Ecovillages: A model life?

More people are turning to eco communities as a viable alternative to urban life. **Laura Sevier** reports. Additional contributions **Mike Henderson** and **Nritijuna Naidu**

Pictured: Community hub model for Lammas, a proposed low-impact eco-village near Glandwr, Pembrokeshire, in Wales

Are you nature-starved, lonely, and fed up with the materialism, stress, waste and pollution of modern urban life? If so, rest assured that the craving to live a greener life in a community, more connected to each other – and to the Earth – is entirely natural. It has a primal appeal.

We are becoming an urban species. In 1800, only three per cent of the world's population lived in cities; these days it's more than 50 per cent. And yet this is not necessarily how we are meant to live.

'We humans evolved in small hunter-gatherer bands,' says Richard Heinberg in his foreword to Diane Leafe Christian's *Finding Community*, 'thus roughly 99 per cent of our history as a species has been spent in groups of 15 to 50 individuals where each knew all the others, and where resources were shared in a 'gift economy'. Even in recent centuries, the vast majority of people lived in villages or small towns. Little in our evolutionary past has prepared us for anonymous life in mass urban centres, suburbs and exurbs. Therefore the goal of living in an intentional community with friends of like mind carries a deep and perennial psychic resonance.'

The desire to live in a community is one of the main forces behind the growing movement to create ecovillages – communities where people value both a supportive social network and a low-impact, ecologically sustainable life. They can include both traditional indigenous villages, whose members focus on ecological and social sustainability, and intentional communities formed when people choose to live close enough to each other to carry out a shared and sustainable lifestyle.

Jonathan Dawson, president of the Global Ecovillage Network (GEN), says ecovillages in the developed (Europe, Australia, North America) and developing world (Africa and South America) have a similar motivation. In the former they are often characterised by a reaction against alienation and materialism of industrialised society; in the latter by a desire to throw off the influence of industrialised nations and return to the values and practices of traditional cultures.

Today, he estimates there are around 1,500 ecovillages worldwide, though no-one knows the exact number. This is partly because many villages and communities in the South use less energy and natural resources than their Northern counterparts, but are not registered or labelled as 'ecovillages'.

What makes an ecovillage?

For millennia people have lived simply in communities close to nature, and yet the 'ecovillage' is a relatively new concept. It first appeared on the scene in 1991 in a sustainability report commissioned by the Gaia Trust. By the mid-90s, many intentional communities had begun to call themselves 'ecovillages', and since then the movement has flourished and spread. The GEN, set up in 1995, has played a crucial role in linking the highly diverse collection of autonomous ecovillages and related projects.

There is no such thing as a typical ecovillage – each has its own look and character, according to location, climates and culture, and varies in size from a cluster of houses to a community of hundreds. They do, says Jonathan Dawson, have certain attributes that distinguish them from other urban or rural eco-regeneration initiatives, though, such as:

- Community is of central importance
- Shared values and the sharing of resources and facilities are the norm
- Ecovillagers are seeking to win back some measure of control over their resources (food, energy, livelihoods, houses)
- They are built by groups of people (rather than traditional developers or other official bodies) and are more or less entirely reliant on the resources, imagination and vision of the community members themselves
- Many act as centres of research, demonstration and, in most cases, training.

At the heart of their rationale is the desire to construct human settlements that tread less heavily on the Earth. They promote a greener way of life, with a strong impulse towards greater communal self-sufficiency. Most attempt to reduce the need for fossil fuels, grow their own food, compost, use carpools, build from local or green materials and often make use of highly efficient ecological technologies for heating, electrical and water systems. Sharing cookers, cars, tools and common heating systems reduces environmental impact and saves money. As a way of life it embraces the conscious decision to live more simply, thereby consuming less.

> 'At the heart of their rationale is the desire for settlements that tread less heavily on the Earth'

Several ecovillages have found ways of measuring their ecological impact. According to a 2005 study, for instance, the 450 members of the Findhorn Foundation, in northern Scotland, have a 40 per cent smaller 'ecological footprint' than the UK average.

Foundation of a new culture

Ecovillages are in service of a wider goal that goes far beyond a reduction in the use of natural resources, however. Above all, they encourage a sense of connection and responsibility to the natural world. As Helena Norberg-Hodge, founder and director of the International Society for Ecology and Culture, wrote in the *Ecologist* in February 2002: 'They represent an altogether new development vision with different economic underpinnings, energy uses, social structures and values to those of industrial society. Ecovillages provide models for living close to the land and in community with one another.'

