



GUILDFORD ENVIRONMENTAL FORUM

newsletter

JUNE 2009

The Greening Campaign comes to Guildford

The Greening Campaign, supported by Guildford Borough Council, encourages local people to work together to tackle Climate Change by taking practical steps to reduce their carbon footprint. So far five communities in the borough have signed up to run a campaign and make a difference locally – and there is funding for one more community group to get involved.

Already, residents in Albury, Friary and St Nicolas, the Horsleys, Stoke, and Stoughton are 'greening' their communities and getting involved with the Campaign.

This is a community-led initiative and is about engaging and motivating local people to save energy and reduce their carbon dioxide emissions. It brings communities together to tackle Climate Change, which affects us all, and is a great opportunity for people to work together to try and reduce their impact.

The Greening Campaign is the brainchild of Terena Plowright, who started the initiative in her home town of Petersfield to save energy and reduce carbon dioxide emissions. It was so successful that other communities followed suit and it has now spread across the region and beyond.

The campaign is run in four phases.

PHASE ONE

The first phase aims to engage the whole community so that people will feel involved and included. The first event is a Public Meeting to which all those who live or work in the community are invited. Businesses and community groups are invited by letter so an inventory of these parties needs to be collated beforehand. Posters and flyers advertising the event also need to be printed and distributed.

At the Public Meeting there is a presentation about the Greening Campaign and those attending are invited to help choose 8 out of 15 challenges which aim to save energy and carbon dioxide emissions, as well as money. Following the meeting these challenges are printed on one side of a card, with the community's greening logo on the reverse. This is being funded by Guildford Borough Council.

There will then be a Launch Meeting after which the cards are delivered to each household and business. Hopefully the community will feel able to complete at least five of the challenges and indicate their participation by putting their card up in their window. At the end of a six week period the number of cards that have been put up are counted

and from this it can be worked out very roughly how much carbon dioxide has collectively been saved. This is publicised and celebrated. The simplicity of the first phase means it is inclusive and successful and is key to the success of engaging the community so the other phases can follow.

PHASE TWO

Phase Two involves a more detailed look at the activities of the community and a more structured and planned approach to tackling Climate Change. The community will choose and lead on at least one campaign/project idea, which might be connected to energy use, travel options, water use, waste, renewable energy or other topics particularly relevant to the area.

PHASE THREE

The third phase looks at the effects of Climate Change and how the community will need to adapt to keep it safe and functional. The community creates a plan to reduce its contribution to climate change and decrease its vulnerability to risk.

PHASE FOUR

The final phase relates to a new start and becoming a more sustainable community.

Residents who live in one of the five areas in Guildford Borough currently running the

Greening Campaign who would like to get in contact with their local group can contact the Climate Change team at Guildford Borough Council for details.

The Council still has funding to support one more local group (for example, a community group or parish council) so if your local group would like to get involved in the campaign please contact the Climate Change team on 01483 444509 or by e-mail climatechange@guildford.gov.uk For more information visit www.climatechange.co.uk or visit www.greening-campaign.co.uk to learn more about the Greening Campaign in general.

*Cati Smith, Community Climate Change Officer,
Guildford Borough Council*

Chris Coventry, Coordinator for Greening The Horsleys





NEW COMMUNITY GARDEN AND LOCAL FOOD INITIATIVE

“GRACE AND FLAVOUR”, a local cooperative of residents from East and West Horsley, is setting up a Community Garden and Local Food Initiative, based in the Victorian walled garden in the grounds of Dene Place in West Horsley.

BUPA and the National Trust recently agreed to lease the walled garden to the cooperative from September 2009. Volunteers will grow fruit and vegetables to be sold to the community directly and through local retailers (such as the Horsley Fruiterers in Station Parade). The cooperative also plans to set aside a percentage of the crops grown for free distribution to those in need in the two villages.

The walled garden is 1.2 hectares in size and another 1.2 hectares of land is potentially available to the project as well. In time there will be scope for some traditional allotments for residents to rent from the cooperative to grow crops for their own use.

