



# GEORGOFILI WORLD

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## IN THE MIND OF PLANTS

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It is not easy to be a plant. Try to imagine how difficult it is to survive in an adverse environment without being able to move. Imagine you are a plant surrounded by insects, herbivores, predators of all sorts. Moreover, you cannot escape. The only way to survive is to be indestructible, to be entirely different from an animal. In other words, to be a plant.

To escape the problems of predation, plants have evolved by following a unique and unusual path. They have developed solutions so different from those produced by animals as to become, in our eyes, an example of diversity. They are organisms so different from us animals that they could even be aliens. Many of the solutions developed by plants are the exact opposite of those produced by the animal world.

What is white in animals, is black in plants and vice versa: animals move, plants are still; animals are fast, plants slow; animals consume, plants produce; animals produce CO<sub>2</sub>, plants fix it, continuing up to the final difference. The most important in my opinion and the least known is the one between dissemination and concentration. For example, any function that is entrusted to specialized organs in animals is diffused all over the body in plants. It is a fundamental difference whose consequences are difficult to fully understand. Such a different structure is one of the reasons why plants seem so different. The fact that we have a certain number of fundamental organs in common with almost all animals, makes them closer and more understandable. Why have vegetables not developed the individual specialized organs that have proved to be so useful in the animal world? The answer is banal. Even if organs are efficient in performing their functions, they are a weak point.

Unfortunately, we know that any imperfection, any damage to one of our vital organs is enough to stop us. A plant with organs would be overcome even by the smallest predator. A caterpillar that ate a small piece of a plant's vital organ would be enough to kill it. That is why plants do not have individual organs, because they are made to resist. Be careful, as the fact that they have no organs does not mean they lack the functions of those organs. The plant actually breathes without lungs, feeds without a mouth, sees without eyes, hears without ears, and finally communicates, solves problems, remembers, and learns without those tasks being delegated to either a brain or specialized structures.

Plants are a different model from animals and, in many ways, the opposite. One alternative to be taken into consideration is our approach towards planning that, in fact, has always been a means to substitute, expand, or improve human functions. In practice, humans have always tried to essentially duplicate animal organization in the construction of their tools. Let us consider the computer – the very symbol of modernity. It is designed on ancestral patterns: a processor on behalf of the brain that governs the hardware and then hard disks, RAM, and video and audio cards, i.e., the banal transposition of our organs from a concise point of view. Whatever humans plan tends to roughly openly have this basic pattern: a computer brain governing the implementing organs. Even our societies are built on this same archaic design.

Plants are an alternative and unexplored model. They do not have a centralized organization. Everything in them is distributed and produced by modules. Their construction is the quintessence of modernity: a modular, cooperative, distributed architecture without a command center, able to completely resist catastrophic and repeated predations without losing their functionality. From this point of view, plants seem to be much more modern organisms than animals and we should keep that in mind for planning our future.

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