So could they be a solution to the Earth's woes – and our own? They can certainly be a salvation for those in search of a greener, more communal way of life, and in an uncertain future of climate change, peak oil, food insecurity and the unstable global economy, ecovillages, with their strong self-help ethic and more local, sustainable way of life, show a workable way forward.

In *Ecovillages: New Frontiers of Sustainability*, Dawson writes 'The types of applied research, demonstration and training that ecovillages are engaged in are precisely those that will be needed to navigate rough waters ahead.'

While some new ecovillages are forming, the problem is that difficulties in finding affordable land and winning planning permission mean it is an uphill struggle to start them up. With only a small number of ecovillages per country, the movement is still in its embryonic stage and the ideal, fully sustainable ecovillage does not yet exist. What do exist are myriad partial solutions applied by different societies, but under the same general theme. Ecovillages are confronting the problem head-on, establishing the foundation of a new culture that, although marginal, may one day be applied by the mainstream. Many of them also lead the way in 'best practice' living that could become the norm in the future.

Laura Sevier is the *Ecologist*'s Deputy Green Pages Editor

Findhorn, Scotland

Findhorn Ecovillage, in northern Scotland, has grown over a quarter of a century from an 'intentional community' in a caravan park to one of the most pioneering and celebrated exponents of sustainable living best practice. In 1982, the Findhorn Foundation hosted 'Building a Planetary Village' and marked the beginning of serious attempts to demonstrate that settlements could be truly sustainable – environmentally, socially and economically.

Initially, focus was on the construction of a 75kw wind turbine and the construction of 'eco-friendly' buildings. Over the years, however, these early successes have been dramatically superseded. The project now draws energy from four 225kw wind turbines, while the caravans that were here initially are gradually being phased out in favour of ecologically sound buildings that incorporate breathing walls and triple-glazed, gas-filled windows. The community also established a biological sewage treatment system, know as the Living Machine, numerous solar water-heating systems and is now looking into geothermal heating.

Findhorn supports traditional organic and biodynamic farming practices and 70 per cent of its fresh food requirements is supplied by the Findhorn community-supported agriculture scheme, established in 1994 – the oldest and largest of its kind in the UK.

In 1998, it was awarded a United Nations Habitat Best Practice Designation. The success of the ecovillage has made it a great source of inspiration, attracting some 14,000 visitors a year. The knowledge and experience of Findhorn is also disseminated through a UNITAR Associated Training Centre and numerous publications, including the UK's first technical guide to ecological housing.

The Findhorn ecovillage also supports a community far wider than the project itself. Numerous businesses, charities, community bodies and sister communities have sprung up in the surrounding area that are not directly involved with but are attributable to the initial project. In addition to the 300 jobs it has generated, it is estimated that the ecovillage and associated activities contribute in excess of £5 million to the economy of the Findhorn/Forres area of the Highlands. **www.findhorn.org**

Urban and Suburban

Can an ecovillage exist in the city or suburbs? Urban 'ecovillages' are more likely to be developer-led eco communities rather than designed and built by the ecovillagers themselves. BedZED (Beddington Zero-Energy Development), in south London, is a well-known example of a developer-led eco community, although it goes by many names, including ecovillage, eco-estate and sustainable community.

The unifying factor for any ecovillage is lifestyle, so while it is still possible to create a more grassroots-style of ecovillage in a city, it would mean living close enough to the rest of the 'community' to share facilities and allotments, having access to public transport, a market within walking distance and retrofitting houses in order to make them more energy-efficient.

Co-housing is one way of enjoying the benefits of community living and shared facilities in an urban setting while still maintaining some independence: you can choose how much interaction with the wider group you want.

A co-housing group can live more ecologically than a single household, through carpooling, shared shopping and shared energy systems. Alongside this are shared facilities where people can eat together, and often also a shared sitting room and washing machines. Sharing transport, childcare, food purchasing and production also help reduce living costs.

Ecovillage at Ithaca, USA

One of North America's most high-profile ecovillages, the Ecovillage at Ithaca (EVI), in New York state, is a growing suburban ecovillage on the edge of a small college town. Consisting of 60 one- to four-bedroom houses spread over 70ha and two neighbourhoods, the 160 residents aim to demonstrate a more sustainable way of living for Americans by reaching mainstream culture through education programmes and media coverage.

