

From John Cage to the Outdoor School: Activating the “Minor” through Mycological Forays

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Dans la foulée des réflexions d’Erin Manning et Brian Massumi conceptualisant la recherche-création en tant qu’expression de ce qui est de l’ordre du mineur, le présent article propose une exploration du rituel créatif de l’incursion mycologique en tant que recherche-création. L’incursion, comme la recherche-création, perturbe les principaux systèmes régissant les méthodes institutionnelles (universitaires, scientifiques, anthropologiques, artistiques) et s’attarde aux rencontres fortuites indéterminées qui surviennent lors de la quête de champignons. Cet article établit un lien entre l’intérêt que le compositeur américain John Cage a entretenu toute sa vie pour les champignons et les incursions contemporaines dirigées par le commissaire et écrivain Amish Morrell et la créatrice en art visuel et en performance Diane Borsato, ainsi que le travail de revitalisation écologique du collectif japonais, Matsutake Crusaders.

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Next time you walk through a forest, look down. A city lies under your feet. If you were somehow to descend into the earth, you would find yourself surrounded by the city’s architecture of webs and filaments.¹

Walking through a forest on a mushroom foray is a multisensory experience that requires a particular type of attention. This attention must be both open and focused, playing in the realm of indeterminacy, knowing that the unknown is always present. Finding oneself in the middle of relations already-on-their-way, the complexity of the forest network creates the conditions for processes to unfold. Through the foray’s unique call to noticing,² a “sensitivity to chance encounters” is seeded.³ In the search for mushrooms, a lush density of trees, plants, and other forms of life conceal and obscure chanterelles, peppery milk caps, oysters, parasols, and morels. Without careful attention, a researcher may snack on a poisonous death cap thinking it is an edible puffball.

Following Erin Manning and Brian Massumi’s conceptualization of research-creation as an expression of the “minor,” whose indeterminacy allows for a continued (re)invention of improvisational forms and modes of expression, this paper explores the creative ritual of the mycological foray as research-creation. For Manning, following Gilles Deleuze and Félix Guattari, the minor is a “gestural force that opens experience to its potential variation” and is always woven through “the major.”⁴ The major is normative. It is a “structural tendency that organizes itself according to predetermined definitions of value” that shape a normative understanding of how to do research and how to create.⁵ The minor “is a force that courses through [the major], unmooring its structural integrity, problematizing its normative standards.”⁶

Connecting American composer John Cage’s lifelong mushroom foraging to the contemporary forays led by collaborating curator and writer Amish Morrell and visual and performance artist Diane Borsato with the ecological revitalization work of Japan-based collective Matsutake Crusaders, we begin and end with mushrooms, those fleshy spore-bearing fruiting bodies that have inspired “exercises in noticing”⁷ from mid-century avant-garde music to contemporary relational art.

Research-creation “is an activity all its own” that transpires within the co-composition of art practice and theoretical research.⁸ It eludes

1. Anna Tsing, "Arts of Inclusion, or How to Love a Mushroom," *Wild Hearts: Literature, Ecology, and Inclusion* (Mānoa) 22, no. 2 (2010): 191.

2. "Noticing" is a form of observation and fieldwork that takes inspiration from Ilya Prigogine and Isabelle Stenger's *La nouvelle alliance* in which the authors argue that an appreciation of indeterminacy has the potential to open up an alliance between the natural and human sciences. See Anna Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton, NJ: Princeton University Press, 2015), 160.

3. Isabelle Bucklow, "Indeterminacy," in John Cage, Kingston Trinder, and Alexander H. Smith, *John Cage: A Mycological Foray*, ed. Ananda Pellerin (Los Angeles: Atelier Éditions, 2020), 160.

4. Bucklow, "Indeterminacy," 1.

5. Bucklow, 1.

6. Bucklow, 1.

7. Jen Delos Reyes with Diane Borsato and Amish Morrell, "The Best Dancer is Also a Farmer: A Conversation around Art, Life and Learning," in *Outdoor School: Contemporary Environmental Art*, ed. Diane Borsato and Amish Morell (Madeira Park, BC: Douglas and McIntyre, 2021), 52.

8. Erin Manning and Brian Massumi, *Thought in the Act: Passages in the Ecology of Experience* (Minneapolis: University of Minnesota Press, 2014), 89.

9. Manning and Massumi, *Thought in the Act*, 89.

10. Erin Manning, *The Minor Gesture* (Durham, NC: Duke University Press, 2016), 91.

11. Manning, *The Minor Gesture*, 138.

12. Manning, *The Minor Gesture*, 13.

13. *Ibid.*, 2.

14. Konrad Wojnowski, "Capturing the World with Performance: John Cage's Probabilistic Aesthetics for the Digital Age," *TDR: The Drama Review* 63, no. 4 (2019): 34.

15. While John Cage was not a core member of the Fluxus (non-) movement, his work and collaborative relations are linked in myriad ways to Fluxus, a post-wwII avant-garde art programme rooted in experimental music. The (non-) movement was named after a music and art magazine centered around the compositional work of John Cage.

