

# COMMUNITY ALLELOPATHY

## EPICURO LAB COLLECTIVE

WORKSHOP AT ARS ELECTRONICA, 09.09.22

It is well known that certain plants are not compatible with others, while certain combinations of plants reinforce each other. This is due to a phenomenon called allelopathy, the biological capacity of plants to produce biochemical compounds that influence the development and survival of other organisms. These substances, capable of exerting behavioural effects on other organisms, are called allelochemical compounds and can have beneficial or detrimental effects. This mechanism serves to regulate plant populations in plant communities and even the presence of certain insects.

In natural ecosystems, these associations have emerged after millions of years of evolution, but not so in urban environments, where the vegetation matrix is determined either by human activity or by spontaneous naturalisation processes. These cultural and spontaneous processes often involve plants that are better adapted than native plants to cultural tastes and the altered state of urban ecosystems, which can end up dominated by exotic and even invasive plants. In a world where the biosphere is increasingly modified by human activity, there is a clear trend towards the emergence of new, random plant communities and ecologies derived from human activities and pressures.

A third possibility, which has not been sufficiently explored, is the creation of plant communities on a communal basis, according to no other criteria than the tastes and possibilities of humans, which could be considered a form of designed ecology. The resulting biotic community would, in all likelihood, be unviable in the long term, but not necessarily and not always: it may well be that some combination will prove unexpectedly successful and graceful. In a way, this is what

has been happening in horticulture and gardening for centuries: people have simply exchanged those plants that were rarer, more beautiful, more successful or easier to grow, creating horticultural communities which created a form of cultural allelopathy.

In the light of globalisation and climate change, with geographic, cultural and climatic boundaries shifting and even disappearing through increasing draughts, heatwaves and desertification, this kind of seemingly innocent horticultural activity raises several questions that straddle environmental, scientific, ethical, and cultural fields.

- What should we do?
- Should we resist and fight against the rise of exotic plants in the new climate?
- Should we accept our self-imposed fate and allow new ecosystems to emerge on our doorstep?
- Should new plant communities be determined by science, art of communal wishes?
- Will our identity change if plant communities change around us?
- Are cultural values, tastes and preferences effective allelopathic agents?
- Is our agency a form of global allelopathy? If so, are we stewards or destroyers?
- How can invasion of ecosystems by plant species contribute to profound environmental, ethical and cultural questions around the ideas of autochthony, xenophobia and racism?

The presence of vegetation offers an opportunity to combine botanical culture,

chance, fantasy, and participatory work in improvised communities. When plants discover new ecosystems where they can thrive, they might affect the local ecosystem: they retain moisture and lower surface temperatures, create habitats and refuge for other living beings, such as pollinators. They can also fulfil the task of improving soil conditions, retaining polluting particles suspended in the air, all whilst fixing carbon by generating biomass. However, when balance is changed, it can be interpreted as alarming by humans and they are given the name of "invasive". However, nature does not discern between local or native plants and naturalised or invasive ones. They too can offer a bountiful experience of nature but not as we know or wish to know it.

Among plants named "invasive" in Austria:

Butterfly bush / *Buddleja davidii*  
Himalayan balsam / *Impatiens glandulifera*  
Canadian goldenrod / *Solidago canadensis*  
Donkey Rhubarb / *Reynoutria japonica*  
Giant Hogweed / *Heracleum mantegazzianum*  
Common Ragweed / *Ambrosia artemisiifolia*  
Common Milkweed / *Asclepias syriaca*  
False Acacia / *Robinia pseudoacacia*

COMMUNITY ALLELOPATHY will serve as the engine for the exchange of botanical curiosity and knowledge between participants, and will attempt at collecting data, opinions and stories about plants.

With the data collected during the workshop, we will produce an artistic report accompanied by a series of artistic and participative actions related to the intervention, which will eventually culminate in a presentation of results. With this knowledge, our objective is to foster the creation of groups of volunteers among artists and scientists, university and school students, retirement homes, cultural centres in the neighbourhood and any other entity or group of neighbours who decide to take responsibility for the management of new plant communities.

Involving citizens in the care of plants allows for the establishment of empathic networks between humans and "green agents" and strengthens the sense of moral responsibility of humans towards plants, to which we owe health, well-being, and life. And if our participation is organised with the component of creativity, work becomes a pleasure, and not an obligation.

EPICURO LAB is a collaborative art collective, whose core is composed of an atypical landscape architect and artist, Gabino Carballo, and an art producer and curator Tatiana Kourochkina. It was created in 2022 after they collaborated in "Roots & Seeds XXI".

With a multidisciplinary approach, Epicuro Lab works in the field of urban ecology, where nature is controlled by humans, often too controlled. Epicuro Lab creates ephemeral works and expands knowledge related to biodiversity in the urban environment. The collective aims to raise awareness concerning the complex issue of plant and human relations in a changing and challenging world, where preconceived ideas and standing knowledge may no longer be entirely applicable anymore.

During its participation in Ars Electronica, the collective collaborates with Dr. Claudia Schnugg. She is a curator and scholar researching the intersections of art and aesthetics with science, technology, and organisations. She curates arts&science collaborations, artist-in-residence programs and media art projects, as well as various projects intertwining art, science, technology, and innovation in business, industry, scientific and cultural organisations. In addition to this, she is a passionate local flora conservator of the Linz area.