PROMOTION RECOMMENDATION The University of Michigan School for Environment and Sustainability

Mark Lindquist, assistant professor of landscape architecture, School for Environment and Sustainability, is recommended for promotion to associate professor of landscape architecture, with tenure, School for Environment and Sustainability.

Academic	Degree	<u>s:</u>
PhD	2014	University of Sheffield (UK), Landscape Architecture
MLA	2002	University of Toronto, Landscape Architecture
BEnvD	1998	University of Manitoba, Environmental Design
Profession	nal Reco	<u>rd:</u>
2015 – present		Director, Program in the Environment
2015 -present		Assistant Professor of Landscape Architecture
		School for Environment and Sustainability, University of Michigan, USA
2013-2015		Assistant Professor of Landscape Architecture, Faculty of Environmental Design,
		University of Calgary, Canada
2010-2013		Harry Worthington Research Scholar, Department of Landscape, University of
		Sheffield, UK
2007-2010		Program Director, Assistant Professor, Landscape Architecture Landscape
		Architecture Program, North Dakota State University, USA
2005-2007		Senior Lecturer in Landscape Architecture, School of Design, Victoria University
		of Wellington, New Zealand
2003-2005		Senior Lecturer in Architecture & Landscape, Director of Digital Media
		School of Architecture and Landscape Architecture, Kingston University, UK
2000-2003		Research Associate, Landscape Architecture, Centre for Landscape Research,
		University of Toronto, Canada
1998-199	9	Research Assistant, Ecological Restoration, The Veins of Life Watershed
		Society, Canada

Summary of Evaluation:

<u>Teaching:</u> Professor Lindquist's teaching emphasizes: 1) student-led learning and exploration of their own design ideas to which he adds guidance through critical discussion, customized feedback, group lectures and recommendation of readings and other supporting materials; and 2) the need to increase SEAS landscape architecture students' fluency and literacy on digital media, such as 3D modeling and design software that better prepare them to engage with in their day to day and professional lives and to better design, communicate and implement their ideas. He collaborates with other LA faculty to include digital methods in their own classes when appropriate, and created a series of dedicated activities including volunteer evening sections and a new course to improve LA's students' fluency. He has also worked with SEAS leadership to introduce new digital facilities for the landscape architecture studios that improved teaching and learning. Overall improved digital skills benefitted LA students and faculty, and increased LA's students' ability to join SEAS and UM courses at the frontier of digital media, big data and visualization that require a solid foundation in this area.

Professor Lindquist has sought to continuously improve classes to respond to student feedback. Professor Lindquist's evaluations scores for Q1 and Q2 have improved through time, and his new class offerings have attracted many students from other units. Students' evaluations have significantly improved through time, as students' digital education and skills improved overall, partly because of Professor Lindquist's approach and effort to enhance digital education at the SEAS.

Professor Lindquist has actively mentored graduate and undergraduate students since coming to SEAS. He has advised four MSc. projects, four MSc. theses (plus two at Aalto University, Finland) and currently advises two PhD students; his two previous PhD students have found academic jobs as assistant professors. Under his mentorship, his students have been awarded numerous research and educational grants. He has also successfully encouraged peer to peer mentoring among his students of all levels (from PhD, MSc. and undergraduate students via the Doris Duke Conservation scholars' program or the UM Undergraduate Research Opportunity Program) and has been involved in mentoring and advising undergraduate student projects through the University of Michigan-Dearborn computer science program and their video-game focused Senior Design course. His MLA students have found jobs in top design firms, NGOs, or state and local government. MSc. projects that he has advised at SEAS have worked Detroit's vacant land, alleys, evaluation of the Chicago Riverwalk and a proposed sustainable development for the Green Bay Packers stadium complex.

<u>Research</u>: Since joining SEAS in 2015, Professor Lindquist has created a solid research program; his productivity and impact have been in an upward trend, both in terms of number of publications in high impact journals in his field and of awarded grants. Professor Lindquist applies both qualitative and quantitative research methods and software creation to conduct empirical research that advances the practice of designing, planning, and managing land. His research questions seek to provide the evidence base to support the innovative design and implementation of environments that maximize performance, ecologically, socially, and culturally for more sustainable outcomes.

Since 2015, Professor Lindquist has published fourteen peer-reviewed articles, the most significant of these articles have been in *Landscape and Urban Planning*, one of the most highly respected and cited journals in the field of planning and landscape architecture. A forthcoming article will be published in 2022 in a special issue of *Urban Planning* focused on gaming, simulations and planning, a state-of-the-art research focus in Landscape Architecture. Google scholar notes 257 citations overall with h-index=7 and i10-index=6. Since 2016, he has had 209 citations. Professor Lindquist's ranking on Google Scholar demonstrates his growing reputation in the field of landscape architecture. What these rankings suggest overall is that Professor Lindquist is carving out a distinct niche for his research as a landscape architect, and his work is being increasingly recognized by others. With his current research funding and initiatives underway, we fully expect his reputation as a researcher to continue to grow.