16. Tsing, *The Mushroom at the End of the World*, 46.

17. Wojnowski, "Capturing the World," 34.

18. Wojnowski, 44.

institutional structures that seek to "capture and contain," by separating research and creation."⁹ Disrupting the major forces of institutionalized practices from within, research-creation as an expression of "the minor," like the mycological foray, is attentive to other forms of knowing that cut across normative standards of, for example, art, science, and anthropology. The unpredictability of the foray is, like research-creation, constitutive of new processes, thoughts, and potentials that cannot be known in advance of an event's coming into being.¹⁰ New techniques emerge from within research-creation's hyphen, "open[ing] up the differential between making and thinking."¹¹ It is in such an "ecology of practices" expressed by the hyphen that the force of the "minor gesture" is situated.¹²

The indeterminacy of the minor allows for a continued (re)invention of improvisational forms and modes of expression, "activating new forms of perception" in the everyday.¹³ This affinity toward chance, unpredictability, and the unknown is echoed in the conceptual and compositional work of American composer and avant-garde John Cage (1912–1992). Cage played with the structures of composition and performance in order to transform physical spaces into abstract "space(s) of possibility."¹⁴ His work celebrated the aesthetics of everyday life and the "liveness" of sound, and Cage played between ambient sound and composed music to create value in the indeterminate experience of an encounter. For Cage and the Fluxus¹⁵ movement more generally, the instructional piece or durational performance was a world-making practice that values processes of noticing and attunement allied, I argue, with the techniques of research-creation. In *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, feminist anthropologist Anna Tsing brings Cage's work into her fold of mushroom relations to share the particular quality of attention to listening that was emblematic of Cage's practice as a composer and mushroom gatherer. Tsing notes that his music was always about the here and now, an attention to the encounter and all of its contingencies and surprises.¹⁶ Cage's attentiveness, cultivated by his "trademark aestheticization of nonintentional expressivity of matter," also had the capacity to expand aesthetic performances that harbour complexities beyond the individual moment or event.¹⁷ The pleasure in Cage's compositions requires an ear attuned to random interpenetrations of sounds, a valuation of the improbability of connection.¹⁸ Cage's radical soundscapes encouraged listeners to perceive the sensory signals of the world with an altered perception, one that would embrace the indeterminate and encourage a multitude of different sounds (and silences) to be folded into aesthetic experience.

Cage was an innovator of indeterminacy in music, and the concept became the title of a body of work. *Indeterminacy* (1958) began as a public lecture of thirty stories which, in 1959, was developed into a ninety-story performance backed by music performed by David Tudor (see *Indeterminacy*, 1959). Tudor's accompanying arrangement included noises from several radios and borrowed from Cage's *Concert for Piano and Orchestra* (1958). Shortly after, in that same year, Cage repeated his performance with his own *Fontana*

Mix (1958), a score of ten pages of paper and twelve transparencies of graphical notations of music that celebrate chance encounters of unlikely sounds, replacing Tudor's radios. This version of *Indeterminacy* was recorded by Folkways and released as an album called *Indeterminacy: New Aspect of Form in Instrumental and Electronic Music*. Cage's collection of stories continued to expand and it is believed that there are upwards of 180 total stories in *Indeterminacy*.¹⁹ While the stories may be numbered, Cage insisted that such an arrangement was arbitrary and the stories could be ordered freely without the insistence of a structured order or authentic version.²⁰ He notes, "my intention in putting the stories together in an unplanned way was to suggest that all things—stories, incidental sounds from the environment, and, by extension, beings—are related."²¹ Cage drew a parallel between reading a newspaper and the manner in which he composes a reading of the *Indeterminacy* stories, purposefully "jumping here and there and responding at the same time to environmental events and sounds."²²

The Mycological Foray

A mushroom lasts for only for a very short time. Often I go in the woods thinking after all these years I ought finally to be bored with fungi. But coming upon just any mushroom in good condition, I lose my mind all over again. Supreme good fortune: we're both alive!²³

The responsive experience of Cage's *Indeterminacy* performances is somewhat like the mushroom foray. The stories' narratives unfold at varying paces and stories varied in length but were meant to be read in a one-minute time frame, altering the pace of recital, echoing the quickening or slowing of pace of mushroom hunters traversing the forest while the punctuating sounds of piano keys, muffled crashes, background conversations, and pops and clicks accent the stories like the surprise discovery of mushroom [fig. 1]. The hum of a story is pierced by a pulse-quickening sound, recalling the thrill of a found mushroom peeking out from within a lush density of forest. As Cage suggests, "you can stay with music while you're hunting mushrooms, it's a curious idea perhaps, but a mushroom grows for such a short time and if you happen to come across it when it's fresh it's like coming upon a sound which also lives a short time."²⁴

Diverse references abound in Cage's *Indeterminacy* stories, including excerpts from writings of Taoist thinker Kwang Tse, Hindu mystic Sri Ramakrishna Paramahansa, and direct citations from Zen literature. Subjects range, though Cage suggested that a common thread in *Indeterminacy* consisted of "things that happened that stuck in my mind," of which mushrooms were a common theme.²⁵ Cage considered his amateur mycology and foraging practices to be separate from his art as a composer, yet relationships between sound and mushrooms flourish in his writings, field notes, and stories. Cage's interest in mushrooms was born from difficult conditions. He found himself travelling west from his birthplace, Los Angeles, to the coastal village of Carmel-by-the-Sea, California, in 1934, where he hoped to find work during the Great Depression.²⁶ Driven by hunger and poverty,

19. This is "accepted number" (180) for scholars, however there were multiple versions of *Indeterminacy*. The first recording had ninety stories—following that, more were revised and added. There is no "authentic or original structure," according to Bucklow, further "Cage insisted the numerical arrangement is arbitrary" (Bucklow, 157) making the indeterminate nature of the total number of stories in the collection intentionally hard to define.

20. Bucklow, 157.

21. John Cage, *Silence* (Middletown, CT: Wesleyan University Press, 1961), 260.

22. Cage, *Silence*, 276.

23. John Cage, "Diary: How to Improve the World (You will only make matters worse), 1969," in John Cage, *M: Writings '67-'72* (Middletown, CT: Wesleyan University Press, 1973), 69.