Initially conceived in 1991, it took five years for the first homes to be completed and the residents to move in. All buildings are passive solar, super-insulated duplexes and some of them have solar electric, grid-integrated systems (14 out of 60 homes). Four also have solar panels for hot water, five have composting toilets and two are straw-bale. The remaining area of the site, some 90 per cent, is preserved as green space, consisting of meadow, woods, streams and ponds, to create a variety of areas for wildlife and natural recreation. There are also two organic community-supported agriculture schemes, which feed about 1,400 local people during the growing season.

Although everyone contributes a few hours a week to keep the community autonomous – including outdoor maintenance, governance, finances and future projects – being located close to a larger centre means that most people at EVI can access paid work. The community has forged links with Ithaca College, Cornell University and Wells College, where residents offer their village as a working model for study and can build a wider platform to communicate their experiences. **www.ecovillage.ithaca.ny.us**

Mbam, Senegal, Africa

Located in the Siné-Saloum delta, at the confluence of two of Senegal's largest rivers, Mbam is home to some 3,000 people. Central to the sensitive ecosystem of the delta are the mangrove forests. These came under considerable pressure during the mid-1980s, when a harsh drought not only damaged the plants, but also led to an influx of migrants from surrounding countries, whose arrival resulted in much greater quantities of mangrove wood being extracted to smoke and cook fish. It didn't take long for the mangroves to die back, opening up the paddy fields to the sea.

With salinisation of waterways and soil erosion impacting on their livelihoods, a core group of citizens recognised the need for more sustainable development and approached the Senegalese national branch of the Global Ecovillage Network (GEN). With the villagers' input into all aspects of design and delivery of projects, GEN has helped the community realise several achievements. In addition to establishing more sustainable farming techniques and installing solar ovens, the community has been particularly successful in mangrove restoration and management. Mbam has become a centre of excellence, with villagers now teaching parties from the surrounding area in sustainable mangrove restoration. Aided by GEN, the village is also embarking on a biogas development sponsored by the Global Environment Fund.

The Senegalese national branch of GEN is the first network of its kind in Africa. This UN ECOSOC NGO works with 45 member villages to promote sustainable approaches to meet the Millennium Development Goals. **www.gensenegal.org**

Ecotowns vs Transition Towns

Grassroots they are not. The Government's 10 'zero-carbon' ecotowns proposed for locations around the UK will be 10-100 times the size of most ecovillages, with as many as 5000 to 20,000 homes per town. If all goes to plan there will be five ecotowns by 2016 and 10 by 2020. Although they will be designed to a strict set of environmental criteria – such as anti-car measures and bigger cycle lanes – dropping a newly built town on a green space is not particularly green or, it seems, popular. The plans have sparked nationwide protests, particularly from residents in several towns and villages close to the proposed locations. As for 'zero-carbon,' ecotowns must be built from scratch. The Empty Homes Agency says that building new houses emits 4.5 times more carbon than rehabilitating old ones.

There are alternatives. Existing towns can be adapted by growing food in greenhouses fitted beside apartment blocks or on the roofs of high-rises, co-ordinating community-supported agriculture projects with farmers and introducing energy-saving appliances and structures.

This is already happening in areas such as Totnes, one of more than 40 Transition Towns in the UK aiming to reduce the carbon footprint of an entire community in response to the threat of peak oil. A community-led initiative, it began with just one town and is now an evolving network. The initiative can be applied to villages, cities, islands and forests. **www.transitiontowns.org**

BedZED, UK

Completed more than six years ago, BedZED remains the only real notable development of its kind. More a developer-led eco community than an ecovillage, it's the first attempt at a large-scale carbon-neutral housing development in the UK. Developed by the Peabody Trust in partnership with Bill Dunster Architects and environmental consultants BioRegional Development Group, the aim was to develop an area of reclaimed land in the London Borough of Sutton as an innovative solution to environmental, social and economic needs.

The 96 residential properties at BedZED consist of 48 units for outright sale, 23 for shared ownership, 10 for key workers and 15 at affordable rent for social housing, thereby catering for a range of tenants. Driven by the desire to be a net 'zero fossil energy development' – one that will produce at least as much as it consumes – the design incorporates a range of surprisingly low-tech features to reduce energy demands and generate energy from renewable sources. This includes using reclaimed materials, efficient insulation and glazing, solar panels and natural ventilation. In addition to the energy-efficient design features of the building, BedZED has a green transport plan that promotes cycling, walking and car-share.

