

Rivers, Time, and Collaborative Research



Introduction

Standard time is measured on atomic clocks, calibrating business and personal interactions on a technical basis. Might rivers be more meaningful timekeepers? Might their ebb and flow encourage us to nurture our environment and the relationships that matter most? Experimental philosopher and artist Jonathon Keats invites people to consider different ways of thinking about time in relation to observation of place from the perspective of science, art, and philosophy.

Keywords

Rivers, time, environmental sciences, arts, collaborative research, integration, anthropology.

Discussion

Rivers are icons of climate change. They are also highly sensitive indicators of present climate conditions, records of historical climate, and predictors of climate in the future. Climate scientists research all of these factors by observing watersheds and the ecosystems they sustain. Rivers are places that provide social shelter and comfort, and that build a community identity. They have also driven participatory processes, as in Ticino, Switzerland (Buletti & Ejderyan 2020).

Conceived by Jonathon Keats, **River Time** is a multifaceted civic initiative intended to bolster public appreciation of river systems – and people's understanding of their significance as climate indicators – by enlisting rivers as timekeepers.¹ Instead of being calibrated by the pulsations of cesium atoms in remote laboratories, local time is measured by the flow of local rivers, speeding up or slowing down with the myriad environmental factors that affect watersheds daily, seasonally, annually, and over the course of generations. Standard project elements include an online fluvial clock² and seasonal almanacs that people are invited to create by observing their local watershed throughout the year and noting characteristic conditions each month that can be used to reckon the fluvial month in future years.³ Additional elements may include public activities such as concerts in which time is kept by a river-calibrated metronome.⁴

¹ <http://alaskarivertime.org/pdf/Keats%20-%20Recalibrating%20Civilization.pdf>

² <http://alaskarivertime.org/Clock>

³ <https://www.anchoragemuseum.org/visit/calendar/details/?id=61088>

⁴ <http://alaskarivertime.org/Observations#galleryV-4>



As well as an open-ended investigation of our relationship with time and place, **River Time** is simultaneously a provocation.⁵ The time kept by atomic clocks gives us the false illusion of control: being able to manage the present and predict the future. With fluvial clocks, time is alive with contingencies. Users experience the complexity of the global environment. We come to terms with where planning and prediction fail us: the limitations of what we can know about the future – and the threat of hubris.

Originating in Alaska as a SEED Lab project of the Anchorage Museum,⁶ **River Time** is a global initiative,⁷ and will be deployed next on the rivers of Switzerland. **River Time** is also a case study in art-and-science collaboration, which serves as the basis for research on interdisciplinary and transdisciplinary research by the Transdisciplinarity Lab (tdLab), Department of Environmental Systems Science at ETH Zurich (Switzerland). Through an on-going collaboration, we jointly – artists and social scientists – elaborate research questions that address the challenges of integrative research. We also develop new tools for scientific research using artistic interventions, building on previous work conducted by Keats in collaboration with the Neuroprosthetics Laboratory at the Ecole Polytechnique Federale de Lausanne.

The **River Time Initiative** has also built strong links with *Climate Garden 2085*, an art-and-science project organized by Juanita Schläpfer-Miller at the Zürich-Basel Plant Science Center at ETH Zürich.⁸ *Climate Garden 2085* investigates how plants may grow in future climate conditions, and engages students in the investigative process, through care and maintenance of a set of experimental greenhouses. In collaboration with Schläpfer-Miller, Keats has added a calendrical mechanism that is calibrated by plant phenology, which will vary with the changing climate. His “botanical parapegma” facilitates close observation of the plants that calibrate it, further engaging audiences in their consideration of climate futures.

Drawing on insights from the project **Shaping Interdisciplinary Practices in Europe** (SHAPE-ID), an ongoing H2020 project, the River Time Initiative demonstrates some of the roles the arts can play in inter- and transdisciplinary research. The challenge of including the arts and humanities meaningfully in research and innovation initiatives is not new, but has grown more important in these crisis-ridden times. There is an urgent need for more collaborative work embracing interdisciplinary and transdisciplinary research across and between all disciplines. In this context, *how can the arts and humanities be interrogated by*

⁵ <https://nautil.us/issue/94/evolving/humans-have-rights-and-so-should-nature>

⁶ <http://alaskarivertime.org/About>

⁷ https://www.hirmerverlag.de/us/titel-22-22/thought_experiments-1970/

⁸ <https://blogs.ethz.ch/klimagarten/>



scientific questions and deployed to address scientific questions of relevance to the present? Taking this question as a common line of inquiry, both researchers and artists are building a joint understanding of collaborative practices using anthropological and philosophical perspectives as means of inquiry.

Further Resources

- Buletti Mitchell, N. & O. Ejderyan (2020) When Experts Feel Threatened – Strategies of Depoliticization in Participatory River Restoration Projects. Area. <https://doi.org/10.1111/area.12686>
- Buletti, N., Utz, S., Ejderyan, O., Graefe, O., Lane, S. N., & Reynard, E. (2014). Définitions et mise en œuvre des processus participatifs dans l'aménagement des cours d'eau en Suisse [Definition and implementation of participatory processes in Swiss river works]. Fribourg, Lausanne, Switzerland: Université de Fribourg. PRE-PRINT version. Article published in : Bulletin de l'ARPEA/ Journal Romand de l'Environnement. N°271 (Hiver 2017): 41–50.