24. Cage, *Mycological Foray*, 67.

25. Cage, "Indeterminacy," in Cage et al., *John Cage: A Mycological Foray*, 157.

26. Kingston Trinder, "Mycological Foray," in Cage et al., *John Cage: A Mycological Foray*, 26.

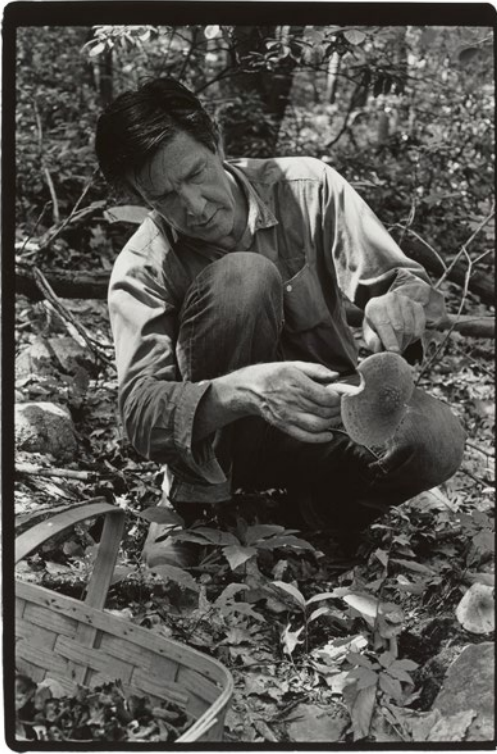


Figure 1. William Gedney, John Cage, 1967. Photograph, 28 × 35.5 cm. William Gedney Photographs and Papers, David M. Rubenstein Rare Book & Manuscript Library. Photo: Duke University.

Cage, like many others during the period, began foraging for edible flora. He entered into a dangerous dance with mushrooms early on and, with the knowledge of their potentially deadly capabilities, he began his research. Cage recalls, “I picked one of the mushrooms and went in the public library and satisfied myself that it was not deadly, that it was edible. And I ate it and nothing else for a week.”²⁷ In the spring of 1934, Cage travelled to New York where he found employment washing walls for the Brooklyn YMCA and began instruction with American modernist composer Adolf Weiss. He also attended some of American composer Henry Cowell’s classes at The New School for Social Research. From March 1935 to January 1937 he was back in California to study with Austrian-American composer Arnold Schoenberg.²⁸ During the years following Cage’s initial pull towards mushroom foraging, his economic circumstances slowly improved and his interest in mycology “developed from a necessity into an altogether pleasurable endeavour.”²⁹ No longer a means of survival, foraging for wild mushrooms came to inform and develop Cage’s conceptual attention to noticing.

Cage moved to Stoney Point, a cooperative community in New York State, in 1954.³⁰ He spent much of his time meandering through the thickly wooded landscape foraging for favourites such as oyster, chanterelle, and morel, which he sometimes framed as performances of his “silent piece.”³¹ Cage’s arts of noticing and chance compositions continued to develop in the rural landscape. Set free from expectations about performance duration,

27. David Bernstein and Christopher Hatch, eds., *Writings through John Cage’s Music, Poetry, and Art* (Chicago: University of Chicago Press, 2001), 269.

28. Trinder, “Mycological Foray,” 27.

29. Trinder, 27.

30. Other creatives wishing to escape New York City lived at Stony Point including pianist David Tudor and artist Jasper Johns.

31. *Lactarius piperatus* and *Lactifluus vellereus*, which John Cage suggested were “excellent when grilled,” Cage in Trinder, 15.

Cage's "chance woodland happenings" flourished.³² Cage describes how, "at one performance, I passed the first movement by attempting the identification of a mushroom which remained successfully unidentified. The second movement was extremely dramatic, beginning with the sounds of a buck and a doe leaping."³³ Wandering and conducting performances of the unpredictable natural landscape through attentive listening, Cage's contemplative practice unfolded through mycology. He would bring along and consult various mushroom field guides, some of which were found serendipitously in second-hand bookstores, interweaving his two worlds of music and mushrooms.

Cage's wandering compositional forays follow research-creation's "practice of being *inside* a research event."³⁴ Describing their research-creation walking projects with their *WalkingLab*, artists and scholars Stephanie Springgay and Sarah Truman suggest the concept of a "walk score" as a "catalyst for movement" that is influenced by the tradition of Fluxus event scores.³⁵ The walk score, as with the Fluxus event score, enact what Manning and Massumi, following Alfred North Whitehead, call *propositions*.³⁶ Research-creation's propositions are "speculative and event oriented" rather than contained/containing.³⁷ Scores are process-oriented in their capacity to "emphasize chance and improvisation."³⁸ For *WalkingLab*, and in Cage's earlier forays, experiences of moving through a place, a landscape, a forest, a field, gives way to experimentation. "Thinking-in-movement"³⁹ expresses research-creation's indeterminacy by allowing for improvisation to activate new forms of perception.⁴⁰ Cage's practice of walking, listening, reading, smelling, eating, and looking predate the term "research-creation" but share an approach to research that generates knowledges that do not "know themselves in advance."⁴¹ In his writings for his 1972 limited-edition *Mushroom Book*, Cage describes his embrace of indeterminacy, asserting that "ideas are to be found in the same way that you find wild mushrooms in the forest, by just looking. Instead of having them come at you clearly, they come to you as hidden things, like Easter eggs."⁴² Cage's handwritten musings in *Mushroom Book* echo this sentiment as they brim with maps, anecdotes, and philosophies that overlap and obscure each other [figs. 2 and 3]. For the mushroom forager, as within research-creation, normative modes of documenting or describing are often unsuitable. Instead, lively notations open up as much as they evade understanding.