In addition to his peer-reviewed publications, Professor Lindquist has had one book chapter published and has made presentations at nine different conferences and symposia, given four invited lectures including a special section at the US-IALE. Professor Lindquist's proposal writing, and awards have been in a strong positive trend since he joined SEAS in 2015 both in terms of total amount (close to US\$ 900K) and in terms of diversity of funding sources. One important aspect of Professor Lindquist grantmaking is his ability to leverage resources from different sources to design research projects that seamlessly integrate state of the art research questions and methods, engagement with under-served communities and teaching and mentoring of students. In 2020, Professor Lindquist was awarded his first federally sponsored external grant – a NSF Eager (Early Concept Grants for Exploratory Research); these are competitive NSF grants geared towards funding

pilot studies of innovative and forward-looking ideas. His research has also been funded by a diversity of UM/SEAS internal grants. Commendably he has been able to leverage external and internal grants for research, teaching and engagement to build a synergistic and integrated thematic research program that seeks to both advance science and have an impact on the ground.

Recent and Significant Publications:

- Lindquist, M. & Campbell-Arvai, V. (2021) Co-designing vacant lots using interactive 3D visualization Development and application of the Land.Info DSS. *Landscape and Urban Planning*, 210, 104082.
- Lindquist, M., Maxim, B., Proctor, J., and Dolins, F. (2020) The effect of audio fidelity and virtual reality on perception of virtual greenspace. *Landscape & Urban Planning*, 202, 103884.
- Lindquist, M., Lange, E., & Kang, J. (2016) From 3D landscape visualization to environmental simulation. *Landscape & Urban Planning* 148, 216-231.
- Phillips, D., & Lindquist, M. (2021). Informal diffusion of Green Infrastructure innovations in Indian Megacities: Perspectives from innovators and potential future adopters. *Urban Water Journal*, (Special issue on Urban Water management in Developing Countries).
- Campbell-Arvai, V., & Lindquist, M. (2021). From the ground up: Using structured community engagement to identify objectives for urban green infrastructure planning. *Urban Forestry & Urban Greening*, 59, 127013.
- Lindquist, M., & Galpern, P. (2016). Crowdsourcing (in)Voluntary Citizen Geospatial Data from Google Android Smartphones. *Journal of Digital Landscape Architecture*, 1(1), 263–272

<u>Service:</u> Professor Lindquist's service to SEAS, UM and the profession is commensurate with his rank. He has consistent service as member of search and advisory committees at SEAS. In service to his professional community, he has acted as peer reviewer to the top journals of his field, conference submissions, and funding proposals. He also organized and facilitated judging for the Michigan ASLA student awards. Professor Lindquist has been actively engaging with communities and the public both through his research and through public workshops, community service and design charrettes.

External Reviewers:

Reviewer A: "In terms of scholarly productivity, I will rank him in the top 20% of associate level professors nationwide. Within less than 6 years at the University of Michigan, Professor Lindquist has produced a very extensive record of research and publication, grant generation, teaching excellence, and scholarly-service to the community"

Reviewer B: "Dr. Lindquist's body of research indicates the establishment of a successful research agenda, and Dr. Lindquist has been able to support his research through an impressive amount of funding that far exceeds the national average for successfully tenured landscape architecture faculty... I find his research to be compelling and a valuable contribution to the overall progress being made in this area."

Reviewer C: "His transdisciplinary action research provides a real-world laboratory to test the innovations above in the public arena... I believe Mark Lindquist is a productive scholar who is making an impact with his work. He has excellent funding support. He steadily publishes in high quality journals and his numbers of publications is very good for our discipline."

Reviewer D: "...[Professor Lindquist's] publication record has a nice upwards trajectory... His recent publications in the important journals in the field of landscape research shows that he is able to

work at a high scientific level and his work has already been cited by important other peers... What is interesting to see is that he is already publishing in multiple intellectual communities, which reflects his broad field of research. His research topic, however, is well focused around green infrastructure and decision-making, which does not make him a generalist, but allows him to deepen into this interface using various developments in 3D acoustic-visualizations."

Reviewer G: "Mark's record shows that he's a collaborator—an attribute that our discipline broadly promotes and cherishes. And it's great to see that he's allied with some venerable names in the field... I would estimate the candidate's standing in relation to others in his peer group in the same field as very strong. Over the past decade or so I've externally reviewed some 15 to 20 candidates for tenure and promotion to Associate level, and Mark's record easily falls into the top tier of candidates (3-4 total)."

<u>Summary of Recommendation:</u> Professor Lindquist has a strong record of scholarly achievement both in terms of quality and quantity of publications and ability to secure internal and external grants to support his research. His focus on the role of sound and visualization in landscape research is path breaking; his work with communities, co-creation of decision support tools and software is at the forefront of transdisciplinary research. Professor Lindquist has a solid record of teaching and mentoring, often going beyond what is expected to better train SEAS landscape architecture students on state-of-the-art techniques and design trends. I strongly support the promotion of Mark Lindquist for promotion to associate professor of landscape architecture, with tenure, School for Environment and Sustainability.

Jonathan T.**J**Overpeck Samuel A. Graham Dean School for Environment and Sustainability

May 2022