

Think tank

# To the manor born

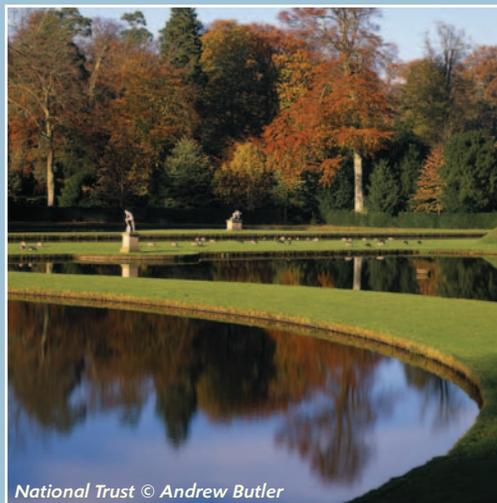
To us as a nation (and for our visitors), our historic homes are a source of fascination: places of great beauty to wander around, let the eye drift over the vistas of the landscaping, enjoy priceless art, marvel at antiques and speculate generally. But how environmentally-accommodating can these houses really be?

**Jo Moulds** investigates

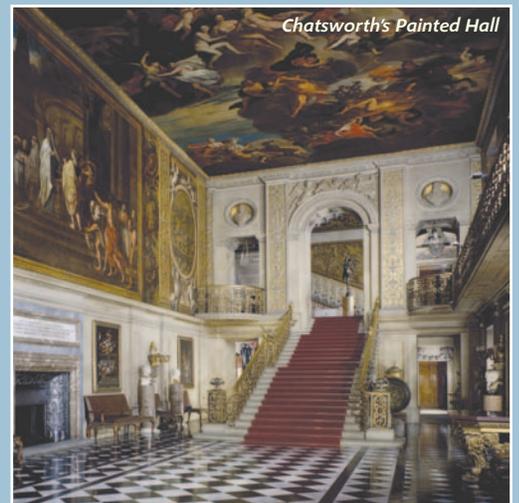
National Trust © Andrew Butler



Chatsworth House



National Trust © Andrew Butler



Chatsworth's Painted Hall

## A PRINCELY ESTATE

The Royal Highnesses' Household is a good place to start. Highgrove in Gloucestershire is an official private residence of The Prince of Wales and the Duchess of Cornwall. The Duchy of Cornwall owns Highgrove, and is "working to deliver a strategy for carbon neutrality throughout the organisation", according to official statements. In the year 2007-08, the Household reduced its carbon dioxide emissions by 18 per cent, and it has set a target of a 25 per cent reduction by 2012.

In the past few years, woodchip boilers have been installed at Highgrove and Birkhall in Scotland, using local wood to fuel the boilers. Energy-efficient boilers at the official London residence, Clarence House, reduce gas consumption; electricity is purchased from renewable sources where possible; energy-efficient lightbulbs have been installed; solar lights are used in staff car parks; and there has been an awareness campaign to ensure staff turn equipment off when not in use.

In addition, rainwater harvesting systems have been installed at Birkhall and Highgrove. There is also a reed-bed sewage system at Highgrove that treats waste water and is apparently 'much loved by dragonflies'.

Travel is an area where environmental footprint has been considered and the Royal Highnesses' Household is putting in place some quite avant-garde solutions. Travel plans take into account reducing carbon emissions, whilst still ensuring security. The Prince's Jaguar, Audi and Range Rover cars and the Royal Train run on used cooking oil, using systems set up by Green Fuels of Gloucestershire. Meanwhile, the Prince's Aston Martin is fuelled by bioethanol that has been produced from 'waste wine' – wine that has been kept too long and is sent to Green Fuels for mixing.

## CHATSWORTH

Another private estate – but one that has been open to the public for over 300 years – is Chatsworth, Derbyshire. The house was first built in the 1500s and it is the 600,000 visitors per year who pay for the upkeep of the house, its collections and landscape.

The current Duke, Peregrine Cavendish, the 12th Duke of Devonshire, is keen to put his stamp on Chatsworth with major changes taking place. A key issue at present is the energy issue.

The house used to be self-sufficient – in the early 1900s it even had its own gas yard, burning coke and taking off the residue.

There was also a water turbine fed by lakes on moorland behind the estate. This was abandoned in the 1930s when the house went on to the National Grid. "The turbine was left to rot really," says Andre Birkett, Farm Shop Manager. "But it was replaced in the early 1990s and now provides 300,000 kWh of energy back to the house per year."

Birkett, the estate's environmental champion, is concentrating his attention on recycling. The Farm Shop currently produces six tonnes of waste per week and pays £40,000 per year in landfill tax. Cardboard recycling is going well (three tonnes per week just from the Farm Shop); however visitor recycling has not, so far, been a success: "We have had problems with contamination in the trials we have run," says Birkett. "At the moment, we are trying to find the best type of recycling bins for visitors."



Chatsworth Maze

The Chatsworth Estate is looking at an on-site recycling centre as one option, as Birkett believes this would be the most efficient system, but as it is part of the Peak District National Park, "any planning permission for new facilities will take a long time to process".

One of the considerations around energy changes in the house is that the Duke and his trustees do not want to install expensive technologies that, in five or 10 years' time, will be redundant. "We want to find solutions that are going to last the test of time. The Duke has a duty of care and short-term solutions aren't viable. We need to know technology is tried and tested and will work for us."

## A NATIONAL TRUST PERSPECTIVE

The National Trust (NT) – completely independent from government – looks after over 300 historic houses and gardens across the British Isles.

Sophie Gaffney, National Trust spokesperson, says that environmental initiatives are a major concern and the charity is working hard to try and bring in more measures. All NT properties have had light bulbs replaced with energy-

efficient bulbs but, in terms of recycling and renewable energy initiatives, according to Gaffney: "It's a patchy picture out there."

Various sites are forging ahead with visitor recycling, though, including Fountains Abbey in Yorkshire and Stourhead in Wiltshire. However, others are finding that contamination is a problem and are unable to recycle the volumes they would wish.

The main problem is that NT waste is classed as commercial but the individual properties often do not produce enough waste for it to be commercially viable for waste contractors to collect. There is a pilot project in one region using a waste broker to handle and recycle the waste from all the properties in one area, which may be rolled out across other regions. Purchasing products for resale made from recycled materials is another way the NT is hoping (eventually) to become waste neutral.

At the central NT distribution centre, recycling is going well, though. In one year, 40 tonnes of cardboard, four tonnes of wood, one tonne of tin foil, plastics, batteries and compostable waste were all saved from landfill.

## ENGLAND'S HERITAGE

English Heritage, meanwhile, which looks after over 400 historic properties in the UK, published a report in January 2008, *Climate Change and the Historic Environment*, which updates and replaces the 2006 positioning paper. It offers research and guidance in various areas, including: improving energy efficiency in historic buildings; heritage implications of coastal defence and flooding; wind and biomass energy projects; and the implications of climate change in the UK and on World Heritage Sites.

Angelah Sparg, spokesperson for English Heritage, says, however, that: "It may be better for you to contact the National Trust, the pioneers on these subjects at present."

A general feeling with regards to these historic properties is that progress is slow. Incremental change is taking place and there is also a feeling of *déjà vu*. Self-sufficiency is something the grand houses used to have to rely on – local networks, local suppliers, local staff, local heating solutions and local transport. It was only in the early part of the 20th century that the large houses joined the National Grid and they are now trying to find ways to disengage again. There is a sense of coming full circle. ■