The cooperative is setting up a management entity to run the initiative. The first task is to clear the site and restore the walls and Victorian glasshouses in the walled garden. The timing of this work is driven by the needs of the local wildlife such as birds now nesting on the site. The first crops in the garden should be planted in the Spring of 2010.

The organisers have briefed the Parish Councils, who are keen to offer practical support and funding as the project progresses. Volunteers interested in taking part should contact the organiser Mrs Su Johnston by email on su.johnston@btopenworld.com

Chris Coventry

See your energy bills reduce with new monitor scheme

HOW MUCH ENERGY does a TV or a washing machine use? Guildford Borough residents can save money and energy by finding out exactly how much they are using, thanks to a new free energy monitor hire scheme from Guildford Borough Council in partnership with Surrey County Council libraries.

Residents can borrow the monitors for up to three weeks if they are a full member of Surrey Libraries. (To find out more about how to become a full member of Surrey libraries please visit your local library). The monitors show exactly how much energy is being used at any one time, helping residents to see how they can save by switching off electrical appliances.

They are simple to install and allow residents to look into ways in which they can save money and electricity in their home.

Does the device need batteries?

No. The monitor has been designed to run off the mains power supply, so it's always on, ready to give you information at a glance. The transmitter runs off a long life battery.

How much does it cost to run?

Depending on your electricity supply rate, about 2.5p per week.

Does it have to be professionally installed?

No, there is an instruction manual which tells you how to install it and it is very simple.

The monitors are available free of charge from:

- Guildford Library
- Horsley Library
- Ash Library

If you would like to reserve an energy monitor please visit your local library or contact the Climate Change team. If you have any queries about the monitors contact the Climate Change team on 01483 444509

Pesky parakeets

In the UK, rose-ringed parakeets have bred so successfully that they now outnumber familiar species such as barn owls and kingfishers. Although there is, as yet, no firm evidence that they are endangering other species, the crop damage they cause is a problem. In Surrey in 2007, parakeets raided the grape harvest at Painshill Park vineyard, reducing its production from an expected 5,000 bottles to just 3,000, while Garson's Farm in Esher lost 20% of its apple crop.

(Source: BBC Wildlife, July 08)

FACTS & FIGURES

Windy USA

North Dakota alone has sufficient wind resources to meet one-third of America's electricity needs.

(Source: WWF Action, Oct 08)

Aviation expansion

If the planned level of aviation growth in the UK goes ahead, we will need to shut down every power station, turn off every light and take every car off the road to meet the required 2050 emissions reduction target.

(Source: www.enoughsenough.org)

Tough for wildlife

Twelve square miles of front gardens in London are now paved over.

(Source: Natural World, Spring 09)

Dunsfold Park

Plans to develop Dunsfold Park aerodrome into Britain's most sustainable village have caused bitter controversy. Waverley Borough Council turned down the application in 2008. An appeal inquiry was held two months ago, and a final decision is expected by the end of this year.

On behalf of Guildford Environmental Forum, John Bannister presented the following statement to the appeal hearing.



MY COMMENTS ARE driven by the onset of climate change, the fact that it is man-made, that immense damage to people and planet is already happening and the threat of much worse damage to humans and wildlife if we don't start changing the way we live with immediate effect.

I am also aware of what can be achieved in exemplar developments in places like Vauban and Rieselfeld in Freiburg, as well as in Sweden, Denmark and Bioregional's One Planet Living project plans, for example. I am very conscious that traffic in the south-east is going to get even worse because of the big increase in house building promulgated in the South-East Plan. My focus is on whether Dunsfold Park will offer the prospect of reduced traffic, reduced visual impact and a reduced ecological footprint versus the same number of houses built elsewhere by Waverley Borough Council.

