## The Emergence of Queer Nature: Minakata Kumagusu and the Making of Microbial Paradigm, 1887-1912

## Eiko Honda

Conceived as a monograph, the project reveals 'microbial paradigm' that emerged in the transnational life and transdisciplinary work of the Japanese naturalist-polymath Minakata Kumagusu (1867-1941). I do so by arguing the emergence of what I call 'queer nature'—his basis for truth established by analogy with microbial slime mould. Like the non-binary biology of slime mould, his epistemology of knowledge production transcended conceptual binaries and hierarchies such as male-female, subject-object, intellectemotion, and life-death. It did so as he merged microbiology and evolutionism with Sino-Asian derived knowledge—including Mahāyāna Buddhism, honzōgaku (Chinese natural studies), and Tokugawa-period romantic comedies.

Kumagusu fascinated – and baffled – scholars of modern Japan. Moving between Japan, the US, and the UK, he published 51 articles in the science journal Nature and approximately 400 English essays and 600 Japanese works in the humanities. In London, he facilitated the British Museum's research on Asia. In Japan, he was one of the first 'environmental' activists. His wide range of interlocutors included the Shingon Buddhist monk Toki Hōryū (1854-1923), the Chinese revolutionary Sun Yat-sen (1866-1925), and the 'founding father' of Japanese folklore studies Yanagita Kunio (1875-1962). While engaging with discourses of the time, the Sino-Asian sources of knowledge that mattered to him the most were the antithesis of the Meiji state's intellectual agenda driven by modernisation through 'Westernisation.' Established historiography on the intellectual history of science in modern Japan, too, revolved around the state's Imperial science (Wittner and Brown, 2016; Low, 2009; Mizuno, 2009).

The microbial paradigm dismantled the foundation of modern European philosophy, sciences, and the teleological vision of history that positioned the West as the foremost model of civilizational development. Historical research working with the established conceptions and disciplinary divisions of knowledge has not made sense of this modern, but not Western, paradigm. Mobilising queer nature as a novel method of analysing primary sources gathered from archives, I illuminate accounts of civilization theory, metaphysics, forms of natural science, history, and social sciences, and studies of ecology; all of which privileged no single culture over another in their productions of 'facts' and ideas. In so doing, I demonstrate how he simultaneously intervened in Mahāyāna Buddhism's 'modernisation,' research in the British Museum on Asia, European scientific debates, and the industrialization of primordial forests in Japan.

The monograph as a whole makes multiple further historiographical contributions. Firstly, it elucidates an intellectual paradigm that was modern but not Western. Secondly, by locating the study outside state institutions, it catalyses the emerging field of non-state history of science in modern Japan. Thirdly, the work manifests queer nature as a queer theory of intellectual history rooted in modern Japan. It thus contributes to the field of queer theory that overwhelmingly revolves around the Western science and continental philosophy. Fourthly, Dipesh Chakrabarty recently proposed the possibility of writing knowledge with microbes as an integral part of the planet in the time of climate crisis (Chakrabarty, 2021). My work shows how modern knowledge production that took such a concern into account existed in modern Japanese history and how historians can elucidate this by creating a novel method of historical analysis.