



RESEARCH ARTICLE

Minakata Kumagusu and the emergence of queer nature: Civilization theory, Buddhist science, and microbes, 1887–1892

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Abstract

In the intellectual history of modern Japan, the late 1880s epitomized the Meiji government's effort to 'civilize' through Westernization, driven by the social Darwinian vision of the survival of the fittest. During this period in the United States, the ideas of civilization theory, informed by the very antithesis of the Meiji state's understanding, surfaced in the life and work of the aspiring young naturalist-botanist Minakata Kumagusu. He imagined a 'different kind of civilization' as he re-examined the nature of social evolution in microbes by turning to Indian-and-Chinese-derived knowledge of his home region of Kii, Japan. Buddhism, persecuted by the Meiji regime, most notably enabled his scientific enquiry, while the encyclopedic work of *Wakan Sansai Zue* (The Illustrated Three Knowledge of Sino-Japan) became another key inspiration. Chinese historiography and Confucian thoughts additionally facilitated his reasoning.

What interconnected all of these strands was what the author refers to as 'queer nature': the basis for truths whose ontological and experiential qualities resembled the microbe slime mould. Similar to this microbe that captured Kumagusu's imagination, with queer nature the process of knowing defied the epistemological dichotomies and hierarchies that were fundamental to the social Darwinian theory of evolution. Experientially, it attracted the knower's attention, induced their desire for intimacy with strange and curious others, and propelled greater intellectual enquiries. The article thus demonstrates a queer theory of intellectual history rooted in modern Japan, whose intellectual lineage derived from India and China instead of the West.

Keywords: Buddhism; evolutionism; science; civilization theory; queer theory

Introduction

Today, it is exceptionally important for a Japanese to enter the West, step on their soil, examine their objects, investigate the inside facts of the human beings, acquire what one should acquire, and imitate what one should imitate. This is why I thought of going abroad to the United States.

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Kumagusu's departure speech. Wakayama, Kii, Japan.¹

American scholarship turned out to be terribly inferior to scholarship of my own country.

Kumagusu, writing to his Kii friend, Sugimura Kōtarō San Francisco, the United States²

In January 1887, the 20-year-old aspiring naturalist-botanist Minakata Kumagusu (南方熊楠, 1867–1941) arrived at the port of San Francisco, inspired to investigate the knowledge required to become 'civilized' (Figure 1).³ The Japanese needed to survive the inevitable changes in civilizational progress by learning from the West.⁴ As Kumagusu came face to face with the supposedly civilized nation, however, he quickly realized that the theory of civilization the Japanese Meiji state (1868–1912) had taught him at the University of Tokyo's Preparatory School was unreasonable. The social Darwinian 'survival of the fittest', inspired by the study of biological evolution, had no basis in fact. Leaving institutionalized education, he decided to re-examine the nature of social evolution himself.

Kumagusu turned his mind and heart back to his home region of Kii (紀伊) on Honshū island's Kii Peninsula in southwest Japan. His childhood in Kii informed his experience of inhabiting 'civilizing' Japan through knowledge that originated from India and China: the complete antithesis of the Meiji government's West-inspired intellectual agenda. Shingon Buddhism (真言密教), whose main temple was on Mount Kōya overlooking the Kii, left the most significant impact on Kumagusu's epistemology. Like most Buddhism, the sect's teaching can be traced back to the Kushan empire of ancient India. The Meiji regime in the meantime persecuted Buddhism from the outset. Furthermore, the encyclopedic work of Wakan Sansai Zue (和漢三才図会/The Illustrated Three Knowledge of Sino-Japan) became another key inspiration for Kumagusu. Chinese historiography and Confucian thought additionally facilitated his reasoning process. All the while, the Meiji government and its associated philosophers, such as Fukuzawa Yukichi (福沢諭吉:1835–1901), regarded knowledge of the Sinosphere embraced in the previous Tokugawa period (1603–1867) as 'foolish' and 'backward'.

¹All Japanese–English translations are the author's own. Minakata Kumagusu (hereafter Kumagusu), 'Meiji 19 nen 10 gatsu 23 nichi Shōju-tei Sōbetsukai Jōen zetsu Sōkō/The manuscript for Farewell Speech at Shōju-tei, 23 October 1886', in *Minakata Kumagusu Zenshū 10/The Complete Works of Minakata Kumagusu Vol. 10* (Tokyo: Heibonsha, 1973), p. 35.

²Kumagusu, 'Sugimura Kōtarō ate [Letter to Sugimura Kōtarō, 1887]', in *Minakata Kumagusu Zenshū* 7/ *The Complete Works of Minakata Kumagusu Vol.* 7 (Tokyo: Heibonsha, 1971), p. 77.

³Kumagusu, 'Farewell Speech', pp. 32–36. The article follows the Japanese convention for Japanese names, with surname first, followed by the given name. Names of famous Japanese figures, including Minakata Kumagusu, are widely referred to by their given names rather than by their surnames.

⁴Ibid

⁵I will expand on the significance of the Kii later in the article.

⁶Fukuzawa Yukichi, David A. Dilworth and G. Cameron Hurst, *An Outline of a Theory of Civilization* (New York: Columbia University Press, 2009).



Figure 1. Portrait photo of Minakata Kumagusu shortly before his departure from Japan to the United States (1886). Source: Courtesy of the Minakata Kumagusu Archives, Tanabe, Japan.

The name 'Kii' is in fact a Tokugawa naming of Kumagusu's home region, then governed by the Kii domain (also known as the Kishū domain). Locals have long embraced this place-naming even after it became Wakayama Prefecture under the newly introduced prefectural system in the Meiji era. The knowledge of the immediate past discarded by the government operated as the essential sources of epistemology required in the present. Kumagusu critically examined questions of science, evolutionism, religion, history, and philosophy pertinent to evolutionism and civilization theory, employing knowledge derived from India and China.

What interconnected all of these was what I call 'queer nature': the ontological and epistemological basis for truths about what it truly meant to be civilized. Queer nature resembled the microbe slime mould that irresistibly attracted Kumagusu's attention. Similar to slime mould, Kumagusu's formation of knowledge based on queer nature evaded the epistemological binaries and hierarchies that shaped modern Western philosophy and science adopted by the Meiji state's intellectual agenda. It troubled the most fundamental logic of their evolutionary—and civilizational—theories, troubling conceptions such as the West and the rest, civilized and savage, subject and object, and emotion and intelligence. Just like his experience of observing slime mould, 'knowing' with queer nature embraced attraction, curiosity, and desire for intimacy.

Kumagusu's evolutionary theory based on queer nature indicated that societies evolved—and therefore, civilized—through cooperation and affective desire for intimacy with each other beyond normative epistemological divides. Thus, in the light

of queer nature, civilizing subjectivities simultaneously embraced collectivity and independence. Becoming 'civilized' implied embracing affective desire for each other and inviting borderless collectivity beyond the imposed categories of race and nationalities. Kumagusu indicated that people became 'civilized' through independent self-knowledge and moving away from unquestioning reliance on state-provided knowledge. Grappling with intellectual and emotional struggles of his own, he yearned to liberate himself and others from the West-centric and hetero-normative epistemology of social Darwinism.

Kumagusu's ideal civilization theory was utopian in that it often existed at odds with his own social conditions. For instance, his father's economic success in Japan's emerging capitalistic society made his independent intellectual explorations overseas possible. Furthermore, though his remarks suggest he believed in women's agency, he did not necessarily fight for equal rights for women. Unaccustomed to speaking with women—including his mother or sister since childhood—they remained alien to him until he married in 1906. His theory of civilization based on queer nature surfaced without explicitly addressing how one might come to terms with these contradictions.

In what follows, I will first discuss how queer nature, as I conceptualize the term, impacted on Kumagusu's knowledge formation, and what queer nature shares with existing queer theory. The main section of the article will demonstrate how queer nature operated in Kumagusu's reconsideration of social evolution and how Kii's Indian and Chinese derived concepts helped him formulate his civilization theory. I will elucidate why the state's vision, inspired by the modern West, turned into a historical 'retrogression' and the alternative knowledge of Kii played a crucial role for Kumagusu. I will explain how this epistemological shift brought about Buddhist science, through which queer nature emerged. I will then elaborate on his theories of social evolution and civilization based on the queer nature he embraced.

Historians have rarely decoupled the civilizing process from the making of the modern nation-state inspired by the monolithic <code>seiyo</code> (the West). As a result, the historical meaning of civilization theory—the theory of what it truly meant to be 'civilized'—and the power of political institutions in shaping its nature remained almost unchallenged. Meiji Japan in the late 1880s epitomizes this understanding, when the government celebrated the promulgation of the Constitution of the Empire of Japan (1889) and the opening of the Imperial Diet (1890). Japanese discourses surrounding civilization theory seemed to have settled when Japan established its governing system as a modern nation-state. Yet, during this very period, Kumagusu judged the state-led, West-inspired civilization theory to be uncivilized.

Kumagusu has fascinated scholars of modern Japan with his myriad interests, pioneering thoughts, and 'eccentric' personality. During his lifetime, he made immense contributions to both science and the humanities and forged intellectual bonds with various historical figures as he moved between Japan, the United States, and the United Kingdom. He published 51 articles in the science journal *Nature* and approximately 400 English essays and 600 Japanese works in the humanities. In London, he played a key role in facilitating the British Museum's research on Asia. In Japan, he was one of the first 'environmental' activists. His close interlocutors included the Shingon Buddhist monk Toki Hōryū (土宜法竜, 1854–1923), the Chinese revolutionary Sun Yat-sen (孫文, 1866–1925), and the 'founding father' of Japanese folklore studies Yanagita Kunio

(柳田國男, 1875–1962). Even Emperor Hirohito (裕仁天皇, 1901–1989) of Shōwa Japan (1926–1989), also a biologist, requested him to deliver a lecture.

Kumagusu's multidisciplinary expertise and wide-ranging activities bore no obvious resemblance to other contemporaneous figures, but each of his works and actions resonated with diverse historical actors. The overwhelming majority of historiography has thus focused on each sub-disciplinary aspect of his work in his post-United States period when he became a polymath, prolific author, and influence on various intellectuals. Initially in the United States, he was a young scholar with no academic publications, and no scholar has interrogated at length whether his ideas for civilization theory during this period, shortly before he became a prolific scholar, differed from those of the Meiji state. Yet, civilization theory acted as his guiding principle for which knowledge mattered and why.

