

The Hundred House – Sunday Times British Homes Awards  
2018 winning submission



# Creating an opportunity out of a crisis

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If there is an urgent need to reconsider how we best respond to the changing housing needs of our population, then it is perhaps no coincidence that this is against the backdrop of a more general housing crisis in the UK. The chronic housing shortage, caused by a long period of undersupply, has been exacerbated by the building of the wrong sort of houses to suit the way we live. But we are hopeful that a growing understanding of how we best respond to the changing physical needs of an ageing population will create the political drive and economic means to deliver the right housing in the neighbourhoods of the future. It is this that will transform our way of life for generations to come.

Whilst acknowledging the challenges we face, it is surely a fact to celebrate that we are all living much longer. Sustained improvements in our standards of living, advancements in medicine and nutrition, and the mechanisation of many of the more physically damaging jobs of the past should be hailed as major progress that is all to the benefit of our society.

The opportunities created by these additional years of life are threatened by new health issues arising through increasingly sedentary lifestyles, and perhaps the more pernicious threat, the impact of loneliness on health. The increased isolation experienced by people living longer and more alone is in contrast to the trend of urbanisation, where we choose to live ever closer together. By 2030, it is expected that over 90% of the UK population will be living in cities, providing the opportunity to radically rethink the types of homes we need and the quality of neighbourhood we deserve.<sup>1</sup>

The lamentable quality of much of the housing currently being delivered in the UK would seem to offer few solutions. Over a period of 40 years, successive UK Governments have put their faith in the private market to deliver the population's housing needs. There is now widespread acknowledgement that this faith was misplaced and that the market needs fixing<sup>2</sup>.

## The market is in need of a fix

Although this market failure was ostensibly focused around the shortfall in numbers of homes completed, it is also now acknowledged that the building of more homes will only be a success, indeed might only be possible, if coupled with significant improvements in quality. Better quality homes, both in terms of design and construction, within more successful and sustainable places. Homes that support mixed communities and neighbourhoods and which enable a higher standard of health and wellbeing for all residents.

We must strive to create walkable neighbourhoods, with local facilities that promote cycling and reduce the impact of the car on the public realm and environment. Successful places need networks of green spaces, trees and outdoor amenities that encourage physical activity and benefit mental health. They can also include advances in technology to enable self-driving, shared access and the rental of travelling time rather than the ownership of individual transportation. This will fundamentally influence and shape the places we create.

Mixed communities need a wide choice of housing types, with homes for sale and rent, a mix of houses and flats, of different sizes and internal layouts. Some homes need to be designed to meet very particular requirements, while others can be designed to be more generally flexible and adaptable over time to respond to changing needs. Although the building of more smaller homes would seem a natural response to a housing crisis that sees more people living alone, creating larger homes that enable more of us to live together whilst retaining independence could enrich lives and respond more effectively to people's changing circumstances as they grow older.

The need for better designed housing in places where people will choose to live, requires greater collaboration between planners, urbanists, landscape architects, architects, interior designers, and environmental specialists. These stakeholders will need to work alongside the new breed of developers and manufacturers emerging in the housing market, with a greater focus on better homes through improved methods of delivery.

### An iconography of home

Buildings combine with streets and spaces to create places. A careful balance of standardisation and variety creates a unified vernacular, a distinct and recognisable whole within which varied individual elements personalise each home and reflects the essence of local materials, craftsmanship and quality.

Within the homes, we must design, model, visualise and assess our proposals to create healthier and more comfortable internal climatic conditions. We need generous levels of daylight and supplies of fresh air, both avoiding overheating and minimising heating costs. Advancement in virtual modelling enables not only the testing of performance of homes to deliver sustainable living, but modelling of the qualities and character of buildings and spaces through virtual or augmented reality. Using this technology, future residents can experience and contribute to the design of their neighbourhood.

### The precision manufactured home

We are experiencing the power of offsite manufacture to craft buildings. They are better designed and higher quality than traditionally built homes, are delivered more quickly with greater certainty of outcome and potentially far more cost effective. Factory manufactured housing significantly reduces waste, energy use and carbon, both in construction and in use over the life of the building, by reducing vehicular movements, pollution and disruption to neighbours of construction sites. In addition, factories create safer and healthier working conditions than a traditional building site, and so appeal to a more diverse and older workforce who can live nearby and cycle to work.

