

LONG LIFE, LOOSE FIT, AND LOW ENERGY

Far from a compromise, small homes may lay the foundations of a more sustainable future in UK housebuilding. We explore the possibilities for tackling a very British crisis by making every square-inch count

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In the futuristic blog, ‘The Nearly Now’, Alex Steffen described a new generation of Generation Z change makers, inhabiting the declining inner suburbs and high streets of San Patricio, CA, circa 2025, where they experiment with new shared, technology and sustainability-driven agendas. Planning regulations were relaxed to allow for affordable backyard bungalows and tiny houses; a recognition that as growth stalled, priorities changed.

The new generation wanted somewhere to live, for sure, but they didn’t mind living differently. The new economic conditions had provided an opportunity (or necessity) for experimentation in sustainable ways of living. But is the UK ready for this?

Increasingly, as more people are being shut out of the British housing market, demand for radical solutions is becoming more urgent. Westminster’s response is private developer-led building en masse, with— as a result of the Brexit vote— vague targets. Many local councils are choosing to create new settlements, ‘garden villages’, rather than adding to urban sprawl. There is little evidence of a radical rethink in how we create human settlements.

This is where the small house movement comes in. A desire to do more than build houses; it seeks to change the foundations of the way we live. Anna Hope is Director of Training and Consultancy at Ecomotive Ltd— an award winning architectural design

agency specialising in self-build and other community-led housing projects.

“The young people who came to us wanting to set up a small home community in Bristol were not just interested in affordable homes, they wanted to live well. They wanted to live more simply, with less clutter, conserve energy, and more sociably,” she explains when describing one project they led on.

The small house movement also has implications for rural settings, as evidenced by Mike Waghorn, of Mike Waghorn Designs, which is part of the One Planet movement in Wales. The One Planet principles, he says, focus on “growing your own food, dealing with waste, and getting resources and energy on site.” It’s all about sustainability.

Perhaps unsurprisingly, millennials are leading when it comes to uptake of this overall ideology. According to Ginny Shiverdecker, Executive Director of AbodShelters, who designed small home emergency shelters: “Millennials are struggling to see the ultimate benefits of the ‘bigger is better syndrome’ our society has embraced for so long— the burdens are many, and many times outweigh the benefits in tougher economic times.”

“Previous generations have experienced an over-stimulated and over-indulgence hangover. We have too much stuff, and have to place it in storage lockers we pay a monthly fee to keep, and never use.”

Image: Abod and Lake from distance



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The trend for miniaturisation in architecture, or at least significantly shrinking floorplans, is far from universal, though. People are understandably resistant to smaller homes, and there’s a tendency to believe that small homes are only for single people, or those in difficult circumstances. In the UK, for example, small homes have a bad reputation, invoking images of micro-flats, squalid bedsits, and rooms that are not big enough for furniture.

The architects we spoke to, though, say this is a design issue, rather than size problem. So what are the core principles involved in making a small house work for individuals, couples, families and communities?

There are many different approaches to the tiny home quandary. Leafing through Lloyd Khan’s 2012 book, ‘Tiny Homes: Simple Shelter’, and talking to architects, the overarching agreement is that small homes need plenty of outside space, and should be based on a need to maximise mental space.

Kim Lewis, of Kim Lewis Designs, was responsible for developing the Austin Tiny Home, and also stresses the importance of room beyond the front door.

“Our brand is all about people living outside of the home. Exploring life and not being held back by their own mortgage. Your home should be part of your life journey, not your whole life.”

Hope, who’s firm Ecomotive designed the Snug Home, says “What’s important is good quality outdoor space, which may be shared or individually owned. There’s a buffer between the private and the public.” It’s a notion perhaps best achieved— albeit by default— in Waghorn’s designs. Both the caravan and mono pitch home are made with rural settings in mind, and so naturally utilise the Great Outdoors.



Image: AbodShelters
 Next Page: Concept, Waghorn Design
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The Japan Dome House, built from expanded polystyrene with the basic model at 22ft in diameter, is one example that seems to buck the outdoor trend. The suggestion being to use within densely packed communities (albeit in a rural setting). Other Japanese prefab designs butt directly onto the street, a result, Ecomotive argue, of the price of land in urban centres.

Aesthetics are important, says Waghorn. “It’s important to keep forms simple. One of the problems of modern houses is they are too complicated and they create visual knives in the landscape. The other thing is use of materials, timber cladding, and even corrugated iron, which are all part of the rural vernacular.”

For the most part, rurally contextualised small homes tend towards the rustic and earthy, as a way of indicating their desire to live closer to nature and to emphasise conservation and sustainability. Urban small homes embed themselves in their context, too, some even basing their look on everyday objects you might find on the corner of a common city street.

Architects working in this niche also say their designs can be used for shared facilities, such as clothes washing and drying, storage and tool sharing, work and studio space, and a host of other functions depending on local demand and needs. Hope says that it’s about “building community and trust”, although she notes: “there’s probably a fear there— can I trust my neighbours?”

Waghorn also believes conventions on private and public areas may need to be rethought.

