

NOTES FROM AMARANTH LAND (IV)

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Plant Intelligence: a collective territorial intelligence.

*Plants tell their stories not by what they say, but by what they do.*¹

After months of reading and conversations with different actors related to what we could call the world of plants, a definition of intelligence that prevails and is stated from different fields is the power of adaptation and survival of vegetal beings. They respond to their environment by developing strategies to be able to live or survive. My teacher plant, amaranth, is a species with a high capacity for adaptation, which always seeks to leave offspring, to survive, to endure. It does so in GM crop plantations by massively developing resistance to the agrottoxins used in transgenic agriculture. It naturally develops resistance to agrochemicals, for which soybeans and

other GM crops have been manipulated in biotechnological laboratories. After spraying with agrochemicals, amaranthus does not die, but emerges strengthened and reproduces, transmitting this resistance from generation to generation. This power of adaptability and survival could be called intelligence.²

Now, can we think of plants as individual beings? Is it only certain individuals that survive intelligently? Or is their adaptation an intergenerational, collective action? Is it the result of interaction between plants of the same species, or also their relationship with other human and non-human beings?

Robin Wall Kimmerer states that: *The trees act not as individuals, but somehow as collective.*³ Their ancestral relationship with other human and non-humans beings is based on reciprocity. And in terms of reciprocity and cooperation between plants, she speaks of three sisters: pumpkins, beans and corn, which ancestrally were cultivated in partnership; in the words of Wall Kimmerer, cooperating, not competing.⁴

In the same direction, but without having read Wall Kimmerer, agronomist Javier Rodríguez talks about the intelligence of plants. His small garden, located in a small town in the Quebrada de Humahuaca, is a polyculture based on the reciprocity of the plants that live there: beans among corn, amaranth, potato, pumpkin, flowers and spontaneous vegetation growing intertwined with each other. If the predominant model of industrial agriculture favors monoculture to increase profitability, the ancestral wisdom of the indigenous farmers of these lands of Jujuy favors polyculture and cooperation between plants and human and non-human beings to conserve biodiversity and live in harmony. To exemplify this, Javier invites me to observe a tall amaranth growing above the corn in his garden. He says that having grown so high makes its stem weaker, but that this is because the corn is giving it support to grow. Hegemonic science would say this is competition, he says. But in reality, this amaranth is cooperating with the corn that supports it, or establishing, in Andean terms, a relationship of reciprocity. Javier affirms that the people of the Quebrada do not speak in terms of intelligence, but of unity in the Pachamama, which he defines as a collective territorial intelligence. They call this unity of relationships that refers to the reciprocity of all human and non-human beings in a certain place *chacra*. *In the Andean worldview the chacra is all your space, where there are bred and wild animals, sown plants and spontaneous vegetation. In contemporary terms it would be what we call environment. With that environment the human being establishes a relationship of reciprocity, he or she raises the chacra and the chacra raises him or her.* He maintains that there is an intelligence not only in plants, but also in places, in the farm, in each environment, a inter-beings collective intelligence, a vision that he defines as typical of the indigenous cosmogony, in this case, of the Andean worldview.⁵

Within the framework of transgenic agriculture and its monocultures, it is the resistant weeds which in their growth seek not only to survive, but also to reestablish the biodiversity that industrial agriculture eliminates. We could say that their growth and massive appearance in GM monocultures even creates polycultures, for example in Argentina, of GM soy and amaranth. What relations does amaranth, the most problematic resistant weed of the transgenic model, establish with soy, the zombie plant, ally of capital par excellence? Are there reciprocal relations between the two?

Robin Wall Kimmerer writes that: *The truth of our relationship with the soil is written more clearly on the land than in any book. I read across that hill a story about people who value uniformity and the efficiency it yields, a story in which the land is shaped for the convenience of machines and the demands of a market.*⁶ That hill may well be understood as the homogeneous extensions of GM crops. Philosopher and biologist Guillermo Folguera argues that weeds are what bring heterogeneity to GM monocultures. In the framework of the homogenizing neo-extractivist model, the heterogeneous is always disruptive, he argues, whether it is a weed or a farmer who does not want to sell his land, or who grows something else. For this predominant model, anything heterogeneous is always seen as a problem. That is why they seek to eliminate amaranth; it makes heterogeneous that which must not be.⁷ It provides biodiversity where that is precisely what a system that only thinks of homogeneity and profit aims to eliminate.

As forms of resistance, cooperation, the search to reestablish heterogeneity and biodiversity can be ways of redefining what we understand by intelligence, in this case, that of plants in relation to their environment. Observing them closely and learning from their actions can perhaps allow us to begin to recover the ancestral collective territorial intelligence of the Americas that still, like the amaranth, continues to persist in Latin American territory.

¹ Robin Wall Kimmerer, *Braiding Sweetgrass*, Penguin Books, UK, 2020, p. 128.

² Santiago Boffi, interview/conversation by author, Buenos Aires, January 12, 2023.

³ Wall Kimmerer, *Braiding Sweetgrass*, 2020, p. 114

⁴ Wall Kimmerer, *Braiding Sweetgrass*, 2020, p. 132

⁵ Javier Rodríguez, interview/conversation by author, Tilcara, March 8, 2023.

⁶ Wall Kimmerer, *Braiding Sweetgrass*, 2020, p. 138

⁷ Guillermo Folguera, zoom interview/conversation by author, September 29, 2022.