



ASHLEY HALL

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Professional Learning

WATER

Its value, its uses, our challenges | Perspectives & solutions beyond the classroom

MONDAY, JUNE 7, 2021 | 9:00AM - 1:00PM

- 9:00 AM-9:05 AM **CAROLYN NEWTON** Academic Program Coordinator, Ashley Hall
Good Morning, Welcome & Introduction of the Concept
- 9:05 AM-9:10 AM **FUNGAI KANOGOIWA & AARON CASEY** Alterra Global Education Initiatives
Introduction of Speaker Lineup / Flow of the Day
- 9:10 AM-9:15 AM **DEEPENING OF THE CONCEPTS** Veronica Strang / Durham University, United Kingdom
Veronica will offer a 5-minute overview of the concepts that she and her lineup of colleagues will address. This will be an overview of the UN's (UNESCO's) approach to water & cultural diversity. Veronica will note that we'll explore concepts via case studies – from, for example, Aboriginal Australia (her own work), and, by contrast, European traditions that focus on 'progress' and 'development'. Here, Veronica will mention the historical Dutch approach (barriers, dikes, levees, man-made lakes, giant storm gates). Then she will mention the recent Dutch decision to intervene less, providing 'Room for the River'. She will speak to the "embrace" of the waters in Bangladesh, where a (successful!) initiative in the education sector ("floating schools") offers hope for children in a range of flood-prone countries globally. Next, she will pivot to mention Helen Kopnina's work promoting ecological justice, and legal rights of water use for non-humans. Then Veronica will close this five-minute overview by noting that these concepts are prime for addressing in school curricula, and that we'll hear from an innovative Dutch educator about this at the end of today's 4-hour session.

SESSION ONE

- 9:15 AM-9:45 AM **RALPH SCHIELEN** Dutch Ministry of Infrastructure & Water Management
Room for the River Project, Netherlands
Ralph Schielen is a foremost Dutch expert on water management issues. His expertise has been utilized and relied on heavily in the Netherlands' "Room for the River" concept, a 2.2 billion-euros project of the Dutch Ministry of Infrastructure & Water Management to keep the Netherlands safe from flooding. After experiencing major floods from the 1950s through the 1990s, the Dutch realized that "raising the walls" to fight against the inevitable invasion of water in their sea-level nation is no longer a sustainable solution – so they moved on, to focus on ways to store the water from flooding or slow its discharge into rivers. The country created the "Room for the River" program to give rivers and seas more space to flood. This includes relocating dikes, lowering the level of the floodplain, and allowing landscapes alongside rivers to be restored and to act as "natural water sponges" in the event of a flood. Ralph will speak to his experiences in this project and share lessons that Charleston may learn from the Dutch experience.

SESSION TWO

- 9:45 AM-10:15 AM **VERONICA STRANG** Durham University, United Kingdom
Indigenous Australian approaches to flood response
Taking water for granted externalizes the costs to the vulnerable, including the natural environment and non-humans. In illustrating this, Veronica will touch on anthropology, engineering, infrastructure, and "infrastructural violence", shining a light on the Brisbane River, Australia. She will make comparisons to, for example, Charleston, Amsterdam, Bangladesh, and elsewhere. While Aboriginal people in Queensland state, Australia, have a history of "embracing the river", Western approaches have instrumentalized it – for irrigation and hydrological power – through the construction of dams, bridges, and levees – and have not cared for the effects on the natural environment and the non-human world. Veronica posits that this latter approach contributes significantly to flooding in Brisbane and other delta cities worldwide. Attempts to control floods with "hard" measures – attempts to control river- and sea-surge, for better or worse – is not a long-term answer. Embracing the waters, as Indigenous Australians have done for 65,000 years, points to a more sustainable solution. Indigenous Australians have lived the reality of Brisbane River flooding by building their camps on higher ground, and by ensuring that water is distributed and used in a highly efficient and equitable manner. Until the early 19th century, they successfully mitigated the dangers of flooding for countless generations. Veronica's presentation and expertise speaks to the developmental crossroad at which Charleston finds itself – embracing or controlling water.

