

SAT-B09: **Transdisciplinary Influence in the Anthropocene**

A leadership framework for landscape architects

Saturday, October 20, 2018: 2:30-4pm

Welcome to the Anthropocene, a time of accelerated global change marked by human impact. Experts share how a solid understanding of this epoch's complexities can propel landscape architects to be thought-leaders and change-makers resulting in greater community resiliency. Gain insight about infusing this understanding into successful practice and advocacy efforts.

Learning Objectives:

- Understand the new epoch, what marks the change, and its impact on our future.
- Discuss how we are poised to lead interdisciplinary teams with positive approaches to adaptation.
- Consider where we need to grow/adapt as professionals to better serve changing communities.
- Examine a new leadership framework that positively impacts all three pillars of sustainability.



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**Annual Meeting
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Biographies

Panelists



Bruce Hull

Senior Fellow

Center for Leadership in Global Sustainability, Virginia Tech

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Writes and teaches about leadership for sustainable development in the Anthropocene. He is a Senior Fellow at Virginia Tech's Center for Leadership in Global Sustainability based in the Washington DC area, which provides graduate education, executive, and professional development opportunities for sustainability professionals. He is President of the Board of Climate Solutions University, whose mission is to help communities adapt to climate change. He also serves on the advisory council for VT's Global Change Center. He has authored and edited numerous publications, including two books, *Infinite Nature* and *Restoring Nature*.



Vaughn Rinner, FASLA

Immediate Past President

American Society of Landscape Architects

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Vaughn Rinner, FASLA is Immediate Past President of the American Society of Landscape Architects. She has over forty years of private practice experience in both small landscape architectural firms and as a partner in interdisciplinary firms. Vaughn has been involved for several years in planning for sea level rise in the Hampton Roads area, and has spoken widely about the importance of landscape architecture in addressing climate change impacts. She served as Chair for the interdisciplinary Blue Ribbon Panel on Climate Change and Resilience hosted by the ASLA.



Dwane Jones

Director of the Center for Sustainable Development + Resilience

University of the District of Columbia

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Dwane Jones, Ph.D., is the Director of the Center for Sustainable Development+ Resilience, Co-Director of the Center for Architectural Innovation & Building Science, Program Coordinator for Master's Degree in Urban Sustainability, and Program Support for B.A. in Urban Sustainability. He is also a researcher and teaches courses in Urban Sustainability, Urban Design, Urban Planning Public Policy and Health, Research and Ethics and Low Impact Development. His research interests include environment & behavior, complete streets, active transportation, public health, and social interaction in public spaces. Dr. Jones received his Ph.D. in Urban Design from North Carolina State University.

Moderator



Abbi Huntzinger, ASLA

Senior Program Officer

Chesapeake Bay Trust

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After a rewarding 10 years in private practice as a landscape architect, Abbi turned her sites on a career that focuses on environmental restoration. She manages several restoration programs, combining her knowledge of restorative landscapes with an ability to build teams and partnerships to leverage resources in order to protect waterways within the Chesapeake Bay watershed. From wetlands to reforestation projects, she values the triple bottom line returns found in restoration and conservation practices and is continually looking for ways to reverse negative impacts on the environment. She received her Master's in Natural Resources from Virginia Tech in 2017.

Anthropocene 101

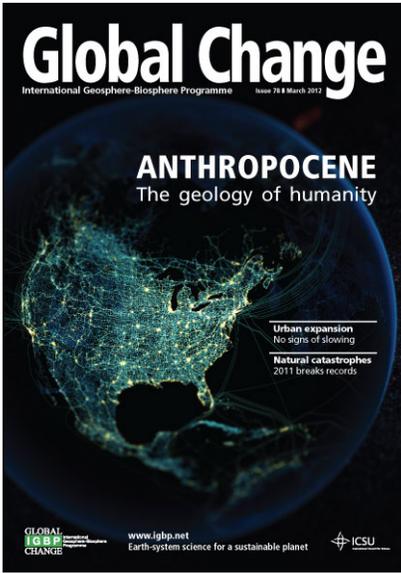


Figure 1: Global Change Magazine No. 78 (cover)

It is the best of times. It is the worst of times. It is the Anthropocene. We can see the faint outlines of a development pathway leading to a future, just 50 to 100 years near, when human population growth has stabilized and most people are prosperous, well-fed, technologically advanced, materially comfortable, and living on an ecologically healthy planet. But rising challenges also loom on the horizon, any one of which can derail development and produce catastrophic harm: urbanization, food, water, climate/energy, population, linear economy, inequality, fake news, threats to expertise, artificial intelligence, GMOs, and more. Humanity must cautiously navigate through this narrowing bottleneck of challenges as billions of consumers join the global middle class, rapidly accelerating economic development and transforming the biosphere

For most of our time on earth, humans lived hunter-gatherer lifestyles not too different than our great ape evolutionary cousins, except for modest developments in art, tools, and culture. That changed during the last 12,000 years, a unique period of time that geologists call the Holocene. The Holocene's nurturing environmental conditions provided an incubation period for modern human civilization: agriculture, cities, writing, modern nation-states, capitalism, democracy, corporations, fossil fuels, and the industrial revolution.

