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Q & A

Yes, in Your Backyard

Are accessory dwelling units the answer to the housing shortage? The designer Yves Béhar thinks so, and he has a new prototype to prove it.

By Tim McKeough

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In the San Francisco Bay Area, a region filled with technology companies interested in design, Yves Béhar is a designer interested in technology. Among other things, Mr. Béhar and his company, Fuseproject, have helped create August smart door locks, PayPal's brand identity, an app-connected height-adjusting desk for Herman Miller, the Snoo smart bassinet and Ori robotic furniture.

For his latest project, Mr. Béhar has turned his attention to housing. Working with LivingHomes and its manufacturing offshoot, Plant Prefab, which has attracted venture capital funding from Amazon's Alexa Fund and Obvious Ventures, he has designed the YB1: a modular, customizable accessory dwelling unit (or A.D.U.) intended to serve as a stand-alone residence in just about any backyard.

A rendering of the YB1, a prefabricated accessory dwelling unit designed by Yves Béhar, the founder of the San Francisco-based design firm Fuseproject.

A.D.U.s — secondary residences like in-law units associated with a larger home — are already popular in cities like Portland, Ore., Seattle and Vancouver, Canada, and have recently been getting a lot of attention in California. Over the past few years, the state and numerous counties and cities have introduced new laws and programs aimed at encouraging homeowners to build A.D.U.s in response to housing shortages.

Mr. Béhar, who is presenting his first YB1 at the Summit ideas festival in Los Angeles this weekend, spoke about the design ahead of its unveiling. (This interview was edited and condensed.)

Why should people care about accessory dwelling units?

It's basically an extra building you can build in your backyard. This is now being recognized as a solution for adding housing, whether it's for aging parents, students or people who are just starting out.

It's a solution for housing stock in cities, and hopefully bringing costs down. And people can do it themselves rather than waiting for local government or developers.

Intended to be used as a secondary residence in a backyard, it can be customized for privacy and light by adjusting the size and placement of the windows.

Prefab houses haven't quite lived up to the hype of providing well-designed, mass-produced affordable homes for all. What did you think you could bring to the table?

It's been a very fascinating field that has had its ups and downs. The traction prefabs were having was much lower than anticipated for single-family homes.

What's really transformational for the field, I believe, are these new A.D.U. laws. Interest has really boomed. I'm anticipating that the A.D.U. market will grow substantially in the next decade or two.

For people who decide to build an A.D.U., what is the advantage of going prefab?

The reason prefabs make so much sense in the A.D.U. context is that the added construction is easy on neighborhoods and neighbors. It can take two, three years to build something, with all the noise and visual pollution. And wasted materials that come with that.

But with the YB1, it takes about a month to build it in a factory and a day to install. It comes prewired with all your electrical, HVAC, appliances — everything is ready to go. Prefabs make it so much more accessible for people to add housing stock, and it's so much cleaner.

Options include slatted wood shutters that fold up to become an awning.

How is the YB1 different from other prefabs?

Designing a prefab to fit in someone's backyard is a different exercise than thinking about completely new construction on a virgin piece of land. It's a smaller space, and it has neighbors, fences and privacy and light issues. I realized that a one-size-fits-all approach wouldn't function well, and would really restrict adoption.

Our approach has been to think of it more as a system that allows maximum flexibility. It's built on a four-foot system: Every four feet, you can decide whether you have a full-height wall, a full-height window, a clerestory or a half-size window.

You can decide how much light you have, and where the view comes from. You can maximize privacy and the program of the home to be really specific to your needs.

There are two different flat-roof heights — one with clerestory, one without — and a pitched roof, which gives you the option to have a loft space upstairs. It can be modulated in ways that prefab traditionally hasn't allowed.

