

survival in this precarity. Their kinds, like ours, ‘are always in process’ (p. 231), emerging through history and indefinite encounter. Their survival is only through collaboration with plants, coppicing by villagers and capitalist forestry, after which they become part of human freedom, excitement, learning and some money. Their collaborations, and kin-expanding propagation methods, make them able to mend themselves/each other and live in this ruin, for the time being. Collaborations for some sort of life require political listening and detection of incipient agendas, but what will the knowledge that precarity is the rule rather than the exception, do for politics?

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On possibilities for salvaged polyphonic ecologies in a ruined world

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The Mushroom at the End of the World by anthropologist Anna Tsing is a heterogeneous ecosystem of a book tracking the socioecological presences of a multiplicitous entity, the matsutake mushroom (*Tricholoma matsutake*). The outcome of a

collaborative ethnographic project, *Mushroom*, is set to be a classic in the emerging genre of ‘multi-species ethnography’. This is a movement that embraces diverse interrelationships between humans and other-than-human natures, creating a much-needed decentring of human exceptionalism in understanding the necessarily ecological lives of social groups and individuals. Tsing’s emphasis on the entities and social practices with which matsutake is entangled pushes boundaries of thinking in multispecies endeavours beyond the familiarity of companion species more closely related to ourselves (e.g. Haraway, 2008).

Matsutake is a ‘culturally colourful global commodity’ (p. 57). In *Mushroom*, we encounter matsutake under mature lodgepole pine (*Pinus contorta*) forests in Oregon, picked by south-east Asian Mien descendants fleeing imperial power in China, as

well as brought to the United States through 1980s relocation programmes for ‘anti-communists’ (pp. 30–33). We feel poetic nostalgia for a centuries old appreciation of autumnal matsutake aromas in Japan and are faced with the ruination of its forested presence through transformations associated with modernization, economic development and war (pp. 6–9). We witness diverse value translations taking place as mediators move matsutake between different nodes and layers of the matsutake supply chain (pp. 122–128). And we meet the matsutake scientists contributing to a cosmopolitan matsutake science composed, like matsutake and its interspecies interactions, in patches (Ch. 16).

The complexity of these different yet interwoven dimensions encourages a rethinking of patterns of thought associated with the modern era. In all these threads, we see how both human and other-than-human communities are made through disturbance, movement, fluidity and contagion as well as through types, identities, boundaries and ancestry. The linear, monocultural and plantation models of capitalism and progress are hereby refracted by the unwavering rhizomatic and minor ecologies of contagion, contamination, proliferation, heterogeneity, openness, precarity and becoming. Although mentioned only in a footnote, the text thus bears allegiance to the world encountered by philosophers Deleuze and Guattari (1987 [1980]). Redolent with creativity and diversity, and resolutely beyond binary either/or thinking, categories (from species to ethnicities) arise and change through encounters (p. 29), becoming ‘names-in-motion’ (p. 293) that create possibilities for shared meanings without implying ontological fixity.

And yet, ‘ruin’ happens too. Engendered by a relentless ‘salvage accumulation’ that continually engulfs the edges of formalized exchange relations, evermore entities and relations become co-opted to capitalism’s ethos of monetary and profit-oriented value-making. For Tsing, the parasitic, accumulative ‘salvage’ of new and noncapitalist values enables capitalist momentum to take ‘advantage of value produced without capitalist control’ (p. 63, also p. 128) through processes that ‘[i]n contrast to primitive accumulation’ are ‘never complete’ (p. 296). This differentiation of ‘salvage’ from ‘primitive’ accumulation, however, seemed strange to

me. My understanding is that the fictitious commodities – land, labour and money – underscoring Marx’s (1974 [1867]) notion of primitive accumulation are themselves always in the process of being reproduced through practices, as well as being expanded into new areas of commoditized value production. For example, ‘[a]s soon as capitalist production is on its own legs, it not only maintains this separation [of labour from the means of capitalist production] but reproduces it on a continually extending scale’ (Marx, 1974 [1867]: 668). Massimo De Angelis (2001) thus refers to primitive accumulation as the *ontological*, as opposed to historical, condition of capitalist production. Many other authors have stressed this ongoing nature of ‘primitive accumulation’, from Rosa Luxemburg writing of *The Accumulation of Capital* in 1913 to David Harvey writing of ‘accumulation by dispossession’ in 2010 (discussed further in Sullivan, 2013).

I was additionally curious about Tsing’s use of the term ‘salvage’ since a different usage might celebrate the word for its positive dimensions of reclamation and recollection. Salvage commonly means saving from damage and destruction and making a bad thing better. These positive inflections seem helpful in considering possibilities for refractions of capitalist forms of value extraction and accumulation: for the salvage of value(s) from capitalist ruins so as to serve non-accumulative agendas. This is the spirit of Evan Calder Williams’ notion of ‘salvage punk’ as ‘a radical principle of recuperation and construction’ that can only build other futures ‘from the gutted hull’ of a present world made through the convulsion of capitalist pasts (Williams, 2011: 31, 13). In critiquing a ‘primitivist urge to rediscover a natural life of pure use-values’, salvage works here as a resuscitation of social relations constituting ‘traditions and horizons of collectivity, solidarity, and true antagonism’:

refractions of the mode of valuation that only sees ‘that which is capital and that which might become capital’. (Williams, 2011: 30, 42–43)

Salvage in this sense resonates deeply and metaphorically with matsutake and other fungal life

forms. At least, once I felt enough enthusiasm for these resonant metaphorical possibilities that I wrote:

The fungi – exuberantly diverse, celebrating the beautiful, the bizarre and the grotesque – . . . inhabit just about every corner, every cramped space, of the globe. With their spreading underground fibrous mycelium, they can constitute the largest organisms on earth, as well as being the longest lived. They form intimate and frequently mutually beneficial associations with myriad other organisms, and play a huge role in making nutrients available from decaying material.