Dunsfold Park – a sustainable development exemplar

The first thing to say is that I agree with expert witnesses Professor Guthrie, Dr Gerrard, David Bird, Dr Hugh Ellis and others who have shown convincingly that on many levels Dunsfold Park is in advance of any other development planned or built in the UK in terms of its greenhouse gas emissions, its water management and consumption, its waste management, its production of biofuels, its live-work provision, and its transport measures. And that taken as a complete package it excels any other development I'm aware of anywhere in the world in terms of pushing the boundaries of sustainable development. I will not elaborate on this as other witnesses have done so at length.

Climate change and "Peak Oil"

The people who take up residence at Dunsfold Park will be extremely fortunate in my view because of the in-built resilience it offers to shocks we are seeing due to climate change and Peak Oil. Drought, for example, will occur with increasing frequency in the south-east due to climate change, so water minimisation, rain water harvesting and on-site treatment and recirculation on a village scale will be crucial advantages.

Use of local biomass (wood) for heat and electricity will insure to a great extent against volatile and steadily rising oil, gas and electricity prices. It is vital to be aware that global oil production has plateaued since 2004, during which

KEY FEATURES OF THE PROPOSED DEVELOPMENT

- Some 2,600 homes phased to match local jobs and needs
- Around 350 acres of lakes and parkland
- A primary school, local shops, church, health services and other local amenities
- A new direct connection to the A281
- A new public transport system serving the surrounding villages
- On-site waste management and energy generation, 100% water harvesting and recycling, aim for zero carbon emissions
- Dedicated footpath, cycle and bridle path routes
- An improved and expanded business district

time oil prices have been as high as 147\$ per barrel. Global oil production in barrels a day has almost certainly already peaked and will soon start to decline. This is what we mean by Peak Oil.

Peak Oil and gas have been the subject of intense study for many years, and what is interesting to me is that experts at the Energy Institute and CEOs of some of the major oil companies are now foremost in warning about the imminent risk to the global economy. Everything we take for granted is dependent on oil. The prediction is that world oil production has reached a maximum and will start to fall from 2012, at which point there will be a desperate scramble for fuel with unimaginable consequences. Dunsfold Park will have in-built resilience to protect against high prices and shortages of fossil fuels.

Food

Our food is almost totally oil-dependent. It accounts for 18% of our carbon emissions and is the biggest contributor to our ecological footprint. I repeat, our food and drink are the biggest single component of our ecological footprint. So the fact that Dunsfold Park is setting aside space for residents to grow food on a considerable scale is important in this respect. In addition to allotments on-site (and the waiting list for allotments in Guildford is over three years) the 450ha Holdhurst Farm, owned by Jim McAllister adjacent to Dunsfold Park, is converting to an organic, lower carbon status, and will become an example of community-supported agriculture (CSA)

to supply food for residents of Dunsfold Park. This offers a degree of local, vital food security.

We have heard that Waverley Borough Council cannot provide anything close to Dunsfold Park in terms of sustainable living infrastructure on its small, piecemeal housing developments. And when we factor food, fuel and water into the analysis, Dunsfold Park scores very much higher.

The Government's Chief Scientist recently warned about the "perfect storm" that is brewing when shortages of energy, food, water and the full fury of climate change come together by 2030. The warnings are screaming at us from Australia, south-west USA, the Arctic, the wars being fought over scarce resources, the multitudes dependent on glacial melt, the rising numbers of fuel-poor in this country, animal and plant diseases moving north into the UK, our dependence on imported energy, and much more. Resilience to the triple threats of climate change, Peak Oil and food security is central to Jim McAllister's thinking, which is why we support Dunsfold Park unreservedly.

Landscape

I believe that the biggest threat to our countryside in the south-east is not developments on brownfield sites like Dunsfold Aerodrome but drought brought on by climate change. In 2005/6 we saw the Surrey countryside desiccated by prolonged drought. Native trees died and the quintessential quality of our landscape, its greenness, was gone. Climate change means this killing of our countryside is going to



Dunsfold Park in 15 years time?

occur every few years with increasing frequency. Yet the opponents to this scheme fight nearly every kind of meaningful attempt to move our economy away from dependence on fossil fuels.