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HTA Design's winning submission to the 2016 Architects' Journal Home of the Future Competition was based on the potential for a range of housing types that would enable far more flexible modes of living. These housing types would meet demanding environmental standards and could be delivered effectively using offsite construction in a variety of contexts. The plans considered the changing needs of families and sharers, bringing together old and young members of the family unit to mutually benefit from greater interaction. These ideas have been explored further in our Terrace of the Future, winner of this year's Sunday Times British Homes Awards and through our work in developing a manufactured platform for future housing delivery in collaboration with Tata Steel.

Tata are developing a housing system which will be flexible but quick to construct. Working with HTA and others, they have developed a proof-of-concept structural design which we are confident will be welcomed by the housing market and meet the needs of modern consumers.

We are focusing on the flexibility that steel structures can provide, which makes it an ideal material for housing construction. The design is a simple structural steel frame which will allow homes to be constructed very quickly using pre-manufactured components. The structure is flexible and will create the potential for open-plan spaces. Designed to be integrated with any number of materials the new system allows the walls to be lightweight and easily adaptable during the building's life.

There is no comparable home construction system available in the UK market. It enables the home to be future-proofed much more than traditional homes. When they reach the end of their life, they can be easily dismantled and recycled. Future home owners, particularly older buyers, will be more demanding of housing quality. We expect them to integrate new technologies into their homes from the very beginning and to want flexible, spacious houses that allow them to expand and contract as their family life changes over time.

### Ergonomic and sustainable

Fortunately, among the generic baseline of so much of our housing, there are plenty of exemplars to show the way to build our Neighbourhoods of the Future, and the homes that form it.

Hanham Hall, on the outskirts of Bristol, is a development designed and built in response to the Carbon Challenge – a UK Government competition to identify housing fit for the future. The dwellings meet very high standards of energy performance. They generate a proportion of their energy, harvest and recycle rainwater and are designed to be resilient to overheating.

The homes are spacious with minimal circulation and have varied, flexible layouts. Some living rooms are on upper floors, benefiting from additional ceiling height into the roof space, and exploiting views to the street and landscape. Some ground level bedrooms provide more accessible and flexible spaces.



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The homes are flooded with natural light through unusually large windows, with shutters that prevent over-heating and offer privacy. The addition of balconies and verandas enhance the contact from inside to the public landscape beyond, increasing neighbourly interaction and promoting a greater sense of community.

The project includes a large area of local parkland, with a trim trail and permanent exercise stations. Allotments and greenhouses are available for rent, and there is a crèche, café and a general multi-purpose room for use by residents. The allotments and greenhouses are generally oversubscribed, and the resident community are very active in organizing events on the village green, particularly with nature-focused events for children. Neighbours compete for the lowest bills over coffee in the greenhouses, and swap their home grown produce. Recently, the first batch of Hanham Honey was produced.

Delivered using factory manufactured systems, the homes were built rapidly to the highest quality with unusually few defects. The homes were particularly popular with older buyers who were looking to downsize to more flexible and sustainable homes. They needed houses that would suit them for life, whilst guarding against long term increases in energy bills. A process of post occupancy evaluation with local residents has provided valuable feedback, with lessons to influence future projects and ensure a process of continuous improvement.

### Re-imagining past neighbourhoods (Supurbia)

Some neighbourhoods of the future will form from neighbourhoods of the past. The badly designed and poorly built housing stock often built at very low suburban densities will suffer from increasing costs in use, with the inability to sustain local amenities. From such areas, community development groups will form and focus on redeveloping better, more sustainable homes in more attractive neighbourhoods. These areas will rely less on private cars and enjoy improved amenities.

To achieve improvements across our communities, both new and old, we must bring together organisations across many sectors. This creative collaboration will be required to rethink and deliver neighbourhoods that transform the health and happiness of the population – to enable us to grow old actively, independently and healthily in the comfort of our own home by 2035.

In doing so, we believe we can create an opportunity out of a crisis!

1. <https://www.theguardian.com/news/datablog/2009/aug/18/percentage-population-living-cities>
2. <https://www.gov.uk/government/publications/fixing-our-broken-housing-market>

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