

BY CLAYTON DEKORNE

A Clear-Eyed View of Building Tech

With an astute perspective on the construction industry, Belinda Carr's engaging YouTube channel, "Your Unbiased Guide to Building Products and Tech" (youtube.com/@BelindaCarr), tackles tough questions about new building materials, products, technology, and design methods. Ms. Carr is refreshingly sane, wonderfully skeptical, and fearless in her quest to get to the bottom of what works to advance the promises of sustainable architecture. She is a master at exposing fallacies that are all too common in the media and marketing hype surrounding building technology.

An architect by training, she sits squarely in the camp of building professionals who focus on a holistic view of the AEC (architecture, engineering, and construction) landscape, and her videos inspire the feeling that everyone in the industry should be rowing in the same direction.

Her specialty is myth busting. She deftly articulates many of my qualms: Her video "The Hypocrisy of Being Green" should be required watching not just for every budding building professional, but for every prospective marketing and communications employee serving anyone exhibiting at any home show. It's ostensibly a critique of the LEED design standard, but purposefully she makes it so much more. "It's not the word 'green' itself that's troubling," she says. "We can replace it with anything else, like 'ecofriendly,' 'clean,' 'energy-saving,' 'environmentally safe,' 'ecological,' etc. It's the idea that if you tick certain boxes you've done your part in saving the planet, when in fact, you might be doing more harm than good."

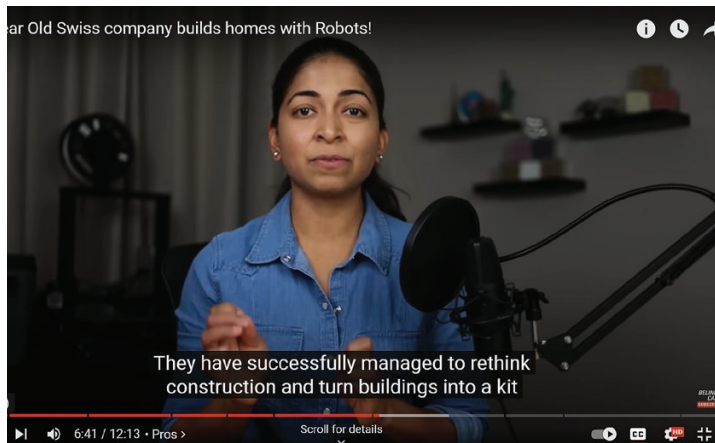
Carr has gotten the most views for her exposés on shipping con-

tainers as a building solution, "7 Reasons Why Shipping Container Homes are a Scam," and 3D-printed homes, "Exposing 5 Lies About 3D Printed Concrete Homes." Of the latter, she explains, "I do not think the technology is a gimmick, but I despise the sensationalist coverage, misleading claims, and overpromises. They generate a lot of buzz and probably help to fund startups, but I think the lies cheapen the value."

She brings home the point about startups especially poignantly on her video "The Rise and Fall of Kattera | WeWork 2.0," in which she examines the failure of that massively funded off-site building company and asks what can we learn. Her answer begins: "For starters, we have to be cautious of outsiders, particularly from the tech industry, who have grandiose ambitions to 'fix' AEC..." She goes on to explain that tech companies that believe they can easily "disrupt" construction by dumbing it down are doomed to fail. "Their hyper-growth strategy is employed by social media and software companies, but it doesn't work in complicated, slower-moving industries like real estate and construction," she contends.

Carr is not negative, just realistic and maybe even hopeful. The industry needs solutions for real problems, such as poor productivity, shortages of skilled labor, and slow progress on improving building performance on a majority of buildings. Finding realistic solutions for such problems seems to drive her critical viewpoints. "I think professionals who respect and understand the complexities of AEC will be the ones to initiate change," she urges.

One hopeful change-maker she reports on is Renggli, a Swiss modular home builder. Her review is inspiringly positive, but Carr doesn't have to go all the way to Switzerland to find similar examples. Companies like Unity Homes by Tedd Benson in New Hampshire and Plant Prefab by Steve Glenn in California show the enormous potential of building high-quality, ultraefficient prefab homes. Will such solutions render stick building obsolete? Not for a long while yet. Off-site construction methods (including modular, prefab, and panelization) account for only 2.4% of the 970,000 new homes constructed in 2021, according to U.S. census figures. Off-site building techniques make sense only in dense housing markets where the cost to build a state-of-the-art house factory can be rationalized across a short distance. But the U.S. is an immense country. Switzerland is about half the size of Maine. Sixteen Switzerlands would fit in Texas. The cost (and carbon) of transporting massive building components over long distances begs the question: How many factories do we need to build before we "fix" construction across the entire U.S.? Real answers, Carr helps me realize, are not going to be found solely from tech solutions.



Belinda Carr specializes in video critiques of overhyped building solutions. She also points to some that hold real promise.

Photo via YouTube <https://www.youtube.com/@BelindaCarr>