

Alison Pouliot PhD Thesis Abstract (full copy available on request)

A Thousand Days in the Forest – An Ethnography of the Culture of Fungi

Without fungi, life is radically diminished. Fungi regulate the biosphere and support the earth's ecological functioning. Yet the exceptionally few mushrooms with the capacity to dismantle human livers and kidneys have received disproportionate attention. This thesis presents an account of human-fungus relationships and how fungi are perceived and understood. It uses fungi as a lens to reconfigure ways of thinking, not just about fungi, but all nature, including *Homo sapiens*. It expands on the dominant mycological narratives through which fungi are represented, to create space for other forms of knowledge that allow these marginalised organisms to emerge through the cracks of human awareness and concern.

The research had a threefold aim: first, to understand why fungi are regarded differently to other organisms. Second, to present a more inclusive concept of fungi by proposing a shift in thinking – from thinking of sporebodies as discrete entities, to considering fungi as sophisticated relational systems relevant to human lives. Third, I examined what is required to enable their inclusion within what is valued; including within concepts of nature, biodiversity and conservation. This means finding ways to insert fungi into the ecological imagination and consciousness.

Through interactions with all sorts of 'fungal folk,' I elucidated the differences between definitive and expansive perceptions of nature and how the manifest indeterminacy of fungal development highlights the need for broader perceptions and an enhanced language. Fungus reproductive structures such as mushrooms provide a tangible link to humanity. However, I argued that mycelia provide a more imaginative and insightful way to consider the bigger fungal picture. Mycelia provide a matrix of interconnectivity with organisms and environments across multiple temporal and spatial scales, underpinning ideas of interactions and circulations explored throughout this thesis. I examined how the plastic essentiality of mycelia – versatility, complexity, heterogeneity, changeability, resilience, indeterminacy and biological utility – offers a compelling and constructive framework to contemplate the living world. The mycelial tangle also provides metaphors for human societies; for connectivity, spontaneity, unpredictability and ways to attune to the dynamism of natural systems that move beyond ideas of balance and control.

The thesis is brought together through a collection of voices in stories and anecdotes, histories and science, gleaned across hemispheres and cultures. It comes alive particularly through direct engagement with people and fungi in their habitats. It is embedded in the sensorial as much as the philosophical; through sensing fungi and their places during my thousand days in the forest. Through a combination of text and visual essays working in counterpoint, I reflected on how aesthetic, sensate experience deepened by scientific knowledge offers a rich understanding of fungi, the forest and human interactions.

At a time when Australia is shifting from a traditionally mycophobic position towards greater interest in fungi, new questions arise about their place in the living world. This thesis presents fungi as a catalyst to rethink environmental concepts and issues during a time of rapid change.