SESSION THREE

10:15 AM-10:45 AM **ASHLEY TOOMBS & DEVON MCLORG** BRAC-USA

Bangladesh floating schools: A compassionate approach to education-access challenges

Ashley will provide an overview for how BRAC – a large, Bangladesh-founded, and Southern-based poverty alleviation NGO – is addressing water-related challenges in Bangladesh including climate smart agriculture; access to clean, safe drinking water; and climate resilient housing. As a low-lying delta for a number of major rivers, the majority of Bangladesh is prone to flooding throughout the year and is seeing increasingly more frequent and stronger extreme weather events. During its annual monsoon season, a huge portion of the country, the haor region, is naturally submerged beneath floodwaters creating isolated riverine island communities. Not only do floods cause the loss of lives and livelihoods, they also severely interrupt children's education.

In the second half of their presentation, Devon will take a deep dive into BRAC's boat schools, the product of a simple yet powerful idea: if children cannot go to school, then the school should go to them. These schools – named Shikkha Tori, or boats of education – provide a primary school education to children excluded from traditional schools because of seasonal flooding or other water-based barriers. Traveling boats pick up teachers and students, provide a safe and child-friendly learning environment during the day, and drop off students after class. As climate change and seasonal flooding threaten children's education around the world, our boat schools provide an innovative way to deal with this challenge.

10:45 AM-11:15 AM **Q&A** Schielen, Strang, Toombs & McLorg

11:15 AM-11:30 AM

BREAK

SESSION FOUR

11:30 AM-12:15 PM **HELEN KOPNINA** The Hague University of Applied Sciences, Netherlands

Water solutions: What is wrong with sustainable development in relation to water and what can be done better?

11:30 AM-11:40 AM Helen Kopnina aims to "problematize" the United Nations Sustainable Development Goals (SDGs), borne out of a concern that their outcomes might be harmful to the advancement of environmental and social sustainability. She posits ways to alleviate these undesired outcomes by supporting alternate understanding and practice. Helen submits that the language of the SDGs – jargon such as "benefits" and "utilization" – subjugates the environment (including the waterborne environment) to economic objectives benefiting only humans. Indeed, Helen suggests that the framework proposed by the SDGs excludes the natural environment and non-human species entirely – and that this results in modes of thinking and acting that are counterproductive to solving big problems.

Are the SDGs truly sustainable? Are we correct in the way we are teaching them? Helen's presentation, and our related group activities, obliges us to consider "how much (of the waters) we should take". Precisely how much water should we be using for our own (human) needs? This leads to the question: How big is our water footprint, and how do we measure it? Helen highlights for us the disappearance of certain species – birds, trees & plants, fish. Her work underscores that knowing species are disappearing is not enough.

11:40 AM-11:47 AM Breakout #1 **WHAT WOULD A CHINESE PADDLEFISH THINK OF THE SDGS?**

11:47 AM-11:52 AM Reflections with Helen on Breakout #1

11:52 AM-11:59 AM Breakout #2 **ALTERNATIVES TO THE GROWTH ECONOMY AND ITS EFFECT ON WATER, FROM A NON-ANTHROPOCENTRIC POINT OF VIEW.**

11:59 AM-12:04 PM Reflections with Helen on Breakout #2

12:04 PM-12:15 PM **Q&A** Helen Kopnina

12:15 PM-12:45 PM

JESSE HOFFMAN University of Utrecht, Netherlands**How the SDGs can be applied in school curricula: Mixed classroom approaches to teaching water and flooding**

Jesse Hoffman teaches at the Urban Futures Studio and the Copernicus Institute of Sustainable Development in the Netherlands. Jesse summarizes the learning of the day. He shares with us how his unique (and award-winning!) "*Mixed Classrooms*" model may be applied across academic disciplines and through all grade levels. Jesse shares how Ashley Hall students can collaborate with, and powerfully inform, policymakers in Charleston and beyond! Jesse encourages us to apply the Mixed Classrooms approach to our own instruction – around flooding and flood mitigation, to be sure, but also to water's connection to sanitation, public health, gender justice, education access, geopolitics, spirituality, and more. Jesse helps us – and, importantly, our students – to "connect two worlds". Jesse shows us how to apply classroom teaching & learning, and to embrace meaningful engagement with professionals in the field.

12:45 PM-12:55 PM

Q&A Jesse Hoffman

12:55 PM-1:00 PM

CAROLYN. FUNGAI & AARON

Wrap-up / Thanks

What have we learned, and where do we go from here?