



Architect [Farming Architects](#)
 Project [VAC-Library](#)
 Location [Hanoi/Vietnam](#)

Lessons from a Mini Symbiotic City Farm

Homes in Hanoi often have small fishponds or aquariums alongside pots for growing vegetables (the latter due to contamination of plant life in the polluted Vietnamese capital). One of the city's innovative architecture studios, Farming Architects, has taken inspiration from this lifestyle trend to create VAC-Library, which includes these aspects.

The 592-square-foot (55-square-meter) public space in the residential hub of Duong Noi recreates a traditional rural scene in a vibrant city landscape. The production system blends horticulture, aquaculture, and animal husbandry to teach locals how to utilize plants and animals effectively.

Land, air, water, and solar energy are coupled with recycled by-products and waste to generate a self-sustaining ecosystem that is easy to replicate in a residential environment. The symbiotic process is based on aquaponics, which combines conventional aquaculture (raising aquatic animals) with hydroponics (cultivating plants in water). Fish excrement is broken down into nitrates, which are used to fertilize the plants, and the filtered water is circulated back to the fish.

"Children learn that koi fish are not just pets, and they can see how chickens are raised and that their excrement is also good for gardening," says Farming Architects founder An Viet Dung, who has a master's degree in environmental engineering.

The lessons gained from VAC-Library are meant to stimulate knowledge sharing among neighboring communities and encourage urban residents to explore similar options in their own living spaces. The architectural language of the structure, comprised of wooden beams, can be customized according to location and create an attractive feature, in keeping with the Vietnamese affinity for do-it-yourself.

The modular design of the structural elements means that the system can be customized to suit any location, by simply slotting in the light fittings, planters, and seating spaces where they work best.

