

Bloom Magazine
October 2021

‘It’s an unnatural garden designed for nature’

Artist Alexandra Daisy Ginsberg has created software for bugs and put an algorithm in charge of a garden created solely for the pleasure of pollinators

Interview Aoife Fannin

We often think of gardens as being a space for people, and we design them based on human desires – but as we’re becoming increasingly aware, we aren’t the only ones who need and enjoy them. Artist Dr Alexandra Daisy Ginsberg has tipped the design process on its head for a new, permanent art installation at the Eden Project in Cornwall, and is in the process of planting a 52m-long garden for pollinators, rather than people.

Collaborating with horticulturalists and pollinator specialists as well as tech experts, she’s created a unique algorithm that draws on a database of plants and selects and arranges them according to the various foraging habits of bees, butterflies, moths and the like (which are essential to life on Earth, but in alarming decline).

The result is a perfect garden design in the eyes of these tiny creatures, and one that brings together unexpected

planting combinations and unusual aesthetic decisions. The project also makes the algorithm available to the public to create their own living artwork for pollinators.

Where did your love of nature come from?

My parents instilled in me a deep love of the natural world. We moved from London to the countryside when I was eight and I watched my father spend years learning about traditional formal gardens and transforming a field into one. He got so into topiary he even started a topiary nursery, so I spent my holidays helping to tame hedges into unnatural shapes. For a while he also had an organic shiitake farm, growing mushrooms on logs in the woods in the traditional Japanese way. We’d beat the logs with sticks to simulate thunderstorms and a stress response to make mushrooms. Mushrooms are incredibly fashionable

now, but in the 1990s it made me seem extremely weird at school.

Were you ever nervous about the aesthetic outcome of the garden?

The algorithm is designed to maximise empathy, and the aim is to reduce human aesthetic bias as much as we can. The garden site at the Eden Project is divided into pixel squares, and the algorithm chooses what should be planted in each pixel based on a curated database of plants.

The garden may look very different to a conventional planting scheme: for example, we have every colour in the database, as different pollinators see different colours, so the aesthetic may not suit humans. But I hoped it would look quite strange. It is an unnatural garden designed for nature. And it’s an artwork that leaks into the world, as pollinators take pieces of it away and allow it to flourish elsewhere.



What plants can we expect to see?

The design is about balancing plants proven to be beneficial to a range of different pollinator species, with plants that bloom at different times of the year, and also those that have different-shaped flowers for different feeding styles.

The algorithm draws on a plant palette of perennials that are locally appropriate, but we are not obsessed with native species. Some cultivars are included, but we've excluded those that are bred for human tastes in appearance or smell, because this often reduces their usefulness to pollinators (they often provide less pollen and nectar or, the pollen and nectar may be inaccessible).

The planting depends on what the algorithm chooses each time it generates a scheme of a specific place, and which scheme is ultimately selected – human biases always creep in!

For an artist so interested in nature, tech plays an unusually large role. How did that come about?

I knew pretty much nothing about technology, but was intrigued by the novelty of a new MA at the Royal College of Art called Design Interactions and enrolled in 2007. I learned to use design in a critical way to explore the social, cultural and technical implications of emerging technologies. And I learnt about a new field called 'synthetic biology' – an approach to genetic engineering where DNA is reimagined as programming code to make biology work as a design material in order to make useful things for humans.

It was astounding, and I wondered: when it comes to designing the very matter we are made of, what would good design be and who gets to decide? This led me to a ten-year adventure hanging out with synthetic biologists

in labs around the world, making work that reflected on their vision of engineering biology.

I went on to explore our relationship with the natural world and the crises it faces. I experimented with other lifelike technologies, such as AI, questioning our obsession with the new, rather than what already exists. For example, why is so much invested in AI, while we make some species go extinct?

How do you think people will respond to the garden?

It's a very different way of thinking about what a garden is and who it is for: can humans design things that are not ultimately for our benefit? I hope my work can instill an unexpected emotional response and inspire a call to action, and that making an artwork for pollinators can show how we can see the world through non-human eyes. [▶](#)

edenproject.com / daisyginsberg.com