crosse, January 24, 2014

"Web Map Aesthetics for Effectual Communication," NACIS Annual Conference, Greenville, South Carolina, October 10, 2013

**"Four Rhetorical Styles of Persuasive Geocommunication: An Initial Taxonomy,"** International Cartographic Conference (ICC), International Cartographic Association (ICA), Dresden, Germany, August 29, 2013

"See What We Mean?" Measuring the Effectiveness of Different Map Rhetorical Styles for Persuasive Geocommunication, Association of American Geographers Annual Conference, Los Angeles, LA, Mary Windsor (student) and IAN MUEHLENHAUS, April 12, 2013

"The Impact of Rhetorical Design in Geocommunication, UW - La Crosse Faculty Research Day, UW - La Crosse, January 25, 2013

"Going Viral: The Evolution of Online Persuasive Maps," NACIS Annual Conference, Portland, Oregon, October 17, 2012

"Beyond Biased: The Impact of Persuasive Map Design on Viewers' Reactions to, and Trust in, Different Types of Spatial Data," *AutoCarto Conference*, Columbus, OH, September 17, 2012

"mApps: the Future of Cartography?" University Consortium of GIS Symposium (UCGIS), Washington, D.C., May 31, 2012

"'Some of These Maps Are Not Like the Others...' A Framework for Measuring How Design Impacts Map Reader Reactions to Spatial Data," Association of American Geographers Annual Conference, New York, February, 2012

"Reactions to Four Different Styles of Persuasive Maps," UW – La Crosse Faculty Research Day, UW – La Crosse, January 20, 2012

"mApp to the Future: Map Apps and the Future of Mapping," NACIS Annual Conference, Madison, Wisconsin, October, 2011

**"Mapping UFO Sighting Data: Pitfalls and Possibilities,"** NACIS Annual Conference, St. Petersburg, Florida, Mathew Dooley and Ian Muehlenhaus, October 2010

"Cartography That Counts: Identifying, Measuring, and Comparing Map Rhetoric," Association of American Geographers Annual Conference, Washington, D.C., 2010

"How They Lie with Maps: Classifying Political Cartographic Manipulations," AAG West Lakes Conference, St. Paul, Minnesota, 2009

"Staying Goode: Representation and Design in Goode's World Atlas (1923-2005)," Association of American Geographers Conference, Nevada, 2009

"The Geopolitics of GIS Diffusion," Association of American Geographers Conference, San Francisco, April 19, 2007

Note: all papers, talks, and publications were completed solely by me except where noted.

## **PROFESSIONAL WORKSHOP & EDUCATIONAL CONSULTING**

Workshop: "Map Design & the Modern Atlas," ICC Pre-Conference, Florence, Italy, 2021

Workshop: "How to Design Persuasive Maps," **Professional GIS Workshop**, Wisconsin Land Information Association Annual Conference, February 2017

Workshop: "Recruiting the Silent Funnel: Getting Professional Students in Seats," **Professional Degrees and Certificates Community of Practice,** June 6, 2016

Workshop: "Map Design for the Web and Mobile Devices," *ICC Pre-Conference*, Dresden, Germany, 2013

Online Workshop: "Creating Dynamic Content with Google Maps for Use in Your Classroom," *Center for Advancing Teaching & Learning*, UW-La Crosse, Sep 25, 2013

Consultant: "Art in American Communities Web Mapping Project," *National Endowment for the Arts (NEA),* D.C., 2011 - 2012

Lecturer: "Spatial Dynamics of Austria and Central Europe in the 21st Century," K12 Educators Geography Workshop (MAGE), Macalester College, MN, February 2009

Consultant: "My Wonderful World," National Geographic Society, 2008

Summer Faculty, "European Borders," National Geographic Society, D.C., 2008

Lecturer, Immigration in the New Europe, Institute of Global Studies, UMN, July 2006

## **INVITED LECTURES & KEYNOTE TALKS**

"Creative Destruction in Professional GIS Education," *Plenary Talk, Esri Education Conference,* San Diego, CA, 2017

"The Importance of Design in Visual Communication." *Digital Mapping for Social Good TechChange Lecture*, August 18, 2016

"Why Cartography Still Matters." Keynote Talk, WLIA Conference, February 11, 2016

"Maps as Visual Copy." **Pecha Kucha Banquet Talk**, North American Cartographic Information Society Annual Meeting, Minneapolis, Minnesota, October 16, 2015 https://www.youtube.com/watch?v=ZH6eNFfrqTU

"How I Learned to Stop Worrying and Love Persuasive Maps." Graduate Colloquium, Department of Geography, **Northern Illinois University**, September 26, 2014

