How can we reimagine waste disposal infrastructure in our cities? Florencia Garcia’s thesis project focuses on urban landfills, utilizing architecture as a temporary component in an ecological remediation system. Educational and communal programs suspended above the landfill aim to make waste cycles visible while later facilitating soil regeneration, creating a necessary barrier to close the landfill cycle.

Keywords:
Soils, landfills, regeneration, sustainability, infrastuctural turns
SISTEMA DE REGENERACIÓN SINCRÓNICA: RESIDUOS, CICLOS, SUELOS / SYNCHRONOUS REGENERATION SYSTEM: WASTE, CYCLES, SOILS

Arquitecto / Architect: Florencia García
Equipo docente / Tutors: Guillermo Hevia, Bárbara Rozas
Ubicación / Location: Relleno Sanitario Mejillones, Antofagasta, Chile; relleno sanitario Fundo Las Cruces, Chillán Viejo, Chile; relleno sanitario Cerros La Leona, Región Metropolitana, Chile
Año de proyecto / Project year: 2022-2023
Fotografía y visualizaciones / Photography and visuals: Florencia García

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Planta y axonométricas de proyecto / Project plan and axonometric drawing

Leyenda / Legend
1 Centro de compostaje desierto, año 5 / Desert composting center, year 5
2 Centro de reciclaje bosque esclerófilo, año 10 / Sclerophyllous forest recycling center, year 10
3 Centro educativo bosque caducifolio, año 20 / Deciduous forest educational center, year 20
We have normalized littering to the point where its process, its final whereabouts and its consequences are unknown. Its infrastructures, however, have great potential for reflection. Approaching them from architecture, culture, and landscape, while also focusing on the regeneration of their soils through a composite system, could raise awareness.

Thus, the proposed project consists of two parts: a soil work and a technological artifact. The first refers to the planting of species by means of the “pixel” way—following Lenora Ditzler, a method of cultivation with varied patterns—; while the second contains a structure capable of activating, monitoring, and maintaining the growth of species, in turn functioning as an educational, recycling, and composting center.

However, both converge in a key aspect: temporality. Unlike a masterplan, the system starts together with the excavation of the landfill by activating forest regeneration in its adjoining sites. Thus, while the waste deposit is underway, so is the regeneration. When the landfill closes—20 to 40 years later—the project closes the cycle by regenerating the soil on top of the landfill. The program emphasizes closing cycles: first, to close the cycle of organic matter, it proposes the composting center that starts the plantations. Second, the recycling center as a filter and separator of garbage. Third, the educational center to show the problem of the landfill to the general public. Thus, we would change the conception of littering by considering it a cycle in itself. ARQ.

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