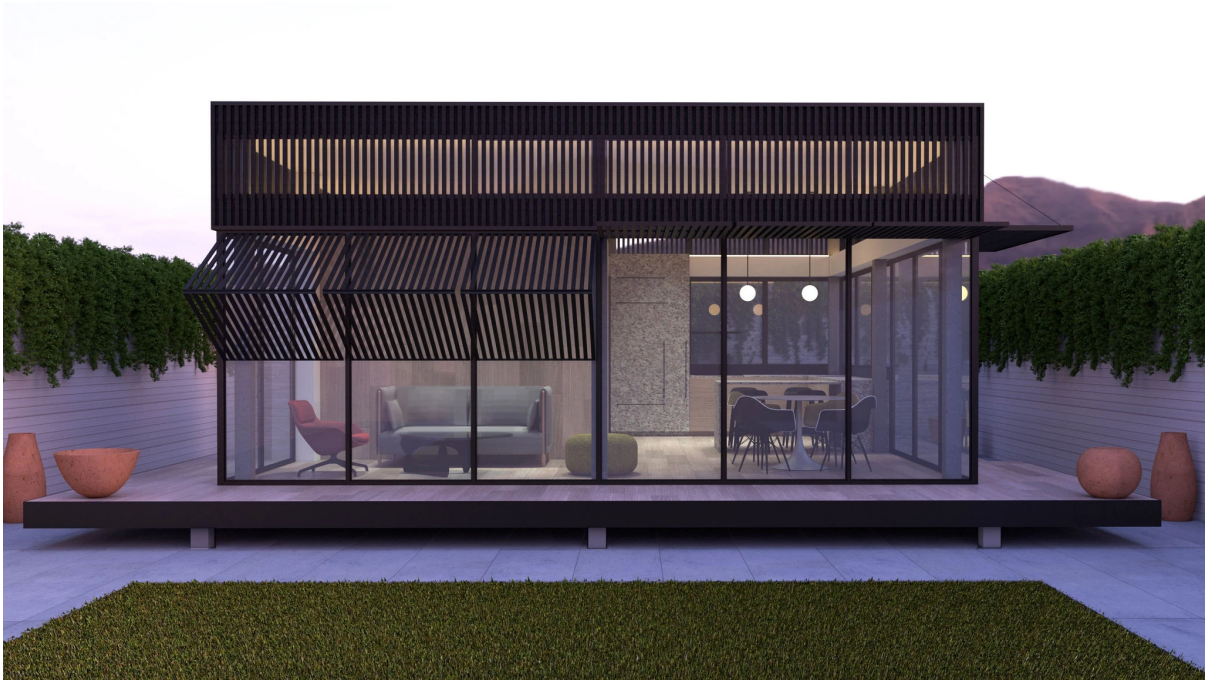
What are the key materials and features?

It's a steel structure with concrete panels or slatted wood panels in a natural or black finish. There's a shutter system that creates shadow with an overhead awning. We have a roof that is designed to capture rainwater and connect to rain barrels. We have super-efficient mini-split heating and cooling. The house is designed to be solar ready.

Essentially, all this means that it could be off-grid.

Is it only suitable for warm climates, or could it be used anywhere?

They'll work across very different climates. We're working on a project right now in Tahoe, a pitched-roof version of the A.D.U. for a colder climate, in a snow area. We do have that in California.



The unit comes in a flat-roof version (shown), with or without a clerestory, or a pitched-roof version with an optional loft.

What kind of foundation does it need?

I like helical piles, but you can also put it on a standard foundation. Just the amount of disruption to the land — and the amount of noisy or dirty work that has to happen — is less with piles than it is with a concrete foundation.

The first YB1 is a 625-square-foot unit that costs about $280,000, but you've said future units will be available for less than $100,000. How will you get the price down?

This one has a lot of glass, almost all the way around, and is a full-featured one with really nice appliances and finishes. So it's toward the higher end of what we build.

Plant Prefab is investing in robotic construction and new assembly technology, which will help us to bring the cost down. We think of it a little like a Tesla Model S versus a Tesla Model 3, with a progression of products that will be priced differently.

How soon will that happen?

We're working on it right now and actually have a project for low-cost housing here in Northern California, where they're interested in a nice little number of them. Based on that particular project, I think we'll have an opportunity in the next year or so.

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