It was in the United States that his questions about civilization and evolution merged with his ambition to become a modern polymath of Japan. He interacted with fellow Japanese youths who pursued the 1880s movement for democracy, the Jiyūminken Undō (自由民権運動/Freedom and People's Rights Movement). Many of them fled Japan for San Francisco, seeking to nurture an alternative civilizational agenda that had been censored by the Japanese government. They kept

⁷On the historiography of Japanese work on Kumagusu, see Matsui Ryugo and Tamura Yoshiya (eds), Minakata Kumagusu Daijiten (Tokyo: Bensei Publishing, 2012), pp. 657-662. Existing Anglophone works include Gregory M. Pflugfelder, Cartographies of Desire: Male-male Sexuality in Japanese Discourse, 1600-1950 (Berkeley: University of California Press, 1999); Gerald A. Figal, Civilization and Monsters: Spirits of Modernity in Meiji Japan (Durham, NC: Duke University Press, 1999); Julia Adeney Thomas, Reconfiguring Modernity: Concepts of Nature in Japanese Political Ideology (Berkeley: University of California Press, 2001); Mark Driscoll, Absolute Erotic, Absolute Grotesque: The Living, Dead, and Undead in Japan's Imperialism, 1895-1945 (Durham: Duke University Press, 2010); Clinton G. Godart, Darwin, Dharma, and the Divine: Evolutionary Theory and Religion in Modern Japan (Honolulu: Columbia University, 2017); Carmen Blacker, 'Minakata Kumagusu: A Neglected Japanese Genius', Folklore 94, no. 2 (1983), pp. 139-152; Kazuko Tsurumi, 'Minakata-Mandala: A Paradigm Change for the Future', Tokyo Symposium/Science and Culture: A Common Path for the Future, Proceedings of a Symposium held 14 September 1995 (UNESCO/UNI), pp. 113-124; Sadamichi Kato, 'The Three Ecologies in Minakata Kumagusu's Environmental Movement', Organization and Environment 12, no. 1 (1999), pp. 85-98; Anna Tsing, 'Arts of Inclusion, Or, How to Love a Mushroom', Australian Humanities Review no. 50 (2011), N_A; Adachi, Isao, 'Globally Pioneering Ecologist: Kumagusu Minakata (1867-1941): Thought of Diversity from Buddhist World (Keeping up with the Times) (Biography)', Japan Spotlight: Economy, Culture and History 30, no. 1 (2011), p. 4; Kanzaki Sachiyo, 'Sustainable Development from Within: A Case Study of Kuzumaki, "The Town of Milk, Wine, and Clean Energy", The Japanese Political Economy 40, no. 3-4 (2014), pp. 63-95; Casper Bruun Jensen, Miho Ishii and Philip Swift, 'Attuning to the Webs of En: Ontography, Japanese Spirit Worlds, and the "Tact" of Minakata Kumagusu', Hau: Journal of Ethnographic Theory 6, no. 2 (2016), pp. 149-172; Eiko Honda, 'Political Ecology of Art and Architecture in Japan: 100 Years Ago and Now', Journal of Contemporary Chinese Art 3, no. 3 (2016), pp. 243-264; Victoria Lee, 'The Microbial Production of Expertise in Meiji Japan', Osiris 33, no. 1 (2018), pp. 171-190; and Caroline A. Jones, 'Monads, Mycetes, and Mandalas: Inserting Jenna Sutela in Symbiotic Philosophies', in Jenna Sutela: NO NO NSE NSE, (ed.) Stefanie Hessler (Trondheim and London: Kunsthall Trondheim, Serpentine Galleries and Koenig Books, 2020).

⁸Kumagusu, Minakata Kumagusu Nikki 1, 1885-1896 (Tokyo: Yahata Shobō, 1987), p. 224.

⁹Kumagusu's notable interlocutors from the movement included Fukuda Tomosaku (福田友作: 1865–1900), who later married the prominent female socialist Yamakage Hideko (景山英子: 1865–1927), and Motegi (Satō) Torajirō (茂木(佐藤)寅次郎: 1864–1928), who heavily influenced the anarchist Ishikawa Sanshirō (石川三四郎: 1876–1956). See Minken Books 10: Amerika kara no Tayori/People's Rights Books 10: Letters from America (Tokyo: Machida Shiritsu Jiyūminken Shiryōkan, 1997), pp. 28–39.

circulating their ideas in and from the United States through their own newspapers. 10 Kumagusu even agreed to become a regional correspondent for one of them, Shinnihon (新日本/New Japan). 11 No detailed record illuminating his intent and the extent of his involvement has survived, though. While locating himself within this social network, he noted without any explanation: 'I must become a [Conrad] Gessner of Japan.' The sixteenth-century Swiss naturalist and 'father of bibliography' created Bibliotheca universalis (1545–1549), the totalizing record of all known scholarship produced in Latin, Greek, and Hebrew. Like Gesner, Kumagusu wanted to strengthen his commitment to historical knowledge, but in his case the knowledge derived from the wider Asia that symbolized 'Japan' in his intellectual foundation.

Against this background, Kumagusu wrote essays on seemingly discursive topics from religion and science to personal memories of love and torment for his Japanese friends in the United States to read. He kept diaries of his daily activities and personal ambitions. He inscribed his thoughts on what he learned from his independent study in research notebooks. Asserting queer nature as his basis for truths illuminates the ideas for civilization theory that Kumagusu wove into these texts.

Queer nature: Why, what, and how

Queer nature is a queer theory of intellectual history rooted in modern Japan, whose sources of knowledge originally derived from India and China. The dominant Western theory of civilization in this period depended on how one understood the nature of society compared to the nature of the universe discovered by modern science. Nature provided the empirical foundation upon which society could be built. Therefore, modern intellectuals' argumentation on what it meant to be civilized depended on knowledge of nature. I arrived at the notion of queer nature through examining primary historical sources on Kumagusu—including his diary, letters, notebooks, essays, drawings, and the specimens he collected. While exploring them, I noticed that his thoughts, emotions, and actions appear to have emerged from a basis for truths that differed radically from the state's West-inspired civilization theory.

Queer nature resembled Kumagusu's understanding of slime mould in its ontological and experiential qualities. Ontologically, the elusive biology of slime mould appeared to defy the normative notions of male-female, animal-plant, and life-death binaries and hierarchies. He understood that slime mould possessed qualities of both plants and animals and a transient ability to float between life and death. ¹³ They appeared androgynous—their biological sex and attraction undefined by the dichotomy of male-female. Today, they are known to exist in more than 900 biological

¹⁰Ibid., pp. 57-58.

¹¹Ibid., pp. 28-29.

¹²Albert M. Craig, 'The Scottish Enlightenment and the Stages of Civilization', in *Civilization and Enlightenment: The Early Thought of Fukuzawa Yukichi* (Cambridge, MA and London: Harvard University Press, 2009), pp. 11–32.

¹³Kumagusu, 'Hayama Hanjirō ate (Letter to Hayama Hanjirō)', in Minakata Kumagusu Zenshū 7, pp. 91–100; Kumagusu, Minakata Kumagusu Iwata Jun'ichi Ōfuku Shokan: Nanshoku Dangi, (eds) Hasegawa Kōzō and Tsukikawa Kazuo (Tokyo: Yasaka Shobō, 1991).



Figure 2. Kumagusu's illustration of microbes in his letter to Hayama Hanjirō. Source: Courtesy of the Minakata Kumagusu Archives, Tanabe, Japan.

sexes.¹⁴ Experientially, the mould never ceased to fascinate and inspire Kumagusu to pursue further intellectual enquiries. His cognitive process as a result blended emotional experience with intellectual reasoning, where the former impacted on the latter and vice versa.

The Japanese terms for slime mould—nenkin (粘菌) or henkeikin (变形菌)—encapsulate what Kumagusu saw through the microscope as he re-examined the evolutionary nature of society. The former literally translates as 'sticky-fungi/bacteria', and the latter translates as 'transformation-fungi/bacteria'. The microbes look sticky and are malleable. They continuously change their forms without a normative state and develop acres of mycelium networks on rotting woods and in underground soil. Referring to his drawings of slime mould (Figure 2), Kumagusu described his experience of their fascinatingly ambiguous nature:

[Slime mould] are utterly outrageous. Just like the illustration (1), they swim in water when they are young, turning around and round, and come together before long. They then turn into phlegm-like form, as in (2). Some of them move like amoeba and eat up what they encounter right away. They harden

¹⁴Mary R. Henney and H. R. Henney, 'The Mating-type Systems of the *Myxomycetes Physarum rigidum* and *P. flavicomum*', *Journal of General Microbiology* 53, no. 3, pp. 321–332; and Kawakami Shin'ichi, *Henkeikin Nyūmon/The Introduction to Slime Mould* (Tokyo: Bun'ichi Sōgō Shuppan, 2018), p. 12.

¹⁵The microbe slime mould is also known as Myxomycetes or Myxogastria in English.

¹⁶Kumagusu used the former term nenkin (粘菌) to refer to slime mould. According to the microbiologist Kawakami Shin'ichi, the latter term henkeikin (変形菌) was coined by the Japanese mycologist Tanaka Nobujirō (田中 延次郎, 1864–1905) in a research paper he published in 1888. His Nihon Kinrui Zusetsu (日本菌類図説, 1890) is known as the first Japanese publication of modern mycology. See Kawakami, Henkeikin Nyūmon, p. 9; Tanaka Nobujirō, Nihon Kinrui Zusetsu/The Illustrated Myxomycetes in Japan (Tokyo: Maruzen, 1890).

themselves in whatever way they like. From (3) to (7), they transform themselves into various mycological shapes. ¹⁷

The characteristics of queer nature that resembled the 'utterly outrageous' slime mould appeared *natural* and therefore truthful in the light of Kii's scholarship that originates from ancient India and China—as I will elaborate in the rest of this article.

Why, then, 'queer nature'? Historically the diverse meanings of the term 'queer' capture its ontological and experiential qualities. The contemporary usage of the term 'queer' as non-binary affirms queer nature's ontological quality. Experientially, queer nature attracted Kumagusu's attention and induced greater curiosity within him to enquire further, similar to the ways in which slime mould mesmerized him and facilitated broader intellectual enquiries. Queer nature induced 'attraction' and 'fondness' towards 'strange, odd', and 'peculiar' things that appeared 'startling' and 'amusing', and incited the desire 'to inquire' further—all ideas that the term 'queer' historically conveyed. 18

In Japanese, he described the above characteristics of knowing in words such as $j\bar{o}sei$ (情性/affective human nature), $h\bar{o}y\bar{u}$ (朋友/intimate friend), $my\bar{o}$ (妙/strange), and chin (珍/ curious, rare, and strange). He also compared them to platonic love. For example, he wrote newspapers for his Freedom and People's Rights Movement friends to read in private, entitling them Chinji $Hy\bar{o}ron$ (珍事評論/The Criticism on Curious Things). His $j\bar{o}sei$ (affective human nature) that desired intimacy with his deceased $h\bar{o}y\bar{u}$ (intimate friend) manifested as platonic love. Kumagusu's ideas for a theory of civilization based on queer nature, as a result, queered—or 'put out of order' as it once meant—the Meiji state's social Darwinian civilization theory. On the social particles of the social particles of

The 'nature' in queer nature therefore holds the sense of 'intrinsic nature' rather than 'environmental nature', the term that emerged during the post-war period.²¹ Similarly, it does not imply the modern Japanese term *shizen* (自然), which refers to external, 'objectifiable' nature, that came into popular use in the 1890s. Kumagusu hardly used the term *shizen* as a noun in his life even after it settled into everyday Japanese vocabulary. The term appeared in his writing as an adjective, the only form of the term that initially existed in Confucian texts in the previous Tokugawa

¹⁷Kumagusu, Minakata Kumagusu Zenshū 7, pp. 97–98.

¹⁸Walter W. Skeat 'A Queer Etymology', in *Notes and Queries* Vol. s8-VI, 139 (25 August 1894), pp. 143–144; Edward Peacock 'A Handful of Queer Etymologies', in *Notes and Queries* Vol. s8-VI, 145 (6 October 1894), pp. 274–275; 'queer' in John Drummond Robertson (ed.), *A Glossary of Dialect and Archaic Words Used in the County of Gloucester* (London: K. Paul Trench, Trübner and Co., 1890), p. 122; Walter William Skeat, 'queer', in *English Dialect Dictionary IV*, (ed.) Joseph Wright (Oxford: Oxford University Press, 1903), p. 684; William Seward Burroughs, *Junkie* (New York: Ace Books, 1953), p. 28; John Sayles, *Los Gusanos* (New York: Nation Books, 1991), p. 233.

