



them. And then there is the question of curves. Containers, like much prefab, don't lend themselves to curves.

Containers are not for every project; no material is universal. Each program, each site has its own particularities. Shipping containers do fit a niche that, given their potential, offers much room for exploration.

"Cheap, Fast, or Good. Pick Two."



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Architects and clients have long considered this statement an intractable reality. Yet, the recent democratization of design by publications like *Dwell* has called this paradigm into question. This trend has fueled the resurgence of prefab, with the promise that good design can be available to the masses. The public expects prefab to be "Cheap, Fast, AND Good." Meeting these three demands simultaneously is the greatest challenge facing this emerging industry and the key to a financially viable prefab business.

Too often, the cost of a prefab structure is on par with or exceeds that of site-built construction. Many consumers are unaware of external impediments—site work, permit fees, and delivery—that add costs to the advertised price per square foot. These costs compound the importance of coming out of the gate with

a price point that the market can bear.

Price speaks to our clients and their wallets, and we consider ourselves fortunate to have installed nearly fifty Cabana units across the nation and the Caribbean. We attribute this success largely to striking the right price/design/well-built balance. My partner, a building contractor, has played a key role in the design process, because he is able to bridge design with constructability at a reasonable cost. Our design/build model also allows us to eliminate costs associated with middlemen. These are savings we pass on to clients.

There is, of course, room for improvement. CNC and other computer aided construction methods show promise of further reducing costs and spearheading more unconventional forms. Until these technologies become more developed and less expensive, and until more versatile building materials emerge, we are left with few tools to control costs other than traditional manufacturing methods. In the end, price is what will determine if prefab will survive this time around. Good design is the easy part.

Prefab is Refab



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Let's assume for a moment that there is another, historical "pre-" before this latest appearance of prefabrication on the architectural scene. One example, Fachwerk (half-timbered) construction can be traced back to the 12th century, when it replaced post-and-beam construction in the wood-rich northern-European countries. This mortise-and-tenon skeleton system for walls and roofs continues to be used, in modified, CNC-routed form, in contemporary construction systems by such companies as ElkFertighaus of Austria, one of the largest distributors of prefab housing units in Europe. And Americans are finally catching on that prefabrication has benefits. There is doubt, however.

My first memory of prefab architecture goes back to the late 1970s, when I visited a friend on the northern-German island of Föhr. His mother's house was a two-story box made with pre-fab walls and floors, bolted together on-site. I was surprised how quiet the highly insulated interior was, compared with conventional houses I had lived in. Yet it felt strange to be comfortable in this house. I thought then, as I'm sure many potential prefab customers think today, that if something is prefabricated, it could not be of high quality. The opposite holds true, at least with respect to quality prefabrication.

And yet, I'm still surprised how pre-fab proponents talk about efficiency of production without considering the effect of construction quality on energy efficiency. Again, the Europeans have a leg up on us. At the beginning of November, I went to the 2nd Annual Passive House Conference in Urbana, Illinois ([35](http://www.</p></div><div data-bbox=)