"Back to the Drawing Board? Web Map Design in an Era of API Fetishism." Masters in GIS Career and Networking Fair, *University of Minnesota*, March 27, 2014

"Maps as Rhetorical Weapons (or: Persuading People to See It Your Way)." Yi-Fu Tuan Lecture Series, **University of Wisconsin – Madison,** March 7, 2014

"Map Design for Maximum Impact." Wisconsin Land Information Alliance Annual Conference, Madison, Wisconsin, February 13, 2014: **Best Presentation Award** 

"Effective Geocommunication in an Era of Data Overload." **NASA Goddard Space Flight Center,** Greenbelt, Maryland, March 13, 2013

"The Impact of Rhetorical Design in Geocommunication." CartoTalk Lecture Series, **Oregon State University,** October 22, 2012

"If Looks Could Kill: The Impact of Rhetorical Style on Map Interpretation." UW – River Falls Annual Geography Awards Banquet, April 21, 2012

"How to Argue with Maps: Four Rhetorical Styles of Cartographic Persuasion." Masters in GIS Career and Networking Fair, *University of Minnesota*, March 31, 2009

"Lost in Transformation: Nationalism in Post-Soviet Europe." *National Geographic Society*, Washington, D.C., July 14, 2008

#### **PANELS & SESSIONS**

Virtual Poster, **Reimagining the Profes**sional MBA with Digital Badges, UPCEA Regional Conference, October 2021

Panelist, *Careers in GIS*, Geospatial Summit, UW-Madison, April 2016

Panel Organizer: *What Skills Do Incoming GISers Need*? Wisconslin Land Information Association Meeting, Feb 2016

Panel Organizer and Chair, 2015, *Cartography in the Classroom: Pedagogy, Techniques, and Research on Teaching,* Association of American Geographers (AAG) Annual Conference, April 22

Panel Organizer and Chair, 2012, *Online Mapping*, Association of American Geographers (AAG) Annual Conference

Organizer and Chair, 2003, *Deterritorialized Geopolitics*. AAG Annual Conference. New Orleans, Louisiana, March 5

## **CONFERENCE POSTERS**

"Reinventing the Syllabus: From Boring Legal Document to Motivational Pedagogical Tool," UW-La Crosse Conference on Teaching and Learning, La Crosse, Wisconsin, January 21, 2014

**"Twentieth Century China Viewed from the West: A Carto-Historical Perspective,"** North American Cartographic Information Society (NACIS) Annual Conference, Portland, October 2012

**"The Impact of Cartographic Style on Map Likeability and Trustworthiness,"** AAG West Lakes Conference, DePaul University, Chicago, November 2011

"Mapping UFO Sighting Data: Beyond the Dot Map," AAG Annual Conference, Seattle, Washington, April 2011

## ACADEMIC GRANTS, FELLOWSHIPS & AWARDS

Chancellor's Office Development Grant, \$500,000, UW-Madison, 2018-2019

**National Science Foundation Grant, \$81,000,** Principal Investigator: Flow Maps for Movement Visualization: Digital Generation and Cognitive Evaluation, NSF Geography and Spatial Sciences Program August 1, 2014 – July 31, 2016

*Faculty Technology Grant*, Center for Instructional Technology, James Madison University, September 2014

Nominee for University Teaching Award, Provost's Office, UW-La Crosse, 2013 & 2014

International Development Fund Grant, \$3,250, UW-La Crosse, June 2013

GIS and Visualization Curriculum Redesign Grant, \$10,000, UW-La Crosse, 2013

Travel Grant, \$1,500, United States National Committee on Cartography, 2013

McColl Research Fellowship, \$3,300, **American Geographical Society Map Library**, University of Wisconsin - Milwaukee, May–June 2012

Faculty Research Grant, \$6,832, UW-La Crosse, 2012

Online Instructor Training Grant, \$1,000, UW-La Crosse, 2012

Carol A. Dobrunz Endowment Award, \$1,000, UW-La Crosse Alumni Foundation, 2012

Professional Development Grant, \$600-\$1000, UW-River Falls, 2009-2011

Graduate Research Partnership Program Grant, \$5000, UMN Graduate School, 2008

Zoltai Graduate Fellowship, \$6000, UMN Graduate School, 2005-2006

Summer Research Fellowship, \$3500, UMN Department of Geography, 2005

*Ralph Hall Brown Prize*, \$500, **Best Graduate Student Publication**, University of Minnesota, Department of Geography, 2005

*Matti E. Kaups Scholarship Award*, University of Minnesota – Duluth, Department of Geography, 2000

## FREELANCE, CONTRACT & CREATIVE WRITING WORK

Technical Writer 2, Express Writers, Feb 2021-present

I write blogs, epubs, and slidedeck copy for corporate clients about OTT streaming, AI use in contract negotiations, vehicle routing software, ANT theory, Salesforce, DXP, DevOpsSec, FinTech, route management software, and green energy systems.