The stable and nurturing Holocene is ending, replaced by the Anthropocene, a time of accelerating change and uncertainty. The trends are stark and startling. Starting around 1950, just about every social and environmental impact arcs upwards. And the acceleration looks likely to continue. Its key drivers show no signs of slowing: rising prosperity, connectivity, and technology.

If we are to sustain development and make it to a prosperous, ecologically healthy future, then we must navigate our accelerating development trajectory through a narrowing bottleneck of interrelated challenges. To do so we need new tools and strategies for problem solving. Business as usual is ineffective and unsustainable. Professions such as landscape architecture must adapt. We need to:

- Coordinate responsibility and action when actors are globally distributed, will neither meet nor know one another, and when no one has authority over others.
- Collaborate across enormous differences of identity, culture, profession, discipline, sector, and other boundaries and barriers that divide and differentiate stakeholders.
- Adapt to immense and intimidating uncertainty that characterizes the Anthropocene and possess the persistence and courage to learn by doing in the face of repeated failure.

In response to the Anthropocene's new and changing conditions, markets are revolutionizing. The ground is shifting under our feet. Some predictions suggest that market changes will generate 10 to 20 trillion dollars over the next few decades and include green investment, supply chain risk management, and a more circular economy. Governance (in contrast to government) is also changing. New institutions are emerging in the cross-sector space where government, business, and civil society collaborate. Some governments are increasingly ineffective, especially nations and states. The exception is cities. Cities may be the most motivated, most informed, and most engaged government actors of the early Anthropocene. Professionals aware of these changes and equipped with tools and thinking designed for the Anthropocene will have greater relevance and influence.

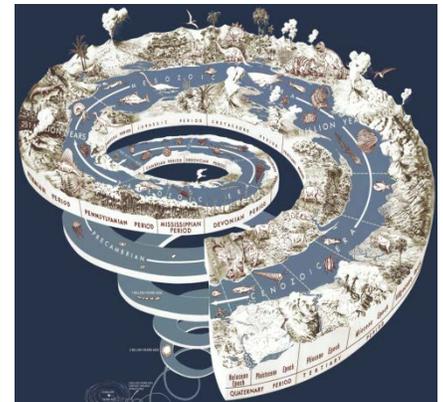


Figure 2: Image via Wikipedia (https://en.wikipedia.org/wiki/Geologic_time_scale)

Notes/Questions:

The Practice of Landscape Architecture in the Anthropocene

Landscape architects specialize in change

Landscape architecture is a unique profession. We specialize in change, in making connections, in collaborating. Our projects require analysis to understand not only a multitude of current conditions, but conditions of the past that affect the present and the future. We also design and plan for future change, knowing that nothing we create, whether hardscape or plantings, will remain unchanged. Our process is fluid and dynamic.

The accelerated change of the Anthropocene era requires us to think of change in a different way, to imagine and try to anticipate a future that goes beyond how large and dense a tree will be in ten, twenty years, but how the tree will respond to a warmer, sometimes drier, sometimes wetter environment, to fluctuations in humidity, to extreme weather events. We need to constantly work to be informed about projections of the future at this time when the projections themselves keep changing.

We live on a planet where humans have changed and will continue to change everything, and we need to understand that we bear the responsibility to direct that change in a way that continues to support healthy human populations. We need to think of every one of our projects, large and small, in terms of their ecosystem services, the contributions they make and benefits they provide to our collective human community. And we need to think of these systems not only in their present, whether built now or planned for the future, but how these created places will adapt to changing conditions over time, including changes in how they are managed.



Figure 3: Green Stormwater Infrastructure in Seattle: Implementation Strategy 2015-2020 (cover)



Figure 4: by V. Rinner

Landscape architects connect and collaborate

The analysis, this self-education, followed by the process of planning, programming and design for the use of a site, a community, a region requires an understanding of the complex connections within the existing and created systems. This requires the contributions of people from various specialties working together to account for physical, cultural, economic, technological, management and many other factors, all focused on the specific local conditions and issues. The landscape architect's broad general understanding of the relationships of these multiple aspects of a project is essential for incorporating information, bringing a team to creative solutions – solutions that will provide and maintain a dynamic, resilient environmental balance on the globe.