32. Trinder, 15.

33. Cage, *Silence*, 276.

34. Stephanie Springgay and Sarah E. Truman, *Walking Methodologies in a More-than-Human World: WalkingLab* (New York: Routledge, 2018), 83.

35. Springgay and Truman, *Walking Methodologies*, 83.

36. Springgay and Truman, 83.

37. Springgay and Truman, 83.

38. Springgay and Truman, 83.

39. Springgay and Truman, 84.

40. Manning, *The Minor Gesture*, 2.

41. Manning, *The Minor Gesture*, 91.

42. Cage, "Mushroom Book," in Cage et al., *John Cage: A Mycological Foray*, 159.

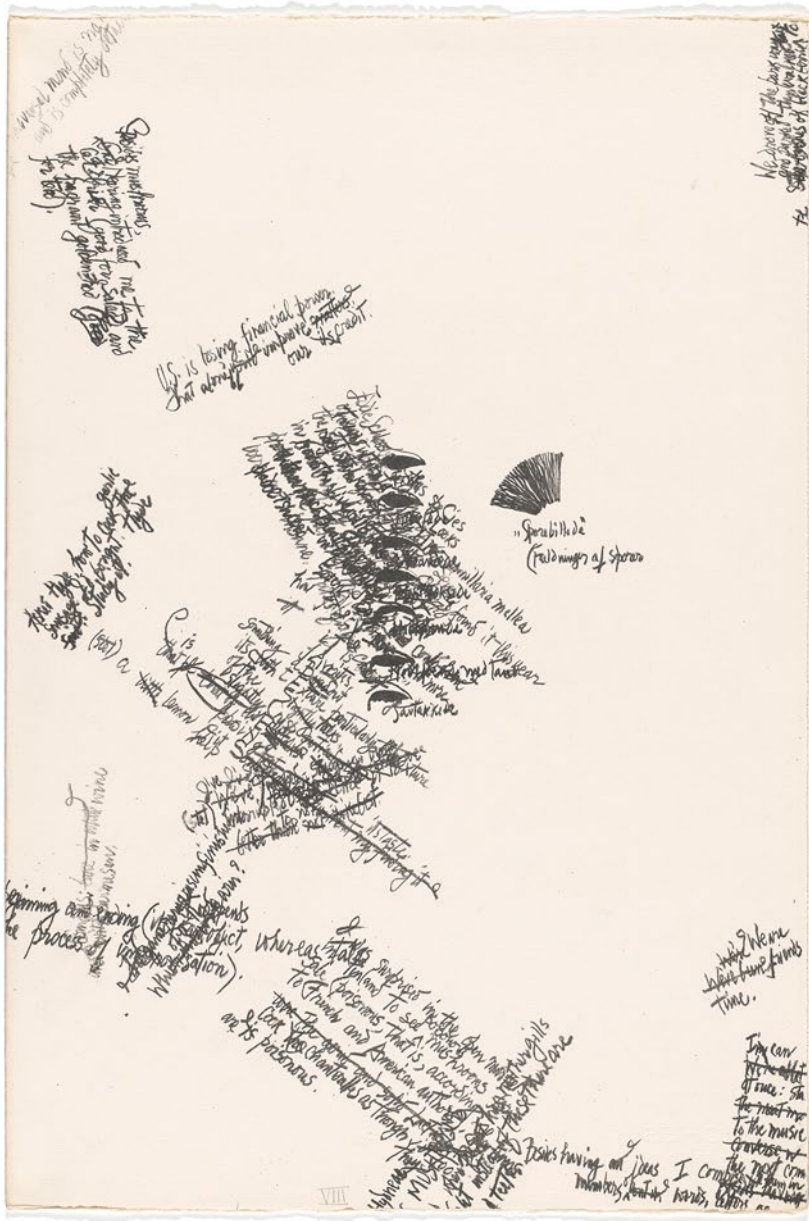


Figure 2. John Cage, VII from *Mushroom Book*, 1972. Lithograph, 56.8 × 15.1 cm. Photo: Digital Image © The Museum of Modern Art/Licensed by SCALA/Art Resource, NY. Courtesy of the John Cage Trust.

