Generative Center, Lugano, Switzerland Specialising in the research, development, and implementation of AI-based content across various fields and complex projects

Kathleen Rogers: Discussion Paper: The Epistemology of the Peripheral:

Water Memory, Posthuman Assemblages, and Cultural Evolution From Counterculture to "The Memory of Water" (1995)

Introduction: Beyond the Human/Technology Divide

I'm pleased to contribute to this panel by reflecting on how peripheral ways of knowing have deeply influenced my approach to technology and materiality. In engaging with the conversation around *The Epistemology of the Peripheral*—a framework that challenges traditional ideas about how knowledge is legitimized, marginalized, and curated within cultural institutions—I want to situate my 1995 installation *The Memory of Water* and the broader *Water Consciousness* series, created for *The Incident* in Fribourg, within a wider historical context. This context stretches back to the 1960s counterculture, a period when something significant crystallized: not simply a rejection of established social orders, but the emergence of what Rosi Braidotti later theorized as posthuman assemblages.

This discussion paper traces a trajectory from the countercultural moment through to 1995, when digital technologies were fundamentally reshaping our understanding of information, memory, and material agency. My work emerged at a crucial juncture where peripheral epistemologies first explored by the counterculture encountered VR and the early internet era, creating new possibilities for understanding how knowledge itself might be distributed across human and non-human networks.

The Posthuman Physics of Counterculture

David Kaiser's research on how the hippies "saved physics" reveals how Berkeley's countercultural "Fundamental Fysiks Group" revitalised quantum mechanics by blending scientific inquiry with New Age mysticism, Eastern philosophy, and psychedelic experiences. Their peripheral approach —dismissed as fringe at the time—ultimately laid crucial groundwork for quantum information theory and computing. This exemplifies what became central to my practice: the recognition that peripheral ways of knowing often reveal aspects of reality invisible to dominant paradigms, operating through what Braidotti calls "nomadic consciousness"—thinking that moves across disciplines, connecting mystical experience with scientific inquiry.

The left field physicists at Esalen Institute weren't simply applying human reason to natural phenomena; they were participating in what Jane Bennett describes as assemblages where human curiosity, quantum particles, psychedelic substances, and alternative institutions cocreated new forms of knowledge. This represents a fundamental posthuman insight that informed my approach to water memory: consciousness itself emerges from material assemblages rather than transcending them.

The LSD experiences that influenced physicists like Jack Sarfatti and Fred Alan Wolf were part of a larger assemblage that included silicon-based computers, countercultural communities, and quantum mechanical systems. This prefigures my own exploration of how water samples might

function as both material archive and computational medium, carrying information across temporal and spatial boundaries.

Silicon Valleys and the Digital Moment

The rise of Silicon Valley provides crucial context for understanding "The Memory of Water's" emergence in 1995. Steve Jobs, emerging from the countercultural milieu, participated in an assemblage that included psychedelic experiences, Zen Buddhism, electronic components, venture capital, and countercultural visions of decentralization. This challenges the humanist narrative of individual genius creating technology to serve human needs.

Instead, we see what Bennett describes as "thing-power" at work: the capacity of diverse materials—from silicon chips to LSD molecules—to generate effects and transformations. By 1995, this digital assemblage had created conditions where information could be understood as both immaterial code and material process, both virtual and embodied.

The internet exemplified what Braidotti calls "nomadic sustainability"—a distributed network that resisted centralized authority precisely because it emerged from posthuman assemblages rather than humanist planning. My installation sought to explore similar possibilities for water as a distributed information system, challenging boundaries between digital and material memory.

Barad's Agential Realism: The Quantum Foundation

Karen Barad's "agential realism" provides the ontological foundation for understanding these developments. Her concept of "intra-action" demonstrates that particles don't possess determinate properties prior to measurement but emerge through relational encounters within "phenomena." This dismantles the traditional subject-object divide, revealing how observer and observed are always already entangled.

Barad's quantum ontology resonates powerfully with Bennett's vital materialism and Braidotti's posthuman assemblages, collectively revealing consciousness, matter, and technology as fundamentally interconnected domains. Whether examining hippie physicists' quantum explorations, Dick's VALIS transmissions, or water memory installations, Barad's framework illuminates how all participate in "material-discursive practices" where meaning and matter co-constitute each other through performative encounters.

This relational understanding transforms how we conceptualize reality—from a collection of independent objects to a dynamic web of intra-active becomings. Barad's agential realism reveals the universe as fundamentally relational, offering crucial insights for understanding how peripheral epistemologies operate within quantum assemblages.

The Peripheral as Epistemological Site

Building on this countercultural legacy, I define "peripheral" in specific epistemological terms. The peripheral is not simply what exists at margins, but what has been actively marginalized through processes of knowledge legitimation. Counterculture's psychedelic practices, like the dowsing and intuitive water sensing that informed my work, have been relegated to pseudoscience because they challenge foundational assumptions of dominant scientific paradigms. "The Memory of Water" engaged directly with this peripheralization by treating practices like remote dowsing and intuitive water sensing as alternative epistemologies with their own forms of rigor and insight. The installation created what I call an "epistemological assemblage" that allowed different ways of knowing to coexist and interact without hierarchy—much as the counterculture had created spaces where mystical experience and quantum physics could inform each other.

The Memory of Water (1995): A Posthuman Archive

The installation's conception as a "conceptual fluidic databank and quantum computer" revealed my understanding of how peripheral knowledge operates within posthuman assemblages. By collecting water samples from medieval reservoirs, historic fountains, and the Sarine River, the work created a "counter-archive" that privileged material memory and embodied knowledge over textual authority.