Dunsfold Park will demonstrate how we can reduce our greenhouse gas emissions and help mitigate climate change, radically changing the way we live our lives to be more in sympathy with our planet.

Transport

I agree with views expressed at this enquiry that the transport provision has to be exceptionally good to make this development at Dunsfold Aerodrome a sustainable exemplar. After much consideration of the comprehensive package of transport measures proposed, I am convinced that Dunsfold Park will provide the necessary transport solutions to a) drastically reduce car dependence versus the same number of houses built by Waverley Borough Council elsewhere and b) reduce the carbon footprint of the transport element of 2,601 new homes and associated employment.

By way of comparison, the proposed bus services from Dunsfold Park will be more frequent at peak times than the commercial provision now available between Guildford, where I live, and Godalming. This 5km bus journey between population hubs of about 70,000 people costs £3.40 single, £4.20 return. This compares with £1 per journey for the 6,000 residents of Dunsfold Park to three possible destinations up to 18km away.

This is just one example of the way the village community will be incentivised to change their behaviour towards owning and using a car. There are many others and we believe that in combination they will give people an overwhelming economic alternative to owning and using a car. With dedicated bus services from their doors Dunsfold Park residents will have an easy, low-cost alternative to the car, which will drive behaviour change.

Education and young people

Guildford Environmental Forum works closely with a large number of schools, engaging with children on their schools' energy performance, recycling, composting and the whole range of environmental issues. Sustainable Development is firmly embedded in the curriculum and the pupils are very aware and asking critical questions. Also, Guildford, Godalming, Farnham and Horsham all have Transition Town movements aiming to transform the way we live to a lower consumption, less polluted, fairer, less car-dominated, more communal and local way of life. Many young people just out of college are coming forward to participate in this movement.

So I'm saying that our young people are keenly aware that our planet is endangered and that there are serious lifestyle issues that we are not currently

addressing and they want addressed. Dunsfold Park is the kind of community that will appeal to them because of the holistic thinking behind the project, the shared street spaces safer for children, cyclists and pedestrians, less polluting, situated in the countryside with local food supplies, local facilities, etc. Schools, colleges, architects, town planners, transport managers, the Womens' Institute, you name it, will be going to Dunsfold Park to see how a sustainable community can be made to work. We are all inspired by modern examples of sustainable living like BedZed, Vauban and Dunsfold Park because the need is so great.

To sum up

We've heard the two sides of the argument at this enquiry each quoting planning policies in support of their case. Guildford Environmental Forum believes that the global ecological and climate crises should be at the heart of this enquiry. We cannot continue our business-as-usual approach to providing settlements. We believe that these are the overriding issues now, for this enquiry, and for future generations who will inherit our legacy.

People are looking for the kind of leadership that Dunsfold Park is offering and which governments, local and central, in this country are far too slow in addressing. We want this exemplar development in our locality and for it to be a beacon for many others to follow.

HEAVENLY EVENT

SATURDAY 9th MAY was a gorgeous day for the Forum's stall at Compost Heaven, organised again this year by Guildford Borough Council. People queued up for their free compost bins, free leaf mould bags and to have their secateurs sharpened.

The PA system for the band was powered by Craig Hill's mobile solar powered generator (see photo), which the Forum helped finance. This attracted a lot of interest.

We shared the stall with Transition Town Guildford, the Greening Campaign for Friary & St Nicolas and the Horsleys, and with the sustainable living centre Bricks and Bread. Many contacts were made and a lot of useful networking took place.

John Bannister



Freiburg Energy Meeting, June 2008

by Michael Peters

The Freiburg Energy Meeting 2008, hosted by SolarRegion and the City of Freiburg Environment Protection Agency, convened in Freiburg for two days in June last year. Delegates in attendance were from many of Freiburg's twinned cities with representatives from the USA, Japan, France, Italy, Ukraine and Germany – all with the same issues and very similar goals regarding sustainability and the development and application of renewable energy technologies.

