

Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*

Princeton, NJ: Princeton University Press, 2015. xii+ 352 pp. \$29.95 hardcover.

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In the face of a dual crisis of climate change and economic uncertainty, humanists and social scientists have actively integrated the concept of nature into their analyses. They reframe existing assumptions of ontology to move beyond the overtly representational and anthropocentric tones of the cultural turn. Relational ontologies and interspecies entanglements are emphasized. Cartesian dualism, epistemologically separating humans from nature, becomes the anathema. Anna Tsing's much-anticipated book is a recent accomplishment building on these efforts. But Tsing takes the discussion further by exploring ethical concerns and possibilities for practical action. More than giving us yet another critique of environmentalism or eco-Marxism, she wants to enrich our imaginations through her extraordinary ethnography and remarkable talent for storytelling. Taking a break from "railing at" (3) the capitalism that has failed us, she invites us to follow her, to walk through forests, forage for mushrooms, and most important, listen and notice. In this way she shows us concretely the relationships between humans and nature that are too often only abstractly captured by the concepts of "interspecies entanglements" (viii) and "polyphonic assemblages" (23–24) coined by her precursors. Holding such ontological assumptions or, in her words, engaging in "alternative world making" (159), she wants us to be less occupied by the rhetoric of progress that has blinded us and to sense the precarity and indeterminacy of "patchy landscapes" (20), "multiple temporalities" (21), and "shifting assemblages" (20) happening around us. By noticing "latent commons" (134), she believes that new possibilities for "collaborative survival" (19) may be opened.

Powered by intensive and collaborative fieldwork expanding from Japan, China, the United States, and Finland since 2004, the book moves at a breathtaking pace followed by "a riot of short chapters like the flushes of mushrooms . . . not a logical machine" (viii). I have to, however, "translate" this picturesque prose into a dull recapitulation to make this review possible. Overall, we are introduced to a motley assortment of people

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who spend their time and effort eating, gifting, trading, foraging for, cultivating, and studying matsutake. As the fruiting body of a fungus hosted by middle- to old-aged pine and oak trees, matsutake was common in peasant woodlands only with constant human disturbance. For Japanese connoisseurs, eating this mushroom evokes the forest and nostalgia for long-gone peasant livelihoods on distant ancestral lands. But it has a unique smell, making it an acquired taste. Some compare the smell to that of “mold,” “turpentine,” “mud,” or “a provocative compromise between ‘red hots’ and ‘dirty socks’” (51). It also requires special preparation: “Not touching it with a knife . . . the metal of the knife changes the flavor . . . [grilling] the matsutake on a hot pan without oil . . . oil changes the smell” (47). An expensive luxury, matsutake are mostly given as “gifts, perks and bribes” for building and healing relationships.

Interestingly, the mushroom is “a capitalist commodity that begins and ends its life as a gift” (128). As an undomesticated product of the wild, it resists standardization and scalability. Traders carefully target their potential buyers, matching them with the right grades of fresh mushroom to satisfy their varied demands. Bulklers are asked to know their mushroom by sorting before shipping. To procure this seasonal bounty of nature, mushroom pickers need to sharpen their five senses and develop “the art of noticing.” Tsing parallels the skills of picking with dancing: “Lines of life are pursued through senses, movements and orientations . . . dance is a form of forest knowledge—but not that codified in reports” (241). She explores the motivations of Oregon pickers, including Southeast Asian refugees and white Vietnam War veterans. Camping out in national forests for the two-month annual season is an escape from their mundane lives. For them, mushrooms are far more than commodities; they are trophies of freedom. In comparison, for the tenants of contracted forests in postsocialist China, the mushroom is sought more anxiously. Eager to accumulate personal wealth, Chinese entrepreneurs seek advice from scientists toward the possibility of cultivation or creating a conducive environment for the mushroom. Interestingly, they bypass the scientists in their own country and look to those in Japan. While Japanese scientists propose more raking of the ground and disturbance of the forests, Chinese and US scientists recommend conservation and warn of overharvesting. Clearly matsutake science is shaped by different national experiences, interests, and relations with the forest and is not, as Tsing nicely puts it, “the universal science we are taught to expect” (218).

