

# Chloroforge

Chloroforge is a speculative pavilion that explores how we relate to nature through design. It reflects different levels of human control and care, from highly regulated systems to natural, unmanaged environments. Set in a future where biodiversity is under threat and environmental conditions are more extreme, this pavilion tells a story of how architecture can adapt. It is not just a structure, but a living system that connects soil, species, and built form.

The pavilion is divided into three interconnected zones: Factory of Life, Curated Wilderness, and Ecology Without Edge. Each zone explores a different relationship between humans and the natural world, inviting visitors to move through a spectrum of interaction, from total human control to complete ecological freedom.

The journey begins in the Factory of Life, an enclosed and technologically advanced zone. Here, variegated plants, plants known for their rare and ornamental color patterns, are sustained entirely through artificial systems. These include controlled mist, artificial sunlight, and regulated watering, all maintained through sensors and automated devices. The role of humans in this zone is reduced to observation. They cannot touch or tend to the plants directly but instead watch from behind barriers, relying on data displays and smart systems to understand how the plants grow. This zone reflects a possible future where nature is preserved only through careful engineering and machine intervention.

Next is the Curated Wilderness, a space where human presence becomes more active but still respectful. The architecture opens up and becomes more participatory. In this zone, visitors are encouraged to engage through propagation workshops, guided plant care activities, and educational displays. The plants here are selected and nurtured but not heavily restricted, allowing a balance between human guidance and natural growth. This zone acts as a middle ground where people learn how to care for and coexist with living systems. It also serves as a space for community learning, skill-sharing, and rethinking the relationship between people and the environment.

The final zone, Ecology Without Edge, removes almost all human interference. Here, nature is allowed to exist and evolve on its own terms. Aquatic plants like variegated water lilies, mosses, and native wetland species grow freely. Architecture becomes minimal and blends into the background. Visitors can wander and observe how species coexist without human regulation. This zone is a reminder that not all systems need to be designed or curated; some simply need space to thrive.

A central water system links all three zones, distributing, collecting, and filtering water differently depending on each area's needs. The system mimics natural processes and highlights how water is a shared life source across the gradient of control.

The design of Chloroforge is inspired not only by how nature looks but by how it works. Biological systems such as photosynthesis, leaf veins, and stomata shape the structural and functional logic of the pavilion. In the end, Chloroforge is a living experiment in architectural coexistence. It offers a journey from artificial control to wild autonomy. As Thailand faces an uncertain ecological future, this pavilion proposes an alternative: architecture that listens, learns, and lives with nature, rather than against it.