Scotland’s Housing Expo

Case Study produced by the A+DS Sust. Programme.
Scotland’s Housing Expo in 2010 was the first of its kind in the UK. It demonstrates a creative response to the desire for innovation and encouraged the exploration of new housing standards for sustainable design, innovative construction, energy efficiency and the use of low Carbon and renewable systems and technologies.

BACKGROUND

Prompted by the Scottish Government’s desire to bring the Finnish model of a Housing Expo to Scotland, Highland Council initiated the project with the active support of the Scottish Government, Sust. – the Government’s Sustainability in Architecture Programme, Forestry Commission Scotland, Royal Incorporation of Architects in Scotland (RIAS), Highlands and Islands Enterprise, Highland Birchwoods, Homes for Scotland and Inverness Architectural Association. Highland Housing Alliance (HHA) were responsible for the implementation with Cadell2 (now known as AREA) as their appointed masterplanners.

Inverness is one of the fastest growing cities in Europe, but in the rush to accommodate rapid expansion, ideas such as creating a strong sense of place and community have been sadly neglected. The 4 hectare site at Balvonie, Braes is located next to a planned new local centre in Milton of Leys. The Expo is a first phase of 55 homes on the site, with 45 further houses scheduled in a second phase on the same site.

APPROACH

The aim of the Expo was to stimulate and showcase imaginative new approaches to 21st Century housing, allows a comparison between the standard house builders product, as is evident within the immediate area, and housing with properly planned community infrastructure. Cadell2 established an urban design proposal setting a strong spatial vision and placemaking agenda for the site. A broad range of house sizes, formats and tenures was set to create a diverse community.

Cadell2’s (now known as AREA) Urban Design Framework contained a Design Code that formed the brief for an RIAS design competition held in 2007. Intense interest in the competition inspired participation by leading architects in Scotland. Each of the successful architects were asked to form a plot development team with a developer or a Housing Association, to purchase a plot and finance construction, however this financial model did not survive the economic downturn and the Highland Housing Association had to step up as developer.

The distinctive design of the masterplan is inspired by the character of the immediate landscape; by the moor and forest edge, by the elevated shelf of 18th century pasture, and by the wooded dens and burns cutting through the steep slopes below. This has led to sheltering buildings, to bridges and causeways leading to them, to new water channels, to newly planted tree lines. All of this reflects analysis of the wider landscape structures and patterns.
Scotland’s Housing Expo

Elements of the existing landscape are carefully preserved: a walled drinking trough, drystane dykes, surviving fragments of moorland, native forest. Inspired by settlements in the rugged landscapes of the Highlands, the housing layout of the Expo makes sheltered streets by using buildings as a buffer against the wet and windy local climate.

The streets and housing layout are inspired by the sociable qualities of settlements in the Highlands such as crofting communities with their nearby common grazing areas where farming work was shared in winter time, or Hirta, St Kilda where an island parliament was held outdoors on the streets.

A series of innovative urban design strategies have been used in the Expo, geared towards a more social, healthy and sustainable lifestyle; and a safer, sheltered and inspiring residential environment. It seeks to create a sense of community, designed by collaboration between the masterplanners and the plot architects.
Scotland’s Housing Expo

Development of Project idea

Selection and purchase of site

Masterplan and Design Code

Feb - May 2007
Design Competition for Plots

Exhibition of entries at Inverness 6 Cities event

Touring exhibition of Expo Project

2007
Planning Consent Granted

2007 - 2008
Architecture - design development
Masterplan plot co-ordination
Infrastructure, Streetscape and Landscape Detail Design

Event organisation

Construction on site

August 2010
Expo Event

Houses occupied or sold

Westbrook Report

Housing Expo publication

Expo legacy: Influence on others
Expo collectable trump-style cards

Timberplay play area
My Sust House Games

Claystation: ReModelling Home
RESULT

The whole process of creating this ambitious project for the first time in the UK involved a significant learning curve for everyone, including the architects. The result was the creation of 52 diverse, unique and visionary interpretations of future living, all set in an overall vision for community living.

The key objective of the Expo was to showcase innovative, sustainable housing and place-making to a wide audience to help change attitudes towards house and place design. Since the event, a number of studies and reviews have commenced with a view to collecting both anecdotal and formal feedback on the impact that the research has had in this respect.

IN USE

At the start of 2011, people were beginning to move into the houses, turning Scotland’s first Housing Expo into the Braes of Balvonie – a community in what Wayne Hemmingway has described as the best housing development in the UK.

“We have established what it means to deliver an Expo and the level of interest amongst the general public exceeded expectation” Susan Torrance, Chief Executive HHA.

COMMENTS ON THE MASTERPLAN

In The Scottish Government Planning Advice Note, PAN83, Masterplanning, September 2008, Rob Cowan comments:

“It will be a showpiece of urban design, presenting a form of layout very different to Scottish house-builders’ standard models. There are very few imaginative, alternative models of new residential development to be seen in Scotland, or indeed in the UK, so this will fill a real gap.

The degree of thought that has gone into the masterplan has been high... much will depend on the detailed design and construction of the houses: what compromises are made in the late stages; and how the eventual residents respond to the opportunities that the place offers.

The expectations of developers, the building industry, architects and the public will not be changed by a single, relatively small initiative, but the highland housing fair [Scotland’s Housing Expo] looks set to make a significant contribution.”
Scotland’s Housing Expo

AT THE AUGUST 2010 EVENT

Speaking at the press launch of the Expo on 6th August, Wayne Hemingway said: “I have visited many housing projects in recent years judging Building for Life Awards and this would score better than anything I have seen yet, it fits all the assessment criteria, better than anything I have seen in England. I will spread the word at CABE and all English planners should be bussed here to see it…..The masterplan is excellent.”

