

Conceptions of scale often start by assuming objects (which are at a scale or may change scales) or assuming subjects (who re-present or form scales). A different notion of scale, resolution, and science emerges when scale is considered independently from this presumption of objects and subjects. As a device for measuring variations, observations, and experience, scale tracks changes in the configurations of objects, actors, and subjects specifically in relation to units of space and time. When these units of space and time exceed those generated by an observing apparatus — especially the ones called 'human'— scale enables to cross thresholds of intelligibility in new and astonishing ways. Untangling the disorienting results of these extensions require some experimental protocols for reorienting how the very human, non-scalar concepts, language, and practices operate. This talk will dwell in the simplicity, even naivete of the widely assumed sense of scale. It will consider two thought experiments that DiCaglio calls 'experiential origins of scale', and explore how they generate a need for scale. DiCaglio will unpack a few provocations that arise from this notion of scale discussing how they reorient towards foundational philosophical assumptions. Specifically, he will discuss 1) what constitutes an object if an object can also be many things depending on the scale and 2) who is the subject that scales?

Joshua DiCaglio received a PhD in English (rhetoric of science) and current is an associate professor of English at Texas A&M University. His work travels through the tangles of some intractable rhetorical practices, starting with bewildering aspects of science and finding itself, somewhat by accident, in the domain of mysticism. Along the way, he has published on environmental communication, rhetoric of science, and rhetorical theory with some side forays ranging from technical writing to science fiction. His first book, *Scale Theory: A Nondisciplinary Inquiry* (University of Minnesota Press, 2021), outlines a theoretical basis for and implications of scale, in the sense of the significant shifts in size from the quantum to the cosmic. An edited collection following up on this project, entitled *Visions of Scale: Art and the Technoscientific Universe*, is under contract with Bloomsbury. This collection gathers together 18 artists, writers, and critics to examine artistic responses to the scalar conceptions of science. DiCaglio has published essays in *Interdisciplinary Studies in Literature and the Environment*, *Configurations*, *Philosophy and Rhetoric*, *Science Fiction Studies*, and *Environmental Communication*. His next project, tentatively entitled 'The Sustainability Paradox: Lithium and the Ecologies of Scalar Objects' uses lithium as a figure for examining the many challenges and contradictions that arise in our attempt to adjust our planetary structures to ecological relations.

Lecture Series Scale

Scales are used to quantify properties such as length and temperature, or also to measure popularity and affect. But as Alice discovers in Wonderland, a change of scale can also have dramatic qualitative consequences. It disrupts customary ways of perceiving, acting, and being — to the point of feeling as 'queer' to her as a caterpillar's metamorphoses. Helped by the arguably inextricable intertwinement of different meanings and aspects of scale, Alice's experiences continue to provide apt metaphors for the disorienting importance and effects of scale and scaling at a time of hyperglobalization and the so-called anthropocene.

Scale is indeed a highly ambiguous notion, even when one only considers the meanings deriving from the Latin or Italian *scala*, ladder. It simultaneously denotes the whole ladder, one of its steps, and the relation between two steps: The scale of a cartographic map is the ratio between a distance on the map and a distance on the ground, but any particular length also defines a scale, and the range of scales from the subatomic to the planetary scale is part of the spatial scale. Paradoxically recursive, scale combines and helps mediate quantity and quality, as well as subjective perception, objective material properties, and contingent construction.

If different disciplines, discourses, and dispositives each have their privileged scales to which they tend to reduce others, what may be gained by thinking them together, acknowledging both the relative autonomy of particular scales — each with their own affordances, limitations, rules, even laws and ontologies — and their interdependence — each affecting and being affected by other scales? What is the critical purchase of developing multiscale architectures or patchworks of scale-specific, mutually inconsistent and irreducible descriptions, theories, and models? How might the tensions be made productive where they overlap or come into contact? The ICI's Lecture Series 'Scale' will address such questions by reflecting upon the critical role of scale within and across a wide range of different fields.

Joshua DiCaglio – Scale Beyond Objects and Subjects Experimental Protocols for a Theory of Scale