¹⁹Kumagusu, *Minakata Kumagusu Chinji Hyōron*, (eds) Hasegawa Kōzō and Takeuchi Yoshinobu (Tokyo: Heibonsha, 1995; originally published in 1889).

²⁰For example, George Moore, *A Mummer's Wife* (London: Vizetelly and Co., 1885, 1887), p. 190; Edward W. Townsend, *Chimmie Fadden, Major Max and Other Stories* (New York: Dodd, Mead and Co., 1895), p. 38.

²¹On the history of 'the environment' as a notion, see Paul Warde, Libby Robin and Sverker Sörlin, *The Environment: A History of the Idea* (Baltimore: Johns Hopkins University Press, 2018); and Paul Warde, Libby Robin and Sverker Sörlin, 'Part 4: "The Environment": How Did the Idea Emerge?', in *The Future of Nature: Documents of Global Change* (New Haven: Yale University Press, 2013), pp. 157–204.

period.²² In fact, he rarely used equivalent Japanese words of the time. For example, the Meiji emperor used the term *tenchi* (heaven and earth) to signify 'nature' in his speech to promulgate the Charter Oath in 1868.²³ Kumagusu's own understanding of intrinsic nature runs through his writings without appearing as a fixed term.

Queer nature as a nonessentialist way of knowing shares an affinity with Timothy Morton's notion of queer ecology.²⁴ Emerging in 2010, queer ecology establishes the intimate relationship between ecology and queer theory. It joins together the dual propositions that '[e]cology stems from biology, which has nonessentialist aspects' and '[q]ueer theory is a nonessentialist view of gender and sexuality'.²⁵ Within this context, Morton notes that Darwin's evolutionary theory regarded life-forms as mutually determining entities.²⁶ Present-day science furthermore clarifies that cellular reproduction happens asexually and that there is no firm boundary between life and nonlife.²⁷ Thus, the conception of the environmental "Nature" as an idealized, pristine, and wild' existence outside the human being does not exist. Morton calls for abandoning terms such as 'animal' and adopting 'something like *strange and strangers* ... [that are] uncanny, familiar and strange simultaneously'.²⁸ We human beings are composed of interlinked and interacting cells; we are in symbiosis.²⁹ Desire for intimacy with strangers is hence central in queer ecology.³⁰

In 2015, the cultural theorist David Griffiths also adopted queer ecology to rethink the epistemology of science and society in the light of microbe lichens. This fruitful enquiry emerged as a philosophical proposition within the intellectual milieus of Continental philosophy and Western biological science, similarly to Morton. While queer nature clearly carries a theoretical kinship with queer ecology, its roots reside in the intellectual history of modern Japan whose reliable sources of knowledge originally came from India and China. Queer nature is a way of conceptualising intellectual history that surfaced from a hermeneutical analysis of primary sources produced by Kumagusu within the specific context of modern Japan, situated within particular social and personal conditions that are inseparable from the Asian intellectual lineages.

²²On the brief summary of the genealogy of the term *shizen*, see Julia Thomas, 'Introduction: The Trouble with Nature', in *Reconfiguring Modernity*, pp. 1–31.

²³Wm. Theodore de Bary, Carol Gluck and Arthur E. Tiedemann (eds), *Sources of Japanese Tradition*, 2nd edn (New York: Columbia University Press, 2005), Vol. 2, p. 672.

²⁴Timothy Morton, 'Queer Ecology', PMLA 125, no. 2 (2010), pp. 273–282.

²⁵Ibid., p. 274; Morton thus argues queer ecology departs from the discourse of nature and gender within the narrative of identity politics known as ecofeminism, cultivated by scholars such as Carolyn Merchant in the 1980s.

²⁶Ibid., p. 275.

²⁷Ibid., p. 276. On these accounts, Morton references Richard Dawkins and Dawkins' note on the biochemist Sol Spiegelman's work on life and non-life: Richard Dawkins, *The Ancestor's Tale: A Pilgrimage to the Dawn of Life* (London: Phoenix, 2005), pp. 582–94 and 626.

²⁸Morton, 'Queer Ecology', p. 277.

²⁹Ibid.

³⁰ Ibid., p. 279.

³¹David Griffiths, 'Queer Theory for Lichens', UnderCurrents 19, no. 1 (2015), pp. 36–45.

³²The intellectual context for Morton's discussion of queer ecology has been developed by such scholars as Catriona Sandilands, Greta Gaard, Judith Butler, Jacques Derrida, and Richard Dawkins, whom he explicitly cites. Morton, 'Queer Ecology'.

Within the historiography of queer theory, one could argue that queer nature contributes to what Morton calls 'dark ecology'. Dark ecology refers to an epistemological transition 'from an ideological fixation of Nature to a fully queer ecology'. This epistemological shift correlates with queer theory's broader concern to overcome the illusion of universal norms. The normative, universalist logics of liberalism and capitalism that assert essentialized differences too often overshadowed historical phenomena that evaded them. Analysing such phenomena with queer theory can reveal narratives of modernity where emotional affiliations that went beyond differences took the central stage. Lauren M. E. Goodlad's study of E. M. Forster and Jonathan Flatley's reframing of Andy Warhol, for example, showed this. An epistemological challenge, however, remains as works of both modern intellectual history and queer theory still largely revolve around Western intellectual lineages and, as a result, marginalize 'the rest', albeit unintentionally. This article demonstrates a queer way of navigating the intellectual history of modern Japan, while overcoming this epistemological barrier.

The theory of civilization, retrogressed

Queer nature first emerged when, upon Kumagusu's arrival to the United States, his perception of the West-inspired civilization theory of the Meiji state slid from the vision of progress to retrogression—in a similar manner to what Sho Konishi termed as 'the history slide'.³⁵ The day-to-day reality of the 'civilized' nation welcomed him with normalized racism; encounters that he experienced as 'uncivilized'. He examined the historical grounds for the West-influenced civilizational narrative in conjunction with studies of science that verified the reasoning. The historical premise turned out to be ones of recent making compared to historical knowledge of his home region Kii that could be traced back to ancient India and China. He realized he could no longer rely on the knowledge provided by the West and the state without questioning it. The dissolution of the foundation behind the theory forced the vision to slide and fall apart. The understanding of history became a matter of social change.

Kumagusu turned to what he recognized as 'Japanese' knowledge based in the Kii region of Japan: Shingon Buddhism and *Wakan Sansai Zue* (The Illustrated Three Knowledge of Sino-Japan). Having learned them during his formative years in the early Meiji period, they became sources of knowledge that informed him of civilizational changes in the human past. Local knowledge in Kii dated back to the Tokugawa period in Japan, but also further back to 'premodern' China and India. It presented a different understanding of the past that justified the experience of the present as well as ideas for the future in the historical narrative of civilizational changes. The present

³³Ibid. For more on dark ecology, see Timothy Morton, *Dark Ecology: For a Logic of Future Coexistence* (New York: Columbia University Press, 2016) and Timothy Morton 'The Dark Ecology of Elegy', in *The Oxford Handbook of the Elegy* (Oxford: Oxford University Press, 2010).

³⁴Lauren M. E. Goodlad, 'Where Liberals Fear to Tread: E. M. Forster's Queer Internationalism and the Ethics of Care', *NOVEL: A Forum on Fiction* 39, no. 3 (2006), pp. 307–336; Jonathan Flatley, *Like Andy Warhol* (Chicago: University of Chicago Press, 2017).

³⁵Kumagusu, *Jippitsu 074*, Minakata Kumagusu Archives; Sho Konishi, 'The History Slide', in *Anarchist Modernity: Cooperatism and Japanese-Russian Intellectual Relations in Modern Japan* (Cambridge: Harvard University Press, 2013), pp. 209–257.

became the moment in which he urgently needed to rectify the narrative of history. What was typically perceived as progressive became backward in his view. Suddenly, history became a matter of social change.

The Meiji government had rapidly adopted the modern knowledge of the 'civilized' West while using its normative logic to reframe Japan's past. By doing so, the state could legitimize its vision of civilizational progress, the foundation of which was grounded in the notion of nature it invented at the beginning of its era. The modern creation of Kokka Shintō (国家神道/the State Shinto) in 1868 was envisioned to replace the ancient belief of Shintō (神道). Instead of worshipping nonhuman nature, as Shintō historically did, Kokka Shintō created a mythology that established the Imperial lineage of Japan as the constitutive, intrinsic nature of the new Japanese nation-state. This innovation emerged while the notion of universal nature in political philosophy became a contested one in the 1860s and 1870s, as Julia Thomas elucidated. The government, in the meantime, relentlessly disseminated the centralized myth of nature through the Great Promulgation Campaign until 1884.

The 'modernization' programme, with a 'civilized' modern state as its goal, served to support the 'divine' Imperial nature of the Japanese state. Even the Japanese translation of the English term 'nature' in the 1880s conveyed the notion of $k\bar{o}kin$ (洪鈞): the political power of the nation-state as the creator of the universe. The political ideology of nature sought to encompass all other metaphysical beliefs. Based on this ideological conception of nature, the government could legitimize scholarly knowledge as they pleased.

Kumagusu had familiarized himself with the state's concern for and theory of becoming civilized when he attended the Preparatory School for the Imperial University (presently known as the University of Tokyo), the first state-funded university, the aim of which was to nurture future elite bureaucrats. Having moved from the regional city of Wakayama in Kii, he entered the school at the age of 17, enthusiastic about what Tokyo had to offer. He grew aware of the concerns around human civilizational progress in conjunction with the natural history he had so eagerly pursued since his childhood.

The learning environment at the Preparatory School introduced him to the theory of social evolution. The zoologist Edward S. Morse (1838–1925) taught the social Darwinian theory of civilization at the University of Tokyo as one of the *oyatoi gaikokujin* (御雇外国人/hired foreigners) before Kumagusu's relocation to the city. Morse became known as the founding father of archaeology in Japan after his excavation of the late Jōmon period (*circa* 14,000–300 BCE) Omori Shell Mound in 1877. Kumagusu

³⁶Thomas, Reconfiguring Modernity, Chapter 3: 'Early Meiji's Contentious Natures', pp. 60–83.

 $^{^{37}}$ Helen Hardacre, 'Creating State Shinto: The Great Promulgation Campaign and the New Religions', *The Journal of Japanese Studies* 12, no. 1 (1986), pp. 29–63.

³⁸Inoue Tetsujirō, *Tetsugaku jii* (Dictionary of Philosophy) (Tokyo: University of Tokyo 1881), p. 57; Kumagusu studied this dictionary, copying the entries into his notebook on 24–28 November 1888. See Kumagusu, *Nikki* 1, p. 175; and Kumagusu, *Jippitsu* 073, Minakata Kumagusu Archives.