Thus far, this may seem like a typical path for commodity chain analysis or the “social life of things” (Appadurai 1986), tracing the mushroom from consumption to production. But Tsing wants to include not only the relations between buyers and sellers but also the entanglements among species—in which humans may or may not be included. Drawing from various studies of natural science, Tsing elegantly weaves the multiple temporalities of the geology of pine forests, the evolution of species, the developments of the Japanese and US economies, and the collective memories of diverse humanity into a coherent whole. Here, the disciplinary boundaries that too often divide nature, economy, culture, or society with different logics dissolve. Tsing draws from the work of ecologists, mycologists, and other natural scientists to reconstruct why and how the global mushroom trade between the United States and Japan emerged in the 1970s through a series of “contingencies of encounter” (142). Matsutake in Japan disappeared completely when peasants left their woodlands for the city. The mushroom’s hosts, pine trees that grow well with regular disturbance, were gradually crowded out by other, broadleaf trees. The surviving pine trees were even-

tually wiped out by a wilt disease arriving from the United States. At the same time, matsutake mushrooms began springing up in Oregon's forests after decades of logging. With indigenous peoples dispossessed and denied the practice of underbrush burning, a mismanaged forest regeneration process unintentionally resulted in a suitable environment for matsutake. In sum, the mushroom trade is a shifting assemblage that emerges from multiple capitalist destructions of forests—one reducing the supply in Japan, the other producing a new source in the United States. Life, represented by the mushroom, is possible in capitalist ruins. Collaborative survival, intended or unintended, develops anyway.

Taking these aspects of her study together, we may conclude that Tsing is trying to show us the resilience of life (either human or nonhuman) despite the aggressive attack from capitalism against nature. Resilience, however, might not be enough to sustain life if we humans, the main carrier of this capitalist system, do not redefine our relationship with nature (objectively speaking) and reset our mentality against others (subjectively speaking). Thinking through mushrooms, Tsing interprets the world as shifting, polyphonic assemblages of human and nonhuman encounters. For her, the "stories of progress" that have been preached by capitalism since the Enlightenment should be discarded. Acknowledging the indeterminacy of life and the world, we should also change our mentality, particularly our conception of survival which has been too often associated with conquest and expansion. It is time to connect survival with collaboration, which Tsing further links to contamination—transformation through encounter with others (see chapter 2). Tsing reminds us that contrary to the Enlightenment fantasy, humans are never self-contained individuals. She further surprises us by reconceptualizing "precarity" (20) not as a familiar accusation from the Left against capitalism but as "a state of acknowledgement of our vulnerability to others" (29). With this new definition, she urges that the time is ripe for "sensing precarity" (20). In doing so, we can start to appreciate the presence of others (i.e., practice the "art of noticing") and proceed to possibilities of "collaborative survival."

In summary, this book moves from reframing an integrated ontology to acknowledging the vulnerability to others. The critique of capitalism is replaced by the submission of individuals to precarity and contamination. Might this individual submission to the other be enough to salvage livelihoods from the continued assault of capitalism? Many of us may feel suspicious. Tsing's position becomes paradoxical as in her writing capitalism is characterized as a systemic power beyond the control of individuals. She wants to get beyond the view of capitalism as "a giant bulldozer [that] appears to flatten the earth to its specifications" (61) by replacing it with one in which "supply chains snake back and forth, not only across continents but also across standards" (61). This would agree with Donna Haraway's metaphor of Chthulu, which sees "savage capitalism" (43) as a creature with its mighty tentacles destroying planet and humanity (Haraway 2015). However, as structural as it may seem to us, capitalism still has a driver—a combined force of new science, technology, capital, and institutional innovation and (coerced or not) collaborations from many individuals coming from various societies. It is therefore important to recognize capitalism as itself composed of shifting assemblages with contingent histories. It is even more crucial to acknowledge that it is a human-constructed institution. To replace the historical institutions of capitalism not only requires a shift in individual mentalities toward others but also involves collective deliberation on the interrelations of humans and nature.

This calls for disciplinary collaboration between humanities and natural science, and Tsing provides a laudable example of such collaboration.

References

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