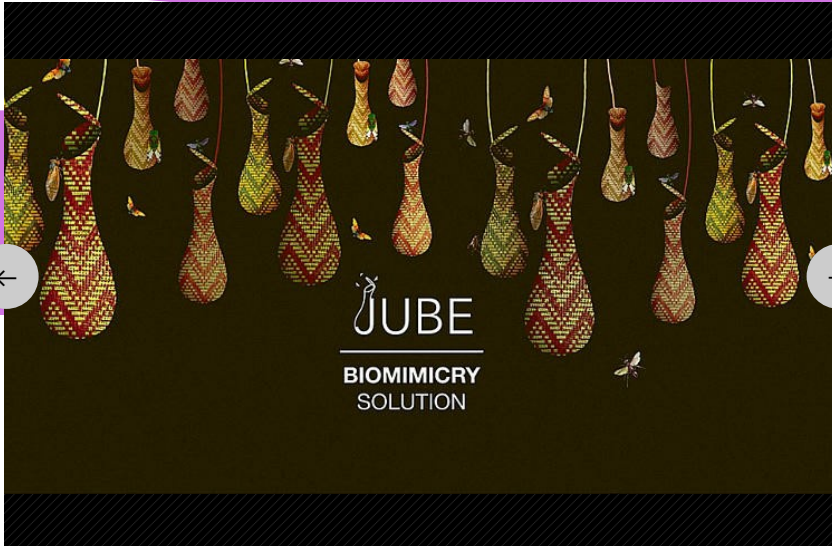


3 Nature-Inspired Designs To Make Our Food Systems More Sustainable

Nature's been doing it right since the beginning of time. We're starting to learn how to copy it.



03 / 03 "Life has been evolving on Earth for billions of years and nature has faced the same challenges we have," says Megan Schuknecht, at the Biomimicry Institute, which nurtures "nature-inspired solutions."



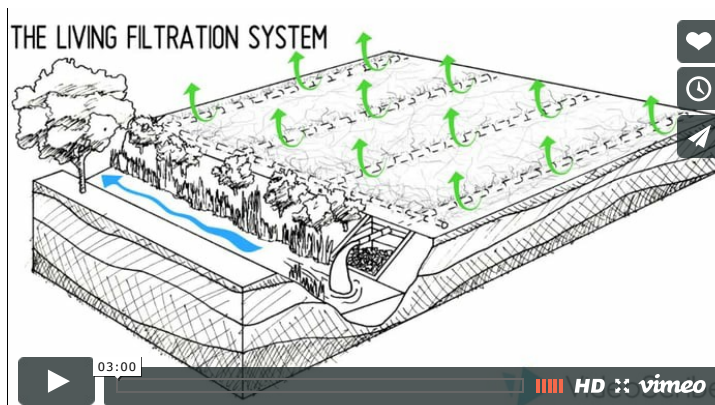
BEN SCHILLER | 10.13.15 | 1:25 PM

Long before Silicon Valley, startup accelerators, and skunkworks, nature was churning out one innovation after another. Despite all the ingenuity of humans, natural systems still provide templates for how we might design the world better today.

"Life has been evolving on Earth for billions of years, and nature has faced the same challenges we have," says Megan Schuknecht, at the [Biomimicry Institute](#), which nurtures "nature-inspired solutions." "It has to acquire nutrients, it has to keep its nest clean, it has to provide shelter, and it has to be energy-efficient. There's a lot we can learn from that."

Over the past year, the institute has organized a challenge to find good examples of biomimicry around the theme of food systems, and it recently announced [eight winners](#). These are the Top 3 winners:

THE LIVING FILTRATION SYSTEM



The overall winner is a student team from the University of Oregon. It came up with the [Living Filtration System](#), an alternative form of farm drainage. Modern farming relies heavily on artificial fertilizers that get washed away and pollute rivers, lakes, and bays. The tubular drainage tile incorporates mycorrhiza fungi

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that trap nutrients in the soil, so they can be used at a later date when plants need them.

JUBE



Insects like grasshoppers are a [great form of nutrition](#), tasty (apparently), and good for the environment (compared to the way we produce livestock animals). Jube, a concept from Thailand, is a device to capture those insects that follows the shape of a [pitcher plant](#).

"The wickerwork structure of Jube would let the wind flow by and spread the food odor to [the] surrounding environment," says the team's [submission](#). "Once the insects follow the odor and step into Jube, they would not be able to turn back due to the structure of hair pointing inward."

BIONURSE



A team from Chile was inspired by the [yareta evergreen plant](#), which offers an "ecological nursing" service to other plants growing nearby. The BioNurse is a biodegradable planting container that helps plants grow in harsh environments, protecting seedlings from wind and UV radiation, while funneling moisture down to the roots. (It sounds a little like the planter we covered [here](#).)

Though the Biomimicry Institute chose three winners, all eight finalists are invited to participate in its newly formed accelerator program, which is being funded by the Ray C. Anderson Foundation. They'll now develop prototypes, with a real winner (prize: \$100,000) announced next year. We'll check back in then.

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