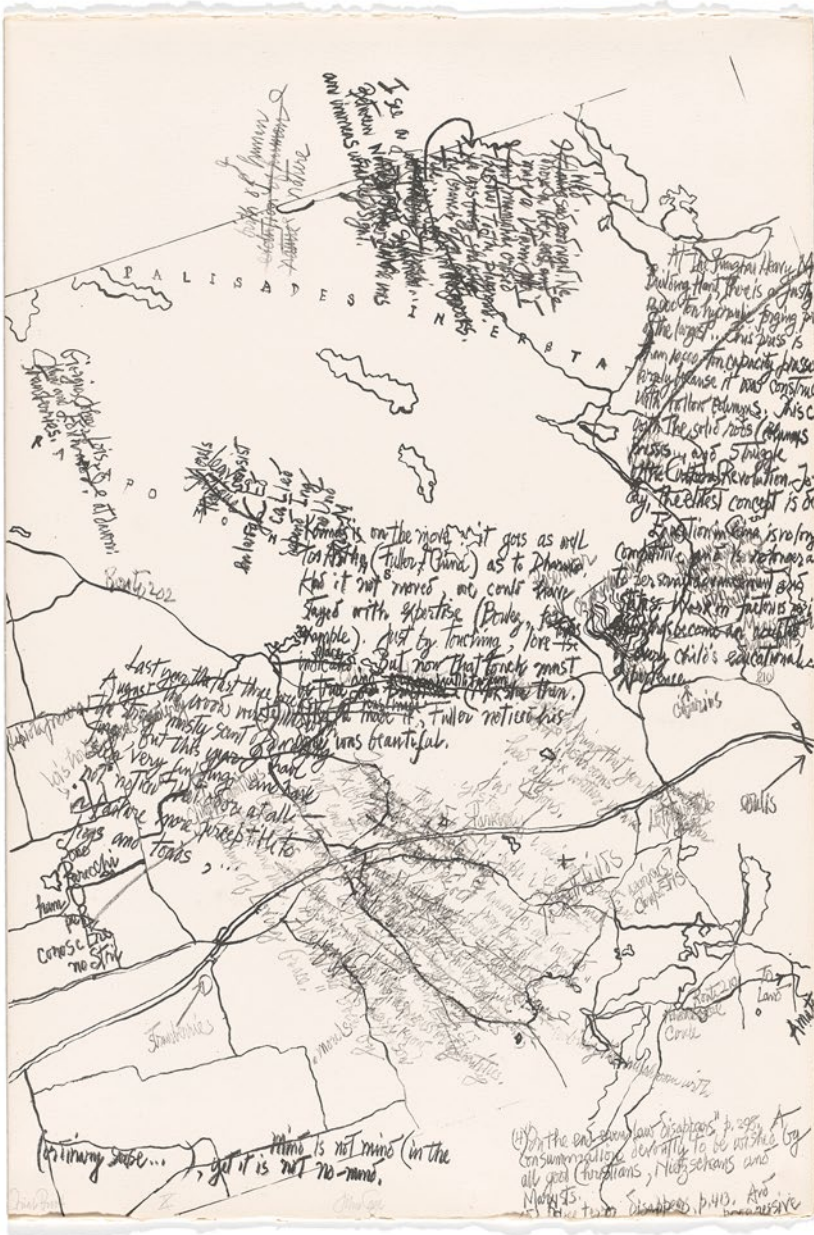


Figure 3. John Cage, X from *Mushroom Book*, 1972. Lithograph, 54.9 x 38.1 cm. Photo: Digital Image © The Museum of Modern Art/Licensed by SCALA/ Art Resource, NY. Courtesy of the John Cage Trust.

The Chinatown Foray

The mushroom forays that we lead are exercises in noticing. We actually walk very slowly when we are looking for mushrooms in order to look at everything and find new and unexpected forms in the woods. When I lead forays ... I try to draw their attention to the ways this practice might exercise their muscles for seeing—seeing small variations in stipe and cap, seeing beauty in the unexpected or reviled and seeing invisible kingdoms! Hidden worlds, explored with all our senses—among things we usually step on and ignore.⁴³

Research-creation and pedagogy are bedfellows, choreographing new modes of collaboration where, in Springgay's words, "art-making and concept-formation come together as part of the same open process of experimentation from which new relations or articulations are born."⁴⁴ Mushroom foraging is a continuous process of learning and experimentation. Foragers hunt for familiar fungi and those that they have never encountered. The next step, mushroom identification, is a multisensory learning process involving sight, touch, smell, and taste. Describing her experience of multidisciplinary Toronto-based artist Diane Borsato's *The Chinatown Foray* (2008–10), Stephanie Springgay draws a parallel between Deleuze and Guattari's concept of the minor and the sensational pedagogy of the mushroom foray. *The Chinatown Foray* brought together amateur mycologists, foodies, and art students to forage for mushrooms throughout Chinatown in Manhattan, New York,⁴⁵ collecting various mushroom species in shops and markets [fig. 4] and ending with dim sum at a local restaurant.⁴⁶ Borsato's work takes up an existing practice, mycology, and uses it "as a means to explore how the sociality of being together becomes a process of knowledge exchange."⁴⁷ Borsato choreographs the conditions for the minor's emergence, destabilizing pre-established methods and systems in favour of sensation and experimentation and collective exploration. Springgay, referencing Simon O'Sullivan, asserts that "the minor has no model; it is a becoming, a process" that involves a stuttering which evades habit in pursuit of the "unfamiliar and inventive."⁴⁸ The event of the mycological foray as an expression of the minor's affectivity, it "invites bodies to experience a knowing that happens in the interval," crossing between different forms of knowing.⁴⁹ Exploring the woods (or the city) with an activation of all the senses and a heightened awareness of fungi, other things begin to emerge in the intervals of the foray [fig. 5].

The mycological foray begins with walking, a journey through a landscape which, as an "aesthetic practice is both the form of the artwork and the research methodology by which we shape an inquiry about knowing."⁵⁰ Borsato, describing an experience with her students on a foray, notes this heightened awareness, recalling, "a student once told me that she used to think of the woods as 'just a bunch of green'—an unidentified mass of nothing important—until we walked slowly together this way, looking and learning and greeting the creatures together."⁵¹ The foray is simultaneously artwork, method, and a means by which we come to question the formation of knowledge itself. As research-creation does not know itself in advance, techniques are invented in the process.⁵² Creative practices, such as the

43. Reyes with Borsato and Morrell, "The Best Dancer is Also a Farmer," 52.

44. Stephanie Springgay, "'The Chinatown Foray' as Sensational Pedagogy," *Curriculum Inquiry* 41, no. 5 (2011): 646.

45. While the mycological foray is thought to occur only in the woods, urban forays are not uncommon, as many mycologists live in colder climates and thus will often frequent local shops in the winter to gather and identify mushrooms.

46. *The Chinatown Foray* has also been held in Chinatown in Markham, Ontario and was an ongoing project between 2008 and 2018. *The Chinatown Foray* discussed by Springgay in this paper was an art event hosted by the Unami Food Festival, 2009.