Landscape architects lead

We are team leaders by virtue of our training and skills, bringing an ethics of stewardship and equity to our work. This is a time of great challenge, but also great opportunity for the profession. The future is on us.

Notes/Questions:

A New Framework for Practice and Advocacy

Think back 20 years to 1998. Are you physically the same as you were then? Are you mentally or intellectually the same? Is the community you lived in at the time the same? Probably not.

This same dynamic applies to the world at large. We now live in an urban world; a world in which we can communicate with someone in another country with the click of a button, where information travels at an unprecedented rate, and where it takes less than 6 years for the US Patent and Trademark Office to record one million patents when it once took 120 years to reach the same number.

To appropriately and effectively respond to the rate and nature of change in the world, Landscape Architects will need to be more transdisciplinary in approach, community-centered, data + impact-driven, and to leverage stronger partnerships. The University of the District of Columbia's (UDC) College of Agriculture, Urban Sustainability, and Environmental Sciences (CAUSES), an urban and land-grant institution in the nation's capital, has embraced these challenges to develop a world-class College that embodies applied research, community impacts, and delivery of new models for translating impacts into the public realm.

This presentation will highlight some of these new models, case studies, and lessons learned, that can be replicated in other urban, semi-urban, or rural environments. The presenter has provided technical assistance in over 15 states and 3 countries in the past year alone using the same models shared in the session.



Figure 5: from University of District of Columbia

Additional information about Dr. Dwane Jones:

Dwane Jones is the Director of the Center for Sustainable Development + Resilience at the University of the District of Columbia— an urban, land-grant, public institution in Washington, DC.

Dwane helps develop vision, conducts research, teaches courses, and launches new programs in urban sustainability, innovation, and resilience in the District. He has degrees in Urban Planning, Environmental Planning, and Urban Design.

Notes/Questions:

A Moderated Discussion

Abbi Huntzinger will lead off the discussion with a few questions before opening up to the audiences' questions. Please feel free to use this space for your own notes.



Figure 6: by A. Huntzinger

Notes/Questions:

Additional Resources

Interested in learning more about what was discussed today? Check out these great resources!

Recommended Books and Articles

- Bloomberg, Michael, and Carl Pope. *Climate of Hope: How Cities, Businesses, and Citizens Can Save the Planet*. Macmillian, 2017.
- Friedman, Thomas L. *Thank You for Being Late: An Optimist's Guide to Thriving in the Age of Accelerations*. Picador USA, 2017.
- Grinspoon, David. *The Earth in Human Hands: Shaping Our Planet's Future*. Grand Central Publishing, 2016.
- Hawken, Paul ed. *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*. Penguin Books, 2017.
- Purdy, Jedediah. *After Nature: A Politics for the Anthropocene*. Harvard University Press, 2015.
- Rosling, Hans, Anna Rosling Rönnlund, and Ola Rosling. *Factfulness: Ten Reasons We're Wrong about the World--and why Things are Better Than You Think*. Flatiron Books, 2018.
- Sanderson, Eric W., Joseph Walston, and John G. Robinson. "From Bottleneck to Breakthrough: Urbanization and the Future of Biodiversity Conservation." *BioScience* <https://doi.org/10.1093/biosci/biy039> (2018).
- Steffen, Will, Wendy Broadgate, Lisa Deutsch, Owen Gaffney, and Cornelia Ludwig. "The Trajectory of the Anthropocene: The Great Acceleration." *The Anthropocene Review* 2, no. 1 (2015): 81-98.

Recommended Online Resources

- Abundance within Planetary Boundaries: <https://www.youtube.com/watch?v=1WFtCAdCm84>
- Center for Climate and Energy Solutions: <https://www.c2es.org/>
- Climate Change at the National Academies: <http://nas-sites.org/americasclimatechoices/>
- Drawdown: www.drawdown.org
- Great Acceleration Website: <http://www.igbp.net/news/pressreleases/pressreleases/planetarydashboardshowsgreataccelerationinhumanactivitysince1950.5.950c2fa1495db7081eb42.html>
- Inside Climate News: <https://insideclimatenews.org/>
- Welcome to the Anthropocene Website: <http://www.anthropocene.info>
- Yale Environment 360: <https://e360.yale.edu/>