Book Reviewer and Essay Writer, Book Browse, 2019-present

I review pre-release, highly anticipated books for a subscription-based book review site. I also write non-fiction essays concerning themes related to each book.

Recent titles reviewed include: Under a White Sky, We've All Been Harmonized, The Scientist and the Spy, Fundamentals, and Chasing Me to My Grave.

E-Learning Writer, Responsify, Feb 2021-present

I write SEO blog content for a global LMS company's website.

Screenplay Writer, Freelance, 2018-present

I write feature-length screenplays and pilot episodes. INothingt's a hobby.

AP Human Geography Writer, Wise Wire, May 2021 - Aug 2021

I wrote lessons and exam-prep questions for a new online Pearson Education AP Human Geography course.

## **PROFESSIONAL OUTREACH**

CHAIR, VICE-CHAIR, Commission on Map Design, International Cartographic Association, 2016–present

DIRECTOR, Cartography and Geographical Information Society Board, 2014–2017

EDITORIAL BOARD MEMBER Journal of Maps, 2012-present

EDITORIAL BOARD MEMBER Cartographic Perspectives Journal, 2010-present

COORDINATOR Cartography and Geographic Information Society Map Competition, 2011–15

VICE-CHAIR, CHAIR, PAST-CHAIR Cartography Specialty Group (CSG) of the AAG, 2011-2015

## **GLOBAL EXPERIENCES**

**Budapest, Hungary,** May – August 2005, Doctoral Field Work

**Pécs, Hungary,** 1997 – 1998, Janus Pannonius / Pecs University

**Miskolc, Hungary,** 1993 – 1994, High School American Field Service (AFS)

Beijing, China, 1991, #55 Middle School

## Ph.D. & M.Sc. Thesis Committees

M.Sc., Vanessa Wentzel (2015) M.Sc., Ross Thorn (2018) M.Sc. Chelsea Nestel (2017) M.Sc., Carl Sack (2015)

Ph.D., Carl Sack (2018)

Ph.D., Rich Donahue (2015)

Ph.D., Maieul Gruget, IGN (Current)

Select Professional M.Sc. Advisees

Dana Davidsen (SpaceX) Andrew Wiseman (Apple Maps) Albert Bautista (Facebook Labs) Cory Rahman (Booz Allen Hamilton) Todd Harrington (Esri) Randy Garcia (Esri)

## LIFELONG LEARNING & CREDENTIALED SPECIALIZATIONS

## **CERTIFICATES (Robust Assessment)**

Computer Vision – Object Detection with OpenCV and Python, Coursera, 2020 Python 3 Programming Specialization, 5 Courses, University of Michigan, 2020 Python for Everybody Specialization, 5 Courses, University of Michigan, 2020 Web Application Technologies and Django, 2/5 Courses, University of Michigan, 2020 Introduction to the Programming of Things, 4/5 Courses, UC - Irvine, 2020 Google IT Support Professional Certificate, 5 Courses, Google, 2020 Linux for Developers, Linux Foundation, 2020

## OTHER CERTIFICATES/CEUs (Participation/Simple Assessments)

Intro to Quantum Computing, UChicagoX, 2021 Bash Scripting, LinkedIn Learning, 2020 Unix for Mac OS X Users, LinkedIn Learning, 2020 Video Script Writing, LinkedIn Learning, 2019 Content Marketing: Social Media, LinkedIn Learning, 2019 Writing Ad Copy, LinkedIn Learning, 2019 Persuasive Coaching, LinkedIn Learning, 2019 Persuasive Selling, LinkedIn Learning, 2019

## **TECHNOLOGY SKILLSETS**

#### **Geographic Information Systems**

ArcMap Global Mapper ArcGIS Pro QGIS ArcEnterprise (essential)

## **OS, Server & Cloud Administration**

Debian Linux Ubuntu Server Unix/MacOS PowerShell Azure Cloud

#### **Professional & Web Publishing**

Markdown FinalDraft WordPress Adobe InDesign Django

# Geovisualization & Cartography

Carto MAPublisher Leaflet Mapbox Illustrator Photoshop Natural Scene Designer Geolmager D3

