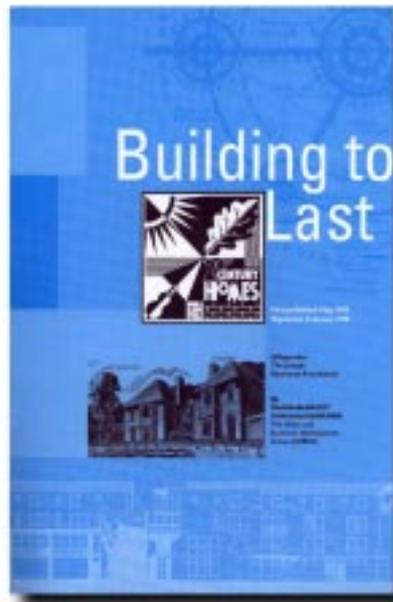


# URBED Publications



## Building to last

21st Century Homes

David Rudlin and Nicholas Falk - URBED

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Our work on the Sustainable Urban Neighbourhood all started from the 21st century homes action research project that we undertook for the Joseph Rowntree Foundation between 1993 and 1995. This explored the type of housing that would be required in the next century. It included a detailed study of three demonstration projects through their design, tendering and construction.

The report has been widely used since it was published and due to the continuing demand we have recently undertaken a reprint. Copies are therefore available from the SUN office.

### Aims of the Research

This report is the result of a two year investigation into the sort of housing that we should be building to meet the challenges of the 21st Century.

There is a long history of future housing visions from science fiction writers to the ideal Home Exhibition. There is also a strong utopian tradition from Ebenezer Howard's Garden City to Le Corbusier's Ville Radieuse and Frank Lloyd Wright's Broadacre. These were no less radical than some of the science fiction fantasies and have had a profound influence on the design planning and layout of the 20th Century Home. Yet with the failure of much of the utopian inspired housing built in the 1960's and 70's, the majority of housing being built in the UK today differs little in its layout, design and construction to the housing which characterised the 1920's and 30's. The lesson would seem to be that utopian visions are at best ignored and at worst fundamentally damaging to the lives of millions of people.

Most new homes being built today are of two storeys, built of bricks on green field sites and require a car to reach facilities and employment. They are designed to meet the needs and aspiration of families with children, constructed by a relatively small number of volume builders and financed through personal mortgages.

Just as the 19th Century home was the terrace, despite the best efforts of utopian thinkers, the 20th Century home is undoubtedly the suburban semi which has been shaped by the social and economic pressures of the century. But these pressures are changing and may lead to something very different in the future. What then will be the 21st Century Home?

It is not the intention of this report to set out a utopian vision of the 21st Century Home. However we were also concerned to do more than merely to extrapolate current trends. As a participant at an RIBA workshop stated "...We operate in an opportunistic world where the meanest home is the most affordable. We don't need architects to tell us that higher quality homes are better, we need them to help us justify it". Our aim is to identify and justify ways in which the quality of new housing could be improved. In doing this we will be accused of being unrealistic. However the time is right to respond to widespread concerns that single minded focus on value for money and quantity rather than quality "...often means that the wrong housing is built in the wrong place for the wrong people who are shoe-horned into types of housing which do not suit their needs."

## The Hypotheses

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The starting point for 21st Century Homes was an initial review of the current state of the art published by URBED in October 1992. This assessed current trends in housing to identify the influences on the 21st Century Home. These were characterised as the 4 Cs: Conservation, Comfort, Community and Cost (described in Chapter 3). The report then went on to hypothesise five principles which should guide future housing:

- Superinsulation and controlled ventilation to reduce heating costs and CO<sub>2</sub> emissions.
- Prefabrication to improve quality, value for money and speed of construction in line with Scandinavia and North American experience.
- Minimum infrastructure both to reduce the impact of the car and make savings to fund other measures.
- Flexible design to allow for household growth and to enable rooms to be used for different purposes.
- Green design to address wider environmental issues such as water conservation, healthy materials, embodied energy, and waste recycling.

## Demonstration Projects

These hypotheses were the starting point for the main research and are discussed in detail in Chapter 5. They have been tested through three demonstration projects which have been developed over the two years of the project drawing together lessons from other examples in Britain and abroad, many of which are quoted in this report. These demonstration projects are described in Figures 1 and 2.

- Homes For Change is mixed use development of 50 flats plus 16,000 square feet of workspace being built as part of the redevelopment of the Hulme estate in Manchester. The developer is Homes for Change Housing Cooperative in partnership with the Guinness Trust housing association. The scheme started on site in April 1994 and is scheduled for completion in October 1996.
- Midsummer Cottages was built as part of the Futureworld housing exhibition in Milton Keynes. It includes a terrace of 5 shared equity properties ranging from a mobility bungalow to a four bedroom house. The scheme was developed by Milton Keynes Housing Association and was completed in June 1994.
- Honddu Place is a scheme of 52 units being developed in Swansea by Gwalia Housing Society. It involves the redevelopment of an estate semi detached

concrete frame council houses. 40 houses are being developed to the highest environmental standards with assistance from a European Themi Grant. 12 units will be used as controls. The scheme has been subject to delays but started on site early in 1995.

In choosing just three demonstration projects it has not been possible to cover all aspects of future housing. However as illustrated in Figure 1 the projects cover a wide range of issues relating to the construction, design, location and occupation of housing. All are funded with Housing Association Grant as it was not possible to find a project in the private sector that was able to combine innovation with the needs of the mass market. The Midsummer Cottages scheme was however for shared equity and all of the houses have been sold by the end of 1994. It was also originally intended to include the conversion of an industrial building but it was decided that this could not be justified due to its limited impact on the housing market.

The demonstration projects were also selected for their value in testing the hypotheses described above. An environmental brief was developed for each project to supplement the client's brief. This set out a range of targets which were quantified where possible. The brief served both as a tool for the design team and as a benchmark against which the housing could be tested. Details of the environmental briefs are set out in Figure 10. Throughout the research we have worked closely with each of the demonstration project through workshops and regular meetings. The process has been one of action research and has involved not only observation but active participation and advice. It is however important to stress that we did not have direct control over the demonstration projects but rather worked alongside the client and consultants.

The three demonstration projects are not intended as paradigms of the sort of future housing that we are exploring because they were set in train at the start of the project. They are instead case studies in innovation. Each has been used as a test bed to explore the problems encountered with innovative development and also to test the hypotheses as described in Chapter 5. This has enabled us to reassess our findings and to develop a much broader range of principles set out in Chapter 6 which we believe should guide future housebuilding.