Two key features of the development have been less successful, however. Combined heat and power from underground woodchip burners has had to be put on hold as filters get clogged, increasing management costs. Costs have also restricted the use of the reed-bed sewage filtration system. The failings of BedZED have drawn criticism, often disproportionately overshadowing its successes. What should be applauded is that 'eco-friendly' housing has been taken out of the niche of the bespoke house builder and tackled by a large housing association. If the Government's 2016 target for all new houses to be carbon-neutral is to be achieved then the positive aspects of BedZED need to be built upon by other large-scale developers.

www.bioregional.com

Crystal Waters Permaculture Village, Australia

Nestled in the hills of sub-tropical Queensland, 100km north of Brisbane, is Crystal Waters Permaculture Village. Covering an area of 259ha (640 acres), the ecovillage is home to some 200 permanent residents living on 83 freehold plots and running a multitude of environment-orientated businesses. The settlement was formally established in 1986, amid a backdrop of economic and ecological deprivation as local forestry and dairy industries declined. A small 'alternative' community had been squatting on the site for some time, but rather than fight the occupation, landowner Bob Sample recognised an opportunity for social, economic and environmental revitalisation.

From the outset, planning and design of the environment were based on 'permaculture' principles. This 'true blue' Aussie philosophy (the term was first coined by Australians Dr Bill Mollison and David Holmgren) was originally developed as a designed approach to agriculture that takes into consideration natural processes to make the most efficient use of land.

At Crystal Waters, 20 per cent of the land is occupied by residential and commercial lots; the remaining 80 per cent is the best land and is owned in common. It can be licensed for sustainable agriculture, forestry, recreation and habitat projects.

Land productivity continues to improve today, waterways are clean and community businesses are thriving. It received the 1996 United Nations World Habitat Award for its 'pioneering work in demonstrating new ways of low-impact, sustainable living' and is listed in the Top 40 of the UN's Best Practices database. **www.ecological solutions.com.au/crystalwaters**

Sieben Linden, Germany

Sieben Linden near Altmark, Germany, describes itself as a community of communities. Its residents recognise and celebrate differences as well as common ground in working towards their collective aim of providing 'a model for living responsibly with nature' by dividing their ecovillage into neighbourhoods, each with their own way of life. The contrast between the two largest neighbourhoods highlights this point: one, the 99club, is more radical, being a completely vegan co-operative that does not use machinery, whereas the other came together because its residents' children were roughly the same age. The community has experimented with a range of different governance models such as forums, supervisions and talking sticks.

In July 2007, the community celebrated its 10th anniversary, and has recently grown to more than 100 residents, with 80 adults and 35 children. The site is also growing, with the latest land purchase taking the total area of Sieben to 77ha. This consists mainly of forest and farmland, with approximately 6ha set aside for housing.

Although many residents still live in caravans, there are two modern low-energy houses and one of the first straw-bale houses with planning permission in Germany. Since then, two further straw houses have been built (including the biggest in Europe, with more than 500 square metres of living space) and another two are under construction – Sieben Linden has been lobbying hard for a change in the building regulations in Germany to make it easier and cheaper to build with straw bales. The settlement also has its own water supply, waste disposal and solar heating.

There are currently a number of small enterprises – a jewellery shop and a small publisher, as well as artists, consultants and tradespeople, including an organic vegetable-grower and joiner. It is hoped that more self employed craftsmen, artists, architects and body therapists will soon be able to find ways to earn a living at Sieben Linden. **www.siebenlinden.de**

Websites

Global Ecovillage Network (GEN) www.ecovillage.org
Intentional Communities www.ic.org
Ecovillage Network UK www.evnuk.org.uk

Courses

Ecovillage courses at Findhorn www.findhorn.org
- **Ecovillage Experience Week** 28 Jun, 26 Jul, 4 Oct 2008
- **Ecovillage Design Education: Training of Trainers** – 11 Oct 2008
- **Ecovillage Training** 14 Feb-13 Mar 2009

Books

Ecovillages: New Frontiers for Sustainability Jonathan Dawson (Green Books, 2006)
Finding Community: How to join an Ecovillage or Intentional Community Diane Leafe Christian (New Society, 2007)
Growing Eco-communities: Practical ways to create sustainability Jan Martin Bang (Floris Books, 2007)