IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Workshop on
Developing a Convergence Sustainable Urban Systems (SUS) Agenda for Redesigning the Urban-Rural Interface (RURI) along the Mississippi River Watershed
Iowa State University, Ames, Iowa
August 12-13, 2019

With funding from the National Science Foundation, a research group at Iowa State University will lead a workshop that aims to bring together a diverse group of participants from academia, government, non-governmental organizations and industry to explore the Mississippi River Watershed (MRW) region as *a large interconnected urban and ecological system*. The SUS-RURI workshop will be held in Ames, Iowa on Monday, August 12 and Tuesday, August 13.

This workshop will be hosted by academics from architecture and urban ecology, together with a multidisciplinary organizing committee, and will address challenges related to the breadth and depth of the Sustainable Urban Systems (SUS) nexus. The workshop will provide a venue in which *experts and stakeholders closely connected to the design and re-design of urban and urban-adjacent communities* can engage in conversation and debate with scientists. Particular attention will be given to medium-sized cities (≤ 500K inhabitants) within the MRW, together with their satellite communities and adjacent rural/agricultural areas. The workshop panels and interactive sessions will address three scales: micro, meso and macro, and thus offer the opportunity for cross-disciplinary discussions.

The workshop will include academics, professionals (architects, planners, local government professionals, and engineers), and stakeholders from an array of disciplines in the sciences, arts and humanities, as well as from within the communities located along the MRW. We herewith solicit contributions for innovative, transformative approaches and solutions to the challenges of the urban-rural interface that will support development of more resilient and sustainable urban systems.

With a goal of developing future research networks and collaborative projects, the workshop will:

- bring design and planning professionals into the center of the convergence agenda and into dialogue with scientists, engineers, industry and municipal professionals and other stakeholders;
- improve the visibility of research related to the SUS agenda led by practitioners in the fields of architecture, urban planning, and related disciplines in built environment studies;
- demonstrate the importance of physical infrastructure and spatial planning in the long-term sustainability of all cities and their urban-adjacent boundary areas, especially in cities where economic changes have left urban infrastructure systems underused and poorly maintained; and
- initiate future research collaborations that integrate the body of knowledge about climate, agriculture, and ecology, with expertise about the design and governance of cities.

Attendees will include invited participants as well as a range of academics and city/community stakeholders. The latter will be selected based upon Position Statements (described below) and the potential benefits to the event of broad representation across the stakeholder groups. Selected participants may be offered a stipend to offset travel and lodging expenses. Position Statements

with multiple authors are welcome, especially those representing a multidisciplinary, collaborative team. For team submissions, invitations and travel support may be limited based on space and available funds.