The Guildford 'delegation' consisted of Andrew Day (Gerry Lytle Associates architects), Trudy Thompson (Naturally Amazing eco-construction company) and Dr Michael Peters (Research Group on Lifestyles, Values and the Environment – RESOLVE – University of Surrey).

THE FIRST DAY was an opportunity for meeting the other delegates, listening to keynote presentations and having interesting round table discussions, held in the City's New Town Hall (which was made in 1896-1901 by converting a pair of Renaissance buildings).

It was great to meet with like-minded people from many countries, working in many disciplines, discussing what opportunities are available to implement climate protection measures. An enjoyable reception was held in the evening, hosted by Freiburg's Lord Mayor Dr Dieter Salomon, where delegates were able to sample some of the excellent outputs from Freiburg's vineyards.

The second day consisted of visits around Freiburg enabling delegates to see at first hand many of the unique and extensive urban projects that incorporate a range of renewable energy technologies integrated into what is truly a model of sustainable regional development. Visits to the new districts Vauban and Rieselfeld showed how the application of low carbon technologies and imaginative urban planning for low energy consumption both complement and facilitate behavioural change in the direction of sustainability, together with the creation of socially cohesive communities. A visit to the Richard Ferencik vocational college exemplified Freiburg's

Factory in Freiburg for making solar components.



network of training institutions covering energy-saving construction, efficient energy supply and renewables. This college's state-of-the-art equipment for apprentices was demonstrated fully to delegates with opportunities for questions and answers and photographs. This day of visits was interspersed with presentations from the delegates, showcasing progress towards sustainable development and low carbon living being made in their respective municipalities.

Both days were thoroughly inspiring and enjoyable and served to highlight firm evidence that solar energy contributes to the protection of the environment and the climate as well as to economic prosperity and social integration. Mr Thomas Dresel, Project Executive, SolarRegion, aptly summed this up in the following comments:

"The commitment of a wide range of companies shows how solar energy can become an integral part of business philosophy within all economic sectors (i.e., inside and outside the solar industry). Solar energy creates jobs and it keeps them local. The demand for solar specialists opens promising perspectives for training. Renewable energies add to the quality of an environmentally conscious tourism."

The success of the Freiburg solar policy is based on two factors: cooperative partners ranging from business to education, from architecture to finance and many more are allowed to gain their specific benefits and to contribute from their specific interests; at the same time a broad discourse in society moves the solar issue beyond the specialist circles of energy planners."

The stakeholder approach holds the key for the evaluation of the various possible forms of municipal policy instruments. In Freiburg they include subsidy programmes and other incentives, self-imposed rules for public buildings and the definition of advanced energy standards for all new developments, educational and information campaigns, the foundation of corporations such as Badenova power company and the Energy Agency and other forms of institutional collaboration with important agents. Even the much-despised "push" instruments should not be regarded as imposed restrictions but as a reliable framework for stakeholders, facilitating rather than impeding their own activity.

Summary and outlook

The Energy Meeting clearly demonstrated that a set of requirements should be met if we want solar (or indeed any environmental and sustainable) development to be successful:

- a) from the perspective of citizens: reasonable costs, comfort, and control
- b) from the perspective of policy making: consensus and collaboration

It is essential to get different agents from different sectors of society involved. Their different motivations generate momentum. A vision alone will hardly carry us all the way to the future. Sustainable regional development should include forms of more immediate benefit to be enjoyed on the way.

Andrew, Trudy and Michael are extremely grateful for the opportunity to attend the Freiburg Energy Meeting and all gained a sense of renewed inspiration from the informative and enjoyable visit. Freiburg was an exceptionally warm and gracious host and, as you might expect, the whole event was run with extreme efficiency and professionalism.



Freiburg's football stadium. All its energy requirements are supplied by the array of pv solar panels on the roofs.

Michael was pleased to invite Mr Dresel as a keynote speaker to a major international conference on community engagement in climate change hosted by RESOLVE at the University of Surrey in December 2008.

