

Some Instructions for Folding Perception

Written to accompany *the knots of the net*, Tyler Los Jones, Norberg Hall, 2021-2022.

-Amanda White

1. **Attend to the Surfaces:** *What do you see when you observe your surroundings, or when you look closely at a flower?*

Approximately 300 million years before our early ancestors shed their fins and ventured onto land from the sea, some of the earliest plants were already busy figuring out terrestrial life. These first plants were leafless and looked more like bare green twigs but were plants none the less and eventually evolved into liverworts, ferns and horsetails.¹ Flowers emerged much later from vascular plants in the cretaceous period (145-66 million years ago). It is widely believed that plants developed flowers and fruits as a means by which to use mobile animals as assistants in dispersing their seeds. Flowering and fruiting plants (angiosperms) then became the dominant type of plant on earth and continue to be so today. As relative newcomers on this planet, it would be still another 40 million years or so until this strategy would come to include even our earliest ape ancestors.² Plants make up around 80% of the earth's biomass and form the base of all animal life and habitats. Yet, when viewing a given environment, human perception generally privileges animals while viewing plants as background to the more dynamic actions of animal or insect life.³

2. **Find the edges:** *Imagine feeling out to the limits of your surroundings through touch, taste and smell. Where does your experience end and the experience of another begin?*

In a short story titled "Fast Seeds" by Nina Kiriki Hoffman, the protagonist Kethra finds an unfamiliar seed which embeds itself into her hand. The seed grows quickly into a plant and incorporates Kethra's body into its own. As they become enmeshed, Kethra begins to understand the plant's desires, thoughts, and vast knowledges. She experiences the sensual feeling of roots growing and as they move omnidirectionally, there is a heightened sensitivity over vast distances. She describes the feeling roots as "sensory nets" that are sent out, "pulsing and pushing" through the earth, feeling, tasting, exploring, and seeking nourishment.⁴

3. **Notice the shapes:** *Look closely at a plant's shape. Can you see a beginning and an end? Can you find the middle?*

In his book *I Contain Multitudes*, Ed Yong writes, "there are more bacteria in your gut than there are stars in the galaxy."⁵ This vision of the human body as a multi-species assemblage has become a focal point in recent science and philosophy, questioning the concept of the 'individual' as it has often been imagined, especially in western thought, and arguing that rather; "[w]e exist in symbiosis...every one of us is a zoo in our own right—a colony enclosed within a single body. A multi-species collective, an entire world."⁶ Yet, it remains that the

structure of the human body is hierarchical, with a central nervous system at the helm. The individual plant body by contrast, is decentralized, without a central node or 'brain' as we understand it. Its parts can re-grow and adapt, and it lives enmeshed within its environment, itself a community and result of "radical collectivity" where each part plays a role.⁷

- 4. Explore the undersides:** *Imagine you could turn a plant over or turn yourself over to meet it underground; you find a complex social world.*

Plant lives might look static to the naked human eye, however a plants' barely perceptible motion can be translated and seen through the use of modern technology such as time-lapse photography. Still invisible to humans though is their life underground, where plant communities exist within a dynamic world, a framework of mutual collaboration, including networks of mycorrhizal fungi, soils, and plant-beings. These decentralized networks, functioning across individuals of multiple species, create what Manuela Giovannetti calls a "wood-wide web" of interconnected plants across the rhizosphere.⁸

- 5. Gather and Crease:** *Collecting, manipulating and knowing something can be violent, but it doesn't have to be. It can be gentle and careful; try to fold without breaking.*

In her book *Gathering Moss*, Robin Wall Kimmerer acknowledges the existing relationships and communities being observed in an environment and considers what they might call themselves; "I know that mosses have their own names, which were there long before Linnaeus, the Latin namer of plants."⁹ The western scientific tradition of naming plants according to Linnaean taxonomical protocols employed what some botanists have called 'linguistic imperialism,' in which naming both accompanied and promoted European global expansion and colonization."¹⁰ This system also excludes all other histories, for example, information regarding habitat, location, or known uses of a plant, effectively erasing a plant's relationship to its community and Indigenous cultures.¹¹ At the height of the space-race in the 1960's, the international association for plant taxonomy (IAPT) went so far as to publish a piece arguing that if plant life were to be found during space exploration that there should be an extension of the existing system to name plant life on any planet; "[t]he time is not too far distant when undoubtedly extraterrestrial life forms will be collected and brought back to the Earth from other celestial bodies. Among such forms there will undoubtedly be representatives of the plant kingdom. The Botanical Code worked out solely for terrestrial forms thus should be made complete and amended with provisions for the describing and naming of extraterrestrial taxa."¹²

- 6. Turn things over again and again:** *Sometimes contemplation is slow, barely perceptible or microscopic.*