³⁹The ideology was in place until December 1945, when the General Headquarters of the Supreme Commander for the Allied Powers (GHQ) ordered its abolition and the separation of politics and religion. Jason Ananda Josephson, *The Invention of Religion in Japan* (Chicago and London: University of Chicago Press, 2012), pp. 94–97.

bought and read the Japanese translation of Morse's lecture as soon as he relocated to the city. 40

His main learning environment quickly moved outside the school. He skipped classes to take trips to archaeological sites where he collected fragments of unearthed human remains and earthenware. He regularly visited the Ueno Library, Ueno Museum, Education Museum, and the Zoo, newly opened as part of the Meiji government's adaptation of Western public institutions. He thus learned about the early history of human society within the wider context of natural history.

Human civilization had to progress, and the Japanese were no exception, he announced to his friends while holding an axe he had found at an excavation site. The United States was the ideal setting for him to learn about the essence of the civilizational progress which the Meiji state taught. He dropped out of the Preparatory School, returned to Wakayama, Kii, and convinced his successful merchant father to fund his intellectual endeavour in the United States. His enthusiasm turned to disappointment as he arrived in the 'civilized' nation, and his prior understanding of the civilizational progress human society had built up since the Iron Age collapsed.

Kumagusu did not leave a cohesive account on what precisely disillusioned him about the United States and forced him to turn to the historical knowledge of Kii. The marker of so-called 'civilized society' that he witnessed is, however, apparent. He related it to his best friend from Kii, Kitahaba Takesaburō (喜多幅武三郎, 1868–1941):

There has been a battle between black people and white people; the American land troops came out. ... Approximately a thousand black people, three hundred white people, one hundred militia, and five hundred armed forces. ⁴²

Developments in Western society, whose scientific knowledge the Meiji government rushed to adopt, had produced alarming racial conflict.

It is also likely that Kumagusu experienced direct racial discrimination in his first seven months in the United States. He stayed in San Francisco and very briefly enrolled at a business school, for unknown reasons. The port city and Oakland across the bay harboured a community of young Japanese activists involved in the Freedom and People's Rights Movement. The state of California, however, had asserted discriminatory laws against 'Mongoloids', a category which encompassed both Chinese and Japanese. Schools forced segregation upon them, while the legislature removed it for black people in 1880.

⁴⁰Edward Morse, *Dōbutsu Shinkaro*, (trans.) Ishikawa Chiyomatsu (Tokyo: Tōsei Kamejirō, 1883), Minakata Kumagusu Archives, Wa 450.14.

⁴¹Kumagusu, 'Farewell Speech'.

 $^{^{42}}$ Kumagusu, *Minakata Kumagusu Zenshū* 7, p. 90. The date of and place where Kumagusu wrote the letter is unknown. I was therefore unable to determine the specific event he was referring to. In his diary he also noted another racial dispute on a smaller scale that occurred in Florida on 5 July 1892. See Kumagusu, *Nikki* 1, p. 299.

⁴³Kumagusu enrolled on the Pacific Business College's Combine Course.

⁴⁴Minken Books, pp. 3-4.

⁴⁵ Ibid., p. 16.

⁴⁶Legal classroom segregation continued until 1929. The eradication of racist laws against Asians and Native Americans was slower to happen than those against black people in the state of California. See

With a sense of conviction, Kumagusu wrote to one of his lovers Sugimura Kōtarō (杉村廣太郎, 1872–1945), the future prominent journalist for the left wing *Asahi* newspaper, with whom he became intimate while in Kii:⁴⁷ 'I found out the United States is a new country that does not have everything. American scholarship turned out to be terribly inferior to scholarship in my own country.'⁴⁸ The kinds of American scholarship he rigorously studied were modern scientific and evolutionary theories. These, in turn, were the subjects that inspired the civilization theory current at that time. He jotted down in his notebook that modern Western civilization manifested 'not progress, but retrogress'.⁴⁹

What informed his 'history' of civilizational narrative was the Indian- and Chinese-derived knowledge and customs that had continued to shape and celebrate local people's lived experience in Kii since the Tokugawa period. Kumagusu absorbed them before he even began his formal education. He then compared this knowledge of the immediate past with the state-filtered knowledge of modern natural history and science from the 'civilized' West that he was introduced to in junior high school. These historical works informed his scientific and philosophical questions of truths about nature in the present moment.

Similar to scientific enquiry, Shingon Buddhism illuminated the truths of the universe. 'Shingon' literally means 'words of truths'—the secret truths of Dainichi Nyorai (大日如来/Mahāvairocana), the primordial Buddha that symbolizes the true state of the universe. ⁵¹ The sect originates in the learned Buddhist priest Ryūmyō (龍猛, or Nāgārjuna: *circa* 150–250 CE) who formalized esoteric Buddhism's foundational scriptures in the Kushan empire of ancient India. ⁵² Following the spread of his teaching, the Japanese monk Kūkai (774–835 CE) brought back an immense volume of its scriptures, ritual implements, and mandala to Japan from Tang dynasty China (618–906 CE) in the early Heian period (794–1185). ⁵³ He established Shingon Buddhism in Mount Kōya in the Kii region with the support of Emperor Saga (嵯峨天皇, 786–842 CE) in 806. ⁵⁴

The Tokugawa encyclopedic work of Wakan Sansai Zue (The Illustrated Three Knowledge of Sino-Japan) also elucidated worldly knowledge within its cosmology.

Shirley Ann Wilson Moore, 'We Feel the Want of Protection: The Politics of Law and Race in California, 1848–1878', *California History* 81, no. 3 (March 2003), pp. 96–125.

⁴⁷Sugimura Kōtarō adopted the name Sojinkan (楚人冠) as a journalist.

⁴⁸Kumagusu, 'Letter to Sugimura', p. 77.

⁴⁹The original text in English. Kumagusu, 'Notebook, January—September 1889', *Jippitsu 074*, Minakata Kumagusu Archives.

⁵⁰Kumagusu's Junior High School teacher Toriyama Hiraku (1837–1914) taught him natural science through such a style of teaching. See Kumagusu, 'jūnishikō: Nezumi ni kansuru minzoku to shinnen [originally written in January 1924]', in *Minakata Kumagusu Zenshū 1* (Tokyo: Heibonsha, 1971 and 1975), p. 570; and Iikura Shōhei, *Minakata Kumagusu: Fukurō no gotoku mokuza* shioru (Tokyo: Minelva Shobō, 2006), pp. 18–20.

⁵¹Matsunaga Yūkei, Mikkyō no Rekishi/The History of Esoteric Buddhism (Kyoto: Heirakuji Shoten, 1969); Wada Junsho and Takagi Shingen (eds), Nihon Bukkyōshushiron Shū Dai 4 Kan: Kōbōdaishi to Shingonshū/ Collected Essays on the History of Japanese Buddhism Sects Vol. 4: Kōbōdaishi and Shingon (Tokyo: Yoshikawa Kōbunkan, 1984).

⁵²Matsunaga, Mikkyō no Rekishi.

⁵³ Ibid.

⁵⁴Ibid.

Sansai, or 'the Three Knowledges', in the title referred to knowledge of ten (天/the heaven), chi (地/the land), and hito (人/people). The 'heaven' section encompassed conceptions of various Buddhist gods, seasons, weather, and an almanac.⁵⁵ The 'land' section covered the geographies of Japan and China, mountains, rivers, minerals, and plants.⁵⁶ The 'people' segment included explanations on the order of human relationships and 'religious' beliefs as well as on animals.⁵⁷ The Chinese medicine physician Terashima Ryōan (寺島良安, 1650–unknown) of Tokugawa Japan compiled its 105 volumes, using Chinese and Japanese classical literature as the major source of knowledge and citing any cultural and historical changes of understanding.⁵⁸ Ryōan modelled them on the Chinese work of the Ming dynasty period (1530–1615), Sansai Zue (The Illustrated Three Knowledge) by the scholar Wáng Qí (王圻, 1530–1615), among others.⁵⁹

It was against this intellectual background that Kumagusu began to interrogate the nature of social evolution in the United States. He was a modern 'Kiikoku-jin' (紀伊国人)—'the citizen of Kii'.⁶⁰ It was 'Kiikoku' knowledge (紀伊国/the nation of Kii) against which American scholarship paled in comparison. He grumbled to Sugimura: 'Looking back at the current situation in Japan, the society is horribly confused. ... Selling [social and governmental] ranks while engaging with intellectual research is equivalent to Kan·Rei (桓·靈).'⁶¹ Here he was referring to a historical incident of the late second-century Japan when frequent war under the reigns of the emperors of Kan and Rei led to the near-disintegration of the whole country. He asserted that the Japanese had to learn about their own 'country' before they 'adore the West', mimicking it in order to claim that they, too, are 'civilized'.⁶²

Kumagusu was certainly 'Japanese' in that he cared enough to be troubled by the civilizational vision of the country, ⁶³ but the country to which he maintained his patriotism was not the modern nation-state 'Japan' that issued him with a conscription order. ⁶⁴ For him, 'Japan' comprised historical knowledge entangled in over 250 years of international trade and cultural exchanges highly controlled by the Tokugawa Shogunate. Such knowledge was variously rooted in localities previously governed by approximately 300 clans under the Tokugawa Shogunate. In the current state of society, he asserted, '[t]here is no point for me to be a citizen of Japan'. ⁶⁵ He continued, writing to Sugimura: 'But, there you exist: my beautiful and deeply affectionate

⁵⁵Terashima Ryōan, Shimada Isao, Takeshima Atsuo and Higuchi Motomi, *Wakan Sansai Zue* (1712) (Tokyo: Heibonsha, 2009).

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid

⁵⁹Ibid.

 $^{^{60}}$ Inscribed on the inner cover of his 1886 (Meiji 19) diary. Kumagusu, *Jippitsu* 231, Minakata Kumagusu Archives.

⁶¹Kumagusu, 'Letter to Sugimura', p. 76.

⁶²Kumagusu, 'Dainihon (Meiji 22 nen 2 gatsu 1 tachi hakko, Daiichigō/Published on 1 February 1889, vol. 1)', in Kumagusu, *Nikki* 1, p. 430.

⁶³ Ibid

⁶⁴The conscription order issued by the Meiji government on 21 January 1889 was found between the pages of his 1889 American diary. Kumagusu, *Jippitsu* 234, Minakata Kumagusu Archives.

⁶⁵ Kumagusu, 'Letter to Sugimura', p. 76.

bosom friend. I long for my dear hometown.'66 He had to rectify history to delineate a 'different kind of civilization'.67

History, rectified

Kumagusu rectified history by connecting his lived experience of adolescence and Indian- and Chinese-derived knowledge pertaining to the district of Kii with contemporary concern for becoming civilized. Two distinct features marked his adolescence. First were his intimate—and often sexual—friendships with other male youths and, second, his attraction towards curious creatures like microbes. Shingon Buddhism and Wakan Sansai Zue (The Illustrated Three Knowledge of Sino-Japan), both of which he had known since childhood, most naturally bring these features together. Neither of them aligned with the hierarchical and dichotomized ontology of Western science and philosophy adopted by the Meiji regime. This knowledge recognized non-binary sex and attraction as ontologically natural. Through them, his yearning for intimacy with no longer physically obtainable lovers merged with his thirst for greater intellectual enquiry into microbiology.

