# Exclusive: Gokay Deveci.

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# **Exclusive: Gokay Deveci**



Gokay Deveci has been at the forefront of sustainable low-energy house design for well over a decade now. From a research-based practice unit at the Scott Sutherland School, Robert Gordon University, Aberdeen, Professor Deveci first came to prominence via a number of innovative small scale projects including the Van Midden House, Aberdeenshire; Zero Heating Family Home, Peterculter and Affordable Rural Housing, Kincardine O'Neil, before coming to national attention with the award winning house he built for Danish ceramic artist Lotte Glob at Loch Eriboll in Sutherland.

The bespoke low energy /low cost home, built into an area of wild virgin landscape that Glob describes as her Sculpture Croft, was shortlisted for the 2004 RIAS Building of the Year Award Scotland. The house has been recently accompanied by a studio and workshop, also designed by Deveci. This reclaimed stone and rust coloured corrugated roofed structure was designed to have as low an impact on its setting as possible and incorporated local materials wrought by the local workforce, with materials chosen that would weather in colour and texture, chiming with changes in the seasons (the project is described in more detail below).

On a larger scale, Deveci followed up the success of the Lotte Glob House with a similarly innovative and sustainable housing solution in 2005 in the form of "A Chrannag" (Crow's Nest) - a seven storey building with fourteen flats incorporating a variety of one, two and three bedrooms for Fyne Homes on the Isle of Bute. The project was ground breaking in proving that low energy solutions could be applied to social housing in the UK.

This approach, demonstrating that 'affordability' isn't necessarily achieved at the expense of architectural or construction quality, is central to Deveci's most recent, and considerably lauded, low-energy housing development in Dunoon, also for Fyne Homes. The Tigh-Na-Cladach (House by the Shore) development, which Deveci describes in detail below, has garnered many high profile accolades in recent months, including a RIBA Award (Royal Institute of British Architects), one of the UK's most prestigious architectural prizes and was also honoured with the highest architectural accolade at the Scottish Design Awards - the Architecture Grand Prix. The project was also shortlisted for the 2010 Doolan Prize - Building of the Year Scotland Award.

In a 2004 interview with this website Deveci admitted: "Architects must become more socially responsible because they have the power to impact on the environment and people's lives. I would ideally like to be a design ambassador, advocating that sustainability and good design can go hand in hand - that they are an integral part of each other."

In this exclusive interview, Deveci provides an insight into his continued role as a "design (and sustainability) ambassador" and discusses the success of the Dunoon development as well as guiding us, below, through his latest, and some never before seen, projects, including a first glimpse of the experimental Model-D house, which is due to be unveiled by Scotland's First Minister in the coming months.

## Tigh-Na-Cladach - 'House by the Shore', Dunoon (Completed)



"Set against magnificent hillside woodland, the site occupies a sea front location in Dunoon that is extremely attractive and commands spectacular views of the Clyde. It was sold to Fyne Initiatives by Argyll and Bute Council, on the basis that the purchaser would provide affordable housing to meet the needs of the local community, as well as leasing the woodland and providing a small workshop that would accommodate activities of the Bullwood Group. This group provides education for local people with special needs as part of managing the woodland.

The Scottish Government's Social Housing Investment Programme has shown that Dunoon is an area of high demand for social rented properties and affordable homes. Fyne's aims were to develop proposals that would facilitate the provision of affordable, good quality and low-energy designs of one, two and three bedroom family houses to be sold as 'Homestake' (shared equity). Community participation took place at Park Hotel Dunoon in November 2007, when three design options of terraced and semi-detached houses were presented to seek local community reactions.

The overall design follows the traditional built form of fishing villages arrangement where gables are facing the sea in an effort to reduce weather exposure and prevailing winds. Although white render finish is the most common tradition, there are many examples in coastal areas where contrasting colours are used that add a strong sense of place and vitality. The massing arrangement creates a two storey 'street of double gables' with a gap between to accommodate south facing one-bed units with exclusive use of roof gardens.



We sought to respond to local conditions, whilst at the same time ensuring that the output is being of our time by demonstrating key characteristics of good contemporary architecture. It is innovative and responds creatively to the demands of this waterfront site. A special effort was made to ensure that the architectural form and proportions were in harmony with the essence of Scottish vernacular architecture. The construction is prefabricated super insulated 'I' beam roof and walls, externally finished with Sto-render on blockwork.

This innovative scheme is the first social housing scheme in the UK to be officially accredited by the German 'Passivhaus' Institute - an international construction standard only awarded to buildings meeting rigorous energy efficiency criteria. The calculations based on PHPP, the overall energy consumption is 36.4 kWh/(m2a) which includes for the space heating, domestic hot water, household and auxiliary power. The heating demand is 15 kWh/(m2a) and 1,750 kWh/a for the whole building. The house has now been occupied for half a year and figures are being confirmed. The total CO2 emissions is 24.7 kg/(m2a) and 2,183 kg per year for the whole building. This is the equivalent of using three car tanks of diesel to heat the house for a year.