47. Springgay, "The Chinatown Foray," 642.

48. Springgay, "The Chinatown Foray," 652.

49. Springgay, "The Chinatown Foray," 652.

50. Springgay, "The Chinatown Foray," 647.

51. Reyes with Borsato and Morrell, 52.

52. Manning and Massumi, *Thought in the Act*, 89.



Figure 4: Diane Borsato, *Chinatown Foray*, 2008.
Photo: courtesy of the artist.



Figure 5: Diane Borsato and Amish Morrell, *Mushroom Foray with Doris McCarthy Gallery*, 2021.
Photo: Peppercorn Imagine, courtesy of the artists.

emergent event of Borsato's foray, launch "concepts in-the-making" that are "mobile at the level of techniques they continue to invent."⁵³ Sensing the environment with a new and heightened awareness, the arts of noticing, new thinking, and creative practices emerge. Visual identification may come first, but a mycologist will know that this is only the beginning. Fungi are so difficult to collect and identify because most of their body remains underground; "only their reproductive organs—the mushroom—come up into the air, and those only sporadically, sometimes in intervals of many years."⁵⁴ Their complex, unseen underground networks leave much unknown and it is within this gap that inventive techniques for identification emerge.

Foraging is, as Borsato explains, "an exercise in following your curiosity. What happens when we allow ourselves to be surprised and disgusted and awakened to all kinds of weirdness, evocative forms, peculiar smells and more."⁵⁵ Curiosity likewise guides research-creation, "denaturaliz[ing] singular disciplinary locations" and creating the conditions for "maker-thinkers" to reimagine practices outside of the binding limitations of disciplinary knowledge.⁵⁶ Borsato's forays depart from scientific, commercial, and colonial legacies of outdoor education, becoming allied to the minor's opposition to the major forces of, for example, classification, mastery, and set method. Uncontrolled by an established mode, the minor's rhythms are open to flux and are thus *indeterminate*. Experiential forms of learning that embrace pleasure and view the "body as an instrument" are often discounted within an institutional frame.⁵⁷ Such workings go overlooked, as indeterminacy, "because of its wildness, is often seen as unrigorous, flimsy."⁵⁸ This is not a weakness, but rather a strength that allows the minor to fly below the forces of predetermined values, structures, and metrics. Research-creation, a term that Manning uses interchangeably with Fred Moten and Stefano Harney's term, "study," is a practice of workshoping, rehearsal, jamming, walking, and playing that expresses a "kind of common intellectual practice."⁵⁹ For Borsato, the foray is "also an exercise in humility, where we are overwhelmed by the limitlessness of things to learn and know with confidence."⁶⁰ The mycological foray reminds us of how little we know and "this insight is as crucial to learning, to an openness to the world—and it must be in balance with any convictions and facts."⁶¹ The search for mushrooms and the subsequent process of identification is unpredictable and open to possibility. For Erin Manning, research-creation or study "is an act that delights in the activation of the as-yet-unthought."⁶²

The Outdoor School

We are continuing to wander ... among these wanderings—and in the middle of them—here, all of a sudden, is a release. Or an opening.⁶³

Diane Borsato and Amish Morrell, collaborators and co-editors of *Outdoor School: Contemporary Environmental Art* (2021) have been experimenting outdoors for some time. The pair became members of the Mycological Society of Toronto in 2007 and have since led forays across Canada. One of the

53. Manning and Massumi, *Thought in the Act*, 89.

54. Tsing, "Arts of Inclusion," 193.

55. Reyes with Borsato and Morrell, 54.

56. Natalie Loveless, *How to Make Art at the End of the World: A Manifesto for Research-Creation* (Durham, NC: Duke University Press, 2019), 37.

57. Reyes with Borsato and Morrell, 54.

58. Manning, *The Minor Gesture*, 1.

59. Fred Moten and Stefano Harney, *The Undercommons: Fugitive Planning and Black Study* (New York: Minor Compositions, 2013), 110.

60. Reyes with Borsato and Morrell, 54.

61. Reyes with Borsato and Morrell, 54.

62. Manning, *The Minor Gesture*, 13.

63. John Cage, *A Year from Monday* (Middletown, CT: Wesleyan University Press, 1967), 34.

values of their foraging events is that they bring together different ways of knowing: that of artists, philosophers, amateur mycologists with specialized scientific knowledge, and those who are connected to or curious about a specific place.⁶⁴ Borsato and Morrell, like Cage, have approached their aesthetic and choreographic practices of arranging the foray as a way of learning. Taking pedagogy outside creates the conditions for embodied and incidental knowledge to flourish. Borsato and Morrell's various projects for their ongoing *Outdoor School* encourage participants to "think like an artist" and to bring those artful critical thinking techniques to everyday life.⁶⁵

Cage's interest in mycology also became a part of his pedagogical practice. Expanding beyond teaching musical composition, Cage began teaching "Mushroom Identification" (Course No. 1287) at the New School in September of 1959, assisted by textile designer Lois Long and botanist and lichen enthusiast Guy Nearing. The classes, attended by some thirty to forty students, would bring New School students outside of the urban intensity of New York City on field trips to the woods. According to Dean Clara Mayer,⁶⁶ the course had "the double advantage of taking city dwellers to the woods in the most beautiful season of the year and of cultivating their powers of observation in a way rarely afforded in urban centres."⁶⁷ Fostering relations to place, the foray led by artists encourages experimentation and play, underscoring processes of learning that are as much "cultural events" as they are "scientific and pedagogical exercises."⁶⁸