In Kobo Abe's short story *Dendrocacalia*, the protagonist named Common teeters on the edge of human and plant being. Common has occasional fits in which he loses human consciousness and nearly becomes a plant, a transformation he can only reverse in an act of violence by using his hands to turn his face inside out. He is torn between what he describes as the "intoxically pleasant satiety" and the "horrible immobility" of being a plant.¹³ Over time, he gives in to the transformation, finding there was even a kind of pleasure in the process, "[h]e closed his eyes and quietly held out his arms to the unrisen sun."¹⁴

7. Indicate the layers: *By now there are many overlaps, similar but different things that can be grouped together.*

All species have their own sensory worlds and tools, different modes for sensing one another or creating "impressions" through perceptual information and textures.¹⁵ And yet, even though it may look different, most beings live by the cycles of the sun and the moon. Carl Linnaeus, the Swedish botanist and zoologist obsessed with organizing the natural world, attempted to standardize human and plant time. He conceived of a 'plant clock' made possible by arranging the planting of various flowers that open at different times of day in the shape of a clock. This concept, betraying an expectation of plants to operate with mechanical regularity, was never truly successful as a botanical timepiece when attempted.

8. Relinquish control: *Look at your work so far, have you folded anything into something new? Let the shape tell you what it wants to be.*

Anthropologist Anna Tsing considers working with more-than-human communities as an exercise in letting go; relinquishing human perceptions of knowledge and engagement. Tsing writes, "[w]e might not always be in charge. We might get to know other-than-human worlds in which we participate, but in which we don't make the rules."¹⁶ In productive resonance with Tsing, Maria Puig De La Bellacasa writes, "thinking in the world involves acknowledging our own involvement in perpetuating dominant values."¹⁷ She goes on to suggest that it's impossible not to bring yourself with you, that perhaps what is required is a practice of thinking differently, with care. You may have to start again from 1.

Notes:

Some of this text was previously published in Amanda White, "Talking Plant" (PhD diss), Queens University, 2018.

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- ¹ Beerling, David J. *The Emerald Planet: How Plants Changed Earth's History*. New York: Oxford University Press, 2017.
- ² Mancuso, Stefano, Alessandra Viola, Joan Benham, Michael Pollan, and Stefano Mancuso. *Brilliant Green: The Surprising History and Science of Plant Intelligence*. Washington, DC: Island Press, 2015; Kimmerer, Robin Wall. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Minneapolis: Milkweed Editions, 2013.
- ³ Lynda Schneekloth, "'Where Did You Go?' 'The Forest.' 'What Did You See?' 'Nothing.'" *Children's Environments Quarterly* 6, no. 1 (1989): 14–17; Wandersee, James H., and Elisabeth E. Schussler. "Toward a
- ⁴ Hoffman, Nina Kiriki. "Fast Seeds." In *The Ultimate Alien*. Edited by Byron Preiss, 272–306. New York: Ibooks: Distributed by Simon & Schuster, 2003.
- ⁵ Yong, Ed. *I Contain Multitudes: The Microbes within Us and a Grand View of Life*. New York: Harper Collins, 2016., 6.
- ⁶ *Ibid.*, 3.
- ⁷ Houle, Karen L. F. "Animal, Vegetable, Mineral: Ethics as Extension or Becoming? The Case of Becoming-Plant." *Journal for Critical Animal Studies* 9, no. 1/2 (2011): 89–116, 111.
- ⁸ Manuela Giovannetti, Luciano Avio, Paola Fortuna, and Elisa Pellegrino. "At the Root of the Wood Wide Web: Self Recognition and Non-Self Incompatibility in Mycorrhizal Networks." *Plant Signalling and Behavior* 1, no. 1 (2006): 1–5.
- ⁹ Kimmerer, Robin Wall, *Gathering Moss: A Natural and Cultural History of Mosses*. Corvallis, OR: Oregon State University Press, 2015., 5.
- ¹⁰ Schiebinger, Londa L. *Plants and Empire: Colonial Bioprospecting in the Atlantic World*. Cambridge, Mass.: Harvard University Press, 2004., 195.
- ¹¹ *Ibid.*, 203.
- ¹² Palik, P. "Extraterrestrial Taxa and Their Nomenclature", *Taxon*, International Association for Plant Taxonomy (IAPT), Vol. 12, No. 8 (Oct. - Nov., 1963), 283.
- ¹³ Abe, Kobo. "Dendrocacalia (1949)." In *Beyond the Curve*, 43–64. Tokyo: Shincho-sha Co., 1991, 49.
- ¹⁴ *Ibid.*, 63.
- ¹⁵ Hayward, Eva. "Fingeryeyes: Impressions of Cup Corals." *Cultural Anthropology* 25, no. 4 (November 2, 2012): 577–99. 593.
- ¹⁶ Tsing, Anna. "More-than-Human Sociality: A Call for Critical Description." In *Anthropology and Nature*. Edited by Kirsten Hastrup, 27–42. New York: Routledge, 2013. 28.
- ¹⁷ Puig De La Bellacasa, Maria, "Nothing Comes Without Its World': Thinking with Care" *The Sociological Review*, 2012, 60(2), 197-216, 197.