



First Passive House flats built in the UK

The first phase of a pioneering, super-energy-efficient housing development for Exeter City Council has been completed. The three flats making up Rowan House in Sivell Place, Exeter are among the first social housing accommodation in the UK to be built using the Passive House method for an apartment development. A further 18 homes are under construction at Knights Place, Exeter, which are to be Passive House certified. More Passive House flats and houses are planned for the future in Exeter. They have all been designed by Gale & Snowden Architects and Engineers.

Publications - For all Permaculture enthusiasts, the seminal book by Bill Mollison entitled 'Permaculture — A Designers Manual' is now available again from ecologic books. This is the book to have if you are interested in Permaculture or wish to employ its design principles. As we increasingly integrate Permaculture design into all our work, Gale & Snowden are running a full Permaculture designers course throughout 2011 and 2012 for all our staff, focusing on live projects.

Visit Gale & Snowden Blog for our latest news.



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News in brief

Climate Change Adaptation

Gale & Snowden and Exeter City Council have obtained substantial funding from the TSB (Technical Strategy Board) to research and apply climate change adaptation to a Extra Care project. This research investigates the impact that future climates in 2050 and 2080 can have on Extra Care buildings and the more vulnerable in society. Watch this space for updates on this exciting, ground-breaking project. The findings will be made available for dissemination to the industry and the general public.

Passive House Consultancy

As Passive House Certified Designers, Gale & Snowden provide a Passive House Consultancy for all project types. We are able to help the construction industry including contractors and architects to build to Passive House standards.

Nomination for prestigious Award

Brook Green Centre for Learning has been nominated for an Abercrombie award. The competition-winning design by Gale & Snowden for a new build BESD school was completed in 2009.

RIBA Publication

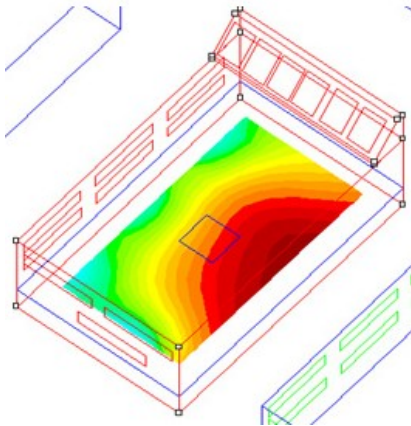
Two Gale & Snowden projects have been featured in the RIBA publication 'Sustainable Architecture' — the new build, residential Oak Meadow scheme and the low-energy, refurbished library at Lynton, known as Lynton Learning, were selected as being exemplary.

www.ecodesign.co.uk

Gale & Snowden's redesigned website is soon to go live with a great deal of new information and downloads of low energy and ecological buildings.



Employing building physics focus on thermal modelling



Thermal Modelling

As part of the architectural design process Gale & Snowden provides a dynamic thermal modelling service. Our mechanical engineering team has over 10 years experience of delivering this enlightening service.

The aim behind this design service is to minimise the requirement for active mechanical systems (such as heating, cooling, ventilation) whilst still maintaining adequate internal comfort conditions throughout the daily and annual cyclic weather conditions in any given location.

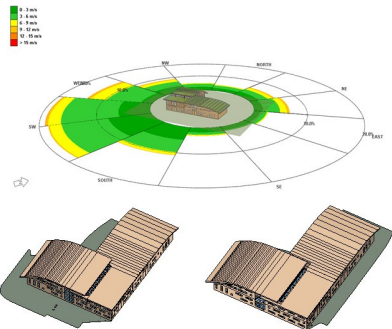
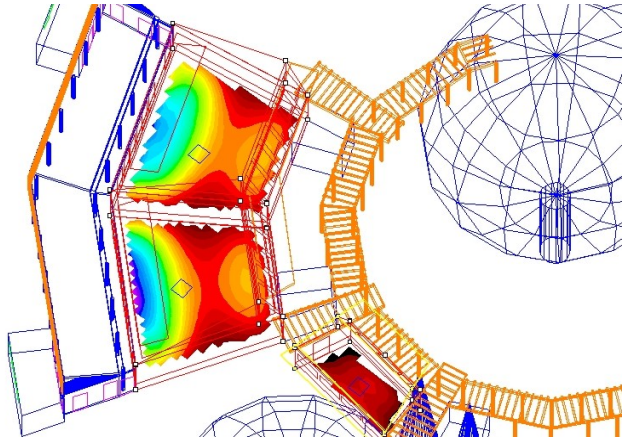
This is carried out utilising 3D modelling software which runs real time weather and building simulations against any proposed design, paying particular emphasis to the building's interaction with the sun and wind. Real time weather data utilised during this process is derived from the MET Office's historical records for the region, taking into account any likely future global warming scenarios.

During this process, specific attention is given to: the building's location and orientation, prevailing daily and yearly weather conditions, its thermal mass, natural daylight levels its natural ventilation strategy, glazing details and shading properties, the building's façade and how solar enhancing or shading devices can be incorporated. Detailed control strategies can also be incorporated within the modelling process to determine the optimum operating parameters, whether it be via user manual control or natural ventilation systems which open via actuated time and temperature controls.

Benefiting projects

Using thermal modelling saves clients money. Project capital costs and running costs can be reduced. Active mechanical systems can be designed out and building fabric can be maximised for efficiency without compromising comfort levels.

- Gale & Snowden Thermal Modelling includes:
- ~ Dynamically assessing designs to optimise comfort strategies to optimise daylight, minimise heat loss, and to ensure buildings do not overheat.
 - ~ Daylight modelling to ensure adequate daylight levels, reducing electrical lighting loads.
 - ~ Summertime overheating modelling to design passive buildings that do not overheat and require air conditioning.
 - ~ Natural ventilation modelling whether via stack effect or cross flow .
 - ~ Thermal modelling to develop façade design, brise soleils, overhangs, shading, window strategies.



Built Feature

Duchy Square Centre for Creativity



Princetown now has a beautiful, low energy, art gallery and art workshops designed by Gale & Snowden.

'The Centre for Creativity', houses 17 small workshops and offices, a gallery for arts and crafts and a teaching studio in the heart of the Dartmoor town. The new building brings additional life to the town Square, and helps reinforce the existing tourist and retail activity in the Dartmoor area.

The design incorporates a range of features including super-insulation, air tightness and healthy building design. Successfully creating a quality sense of place and repairs the urban fabric, giving the town a new positive focus and impetus for its future.



Practice

Gale & Snowden seeks to create ecologically mindful designs.

The practice does this by having a fully integrated team of professionals including architects, building physicists, engineers, Permaculture designers and species specialists.

The integration of buildings and landscapes, people and their environments, provide ecologically sustainable solutions.

The practice undertakes new build and renovation work for a wide range of private, community and commercial clients.

By employing building physics and simple passive design principles buildings are created that have minimum environmental impact.

Materials are chosen to be low in embodied energy, from sustainably managed or recycled sources, non-toxic and local.

The practice employ a practical and imaginative approach to the need for light, space and air in simple structures, bounded by natural materials.

The resultant buildings feel comfortable and healthy to be in, uplifting and inspirational. Their efficiency means low energy and water bills as well as low carbon emissions and low environmental impact. This, combined with the careful selection of materials, enables our designs to have low maintenance and low running costs.

Services

Gale & Snowden provides a range of expert low energy and passive professional design services, including;

- Architects
- Mechanical Engineers
- Building Physicists
- Passive House consultancy
- Thermal modelling
- Renewable energy design
- Planning consultancy
- Permaculture design
- Landscape design
- Research and development

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