"The Memory of Water" reveals how these practices participate in what Bennett calls "vibrant matter"—recognising forms of material agency that exceed human control or comprehension. Rather than dismissing these practices as unscientific, the installation treats them as evidence of matter's own forms of creativity and communication, building on the countercultural insight that materials themselves possess forms of intelligence and agency. As a curatorial strategy, I propose that water itself serves as both curator and archive—much as the counterculture had recognized that psychedelic substances could serve as both research tool and research subject. Each sample represents not just H2O, but a complex assemblage of geological time, human intervention, and what Bennett calls "thing-power"—matter's capacity to carry and transmit information across temporal and spatial boundaries.

The work's peripheral vision emerges through its recognition that water remembers in ways that exceed human documentation, carrying traces of construction techniques, seasonal variations, and social practices lost to conventional historical records. This engaged with forms of material evidence that dominant epistemologies in 1995 struggled to acknowledge, even as digital technologies were making distributed information systems increasingly central to cultural life.

Psychedelic Posthumanisms and Material Memory

The psychedelic dimension of counterculture reveals profound implications of recognizing material agency in water memory. When figures like Philip K. Dick explored how consciousness might be distributed across human and technological networks, they prefigured my investigation of how water might function as a medium for non-human forms of memory and communication.

PKD's West Coast science fiction, emerging from the same cultural assemblage as Silicon Valley, explored posthuman becomings where boundaries between human consciousness, artificial intelligence, and material assemblages dissolve. This wasn't simply literary imagination but what Braidotti calls "cartographies of becoming"—mappings of how subjectivity emerges from material encounters rather than preceding them.

"The Memory of Water" operates within this speculative tradition, asking what happens when we treat water not as passive resource but as active participant in processes of memory and communication. The installation's engagement with dowsing and other peripheral sensing

practices suggests these methods might detect forms of material agency that conventional scientific protocols render invisible.

Marginal Vision and Vital Materialism

What makes "The Memory of Water" particularly relevant to marginal vision is its demonstration of how peripheral practices reveal aspects of reality invisible to dominant ways of seeing. The installation's engagement with dowsing suggests these practices operate according to what Braidotti calls "transversal consciousness"—forms of awareness that move across conventional boundaries between subject and object, human and non-human, scientific and intuitive knowledge.

This marginal vision doesn't reject scientific methodology but expands our understanding of what constitutes empirical evidence. If we take seriously the possibility that matter itself participates in processes of memory and communication, then practices that claim to detect these processes deserve serious epistemological consideration, even if they operate outside established scientific protocols.

The installation reveals how marginal vision often involves recognizing forms of agency and communication that dominant paradigms render invisible. Water's capacity to carry information across vast temporal scales becomes visible only when we adopt epistemological frameworks that can acknowledge non-human forms of memory and transmission.

Peripheral Sensing as Posthuman Practice

Central to my argument is recognizing that peripheral sensing practices—from dowsing to remote sensing—represent sophisticated cultural responses to limitations of anthropocentric epistemologies. These practices emerge when conventional knowledge systems prove inadequate to address particular forms of material complexity, much as counterculture's psychedelic practices emerged to address limitations of rational materialism.

"The Memory of Water" reveals how these practices participate in what Bennett calls "vibrant matter"—recognising forms of material agency that exceed human control or comprehension. Rather than dismissing these practices as unscientific, the installation treats them as evidence of matter's own forms of creativity and communication, building on the countercultural insight that materials themselves possess forms of intelligence and agency.

This has significant implications for understanding the relationship between science and culture. Rather than viewing science as gradually replacing superstition with knowledge, we might recognise that different material conditions call forth different epistemological responses. Peripheral practices may represent not failed science but alternative forms of material engagement that address aspects of reality that dominant paradigms cannot yet accommodate.

Toward Posthuman Ethics of Inclusion

"The Memory of Water" offers a model for what I call an "ethics of epistemological inclusion"—a curatorial and cultural practice that maintains space for ways of knowing that challenge dominant paradigms. This is not relativism but recognition that cultural evolution depends on maintaining access to diverse epistemological resources, including those that recognize material agency and non-human forms of intelligence.

The challenge is developing what Bennett calls "ecological politics" that can work with rather than against the vital materialism of technological assemblages. This means moving beyond both technophobic rejection and technophilic celebration toward what Braidotti describes as "sustainable transformations"—ways of participating in posthuman becomings that enhance rather than diminish the flourishing of diverse life forms.

Conclusion: Peripheral Knowledge and Cultural Evolution

The trajectory from 1960s counterculture to "The Memory of Water" (1995) reveals how peripheral epistemologies often anticipate paradigmatic shifts that later become central to cultural evolution. The countercultural recognition of material agency and distributed consciousness prefigured the digital revolution's challenge to humanist assumptions about knowledge, memory, and communication.

As we continue grappling with implications of the Anthropocene, climate change, and technological transformation, the epistemological diversity preserved in countercultural practices and works like "The Memory of Water" may provide crucial resources for imagining alternative relationships with the more-than-human world. The peripheral, in other words, may prove central to our cultural evolution.

By understanding how counterculture co-evolved with computing, quantum physics, and ecological awareness, we can develop more adequate responses to contemporary challenges that similarly require thinking across boundaries of technology, culture, and posthuman ethics.

By tracing these threads from the counterculture to contemporary posthuman thought, my work invites us to reconsider how knowledge—and the ways we engage with technology and materiality—can emerge from the margins. In doing so, it challenges dominant narratives and opens space for alternative epistemologies to shape cultural understanding and creative practice. I hope this perspective enriches our dialogue on *The Epistemology of the Peripheral* and inspires further exploration of knowledge beyond the centre.

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