From its beginnings, the Meiji government persecuted Buddhism through the nationwide policy of haibutsu kishaku (廃仏棄积). Et almost entirely destroyed Buddhist temples that merged with Shintō (神仏習合/shinbutsu shūgō) in the Kumano mountains of the Kii region. Kumagusu's parents, however, continued to believe in Shingon Buddhism, the relatively unaffected head temple of which was located on Mount Kōya and overlooked the city of Wakayama where he was born. This background familiarized him with the cultures of Shingon before 1889, the year when the imperial sovereign state allowed other metaphysical beliefs to operate under its power. The same property of the same property of the property of the property of the same pr

Shingon Buddhism embraced fluid sexuality among men and boys.⁷² Mount Kōya was known for *nanshoku* (男色/'male-colour'), that is, romantic and sexual relationships between them.⁷³ As a teenager, Kumagusu participated in this culture during his visit to Mount Kōya with his family.⁷⁴ In the Tokugawa period, monastic

⁶⁶ Ibid.

⁶⁷Kumagusu, Nikki 1, p. 282.

⁶⁸See James Edward Ketelaar, *Of Heretics and Martyrs in Meiji Japan: Buddhism and Its Persecution* (Princeton, NJ: Princeton University Press, 2020).

 $^{^{69}}$ The movement declined in around 1871 when the government introduced a new class system among Shintō shrines in the aftermath of haibutsu kishaku.

⁷⁰Unlike anywhere else, Shingon's head temple at Mount Kōya was relatively unaffected by *haibutsu kishaku*.

⁷¹Josephson, *The Invention of Religion in Japan*, Chapter 5: 'Formations of the Shinto Secular', pp. 132–163. ⁷²On *nanshoku* and Buddhism, see Gregory Pflugfelder 'Authorising Pleasure: Male-male Sexuality in Edo-period Popular Discourse', in Pflugfelder, *Cartographies of Desire*, pp. 23–94.

⁷³The two major landmarks of ancient beliefs that accepted such a practice are found in the area; the head temple of Kumagusu's family belief Shingon Buddhism at Mount Kōya in the northwest and the Nachi shrine of *Kumano-Shinko* (the belief of Kumano) in the south. Pflugfelder notes that the Tokugawa period proverb 'Kōya rokujū Nachi hachijū (Kōya sixty Nachi eighty)' referred to the lengthy duration of the monks' sexual activity with younger males. Pflugfelder, *Cartographies of Desire*, p. 33.

⁷⁴Kumagusu and Iwata Jun'ichi, *Minakata Kumagusu Nanshoku Dangi*, (eds) Hasegawa Kōzō and Tsukikawa Kazuo (Tokyo: Yahata Shobō, 1991); Stephen D. Miller, *Partings at Dawn: An Anthology of Japanese Gay Literature* (San Francisco: Gay Sunshine Press, 1996).

culture was in no way considered unnatural. It only became 'uncivilized' behaviour—slowly yet surely—under the Meiji state's particular civilizational agenda.⁷⁵ Termed 'homosexuality' in English, it was certainly illegal according to the United States' Judeo-Christian derived culture. Nevertheless, *nanshoku* or similar 'intimate friendships' among male youths remained *natural* for at least the duration of Kumagusu's adolescence in Kii.⁷⁶ These relationships inspired emotional bonds and compassion as well as intellectual rigour and curiosity that helped them to navigate the civilizing process of the new era.

Wakan Sansai Zue (The Illustrated Three Knowledge of Sino-Japan) also helped bridge non-binary ontology both in terms of Kumagusu's desire for his lovers and his drive towards intellectual investigation in natural science. The Tokugawa encyclopedic work continued to circulate in the Kii region's local shops and among residents even after the fall of the Shogunate.⁷⁷ It shaped Kumagusu's foundational knowledge from early childhood and throughout the rest of his life. In his leisure time during junior high school, Kumagusu hand-copied every single volume of this work (Figure 3). This publication classified human sexuality in non-binary categories.⁷⁸

The study was at the heart of Kumagusu's intellectual bonding with his male lovers during his adolescence. In the United States, it carried, for him, the existential memory of Hayama Shigetarō (羽山繁太郎, 1868–1888), with whom he shared an intense intimacy and longed to be reunited. It moreover merged with his desire for greater intellectual enquiry. This is illuminated by a short reflective piece of writing Kumagusu inscribed on the latest copy of Wakan Sansai Zue he received from his brother in Wakayama. After narrating his relationship to the publication since childhood, he recollected how he and Shigetarō discussed the significance of the scholarship. Through this work, together they cultivated their intellectual curiosity while both suffering from ill health. Shigetarō however passed away as a result of his illness after Kumagusu left for the United States. He thus concluded:

This book both tortures and delights me. When I think of print writing, this book again induces me to tears. Through this book, I cure my incurable illness and receive immense wisdom and knowledge. With this book, in this moment, I am able to retain traces of the times with my most intimate friend when my mind and heart filled with pleasure.⁸⁰

⁷⁵On male-male romantic sexuality in the Meiji era, see Pflugfelder 'The Forbidden Chrysanthemum: Male-male Sexuality in Meiji Legal Discourse', in Pflugfelder, *Cartographies of Desire*, pp. 146–192; and Tanaka Aiko, *Otoko-tachi/Onna-tachi no Ren'ai: Kindai Nihon no 'Jiko' to Gender* (Tokyo: Keisō Shobō, 2019).

⁷⁶Karasawa Taisuke, 'Minakata Kumagusu to Hayama Kyōdai: Intimate na Kankei', in *Minakata Kumagusu no Mita Yume: Passage ni Tatsu Mono* (Tokyo: Bensei Publishing, 2014); Hasegawa Kōzō and Tsukikawa Kazuo (eds), *Minakata Kumagusu Danshoku Dangi* (Tokyo: Yasaka Shobō, 1991); Inagaki Taruho, *Minakata Kumagusu Chiqo Dangi* (Tokyo: Kawade Shoko, 1992).

⁷⁷Kumagusu, *Wako 620.17* and *Jippitsu 008-011*, Minakata Kumagusu Archives; Tokyo Minakata Kumagusu Honji no Kai (ed.), 'Minakata Kumagusu—Wakan Sansai Zue he no Ann Arbour Jidai Kakiire', *Minakata Kumagusu Kenkyu 8* (2006), pp. 142–145.

⁷⁸Terashima Ryōan, '10: Jinrin no yō', in *Wakan Sansai Zue*. The influence of non-binary classification of human sexuality on Kumagusu's work became most visible in his article 'Toriwo kūte ōni natta hanashi: Seini kansuru sekai kakkoku no densetsu', published in the Japanese magazine *Gendai* in 1921–1922.

⁷⁹Tokyo Minakata Kumagusu Honji no Kai (ed.), 'Minakata Kumagusu', p. 144.

⁸⁰ Ibid., pp. 144-145.



Figure 3. Honzōgaku publication Wakan Sansai Zue, hand copied by Kumagusu, circa 1881. Source: Courtesy of the Minakata Kumagusu Archives, Tanabe, Japan.

His Kii-derived historical knowledge, then, became entangled with his conception of natural science as he examined 'myō' (strange) and 'chin' (curious, rare, and strange) microbes. He equipped himself with a microscope, illustrated copies of the study, and matchboxes, which he used as specimen containers. With these tools, he carefully

examined microbes in his cluttered rented room and created specimen books of his own. He eagerly corresponded with another independent microbiologist, William Wirt Calkins (1842–1914), to discuss and exchange findings. He even found new species of lichens that made appearances in the journal *Science*, though Calkins announced Kumagusu's findings as his own and made no acknowledgement of his young Japanese friend. Seemingly not discouraged by such incidents, Kumagusu tended to his research. His motivation as a naturalist seemed to have little to do with fame or success.

The entanglement between his knowledge and activities is shown in how he described himself:

A big scholar, specializing in botano-physiology, botano-morphology, botano-taxonomy, and ætiology, and the mastery of Buddhistic, Confucian, and historic-Japanese literatures. 84

His specialties as a scholar were, furthermore, informed by his personal identification as: 'Formerly, a "sanga" in Jizōin, Kōya; Presently ... The "king of love". 85

In this imagined persona, Kumagusu was one of the monks (sanga) who lived under Buddhist precepts at the Shingon temple on Mount Kōya. He then became the ruler of an independent state that governed love. This Buddhist 'king of love' was a natural scientist fascinated by the 'utterly outrageous' physiology, morphology, taxonomy, and ætiology of microbes.

Buddhist science

The study of nature was never natural. Inescapably, human culture was helping to shape the epistemology of natural and social science. So-called 'objective' understandings of universal and societal nature were no exception. Recognizing the cultural nature of the science behind theories of evolution and civilization, Kumagusu configured Buddhist science.

As Western-inspired civilization theory began to disillusion Kumagusu, he criticized 'the scientists of the modernist school' who effectively validated the civilizing process, influenced by the social Darwinian view of 'progress'.⁸⁷ It manifested what he would regard as 'retrogress'.⁸⁸ The presence of social, racial, and

⁸¹William Wirt Calkins (1842–1914) was a lawyer and military officer who practised microbiology in his own time. He and Kumagusu started corresponding in 1890. See Matsui Ryūgo, 'William Wirt Calkins', in *The Comprehensive Dictionary of Minakata Kumagusu*, (eds) Matsui Ryūgo and Tamura Yoshiya (Tokyo: Bensei Publishing, 2012), pp. 339–340; Kumagusu, *Minakata Kumagusu Zenshū* 7, p. 9; Kumagusu, 'A Letter to Calkins, William Wirt', Minakata Kumagusu Archives, Shoseki 0003.

⁸² Matsui, The Comprehensive Dictionary.

⁸³Ihid

⁸⁴The original text in English, all written in capitals. Kumagusu, 'Chinji Hyōron Dainigō', in *Chinji*, pp. 75–76.

⁸⁵ Ibid.

⁸⁶On the history of 'objective' knowledge in late nineteenth-century European science, see Lorraine Daston 'Objectivity and the Escape from Perspective', *Social Studies of Science* 22, no. 4 (1992), pp. 597–618.

⁸⁷Kumagusu wrote the original text in English. Kumagusu, *Jippitsu* 074, Minakata Kumagusu Archives.

⁸⁸ The original text in English. Ibid.

international hierarchies, and also the state's control over people's freedom, all evidenced civilizational retrogression. The epistemology of $daij\bar{o}$ (大乗/mahāyāna) Buddhism to which Shingon belonged asserted the equality of all humans. Eumagusu argued that,

There is nothing between heaven and earth that desires restraints; nothing in east, west, north, south, the heaven, and the earth that favors inequality. ... Freedom and equality are the greatest felicities in the world. 90

The naturalist Charles Darwin's evolutionary theory and philosopher Herbert Spencer's theory of social evolution emerged through a dichotomized and hierarchical epistemology of modern Western science. Science emerged alongside affirming the Christian epistemology that asserted the domination of humans over nonhuman nature. This scientific culture justified social Darwinism where the normative idea of 'human' was represented by a white male heterosexual elite; everyone else was closer to 'primitive' nature. Scholars at the Imperial University, in the meantime, erased the Christian cultural aspects from the theory while preserving the Spencerian epistemology. In doing so, then-president of the university Katō Hiroyuki (加藤弘之, 1836–1916) translated Darwin's theory of evolution into a Spencerian social theory of shinkaron (進化論/The Progress Theory), suited to the political ideology of Kokka Shintō (State Shinto) that held the Imperial lineage sacred.