This model of class-as-art was a core concept for the Fluxus movement, which turned everyday and social practices into art.⁶⁹ Research-creation, a term born out of the Canadian university context, is inherently linked to pedagogy while being disruptive of established and engrained scholarly methods [fig. 6]. As feminist art and design educator Natalie Loveless asserts, "research-creation is a category produced *within, with, and for* an ever-adapting university landscape."⁷⁰ Research-creation, as allied with the minor, is in excess of the "registers of making on one end and thinking on the other," doing away with predetermined and determining scholarly methods in favour of process and technique.⁷¹ Fluxus art, like research-creation, encouraged experimentation, play, and chance, led by provocations that saw "teaching as an art" and the classroom—mobile and loosely defined—as "the interactions between students as part of a social practice."⁷² The impetus for the creation of Fluxus art was not a resulting physical object but rather the creation and expression of new experiences.⁷³ Research-creation, like Fluxus art, is an unfolding and situated process rather than a means to a finished product.

Art, as expressed through the most common definition, foregrounds an object. Research-creation, for Manning, departs from this definition to consider the "artful," or what Raymond Ruyer calls the "aesthetic yield," which is "defined throughout as the in-act of the more-than where the force of form remains emergent."⁷⁴ Manning looks to the medieval definition of art, which sees art not as an object but as the way wherein process is prioritized and intuition comes to expression.⁷⁵ Intuition often guides the search

64. Reyes with Borsato and Morrell, 51.

65. Reyes with Borsato and Morrell, 59.

66. Clara Woolie Mayer (1895–1988) held multiple roles at the New School over a number of years, first as a student, then as a trustee, and finally in administrative roles including Dean of the School of Philosophy and Liberal Arts (1943–61) and vice president of the New School for Social Research (1950–61). She worked with many well-known figures who taught or lectured during this time, such as W.E.B. Du Bois, Albert Einstein, and John Cage.

67. Clara Mayer quoted in Trinder, 32.

68. Reyes with Borsato and Morrell, 52.

69. James Miles and Stephanie Springgay, "The Indeterminate Influence of Fluxus on Contemporary Curriculum and Pedagogy," *International Journal of Qualitative Studies in Education* 33, no. 7 (December 2019): 7.

70. Loveless, *How to Make Art*, 10.

71. Manning, *The Minor Gesture*, 13.

72. Miles and Springgay, "The Indeterminate Influence of Fluxus," 7.

73. Miles and Springgay, 7.

74. Manning, *The Minor Gesture*, 13.

75. Manning, *The Minor Gesture*, 14.



Figure 6: Amish Morell, “Outdoor School” Residency at Banff Centre for the Arts, 2018. Photo: courtesy of the artist.

for mushrooms, particularly in the experimental and experiential forays of Borsato and Morrell. For Springgay, writing about her experience of Borsato's *Chinatown Foray*, walking became "an aesthetic practice" that is "both the form of the artwork and the research methodology by which we shape an inquiry about knowing."⁷⁶ Practices of noticing are developed in-the-act of the foray as certain senses are apprehended: the sight of a white-cap mushroom poking out from the base of a tree, the earthy smell of fungi, the sounds of companion species, the feel of a mushroom being pulled up from the forest floor.

Of course, within the process-led practice of the foray there are some guiding rules. While gathering mushrooms is led by noticing and chance, identification, on the other hand, presents a certain danger. The mushroom foray points to the limits of human knowledge; an array of species and types spread out over a table post-gathering present an overwhelming number of possibilities for identification. Morrell explains that "poisonous fungi are wonderfully humbling! There are some edible mushrooms I won't eat, for fear of mistaking them for a poisonous look-alike. And there are some that remain elusive, ones we've found but have never been able to identify."⁷⁷ Many mycologists learn about poisonous mushrooms the hard way, including John Cage. In the mid-1950s, he ate what he believed to be *Spathyema foetidus*, also known as low-lying skunk or meadow cabbage, but was actually a misidentified poisonous hellebore.⁷⁸ Cage nearly died as a result of this encounter.

When he came to teaching mushroom foraging at the New School, experimentation and interpretation were not encouraged during identification (as they were in his music composition classes).⁷⁹ However, Cage embraced the artistic and creative potentials of the foray, conducting his silent piece in the woods and drawing relationships between music and mushrooms. In her 1931 circular, *Some Common Mushrooms and How to Know Them* (a text assigned by Cage to his students), US Department of Agriculture Associate Pathologist Vera K. Charles wrote, "the beautiful colours and delicate textures exhibited by many of these plants offer a great attraction to artists, while the more practical are reminded of the gastronomic possibilities offered by many of the wild species."⁸⁰ Research-creation, as a transdisciplinary event that calls to artists, scientists, anthropologists, philosophers, musicians, and chefs, is a critical intervention into the academic structuring of knowledge, unraveling assumptions about how knowledge is produced.⁸¹ The mycological foray, bringing together art, scientific knowledge, embodied sensing, wonderment, and chance is an expression of the minor's unmooring of structured methods.

76. Springgay, "The Chinatown Foray," 647.

77. Reyes with Borsato and Morrell, 54.

78. Trinder, 16.

79. Trinder, 37.

80. Vera K. Charles quoted in Trinder, 33.

81. Owen Chapman, "Foreword," in *Knowing and Knots: Methodologies and Ecologies in Research-Creation*, ed. Natalie Loveless (Edmonton: The University of Alberta Press, 2020), xxiv.