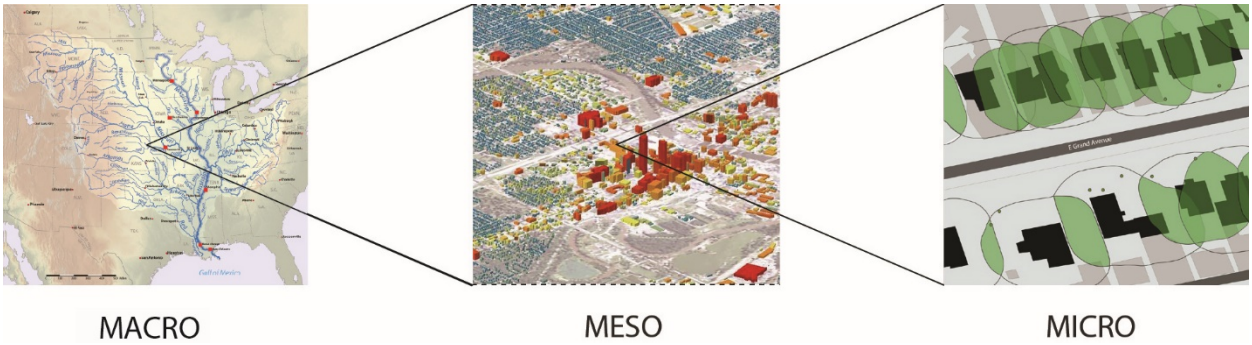

Fig. 1: Scales of Organization

The four panels on the first day will be organized around distinct land-use scales (Fig. 1) to *enhance transdisciplinary discussion*. At the *micro* scale, we will address building-scale research questions such as those related to urban microclimate and human-built environment interactions. At the *meso* scale, we will address multi-system challenges such as those related to ecology from the neighborhood to the community scale and the integration of infrastructural, hydrological, and food systems. At the *macro* scale, we will consider the overall watershed and relationships between urban communities, the urban-rural gradient, and regional responses to climate change. A fourth panel will address boundaries and concepts across these scales. Throughout the workshop, participants will be asked to consider connections between urban and rural communities and the adjacent lands along the entire MRW. The second day will be devoted to interactive sessions and discussions that follow from the panel presentations.

Position Statement: To be considered for participation, please submit a 2-page Position Statement (approx. 1,000 words, with 1-inch margins, 11-pt font or larger) that is responsive to the goals of the workshop. Position Statements should convey your prior experience and/or future plans for collaborations among partners that may include academics, community professionals (e.g. architects, planners, sustainability experts), and non-governmental organizations, and should integrate a social-ecological-infrastructural approach. Statements should further identify the dimensions of successful previous or planned partnerships, and their applicability to the three scales under consideration. Position statements must be submitted by June 1, 2019. Prior NSF support is not required in order to submit a Position Statement. Early-stage researchers and individuals from underrepresented groups are encouraged to submit.

In developing a Position Statement, please consider one or more of the following questions:

1. How may future collaborative efforts to design and redesign sustainable urban-rural interfaces within the Mississippi River Watershed be informed by transdisciplinary approaches, such as those used by social, natural, and data scientists, architects, planners, engineers, and industry and community professionals?

2. How might you situate your work and the interests of your discipline within the climatic/ecological scales of *micro*, *meso* and *macro* (which could also be described as the scales of neighborhood, city, and region), and how does your work help to define the boundaries of these scales and their interactions within the watershed?

3. How can coordinated Sustainable Urban Systems (SUS) research in the Mississippi River Watershed contribute to ongoing and increasingly urgent efforts to address large-scale, multi-state, multi-system problems such as flooding, nutrient runoff, erosion, urban heat island effects, and urban sprawl?

Selection and Participation: We seek a diverse group of participants with unique perspectives and experiences that will benefit the workshop discussions. Final selections will be based on the overall quality of the proposal and the following criteria:

- Relevance to the overall theme and panels as described.
- Evidence of collaborative and/or multidisciplinary approaches to research questions and/or creative work.
- Capacity to catalyze research that is inclusive of the biophysical sciences, design, arts, engineering, as well as data and computational sciences.
- Innovative and/or creative approaches to transdisciplinarity and integrated SUS methodologies.
- Geographic diversity along the MRW.

Academic participants will be encouraged to bring posters highlighting examples of innovative research completed with graduate students on topics related to the workshop themes. One of the breakout sessions on the second day will address transdisciplinary SUS science for graduate education and how to improve collaboration across disciplines.

Submission of a position paper indicates that, if selected to participate, the author agrees to:

- Prepare an oral presentation (with images if appropriate) of about 20 minutes.
- Submit an extended Position Statement of up to 3,000 words no later than August 30, 2019 to be included in the workshop proceedings.

Planned dissemination: Immediately following the event, discussion transcripts, panel outcomes, and breakout session statements will be collected and edited by the organizing committee. Participants will be asked to edit and resubmit their extended Position Statements for publication by August 30, 2019. The PIs will collect, review, and organize the texts, along with supplemental materials from the event sessions, and publish the complete results as a Proceedings with the Iowa State University Digital Press (anticipated September 2019). The ISU Digital Press is part of the ISU Digital Repository and is Iowa State's open access, full-text institutional repository. Once published, the conference proceedings will be shared with all participants and through the research and institutional networks of the organizing committee members.

To guarantee full consideration, please submit your position statement by June 1, 2019 at 8:00PM (CDT). Please send your Position Statement via the google form link here (you will be asked to login to upload your submission): https://forms.gle/aKsz447tbn3icQaC9.

For more information, please contact Ulrike Passe at upasse@iastate.edu.

This event is supported by the National Science Foundation, Award #1929601.
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