It was in the context of these cultural dynamics that Kumagusu let Buddhism influence his science. His practice of science thus emerged from an epistemology suffused with *Daijō* Buddhism (*mahāyāna*), to which the Shingon sect belonged. *Daijō* teaches that any phenomena, the subject of epistemic recognition, emerges from each individual's *kokoro* (心/mind-heart). In other words, the Cartesian hierarchical assertion of mind-over-matter and the 'scientific' dichotomies of object-subject and intelligence-emotion simply did not exist in this Buddhist science.

⁸⁹Buddhism has been criticized for having a misogynistic character. Pandey, however, argued such an understanding is ahistorical and reductive. See Rajyashree Pandey, *Perfumed Sleeves and Tangled Hair: Body, Woman, and Desire in Medieval Japanese Narratives* (Honolulu: University of Hawai'i Press, 2016).

⁹⁰ Kumagusu, 'Dainihon', p. 431.

⁹¹Godart, *Darwin*; Herbert Spencer, *A System of Synthetic Philosophy. Vol I: First Principles* (New York: D. Appleton and Co., 1860, 1888). Yō 130.16, Minakata Kumagusu Archives.

⁹²Kumagusu paid attention to the English philosopher Francis Bacon's (1561–1626) work and his 1620 treatise Novum Organum, which famously argued for the legitimacy of the seventeenth-century European scientific revolution in the light of theology. Francis Bacon, Instauratio Magna, pars secunda: Novum Organum (London, 1620), Book II, aphorism LII, 359.

⁹³On Katō and the history of his political ideology in relationship to theories of Nature, see Julia Thomas, 'Kaō Hiroyuki: Turning Nature into Time', in Thomas, *Reconfiguring Modernity*, pp. 84–110. Also see Godart's discussion on 'the demise of Spencerism' in Godart, *Darwin*, Chapter 2: 'Evolution, Individuals, and the *Kokutai*', pp. 66–68; and C. G. Godart, 'Spencerism in Japan: Boom and Bust of a Theory (1868–1911)', in *Global Spencerism: The Communication and Appropriation of a British Evolutionist*, (ed.) Bernart Lightman (Leiden: Brill, 2015), pp. 56–77.

⁹⁴The notion has been known as *shingai mubeppo* (心外無別法) Kongō hannyakyō. Wada and Takagi (eds), Nihon Bukkyōshushiron Shū Dai 4 Kan.

Within this epistemology, Kumagusu classified reality into bukkai (物界) and shinkai (心界). Bukkai signified the world of matter, whereas shinkai referred to the world of kokoro (心/mind-heart). The notion of kokoro (心) denotes an organ that takes charge of thoughts (the mind) as well as emotion (the heart). In shinkai (the world of mind-heart), therefore, intellectual recognition is intimately intertwined with emotional experience. Nature, in turn, emerged at the intersection of the world of matter and the world of mind-heart. The nature that surfaced in this Buddhist science was queer nature, encapsulating Kumagusu's desire for intimacy beyond the dichotomized and hierarchical epistemological divides.

A semi-fictional autobiographical *gesaku* (戯作) he wrote in 1889 evidences the emergence of queer nature in his Buddhist science.⁹⁶ Entitled *A Writing for Ryūseiho* (竜聖法に与うる書), he addressed the piece to his United States-based Japanese student-friend Watanabe Ryūsei (都辺龍聖):⁹⁷

I, Jintaku, am a man of Hidaka district in the nation of Kii... One day, I read Kūkai (空海)'s Sangō Shiiki (三教指帰). Upon closing the book, I realized this is the direction to where my life is headed. I studied very hard, trying every possible means. Now I am in the US. ... My most earnest desire is to rescue everyone. The hardship of life can rescue society. ... The virtue of Buddha never changes, Buddhist scriptures are accurate, Buddhist precepts are orderly, and the sutra is rational. ... Spencer facilitates Christians' partial peace and ignorance. Japanese Buddhism these days has particularly deteriorated; Christianity has greatly confused and disturbed Buddhist truth. ... I therefore cross marshes and walk into forests to thoroughly investigate the nature of matter during the day; I read the sutra and reflect on the image to enquire into the dynamic of matter and mind-heart at night. ... I named myself Minakata Kumagusu in this human world ⁹⁸

Here, he portrayed himself as a fictional Buddhist monk Jintaku (賢沢). Kumagusu merged his persona as the monk with his closest lover Shigetarō, who occupied his mind-heart, by noting that the monk himself belonged to Shigetarō's hometown of Hidaka. This monk became aware of his life's purpose upon reading the autobiographical novella text of Kūkai, the founder of Shingon Buddhism. Jintaku realized that he must rescue society from intellectual chaos as Minakata Kumagusu in the human world, just like Kūkai. Society had fallen into epistemic turmoil; people could not discern what it actually meant to become civilized in the light of Buddhist truths. Spencer's social Darwinism normalized Christian-derived epistemology. Japanese Buddhism lost its own epistemology to this social Darwinian norm. Kumagusu examined nature, the empirical foundation of civilization theory, in microbes he collected in fields and forests. He did so within the 'mindframe' of Buddhist epistemology, in which matter and mind-heart are symbiotically intertwined.

⁹⁵Kumagusu, Chinji, p. 105.

⁹⁶Gesaku is a form of light novel written in a manner of jest that emerged in the city of Edo in the mid-eighteenth century in Japan.

⁹⁷The biography of Watanabe Ryūsei is unknown.

⁹⁸ Kumagusu, 'Yoryūseihōinsho', in Chinji, pp. 103-106.

Kumagusu was certainly not alone in combining Buddhism with science in the late 1880s to the early 1890s. Buddhism was on the brink of its reinvention to become compatible with the 'scientific objectification' of nature in 1880s Japan, as Godart has shown.⁹⁹ The combined forces of state persecution and rising Western science were threatening Buddhism. Christianity was experiencing rapidly increasing church membership.¹⁰⁰ Competing with one another, Buddhism and Christianity strived to argue for their compatibility with 'civilized' Western science.¹⁰¹ Inoue Enryō (井上円了, 1858–1919) was the most prominent figure to advocate for the integration of Buddhism with Western science and philosophy. His influential 1887 publication Bukkyō katsuron joron (仏教活論序論/Introduction to the Vital Theory of Buddhism) argued that Buddhism was compatible with the Spencerian theory of social evolution.¹⁰²

In the United States, however, Kumagusu was away from the movement. His focus on Buddhism rested on the historical discussion of religions in the Anglophone world and their relationship to methods for finding the 'truth'. He showed no interest in Buddhism's social and political status in Japan. Moreover, while learning from Spencer, he contemplated his own theory of evolution, unlike Enryō. As a result, he also argued against Spencer—again, unlike Enryō. He did so before Enryō and other Buddhist thinkers, such as Kiyozawa Manshi (清沢満, 1863–1903) and Miyake Setsurei (三宅雪嶺, 1860–1945), began to question the ideas of evolution led by the Spencerian ideas of 'progress'. Hos

The theory of social evolution, based on queer nature

For Kumagusu, nature emerged as queer. The microbes he observed through the lens of Buddhist science appeared to reflect the state of his *mind-heart*, filled with what he referred to as *jōsei* (情性, affective human nature). His yearning for intimacy with his physically unobtainable male lovers merged with his curiosity surrounding the strange, 'outrageous' microbes and desire for greater intellectual enquiry. As I explained earlier, his favourite microbe slime mould ontologically eluded the normative conceptions of male-female, animal-plant, and life-death binaries and hierarchies. Knowing with and through slime mould blended emotional experience with intellectual recognition. In other words, both the microbes and his affective human nature ontologically and experientially transcended the epistemological dichotomies and hierarchies that 'the scientists of the modernist school' and social Darwinists regarded

 $^{^{99} \}text{Godart}, \textit{Darwin}, \text{Chapter 3: `The Dharma after Darwin: Meiji Buddhism and the Embrace of Evolution', pp. 70–118.}$

¹⁰⁰ Ibid.

¹⁰¹ Ibid.

¹⁰²Ibid. Inoue Enryō, *Bukkyō katsuron joron* (Tokyo: Tetugaku Shoin 1887).

¹⁰³Kumagusu, *Chinji*; and Kumagusu, 'Meiji 23 nen 2 gatsu 18 nichi (18 February 1890)', in Kumagusu, *Nikki* 1, p. 243.

 $^{^{104}}$ Kumagusu, 'Nakamatsu Morio ate' (estimated date: early August 1892), in Kumagusu, *Minakata Kumagusu Zenshū* 7, p. 126.

 $^{^{105}}$ On the discussion of 'progress and retrogression' by Enryō and Mansetsu, see Godart, *Darwin*, pp. 84–87.

¹⁰⁶Kumagusu, 'Sugimura Kōtarō ate, Meiji 20 nen 9 gatsu 9 ka (9 September 1887)', *Minakata Kumagusu Zenshū* 7, pp. 77–78.

as fundamental in evolution. As a result, his evolutionary theory based on queer nature suggested that societies evolved through cooperation and affective desire for intimacy with each other beyond normative epistemological divides.

Such ideas behind Kumagusu's theory of social evolution emerged inseparably from his knowledge of Chinese historiography (for example, jōsei as affective human nature). He saw that the ways in which certain cultures and nations wrote history determined which characteristics they considered natural social—social evolution—within human civilization. When Kumagusu became dismayed by the 'uncivilized' state of the United States, he consulted the work of Sīmă Qiān (司馬遷, circa 145–86 BCE), known as the 'founding father' of history writing in Asia. 107 Sīmă Qiān developed Kidentai (紀伝体), a synthetic method of producing records of the changing world—that is, civilization—in early Han dynasty China (206 BCE–220 CE). Scholars of the Tokugawa Shogunate families then adopted this system to write the history of Japan. 108

'All I can do for now is simply follow the example of <code>jitsugyo</code> (実業/business), the basis of civilization,' Kumagusu declared to Sugimura.¹⁰⁹ He elaborated on this seemingly capitalist idea: 'What is <code>jitsugyo</code> (business)? It is a way to create <code>tomi</code> (富/wealth).' This was shortly before the notion of 'business' came to be used increasingly in the history of capitalism in Japan.¹¹¹ 'Wealth', however, had nothing to do with financial or territorial gain, with which the state was concerned amid rising international capitalism that originated from the European Enlightenment. He explicated:

According to Sīmă Qiān, *tomi* (wealth) is a person's *jōsei* (affective human nature), and it is not something that one learns but desires together with others. If *tomi* (wealth) was affective human nature, *jitsugyō* (business) is a business that all nations and each race should learn together while helping each other.¹¹²

One had to acknowledge affective human nature as civilizational wealth in order to civilize society and oneself. One could recognize affective human nature through interpersonal—and potentially interspecies—relationships. The idea implied an innate collective desire for each other. Yet, such a wealth seemed to be deficient in human society of the day. Hence, despite Sīmă Qiān's argument that it was not about learning,

¹⁰⁷As the 'founding father' of history writing in Asia, Sīmă Qiān has been compared to the Ancient Greek scholar Hērodotos (484 BC–unknown), the 'founding father' of history writing in Europe. For more on Sīmă Qiān, see Grant Hardy, Worlds of Bronze and Bamboo: Qian's Conquest of History (New York: Columbia University Press, 1999).