Conclusion: Arts of Inclusion

Plantation science teaches us to strive for control of human and nonhuman landscapes. For those who love wild mushrooms, full mastery is not the goal; indeterminacy is part of the point.⁸²

In her text “Arts of Inclusion, or How to Love a Mushroom,” Anna Tsing poses the question: “how do lovers of fungi practice *arts of inclusion* that call to others?”⁸³ In order to weave together the many threads of this paper’s wandering inquiry into the affinities between research-creation, the mid-twentieth-century mushroom forays of John Cage, and the contemporary *Outdoor School* of Diane Borsato and Amish Morrell, I want to conclude by scaling up from the local politics of foraging and outdoor art-based pedagogy to the macro scale of our global ecology. Thinking alongside Tsing’s provocation to practice the arts of inclusion, I turn to the larger ecological impacts of foraging and mushroom noticing and their potentials to help us “build models of well-being in which humans and nonhumans alike might thrive.”⁸⁴

Unpacking the characteristics of the minor through the thinking of Simon O’Sullivan, Springgay asserts that within minor registers everything is political, as those individuals “who are imbricated by the minor are always linked to larger social spaces.”⁸⁵ Amateur mycologists and artists from various backgrounds form a collective practicing the minor tendencies of the foray. Recalling the work of scientist and organizer Dr. Fumihiko Yoshimura, Tsing describes his life-long investment in matsutake mushrooms. Dr. Yoshimura is the founder of the Matsutake Crusaders, a Kyoto-based citizens’ initiative with the goal of revitalizing Japan’s forests so that matsutake will once again grow in abundance. For those unfamiliar, matsutake (*Tricholoma matsutake*) is an edible mushroom much loved in Japan. They cannot be cultivated, are hard to find, and inhabit northern-hemisphere forests, relying on companion conifers such as pine to grow.⁸⁶ According to Tsing, Japanese pine forests produced a wealth of matsutake until the 1970s, following a decline in village life after WWII. In the 1980s Japan began importing matsutake from around the world and Japanese pine forests continued to change, due to human populations fleeing to cities. Forest health declined as the red pine was choked out by overgrown broadleaf trees. The matsutake dwindled. Assemblages of mushrooms, pines, and humans create lifeways. As Tsing tell us, “if history without progress is indeterminate,” then assemblages have the capacity to show us new possibilities.”⁸⁷

The Matsutake Crusaders volunteer their time and labor to sculpt the forest and bring back the health of the red pine and its companion matsutake. The fungi are not just a delicious treat—for many, they are also “a valued participant in a world of ecological well-being.”⁸⁸ For centuries, the inhabitants of villages in Japan would create “disturbed forests by shifting cultivation and selective harvesting of broadleaf trees that are used for firewood and charcoal.”⁸⁹ Disturbances are changes in environmental conditions that caused noticeable shifts in an ecosystem. They can “renew ecologies as

82. Tsing, “Inclusion,” 201.

83. Tsing, “Inclusion,” 192.

84. Tsing, “Inclusion,” 198.

85. Springgay, “The China-town Foray,” 652.

86. Tsing, “Arts of Inclusion,” 196.

87. Tsing, *The Mushroom at the End of the World*, 23.

88. Tsing, *The Mushroom at the End of the World*, 198.

89. Tsing, *The Mushroom at the End of the World*, 199.

well as destroy them,” opening up the potentials for the emergence of new “landscape assemblages.”⁹⁰ Matsutake and red pine (*Pinus densiflora*) thrive in disturbed areas and, “in these disturbed sites, something that might be called a sustainable relationship between humans and nonhumans could be imagined.”⁹¹ For Dr. Yoshimura and the Matsutake Crusaders, their commitment to the labor of environmental remediation bridges a connection between human and more-than-human life and well-being.

Tsing notes that this type of landscape intervention “contrasts with the hegemonic, extinction-oriented practice of what might be called ‘plantation science.’”⁹² Plantation science, born from a legacy of slavery and colonial violence, is a top-down approach to ecology, cultivation, and development that seeks power and mastery over nature. This approach is racist, sexist, ableist and anti-ecological.⁹³ However, in the actions of citizen labourers working to restore Japanese pine forests, Tsing finds hope for “multispecies love” that “encourages a new passionate immersion in the lives of the non-human subjects.”⁹⁴ Further, the critical intervention of this new form of science attuned to the more-than-human is that it “encourages learnedness in natural science *along with* all the tools of the humanities and the arts.”⁹⁵ There is a lively city coursing through and below the forest floor, and it is one that Tsing warns “almost no one notices, because so few humans know of the existence of that city.”⁹⁶ The arts of noticing mushrooms, “the mycorrhizal webs, structures of fungus and root, connecting the forest’s communications through fungal networks from tree to tree,”⁹⁷ can constitute an artful and political act. The foray, as evidenced in different ways in the practices of John Cage, Amish Morrell and Diane Borsato, and the citizen-led labours of the Matsutake Crusaders, stage research-creation’s transdisciplinary force as an “ecology of practices.” Research-creation is a strategy of resistance.⁹⁸ Through the minor gestures of walking, searching, and gathering, the foray cuts through the major forces of the institution, opening up unto as-yet-unknown potentials. ¶

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90. Tsing, *The Mushroom at the End of the World*, 160.

91. Tsing, “Arts of Inclusion,” 199.

92. Tsing, “Arts of Inclusion,” 201.

93. Kathryn Yusoff proposes an opposition to such “inhuman/inhuman” logics of extraction, suggesting that black poetics can redirect the “racial logics of extraction through new energetic modes and understandings of relation, desedimenting the forms of inhuman historicity that are established through colonialism.” Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018), 19.

94. Tsing, “Arts of Inclusion,” 201.

95. Tsing, “Arts of Inclusion,” 201.

96. Tsing, “Arts of Inclusion,” 192.

97. Tsing, “Arts of Inclusion,” 191.

98. Loveless, *How to Make Art*, 3,10.