In my opinion the most successful aspect of the development is the cleverness of putting the buildings together in such a way that you would never know there are fifteen units all configured differently. The other interesting aspect is that by combining narrow frontages with a greater building depth this meant that the walls could to be shared. This allowed the additional costs for the renewables to be met as we had made so many savings in the structure. Keeping the superstructure simple allowed us to invest in the best mechanical systems.

All 14 of the properties were sold quickly to local people, mainly first time buyers within 2 months of completing the project on 5 April 2010. The contractors were John Brown (Strone) Ltd and the project was completed on time (11 months) and on budget, proving that sustainable and energy efficient design is possible on a social housing budget.

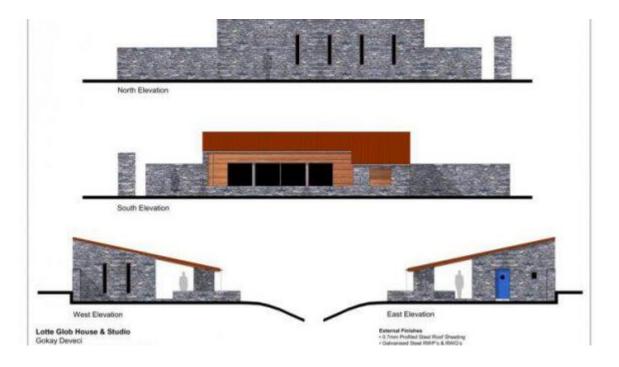
Energy efficiency is important but it's not the most important thing. The most important thing is to give people somewhere that they're proud of to live in and that's a good piece of design. I don't see sustainability as separate from design."



#### **Lotte Glob Studio, Loch Eriboll, Durness (Completed)**

"Lotte (Glob, a Danish ceramic artist) closely identifies with the wilderness landscape in North-West Scotland through her work. Previously, she commissioned me to build a living and studio space that would enable her to integrate her practice, her business and her lifestyle. She stipulated that the design should be affordable and context-sensitive, as well as complementing her aesthetic vision and reflecting her passion for the light across the hills of Sutherland.

On completion of the house in 2004, Lotte asked me to design a studio where she could work that would adhere to the same principles of affordability and sensitivity to both landscape and her aesthetic vision. The studio needed to be embedded within the contours of the landscape, reflecting the local vernacular architecture in Sutherland, such as traditional croft buildings and agricultural sheds, which settle into the landscape with harmony.



The 60m2 studio space comprises a double-height internal working and exhibition space with a large, partially-covered paved terrace oriented towards to the south, and a compact service space facing west. Roofed with rust-coloured corrugated iron and finished internally with local pine boarding, the external construction is blockwork faced with reclaimed stone. The internal structure is insulated timber framing, finished with plywood. Very large sliding glazed doors allow the studio space to spill out onto the terrace and give views of Ben Hope and Loch Eriboll. Long, narrow and linear windows puncture the North rear wall which creates the potential for illuminating sculpture and interior space. Internally it is shelved with laminated timber, supporting and displaying Lotte's artworks. Two wing walls at west and east create a frame for an evolving sculpture garden, sited between the studio and Loch Eriboll.

The Lotte Glob's workshop is a private working space in a remote and dramatic landscape setting in Northwest Scotland. It is of an innovative design that proposes new planning strategies, typologies, site response and building construction detailing in rural architecture. The main objective of this building was to have as low an impact on its setting as possible whilst incorporate local materials wrought by the local workforce. Materials were chosen that would weather in colour and texture, ageing gracefully in harmony with changes in the seasons

In five years, inspired by her creativity and determination, she has transformed an area of barren windblown rocks into a landmark where people can visit and be inspired both by the monumental nature of the landscape and by Lotte's own sculptural artworks created in response to it."











## **Model-D House (Currently On-Site)**

"The ambition behind the Model-D is to provide a high-specification, affordable home with minimal impact on the environment. The Model-D is designed to require minimal maintenance and is made almost entirely of Scottish grown timber. The building also aims to meet maximum energy efficiency 'Passivehaus' standards."

Model-D is almost complete. The building will be open to the public as a show house for clients, Aberdeenshire based timber construction company Sylvan Stuart, and is due to be unveiled in the coming months by Scotland's First Minister. Further details will be posted on this website.





#### **Sustainable Housing for Shetland (Proposal)**

"This proposal relates to the provision of Sustainable Housing development at Fullaburn, Bressay, on the Shetland Islands, and aims to provide affordable, good quality and low-energy units of one, two and three bedroom houses to meet the local need. The site is located on the west side of Bressay, with views towards Lerwick.