Your waste recycling performance is about to get even better

by John Bannister

THE APPETITE OF Guildford residents for recycling is improving steadily as better tools to do the job are made available for us to deliver a higher performance. Guildford Borough made the right decision years ago when it decided to collect separated waste streams at the kerbside. This has resulted in cleaner, higher market value recyclates, namely paper/card, glass, cans, textiles, plastic bottles and batteries that can be sold on to waste recyclers even in the current difficult market situation.

The next big step in providing us with the tools to do the job at the kerbside will be the roll-out this year of kitchen waste collections. This will be a massive and vital step. Massive because of the high tonnages involved and vital because of the global warming gases produced when any kind of compostable material is dumped in landfill plus the sheer waste of a very valuable resource. Kitchen wastes, like other green wastes, drew nutrients out of the soil when growing and these should rightfully be returned to the soil and/or harvested as fuel.

In December 2007, with the help of government funding, Guildford Borough Council (GBC) initiated trials of household kitchen waste collection in the borough. You may have read in *About Guildford* how successful these trials have been.

Update on the figures

On 20 April Ian Westgate, Recycling Officer at GBC, told us at a public meeting that kerbside recycling rates in the trial areas increased to an average of 63.5%, comprising 36.9% dry recyclables, 15.6% food waste and 11.0% garden waste. These are averages so you will appreciate

that really keen households did even better. Ian explained how well the trials had been planned, people consulted and resident's concerns addressed. This was important because a key element of the trials is reducing the frequency of residual (black bag) waste collections from once a week to once a fortnight. Badly handled, a switch to alternate weekly collections (AWC) of residual waste has caused an entirely unnecessary backlash in other boroughs.

The above percentages do not include home composting, which the council calculates at a further 11%, which brings the total recycling rate in the trial areas to something like 74%. The Guildford Borough target of 60% recycling and composting by 2010 looks set to be well exceeded right across the borough. The Forum suggests it is time to set a new target for Guildford Borough of 80% recycling and composting by 2012.

Kitchen waste

At the same public meeting Richard Parkinson, Waste Operations Manager at Surrey County Council, told us what plans the county had in place for the treatment of kitchen waste. He began with some statistics. On average 40.7% of residual household waste across Surrey is food – up to 4.4kg per household per week – a staggering statistic in itself. Approximately 100,000 tonnes of food waste are generated by Surrey households each year.

Switching residual waste collections from weekly to fortnightly helps to get the recycling message across. Weekly bins have 47% more total waste and 22% more food waste than AWC bins. Also, weekly bins have double the amount of potentially recyclable materials than AWC bins. Paper,

card, some textiles, nappies, wood, garden waste and food waste are all biodegradable and therefore produce methane if buried in landfill. Richard told us that about 69.6% or 6.15kg per household per week of Surrey's residual waste is made up of these biodegradable materials and 59% of this is food waste, by far the biggest proportion.

A number of Surrey districts are rolling out kitchen waste collections this year – Epsom & Ewell in June, Surrey Heath in September, Elmbridge in October and Guildford in November. Woking will follow in April next year. The other six boroughs have no plans in place, but the Surrey Joint Municipal Waste Strategy (SJMWS) commits them to 2010 at the latest.

The agreed strategy is that Surrey County Council (SCC) will “provide appropriate facilities for composting organic wastes by the year 2010, and will explore the potential for out-of-county composting as an interim method.” The kitchen waste collected from the trial areas was until recently trucked to a New Earth Solutions in-vessel composting plant in Dorset, but is now going to a similar plant operated by Countrystyle Composting Ltd in Kent. This is clearly not ideal as transport emissions are significant and transport costs in the region of £40 to £50 per tonne.

Surrey's plans

Richard then turned to Surrey's in-county plans and the relative merits of in-vessel composting (IVC) and anaerobic digestion (AD). SCC is minded to accept that 40,000 tonnes per annum is the minimum economic size for a treatment plant. This is roughly the tonnage of household kitchen waste that they hope to collect across the whole of Surrey or only 40% of the total produced. If you add in some garden waste and some commercial food waste then we are unlikely to see more than two or three such plants across the whole of Surrey. The proximity principle is meant

to give weight to smaller local plants with reduced trucking miles but this is unlikely to be a major consideration.