## Scripting & Databases

Python 3 JavaScript HTML5/CSS3 SQL Php Java MongoDB ActionScript (RIP;-)

## **INSTRUCTIONAL TRAINING**

#### Teach Online @ UW-Madison (2016)

- Planning & Design Course (Fall Sem)
- Facilitation and Management (Spr Sem)

University of Wisconsin Faculty College, Conducting Research on Teaching and Learning, University of Wisconsin – Richland Center, May 28-31, 2013

**Online Instructor Training Course,** UW–La Crosse, May 16-June 24, 2012

## LANGUAGE TRAINING

Intermediate-Advanced **Certification in Hungarian**, Debrecen University, 2005

German 1001 & 1002, University of Minnesota, 2004

**Level B Hungarian Certification**, European Consortium on Languages, 1998

## VOLUNTEERING

McFarland Education Foundation, Board Member, 2019-2020

#### **Statistics & Methods**

Qualtrics SPSS Atlas/T.I. NumbPy R

#### Instructional & Learning Design

Articulate Rise Canvas | D2L | Moodle TechSmith Camtasia Articulate Storyline Adobe Captivate

## Project Management & Marketing

Excel Budgeting SmartSheet Asana SEO Salesforce

# Achievements of the Commission on Map Design

The International Cartographic Association (ICA) Commission on Map Design is designed to foster discussion, exchange of ideas and the development and spread of the principles and practice of high quality, effective cartographic and infographic design. The terms of reference for the period 2019-2023 were:

- To promote map design principles and expertise via our website;
- To organize sessions at ICA conferences in 2021 and 2023 focused on map design;
- To produce a podcast on map design;
- To collaborate with colleagues in other ICA Commissions as appropriate in complementary areas of interest.

Admittedly, we did not meet our own expectations in all areas. Much of this was due to the pandemic. However, we did achieve the following goals:

- Kenneth Field, Vice-Chair of the commission, published a new book: <u>Thematic Mapping: 101</u> <u>Inspiring Ways to Visualize Empirical Data</u>. The book promotes and teaches cartographic design while mapping data that can be interpreted from more than one perspective.
- The Map Design Commission helped solicit and review abstracts for a tri-commission Atlases in Time conference hosted by the National Geographic Institute of Spain in Madrid in April 2022. The conference brought together papers from the commissions on atlases, toponyms, and map design, with an emphasis on the Iberian Peninsula and/or atlases.
- Ian Muehlenhaus advised several master's in cartography students at the University of Wisconsin

   Madison.
- Ian Muehlenhaus is actively collaborating with Guillaume Toya from the Commission on Map Generalization on the *Lost in Zoom* research project.
- Ian Muehlenhaus is co-advising French IGN Ph.D. student Maieul Gruget.
- Ian Muehlenhaus published a paper in the International Journal of Cartography.
- Commission members taught numerous workshops on Map Design and Presentation of Geovisual Analytics at different regional conferences, including Minnesota GIS/LIS and the Wisconsin Land Information Association.
- Vice-Chair gave numerous keynote talks, including at EuroCart in Vienna (2022) and GeoCart (in New Zealand, 2022).
- A two-day workshop on geovisual analytics was run at GeoCart in August 2022.

#### **VICE CHAIRS**

Dr Kenneth Field (United Kingdom, ESRI) is the former, two-term Chair of the Map Design Commission and remains very active in many of the Commission's activities. He has accepted his nomination for another term as Vice Chair. Dr Field and the Chair, Dr Muehlenhaus, work well together.

#### TERMS OF REFERENCE FOR 2023-2027

The terms of reference for the period 2023-2027 will be to:

- Reengage our users with brand-new content on our website and on social media;
- Draft several major essays and guiding principles on map design for the blog and to be downloaded as technical papers;
- Author a new book publication and e-learning resource on map design for geovisual analytics;
- Organize sessions at ICA conferences focused on map design theory and practice;
- Organize, sponsor or co-host Commission meetings either independent of, or in conjunction with, other cartographic events to promote map design discourse and practice; and
- Collaborate with colleagues in other ICA Commissions as appropriate.

# Declaration of Willingness to Serve

I, Ian Muehlenhaus, am willing to serve as Chair of the Commission on Map Design of the International Cartographic Association from 2023-2027.

Jon Müh

Ian Muehlenhaus 30 January 2023

# **Commission Board Contact Information**

## Ian Muehlenhaus, Nominated Chair

imuehlenhaus@esri.com Cell: +1-612-251-5124 https://linkedin.com/in/ianmule

Kenneth Field, Nominated Vice-Chair KField@esri.com