But it is their organisation and dynamics that are compelling here. Fungi largely are comprised of rapidly proliferating, mostly underground or underside multidirectional networks of tiny interconnecting, continuously branching, and variously clumping threads (*hyphae*) which together constitute a dynamic fungal *mycelium* or meshwork. This is the humming, below-ground, ‘virtual’ ‘backspace’ that erupts when developmental triggers are right as a variously colourful, monstrous, spectacular, tiny or huge, mushroom or toadstool. At these times an ephemeral mushroom ‘fruitbody’ – a knot of *hyphae* – pushes through resistant strata at a rapid and forceful pace, eventually to release an invisible cloud of *billions* of information-carrying microscopic spores, all capable of germination given suitable environmental circumstances. This metaphorical imagining seems to have a[n] . . . exciting resonance with the (dis)organisational forms and rhythms of contemporary glocal postcapitalist politics. It captures the mundanity of the everyday work, the myriad exchanges and meetings, that produce actions, campaigns, networks, events, and alternative values and practices of living. . . . It mirrors the accelerating, even manic, pace of activity that enables the coalescence of diversity into the ecstatic counter-events that have met major international governance and economic meetings in recent years (Notes From Nowhere, 2003). And it is suggestive of the orgasmic proliferation and release of multiple exchanges and experiences released at the ‘plateaux’ of such events, to be buffeted by cyberspace and glocal society into who-knows-what mutated and germinated form. (Sullivan, 2008: 156)

Thinking-through-fungi thereby may offer inspiration for the potency of unlikely resistant

assemblages in rescuing ‘a world gone very wrong’ (Williams, 2011: 128). A key possibility here is the resistance of fungi to the ‘scalability’ that for Tsing complements ‘salvage’ as core to strategies for capitalist accumulation. Scalability is ‘the technical feat of creating expansion without the distortion of changing relations’ (p. 64), such that more is simply more of the same. Scalability is an industrial(izing) form of organization that breaks the creatively emergent phenomena associated with complex systems, in which more is different, often unpredictably so. Although the fruit body of matsutake accrues exchange value at different nodes of its value chain, the matsutake life form appears resistant to scalability in multiple ways. It cannot be cultivated, although humans can intervene so as to support the conditions for its flourishing (Ch. 18). Its harvesting cannot be mechanized, requiring instead a suite of multisensual skills of attunement and tracking as pickers follow the traces of matsutake as well as the activities of other animals in locating the heads of mushrooms (pp. 241–247). And its growth form resists partitioning into the sorts of individualized units that can be homogenized, cloned, packaged and planted (Ch. 17). In its immanence, then, matsutake exceeds the ability of capitalist production to become transferred between contexts ‘at scale’ so as to remain resolutely connected with multiscalar emergences supporting diversities that arise, cohabit and cohere over time in localities.

Weaving together all these human actions and interactions with the liveliness of matsutake in its interactions with multiple other entities leads Tsing to associate the ‘dance’ of matsutake socioecology with the musical phenomena of ‘polyphony’. In polyphonic music, different threads of vocal and rhythmic lines enacted by individual musicians weave together to form a powerful assemblage of resonant and harmonious sound and affect. Participating in the connected and affective intensity that arises through the ‘latent commons’ (p. 135) of individuals acting musically together enables polyphonic collectives to do extraordinary things.

Recently, I experienced the multisensorial and potent ‘sound-bath’ of Ju|’hoansi polyphonic music in north-east Namibia and found a particular connection with Tsing’s encouragements here.

Ju'hoansi enact a diverse, dynamic and highly organized musical repertoire incorporating musical sets (distinguished through rhythmic arrangements clapped by women) for songs invested with supernatural energy and associated with diversely polysemous entities – from 'elephant' to 'spider' – encountered in everyday and symbolic life (Olivier, 2001: 15; also Katz, 1982). 'Healing' in the context of San and Khoe medicine dances is enabled as complex, driving polyphonic vocal and clapped rhythms combine with rhythmic embodied movement to stimulate the affective intensities and transformed states of perceptual awareness needed for acts of healing to occur. San and Khoe polyphony thereby affirms a complex affective ecology of human entanglements with beyond-human others, appropriate relationships with these others, and the supportive potencies associated with these others in the course of managing socioecological health.

This creative, effervescent and emergent entrainment of polyphonic participation is quite different in quality to the rote chants and marches associated with fascistic ritualized display in which actions are dictated by leaders of followers. It is qualitatively different to the capitalist productivist *cacophony* that grows through violation and appropriation to engender the discordance of extreme inequality and of the ruthless instrumentalization of beyond-human natures and, indeed, that threatens polyphonic practices such as those described above. I am thus in agreement with Tsing's (p. 157) assertion that 'we should be studying [and supporting] polyphonic assemblages, gatherings of ways of being' in salvaging life from capitalist ruins.

In the time since I was invited to contribute to this Dialogue, the US Trump presidency instead announces a new intensification of capitalist socioecological ruination through infrastructure development and productivist accumulation. These current political convulsions make *Mushroom* a revolutionary and *relevant* book. It is an intervention that prefigures the futures I value: multispecies, multicultural, historicized, poetic, collaborative and

diverse. For this affirmation especially, I thank its author.

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