¹⁰⁸On Kidentai, see Naitō Konan, Naitō Konan Zenshū 11: Shinashi Gakushi/The Complete Works of Naitō Konan 11: The History of Chinese Historical Studies, (eds) Kanda Kiichirō and Naitō Ken'ichi (Tokyo: Chikuma Shobō, 1969). The Shogunate scholars used the system of history writing in Dai Nihon Shi (大日本史: literally, 'The History of Great Japan') that was continuously published from 1657 to 1906. Tokugawa Mitsukuni, Tokugawa Tsunaeda and Tokugawa Harumori, Dainihonshi (Tokyo: Dainihon Yūbenkai, 1928).

 $^{^{109}}$ Kumagusu, 'Sugimura Kōtarō ate, Meiji 20 nen 9 gatsu 9 ka (9 September 1887)', *Minakata Kumagusu Zenshū* 7, pp. 77–78.

¹¹⁰ Ibid.

¹¹¹On the dominant history of capitalism in modern Japan, see John Sagers, *Confucian Capitalism: Shibusawa Eiichi, Business Ethics, and Economic Development in Meiji Japan* (Basingstoke, Hampshire: Palgrave Studies in Economic History, 2018).

¹¹² Ibid.

Kumagusu asserted that all nations and races had to learn the method of producing this wealth.

Similar ideas appeared as a theory of social evolution in Kumagusu's short essay 'Chinron: Myō na Shinkaron (珍論: 妙な進化論/A Curious Theory: The Strange Progress Theory)'.¹¹³ The piece was part of *Chinji Hyōron* (珍事評論/The Criticism on Curious Things), a hand-written newspaper he wrote and circulated in confidence among his Japanese friends in the United States. 'The curious theory' discussed a series of modern scientific discoveries that explained the nature of the universe.¹¹⁴ He contended, in the text for 'The Principle of Venereal Passion (色欲原則)', a theory that should be, he explained, seen as the successor of 'the father of *shinkasetsu* (進化説/the progress theory) Spencer'.¹¹⁵ The theory, according to him, revealed the desire for intimacy intrinsic to affective human nature.¹¹¹⁶

No further details of the theory exist. After the brief comments in the essay, Kumagusu resentfully remarked: 'sadly, nobody yet writes about the progress of venereal passion ... what is to blame is the current condition of the nineteenth century'. However, it is possible to sketch an outline of the theory by cross-examining who and what evoked Kumagusu's affective desire for intimacy: memories of his male lovers and cryptogams, a type of organism associated with a microbe Kumagusu was particularly fond of. They resonated with one another, marking nature as queer, in his Buddhist science.

The primary subject that evoked Kumagusu's affective desire for intimacy in the midst of his research in microbiology was Shigetar \bar{o} , who he had left behind in Kii and had recently died. He expressed his torment:

I have been thinking of him quietly for so long. ... If I am to die with the illness in the end, I would rather return home and sleep together with him in the same hole. 119

The longing for his dead lover led him to experience the present as a simultaneous expression of life and death. He barely ate or slept; when he did sleep, he dreamt about Shigetarō. The affective desire for intimacy extended to Shigetarō's brother Hanjirō (蕃次郎: 1871–1896) who was still alive and with whom he also had a romance before he left Japan. He maintained the will to live only through his desire for entities that were no longer physically obtainable, seeing them instead in his dreams.

¹¹³Kumagusu, Chinji, pp. 115–116.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

¹¹⁶ Ibid.

¹¹⁷ Kumagusu, Chinji.

¹¹⁸Ibid., pp. 60-63.

¹¹⁹Kumagusu, 'Watabe Hango-kun Den', in ibid.

¹²⁰ Kumagusu, Chinji.

¹²¹Ibid. Karasawa Taisuke analysed the significance of the Hayama brothers in Kumagusu's dreams. Karasawa Taisuke, 'Kumagusu to Hayama Kyōdai: intimate na kankei', in *Minakata Kumagusu no mita yume:* pasaju ni tatsu mono (Tokyo: Bensei Shuppan, 2014), pp. 33–68.



Figure 4. Kumagusu's drawings of cryptogams and slime moulds in his letter to Hayama Hanjirō. Source: Courtesy of the Minakata Kumagusu Archives, Tanabe, Japan.

For Kumagusu, cryptogams symbolized the symbiosis of intellect and emotion. These were plant-like organisms without visible sexual organs, like flowers or seeds, ¹²² and included slime mould, fungi, seaweed, mosses, liverworts, and lichens. The name 'cryptogam', moreover, derived from the Greek words *kryptos* ('hidden'), and *gameein* ('to marry') to imply 'hidden reproduction'. ¹²³ While their sexual organs were invisible, it seemed to him that some of the slime mould's visual appearances curiously resembled human sexual organs (Figure 4). ¹²⁴

'They are so desirable,' Kumagusu told Hanjirō. ¹²⁵ His research into these microbes became inseparable from his intimate dialogues with his lover. He continued: 'The other day I wrote on and on asking you to kindly collect algae and lichens [in the Kii region]. What I would love for you to also look for are fungi.' ¹²⁶ As he looked through the microscope to examine the microbes he had gathered in a land far away from Kii, his affective human nature appeared to be in symbiosis with the curious microcosmos that irresistibly attracted his attention.

As Kumagusu sketched what these microbes looked like, he asserted that slime mould, the Mycetozoa group in particular, should be regarded as animals instead of

¹²²Kawakami, Henkeikin Nyūmon.

¹²³Ibid. Kumagusu wrote an essay entitled after the etymological meaning in 1913 and published it in the newspaper *Fuji*. Kumagusu, 'Jōji wo suku shokubutsu', *Fuji*, 6 and 18 November 1913; republished in Kumagusu, *Minakata Kumagusu Zenshū* 6 (Tokyo: Heibonsha, 1973), pp. 66–72.

¹²⁴Kumagusu, 'Hayama Hanjirō ate', pp. 91-100.

¹²⁵Ibid., p. 95.

¹²⁶Kumagusu letter to Hayama Hanjiro, in Kumagusu, *Minakata Kumagusu Zensh*ū, p. 92.

being categorized in the taxonomical classification of plants. In other words, he desired to place them in a class closer to humanity. ¹²⁷ In his thinking, the biological relation of Mycetozoa to humankind was evident. He agreed with British biologist Edwin Ray Lankester (1847–1929) that Mycetozoa was the oldest form of life on the planet. ¹²⁸ In his book *Degeneration: A Chapter in Darwinism,* Lankester argued that evolution does not necessarily always result in 'improvement'. ¹²⁹ As such, even though the emergence of humankind occurred much later than the rise of Mycetozoa, it could not be logically argued that humankind was a superior life form.

Mycetozoa hence manifested two of Kumagusu's pivotal observations of evolutionary nature. The microbe first demonstrated that social evolution can 'retrogress', as he witnessed in American society. Second, it proved that neither the microbes' seeming asexuality nor their bodies' sexual ambiguity hindered evolution. There had to be reasons why such organisms still existed. ¹³⁰

Kumagusu further developed these ideas as he set off to travel to Cuba to search for rare cryptogams. ¹³¹ Here, by comparing cross-mixing of the human race to microbial osmosis, he imagined 'a different kind of civilization'. ¹³² Although he did not elaborate on this remark, it is clear that intimate interracial relationships appeared *natural* in the light of the queer nature he observed in microbes. Japanese intellectual elites working with the Meiji state in the meantime considered the mixing of races a highly sensitive issue. ¹³³ Inoue, for example, strongly argued against the mixing of *seiyō-jin* (西洋人/the Westerners) with Japanese. ¹³⁴ He feared, *naturally*, that they might take over the 'weak and inferior civilization' of Japan based on the innate characteristics of social Darwinism. ¹³⁵ Spencer, who occasionally advised the Meiji state, also vehemently opposed 'the intermarriage of foreigners and Japanese', arguing that 'the result is inevitably a bad one'. ¹³⁶ Such concerns seemed irrelevant for Kumagusu in light of queer nature.

¹²⁷ Kumagusu, 'Hayama Hanjirō ate', pp. 97-98.

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¹²⁹Edwin Ray Lankester, Degeneration: A Chapter in Darwinism (London: Nature, 1880).

¹³⁰Kumagusu notebooks: 'The Scientific Memoirs I–III, A1-055', Minakata Kumagusu Museum. Takegami Mariko compiled a list of articles in his notebook. See Takegami Mariko, 'Sonbun and Minakata Kumagusu', in *Kagaku no Hito: Sonbun. Shisōshiteki Kōsatsu* (The Man of Science: Sonbun. The Analysis in Intellectual History) (Tokyo: Keisō Shobō, 2014), pp. 161–163.

¹³¹Kumagusu, '13 September 1891', in Kumagusu, *Nikki* 1, p. 282; Kumagusu, 'Cuba, Florida nite saishu no inkashokubutsu ichiran (1891)', in *Bibōroku*, (ed.) Yoshikawa Toshihiro (Wakayama: Minakata Kumagusu Museum), p. 21; Minakata Fumie, *Chichi Minakata Kumagusu wo kataru* (Tokyo: Nihon Editors School Shuppanbu, 1981), pp. 56–57.

¹³² Kumagusu, Nikki 1.

¹³³Urs Matthis Zachmann elucidated that, at the turn of the 1880s to the 1890s, the social Darwinian understanding of race was limited to the intellectual elites who had spent an extended period in Europe. The 'xenophobic current among the Japanese people' against the plan was based on 'concerns about economic inequality'. See Urs Matthias Zachmann, 'Race without Supremacy: On Racism in the Political Discourse of Late Meiji Japan, 1890–1912', in *Racism in the Modern World: Historical Perspectives on Cultural Transfer and Adaptation*, (eds) M. Berg and S. Wendt (New York: Berghahn Books, 2011), pp. 255–280.

 $^{^{134}}$ Thomas, Reconfiguring Modernity, p. 164.

¹³⁵Ibid. Inoue Tetsujirō, 'Wagakuni ni okeru rōdō mondai' (1889), in *Meiji benka zensh*ū, 3rd edn, (eds) Kimura Ki et al. (Tokyo: Nihon hyōronsha, 1968), Vol. 6, p. 508.

¹³⁶Herbert Spencer, 'Letter to Kaneko Kentarō, August 1892', in D. Duncan, *Life and Letters of Herbert Spencer* (New York: D. Appleton and Co, 1908), p. 322.

The theory of civilization, based on queer nature

How Kumagusu imagined manifesting these ideas of social evolution as a theory for civil society remains unknown. He said he wrote many 'secret theories' against Spencer but could not publish them 'due to the confusion of the entire world'. ¹³⁷ It is possible, however, to uncover their outlines by analysing how he situated his affective desire for intimacy within other recurring topics of interest. These included a thirst for knowledge and independence, and a concern for morality and collectivity.

These preoccupations were also key issues in the Meiji regime's theorization and dissemination of its ideas for civilizational progress. ¹³⁸ For example, the state deemed the adaptation of Western knowledge to be a central requirement for the nation to civilize and remain independent. ¹³⁹ The state centralized moral codes to suppress internal uprisings and maintain national collectivity amid the effort to 'civilize'. The fundamental disagreement between Kumagusu and the state on these matters arose, however, from their contrasting views of nature, which served as their foundation of truths.