The Expo Event August 2010
The Expo successfully opened to the public in August 2010 attracting over 34,000 visitors in one month. Feedback confirmed that there is an appetite amongst the public and the industry to explore and advance innovation in placemaking, streetscape design and sustainable housing.

The Urban Design objectives of the masterplan have been largely realised in the Expo. Some elements of the planned public realm and architecture were missing or omitted in the run-up to August 2010 due to time constraints, however, the majority of these elements were completed after the public event.

The Expo has demonstrated aspirations for creating well-designed, energy-efficient and sustainable communities by building a permanent community in Inverness. The completed phase 1 allows a direct comparison with the standard house builders product, evident in the surrounding area.

Locally sourced materials were incorporated in the streetscape including: natural Caithness paving; reclaimed granite setts; Nairn gravel retained in Bodpave; reclaimed hardwood railway sleepers; Scottish glacial boulders and Scottish larch in the walls; boardwalks; reclaimed granite streetscape seating and swale storm barriers.

The HHA has 24 private houses to sell in order to repay the bank and release The Scottish Government guarantee – no small feat in the financial climate of 2011. A post Expo focus group review highlighted some of the key lessons learned from the Expo:

- we need to find ways to fund innovation and to encourage use of local materials which may be more expensive, but local manufacturers also need to undertake product development to compete with continental imports;
- the same message is true for the promotion and use of Scottish timber, a cause which in some ways prompted the Expo, but which needs concentrated research and development work;
- the financial equation does not add up at the moment and developers are being asked to fund higher than current building regulation requirements with no added value for a post 2010 Building Standard Regulations house.

Additionally, one point raised in relation to the success or otherwise of such an event is the need for a true champion to promote it.

FURTHER INFORMATION

A book exploring the story of the Expo and further information about each of the plots can be found here: http://www.scotland.gov.uk/Resource/Doc/347799/0115858.pdf
House Name | The Corner House
--- | ---
Architect | JM Architects
House Type | Detached house with workshop

House Name | Woodrock
--- | ---
Architect | AIM Design
House Type | Detached house with workshop

House Name | House No 7
--- | ---
Architect | David Somerville Architects
House Type | Detached house with office

House Name | The Apartments
--- | ---
Architect | Keppie Design
House Type | 6 flats

House Name | Three on Nine
--- | ---
Architect | Graham Mitchell Architects
House Type | Terrace of 3 houses

House Name | The Passive House
--- | ---
Architect | HLM Architects
House Type | Terrace of 3 houses
**House Name**  The Skylight Home  
**Architect**  Richard Murphy Architects  
**House Type**  Detached house

**House Name**  The Modular House  
**Architect**  Bracewell Stirling Architects  
**House Type**  Detached house with office

**House Name**  The Secret Garden  
**Architect**  Rural Design  
**House Type**  Detached house

**House Name**  White House  
**Architect**  Graeme Massie Architects  
**House Type**  Detached house

**House Name**  The Whole Life House  
**Architect**  Brennan and Wilson Architects  
**House Type**  Detached house
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<thead>
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<th>PLOT 19</th>
<th>PLOT 20</th>
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<td><strong>House Name</strong></td>
<td><strong>Twin Peaks</strong></td>
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<td><strong>Architect</strong></td>
<td><strong>Graeme Massie Architects</strong></td>
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<td><strong>House HS</strong></td>
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<tr>
<td><strong>Architect</strong></td>
<td><strong>Malcolm Fraser Architects</strong></td>
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<td><strong>House Type</strong></td>
<td>2 Semi-detached houses</td>
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<tr>
<td><strong>Architect</strong></td>
<td><strong>Oliver Chapman Architects</strong></td>
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<td><strong>House Type</strong></td>
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<tr>
<td><strong>Architect</strong></td>
<td><strong>McLean Architects</strong></td>
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<td><strong>House Type</strong></td>
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PLOT 25

**House Name**  The Flower House  
**Architect**  A + J Burridge  
**House Type**  Detached house

PLOT 26

**House Name**  The Hardcore Softhouse  
**Architect**  Studio KAP Architects  
**House Type**  2 Semi-detached houses

PLOT 27

**House Name**  House NS  
**Architect**  Malcolm Fraser Architects  
**House Type**  Detached house
Project Information

Location: Braes of Balvonie, Milton of Leys, Inverness
Date Completed: August 2010

Architects:
- A+J Burridge
- Andrew Black Design
- Brennan and Wilson Architects
- David Blaikie Architects
- Graeme Massie Architects
- HLM Architects
- John Gilbert Architects
- Keppie Design
- Malcolm Fraser Architects
- NORD
- Richard Murphy Architects
- Studio KAP Architects
- Trevor Black Architects
- AIM Design
- Bracewell Stirling
- Cadell2 (now known as AREA)
- David Sommerville Architects
- Graham Mitchell Architects
- JM Architects
- Joseph Thurrott Architects
- Locate Architects
- McLean Architects
- Oliver Chapman Architects
- Rural Design
- The Highland Council

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- Alan Dimmick
- Cadell2 (now known as AREA)
- Ewen Wetherspoon
- Graeme Massie Architects
- Ian Baird
- Johnny Cadell
- Kate Hendry
- The Highland Housing Alliance

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