In this project, we attempted to set an example of environmental responsibility, as well as addressing the siting, built form structure adaptability and long life. The sustainability and innovation aims will be met by:

- Respecting the landscape character, climate and distinctive identity of the location
- Demonstrating that affordability is consistent with sustainability
- Applying the best available technology for design to reduce waste and energy use
- Making a quantifiable contribution to the reduction of greenhouse gases
- Proposing to use local resources, both human and physical, to implement the development
- Striking the right balance between density and provision of green open space
- Emphasising social inclusion by providing real gains for all groups in society, including young, people with disabilities and the elderly
- Creating a sense of community through encouraging local participation, social inclusion and a sense
  of local ownership
- Developing an attractive, socially and culturally acceptable design aesthetic of which local people can feel proud



The overall design follows the traditional built form of the Nordic fishing village arrangement where gables are facing towards the sea in an effort to reduce weather exposure and prevailing winds. The massing arrangement creates a one storey 'street of gables' with a gap between to accommodate a sheltered private outdoor area that is only accessible from the house. Every dwelling is provided with a sheltered, external private garden and drying area and all the rear gardens are well defined and divided to share a boundary.

The proposed external wall finish is coloured render. Although white render finish is the most common tradition, there are many examples in the Shetland Islands where contrasting colours are used that add a strong sense of place and vitality, as well as providing cheerfulness during the darker winter months.

The proposed designs are innovative in that they are extendable, allowing (within defined parameters) for the extension of the dwelling to meet changing occupant needs and the needs of the different occupants. For example, one-bedroom units can extend to three bedrooms by simply installing a stair unit in the utility room. This will allow families to grow and stay within the area.



All rooms in these houses have their own spatial quality. Shelves, cupboards, wardrobes, a divan on the first floor, and benches, have been integrated into walls in such a manner that they sometimes combine with the various windows to form an inseparable functional and aesthetic unit.

The basic concept of these designs rests on the possibility that cost savings arise from the use of a very simple, and buildable geometric plan form, and utilising locally available materials for the building envelope. The external walls are rendered load bearing 215 mm blockwork, lined with 300 mm on-site made double timber studs, with a membrane to achieve maximum insulation levels and airtightness. The roof members are simple attic trusses which are capable of spanning without load bearing walls.

Particular attention has also been paid to the orientation of the main living areas, the spacing of housing units and location of entrance doors in relation to prevailing winds to ensure the optimum gain from passive solar heat. The only opening at the north is a small roof glazing providing dramatic views over the shipping Channel and Lerwick beyond. The heat loss calculations show that a dedicated heating system is not necessary and the space heating demand could be reduced to only 15 kWh/(m2a), giving a total of 1,500 kWh/a for the whole 3 bedroom unit."

The proposal was one of the shortlisted entries in a Sustainable Housing competition run by Shetland Council in 2010. Scalloway-based architect firm Redman + Sutherland were announced as competition winners in March 2011.





#### Insch Health Hub, Aberdeenshire (Proposal)

"This proposal, for a new Health Hub, is sited adjacent to the 90 year-old Insch Hospital building in Aberdeenshire. The hospital includes nursing support, rehabilitation services, ancillary and community facilities in an environment matched to the needs of long and short-stay patients. The client is the Friends of Insch Hospital and Community.

The project focuses on a new approach for the development of community care hospitals by placing patient experience at the core. The main concept to achieve an informal atmosphere by giving the building a friendly and welcoming character suitable for all users. It is hoped that the architectural design concept will contribute to the healing process and to create an atmosphere that calms and helps users and visitors alike, rather than being frustrating as has been the case with many other healthcare buildings.



The building is designed around a soft -landscaped central courtyard to ensure that the ward building is appropriately contained and that no individual room is remote from the central communal and support spaces. The main circulation areas benefit from continuous views and access to the courtyard - which is treated as external rooms, while bedrooms are filled with light and views to the south and east.

The building creates a variety of internal and external public and private spaces; it also supports orientation within the building through a circulation system that maximises and encourages freedom of patient movement throughout. The aim is also to create an environment where not only inpatients, but also their families and carers working within, are inspired by the views and the building's openness to its external environment.



Day rooms, dining rooms and circulation spaces open to the outside and face south. Bringing the outside world inside the architectural environment makes it possible to create a variety of spaces with different dimensions and degrees of intimacy and public openness, whilst maintaining a sense of place and visual connectivity. Special attention has been given to the access of secure outdoor spaces that have all been designed to provide a variety of sun-filled, quiet and contemplative garden spaces. It is hoped that this will make for a joyful experience - allowing the recovery of body and mind.

The external walls are random rubble stone to create a 'walled garden' backed with load bearing walls lined with super insulation levels to provide maximum energy efficiency. We propose that the scheme will be the UK's first Zero Carbon Health Hub which can also meet the accredited German 'Passivhaus' energy standards, as well as utilising renewable energy sources."

