

*Log 60* (Winter/Spring 2024)

The Sixth Sphere

Guest Editors: Albert Pope & Brittany Utting

Submission Deadline: September 30, 2023

The Earth's systems are generally defined as five interrelated spheres: the lithosphere, hydrosphere, biosphere, cryosphere, and atmosphere. The lithosphere is the geological material of the planet, including the raw materials, minerals, and fossil fuels that undergird human development; the hydrosphere defines the planet's water in liquid form; the biosphere encompasses all of the Earth's living organisms (including humans) and their ecological interrelations; the cryosphere comprises water in its frozen form, in polar regions, glaciers, permafrost and the high mountains; and the atmosphere is the gaseous layer that envelops the planet. While Earth has undergone radical climatological and environmental shifts over its 4.5-billion-year existence, these five spheres have coexisted in dynamic equilibrium, producing the stability required for the development of life as we know it.

Approaching the Earth's five natural spheres and their planetary integration is a *sixth* sphere – the *technosphere*, a term used by geologist Peter K. Haff to describe the accumulated material output of human production. The technosphere, sourced from the natural spheres, is composed of a complex infrastructure of energy, industry, and capital. It functions as an exoskeleton for our species. Taken as a whole, it includes all of our feedlots and sewer systems, factories and housing, tarmacs and croplands, and every modification we have made to the ground, the glaciers, the sea, the air, and Earth's ecosystems.

While the technosphere is critical to our material survival, its accelerated growth and increasing complexity are actively destabilizing the five spheres upon which it depends. Despite the impact of the built environment on the planet's five spheres, design continues to operate through its traditional disciplinary scales. *Log 60* explores alternative approaches not only to how the built environment might operate at the planetary scale but also to how design could offer new systems of interdependence and reciprocity. Can design conceive of the phased reform of the technosphere and imagine possible reconciliations between human and nonhuman systems? In responding to the environmental and social injustices caused by climate change, designers must reimagine architecture's spatial and temporal scales in order to recalibrate to our terrestrial framework. *Log 60* seeks transcalar design thinking that can leverage the collective power of the technosphere to imagine a less extractive and more just planetary coexistence.

The guest editors of *Log 60* invite submissions from contributors whose research and design work position the technosphere as a critical site in which to reimagine our spatial, social, and environmental futures. In order to position the technosphere as dependent on and entangled with the natural spheres, the issue is organized in five sections: atmosphere, biosphere, cryosphere, hydrosphere, and lithosphere. Rather than focusing on the technosphere more broadly, submissions must clearly indicate how the work positions the built environment in relationship to at least one of the natural spheres.