“I think if people are going to start trying smaller spaces, they are then going to start questioning some of the assumptions they have about how to live... ..the kitchen areas, compost toilets and so on can be outside the dwelling core. So the dwelling core can be a much smaller space.”

Small buildings can be used for other purposes too, says Shiverdecker. “A tiny home is not for everyone as a residency,”

she argues. “For more affluent couples or larger families, it is more about alternative ways to expand one’s lifestyle. With our AbodShelter, you can create a studio space, a room of one’s own to decorate as you please, a motorcycle man cave for the Harley as a place to hang out and tinker, or a cool beach house that can be built and rebuilt, or move on wheels.”

It perhaps goes without saying that internal space in a small home is at a premium. Waghorn points to the need for ‘best’ and ‘ingenious’ use of space, citing poor design as the biggest culprit for cramped conditions, which while stating the obvious is nevertheless a necessary point to make given those cramped conditions are still not confined to history.

His designs, in comparison, focus on “the specification of the shell” and also the need to create something the inhabitant can adapt to their own needs. Personalisation being a fundamental ingredient to homeliness, but also developing a space that is fit for an individual’s needs.

“People will adapt their dwellings themselves. Someone will stick a shed on the side of it, but that’s something to be enjoyed and embraced.”

Lewis also stresses the importance of thinking carefully about internal space. “The tiny house is a two-trailer design, separating the living and bedroom spaces. This feature maintains a level of separation for the home owner. To make small spaces work, areas have to be multifunctional. For example, the kitchen island has a built-in two-burner stove, a pantry drawer, a refrigerator drawer, and a butcher-block island top.”

Ecomotive have also developed a model based on providing a shell that people can adapt through co-creation. Their Snug Home comes with no internal load-bearing walls and either visible or easily accessible services, which makes them adaptable. So people develop their own internal layout depending on need.



“What we found,” says Hope, “is the power is in allowing people to make those design choices. And design choices that can be easily changed as needs change.”

The tiny home movement is much more inclined to factor low-energy use into design, too. It’s obvious that small homes are cheaper to heat, particularly if they use contemporary insulation features and standards, unlike your standard Victorian terraces or park homes.

But small home architects also think more deeply about how context can help conserve energy. Waghorn explains: “Orientation is very important. The south-facing side would be glazed, and used for living space and growing. The north-facing aspects could be used for larders, the boot room and so on.”

Hope also rejects the current enthusiasm for shipping container homes for the same reason.

“We looked into it, and decided metal containers aren’t necessarily low cost (by the time you’ve adapted them) and also they aren’t breathable. They are reliant on mechanical ventilation systems. My partner went to visit Container City in Brighton where they have emergency container shipping accommodation, and he said because the electricity was on a meter and they couldn’t afford to pay for it, they weren’t running the fan and it started to get mould. So we started looking at more breathable materials.”

As all this suggests, not all tiny homes are the same despite a basic shared goal— the reduction of occupied space without loss of liveability. Some designs, like the Ecocapsule, are extremely small, self-contained, mobile, and designed for off-grid living. The AbodShelter is intended to be temporary and off-grid as well, even if they sometimes inspire a more settled population.

Others are meant to be permanent and more spacious, and design can, therefore, clash with planning regulations. In the UK, for example, planning law is subject to minimum space standards and worries about radical design. So the way we think about space culturally also matters, says Waghorn.

“People are buying on the basis of how many bedrooms they have rather than how many square metres they are. There’s an incentive therefore to make dwellings as small as possible, but put in a bedroom and sell it as a one bedroom flat. In Europe, the public buy to square metre.”

“You talk about buildings evolving and adapting to their environment and people might laugh at you. But the important thing is to have the right mindset to experiment and investigate such possibilities.”

Waghorn’s caravan design is designated a park home, so doesn’t need to meet building regulations. But, he says, planning isn’t the main incentive for its design. In contrast, Ecomotive’s Snug Home is big enough to work with existing planning regulations.

So, where from here for the Great British housing crisis, within the context of small homes? The sustainability programme might not appeal to everyone, nor the tiny movement— some people will always aspire to high-tech luxury, others desire sprawling residences. But when people are not permitted a choice at all problems like those facing the UK today will inevitably arise. Ecomotive points out that Japan has 80,000 building firms, whereas in the UK a handful dominate. So it’s easy to see why people-led innovation isn’t on the British agenda.

In addition to the £60million allocated to councils annually as of 2016, the UK Government has made an additional £163million available for the Community Housing Fund across England in 2020 and 2021, so maybe we’ll see more innovative projects emerge. As Hope says: “We need people to pioneer this so it becomes normalised. And local authorities need to release more land and support these kinds of projects. This is perhaps the main challenge.”

Perhaps, then, as we move backwards into the future, the creation of new sustainable and self-reproducing villages might not be so far-fetched. Whatever the coming decades bring, though, one thing is for sure— we can ill-afford to continue limiting options and ideas in the way the country has for so long without the current crisis becoming an even bigger problem. **D3**



Above: Tiny House, Austin, Texas

Below: Architects Waghorn, believe conventions on private and public areas may need to be rethought. ©Waghorn Design