Based on queer nature, Kumagusu's theory of civilization called for civilizing subjectivities to become simultaneously independent and collective. ¹⁴⁰ It asserted that knowledge of one's own nature was a prerequisite for individuals who are in the process of civilizing; acquired self-knowledge facilitated individuals' independence. For his own part, Kumagusu's self-knowledge recognized his affective desire for intimacy with others. This self-knowledge simultaneously implied collectivity in its essence. Civilizing subjectivities could inhabit independence and collectivity at the same time because, in his understanding, anyone could possess moral agency.

Kumagusu's thoughts behind these notions surfaced when he responded to fellow Japanese friends in the United States who had immersed themselves in modern Western political ideologies. 141 From 'anarchism' to 'socialism', the ideologies they discussed could be identified with the term 'shugi' (主義/ism) in modern Japanese. 142 He criticized what appeared to him to be the temporal privileging of modern thoughts in history: 'Well well, though there are so many kinds of ism, most of them are utterly one-sided.' 143 The ideologies that argued for the freedom and equality of people were not at all new, and Kumagusu argued that they were continuations of 'pre-modern' ideas that had existed for thousands of years in Buddhist thought. 144

In accordance with the Buddhist intellectual lineage, Kumagusu believed that one ought to find one's own ism that exists in multiplicity. Koko ga Kugai no Mannaka Kaina (こゝが苦界のまんなかかいな/Is This the Centre of the Tough World?), the opening story of The Criticism on Curious Things, elaborates on how to do so. In this story,

¹³⁷Kumagusu, 'Nakatatsu Morio ate', in *Minakata Kumagusu Zensh*ū 7, pp. 125–126.

¹³⁸Fukuzawa, An Outline.

¹³⁹Craig, 'The Scottish Enlightenment'; Fukuzawa, An Outline.

 $^{^{140}}$ The notion echoes Konishi's notion of cooperative anarchism. See Konishi, 'Introduction', in *Anarchist Modernity.*

¹⁴¹Kumagusu, Chinji, pp. 13-16.

¹⁴² Ibid.

¹⁴³ Ibid.

¹⁴⁴ Ibid.

Kumagusu and his friends live in a world where brutally harsh things can happen—like the loss of loved ones; the Buddhist notion of <code>kugai</code> (苦界) in the title denotes such a human world. But people could become like <code>rakan</code> (羅漢/literally, 'worthy one'), the Buddhist epithet for those who gained wisdom close to the Buddha's. <code>Rakan</code> meditated on the nature of the world to help overcome spiritual torment, according to Kumagusu. If people were to follow this path, they would then arrive at their own <code>ism</code> that exists in hundreds of heterogeneous forms. Such diverse <code>isms</code> resembled the 33,333 faces of the Buddha which, upon close inspection, illuminate the face of the person they yearned to meet. He thus wrote:

The world is fast changing, but what does not change is the nature of human beings. Ripped clothes and broken shoes *heimin* (平民/the common people) - ism ... eight-tongued repeat-ism, reliable and hindering critic-ism ... whatever is good-ism ... so many men, so many minds. ... five-hundred isms at a gathering of *rakan* ... thirty-three-thousands-three-hundreds-thirty-three ism of the Buddha at the temple of the *Sanjūsangendō* (三十三間堂) ... One ism exists for a person's own way, one's own way also exists for one ism. Oh, is this the centre of a tough world. 145

Sanjūsangendō was a Buddhist temple in Kyoto built by the renowned warlord Taira no Kiyomori (平清盛, 1118–1181) for Emperor Goshirakawa (後白河天皇, 1127–1192) in 1164. A historical anecdote of the temple famously suggested that, if observing carefully, one would find the face of the person they long to meet among the temple's 1,001 golden statues of the Goddess of Compassion Kannon in her thousand-armed incarnation. Those who Kumagusu was dying to see were, of course, the Hayama brothers with whom he had nurtured intimate relationships in his adolescence.

Writing to Sugimura, Kumagusu declared that the *ism* he 'could not possibly abandon' was 'the rising affect (情/ \bar{p}) and desire (悠/yoku) for loved ones'. ¹⁴⁶ An interpersonal relationship he described as $h\bar{o}y\bar{u}$ (朋友/intimate friends) activated this affect and desire for collectivity. ¹⁴⁷ 'Intimate friend' was also how Hayama Shigetarō had described his relationship to Kumagusu in English before their separation. ¹⁴⁸ Kumagusu, in the meantime, described his emotion towards his $h\bar{o}y\bar{u}$ (the intimate friend) Shigetarō as 'platonic love'. ¹⁴⁹ The notion of love advocated by the ancient Greek philosopher Plato was asserted to be androgynous. ¹⁵⁰ It resonated with Kumagusu's sustained affect and desire for physically unobtainable intimate friends.

¹⁴⁵Ibid., pp. 14-16.

¹⁴⁶Kumagusu, 'Sugimura Kōtarō ate', in Kumagusu, *Minakata Kumagusu Zenshū* 7, p. 86.

¹⁴⁷ Ibid. According to *Koji Ruien*, the 1896–1914 encyclopedia on pre-Meiji bibliographies compiled by the government, the term implied: 1) *tomo* (友) a friend, and 2) *chion* (知音) a lover or an intimate friend with whom one exchanges their affect (jō). The original expression of *Péngyou* (朋友) in Chinese signified 'a lover' in addition to 'a friend'. Nishimura Shigeki (ed.), *Koji Ruien Jinbu Yōkan. Vol. 2.* (Tokyo: Kojiruien Kankōkai, 1896), p. 397.

¹⁴⁸Kumagsu and Hayama Shigetarō, 'Meiji 19 nen 4 gatsu 29 nichi (29 April 1886)', in Kumagusu, *Nikki* 1, p. 70.

¹⁴⁹ Kumagusu, Chinji, p. 41.

¹⁵⁰Plato, *The Symposium*, (eds) Christopher Gill and H. D. P. Lee (London: Penguin, 2005).

Kumagusu explained that $h\bar{o}y\bar{u}$ was one of the Five Ethics (gorin/五倫) in Confucian thought. He argued: ' $H\bar{o}y\bar{u}$... ought to happen in women ... and in boys, too.' Women and children—whom the state perceived as inferior to men and adults—also possessed the agency necessary for moral conduct. It was thus possible for any civilizing subjectivity to simultaneously inhabit independence and collectivity.

Conclusion

Nature, the basis for truths, emerged as queer in Kumagusu's re-evaluation of civilization theory in the United States between 1887–1892. Queer nature resembled the ontological and experiential qualities of microbe slime mould in ways that challenged the epistemological binaries and hierarchies of modern Western philosophy and science. Slime mould possessed characteristics of both animals and plants, seemed to exist without a clear boundary between life and death, and appeared androgynous. The microbe attracted his attention and induced greater curiosity and desire for intimacy. As a result, knowing through queer nature defied the separation between intellect and emotion. The truthful meaning of civilization theory, then, implied that societies became civilized through cooperation and affective desire for intimacy with each other beyond the normative epistemological divides.

Theoretically, the article challenged the epistemological barrier of existing queer theory that revolved around the intellectual lineages of continental philosophy and Western science. Queer nature, as I argue, appeared *natural* not only in the light of microbes, but also in 'Japanese' knowledge of Kumagusu's home region Kii whose localized intellectual lineage derived from ancient India and China. Shingon Buddhism and the Tokugawa-period encyclopedic knowledge of the world of *Wakan Sansai Zue* (The Illustrated Three Knowledge of Sino-Japan) affirmed the intrinsic characteristics of queer nature. Chinese historiography and Confucianism facilitated his reasoning process.

The article therefore challenged the narrative of 'modernization through Westernization' that informed the predominant historiography of modern Japan. Knowing through queer nature evidenced that neither ancient nor Asian knowledge equated with pre-modern primitivity. Instead, they existed as the essential sources of knowledge that opened up a novel way of understanding the present moment in 'civilizing' society. Kumagusu turned to them as he questioned the singular authority of Western philosophy and science that validated civilization theory. The historical foundation of social Darwinism crumbled and fell apart when he faced 'uncivilized' racism in the United States. The West-led civilization theory that had appeared as 'progress' suddenly slid down to a state of retrogression.

Within the above context, I revealed a new history of Buddhism and science in modern Japan, showing a case study where Buddhism did not resort to the social Darwinian paradigm of civilizational progress in the 1880s and 1890s. Kumagusu's Buddhist science reinvented the ontological and epistemological foundations upon which modern science developed. His knowledge of science expanded

¹⁵¹Kumagusu, 'Nakamatsu Morio ate', in Kumagusu, Minakata Kumagusu Zenshū 7, p. 124.

¹⁵² Ibid.

¹⁵³ Ibid.

while he interrogated a scientific enquiry of nature through Buddhist ontology and epistemology—consequentially leading him to practise Buddhist science. Buddhist thoughts asserted intrinsic freedom and equality of all beings and defied conceptual dichotomies and hierarchies of human domination over the earth and mind over matter. Discerning evolutionary nature in microbes, queer nature appeared as the symbiosis of his *mind-heart* and microbial biology.

Furthermore, the article advanced the existing historiography of evolutionary theory in the modern Japanese history of science that, again, revolved around Japanese thinkers' adaptation of Western epistemology. I illuminated the ways in which Kumagusu reflected on the evolutionary nature of society based on queer nature he discerned within Buddhist science. His theory implied that societies evolved through cooperation and affective desire for intimacy with each other beyond normative epistemological divides. His knowledge of Ming dynasty China—instead of the European Enlightenment—provided him with insight. Sīmă Qiān, the founding father of history writing in Asia, asserted that the wealth of civilization was *jōsei* (affective human nature). Kumagusu recognized *jōsei* (affective human nature), desiring an intimacy with no longer physically obtainable lovers in Japan. As he observed microbes, he reflected on their wondrous non-binary biology that rarely failed to capture his intellectual imagination.

I then delineated Kumagusu's civilization theory for the first time, building on the above findings. I showed how his ideas for the theory emerged while contemplating the same shared concerns as the Meiji government—that is, a thirst for knowledge and independence, and a concern for morality and collectivity. Kumagusu and the Meiji regime, however, developed their arguments surrounding these key notions based on their contrasting nature which operated as their basis for truths about what it meant to civilize.

Thus, the illuminated history moves the understanding of nature as the basis for truths away from a singular cause towards an entanglement of multiple agencies in modern Japanese history. It destabilizes conventional dynamics of power and knowledge production which determine the historical narrative of civilizational discourse. The dominant account of 'civilizational progress' that placed the Meiji state at its centre typically followed the Foucauldian perspective where the regime of power, not knowledge in and of itself, produced the basis for truths.¹⁵⁴ In Kumagusu's thought, the regime of power played a role only to the extent that it induced greater individual agency in the formation of his thoughts and actions. It was the microbes and Kumagusu's knowledge outside of the regime that fundamentally contributed to how he arrived at his theory of civilization based on queer nature.

This article ultimately opened up a historical time and space that emerged from queer nature, away from the teleology of 'civilizational development' modelled after the genealogy of the monolithic West. The historical paradigm that revolved around the West has left an immense impact on the ways in which philosophical theories arise, even in contemporary debates. Queer theory is one such instance. The newly opened paradigm of queer nature in modern Japan invites further questions on how historians and thinkers may be able to liberate other familiar ideas and methods from the conventional paradigm and discern novel historical phenomena and approaches.

¹⁵⁴Michel Foucault, Archaeology of Knowledge (London: Routledge, 1969; 2002).

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