IVC has a lower capital cost at £2–£3 million and produces compost that can be used as a growing medium. AD plants cost in the region of £10 million but have a lower operating cost and produce both a fertiliser and a methane-rich fuel. Richard described AD as higher risk when it comes to bank lending. However, the products from AD have a higher value.

He identified sites around the county, including Slyfield and Wisley, where treatment plants might be sited. Despite the increasing recycling and composting rates being demonstrated by councils like Guildford and those even further ahead elsewhere in the UK, SCC has not abandoned its intention to build incinerators in Surrey despite strong public opposition.

UK improvement in waste reduction

The organisation WRAP (Waste & Resources Action Programme) has published encouraging figures relating to recycling, packaging and plastic.

Recycling – in March it announced that the value of the country's recycling had just passed the £1 billion mark.

Packaging – confectionery brands, manufacturers and retailers achieved significant reductions in Easter egg packaging this year, with some eliminating over 50% of materials. With 3,000 tonnes of Easter egg packaging traditionally produced in the UK each year, this represents a great environmental benefit.

Plastic bags – since 2006, retailers have delivered a 40% reduction in the environmental impact of carrier bags. The number of bags issued is down by 26%, and bags are lighter in weight and use more recycled content.

Guildford in Bloom – the winning wildlife garden 2008

An interview with Susanna Harrison, whose garden won the Best Wildlife Garden category in last year's Guildford in Bloom Competition. Written by Gill Buszard, it is reprinted from 'Green Thymes'.

- Q.** How long have you been in this garden?
A. Fifteen years. It is our first garden, and was my mother's garden and home.
- Q.** Who has inspired you in your gardening?
A. My mother. She designed and tended this garden for many years, before we moved in with her.
- Q.** What has been the biggest change that you have made to the garden?
A. The pond. We dug out a fair-sized pond, divided by a bridge, and installed a rockery and waterfall to provide shallow water at one end of the pond.
- Q.** What are the main features that attract wildlife?
A. The pond, the mixed native species hedge, the evergreen shrubs and the rambling roses.
- Q.** Is there a lot of maintenance?
A. Pruning, lots of cutting back the hedges in particular. We also have a regular lawn to tend.
- Q.** What book would you recommend for organic gardening?
A. *HDRA Encyclopedia of Organic Gardening* (Dorling & Kindersley)
- Q.** What's your favourite wildlife you see in your garden?



Guildford in Bloom Committee

- A.** The foxes. They have a den behind the pond and had three cubs last year.
- Q.** Your favourite flower?
A. The foxglove.
- Q.** What's the best thing about the garden?
A. It has been great for the children to grow up in, to be able to bring friends in to see the newts, the frogs and especially the fox cubs playing in the afternoon.



Lateral reflections

by Michael Tanner

(My apologies to any cyclists who might have been hoping for tips about the latest in safe night-cycling gear.)

MOST READERS will be acquainted with the *Song of the Volga Boatmen* (set, I believe, to Musorgsky's rendering). Not so many will have seen the painting *Volga Boatmen* by Ilya Repin, the famous Russian painter (1844-1930) who also did a portrait of his contemporary, Musorgsky. The painting shows a group of about eleven men, though one is scarcely out of adolescence (shown in the detail above), harnessed by ropes and straps to a wooden sailing barge which they are hauling up the river Volga against the prevailing wind.

Their faces, portrayed in faithful and dramatic detail, reveal a history of exhausting toil, leading to resignation or despair, with the exception of the youth's, which shows bewilderment and horror at the realisation that he is condemned – probably for the remainder of his existence – to earning his daily bread by being shackled to the massive dead weight of a wooden barge. There is not enough space here to make further observations about the painting, except to remark on a significant detail in the far distance: in more open water is a ship, evidently powered by steam – a wisp of smoke is just visible above its funnel.

The painting was made about 1870 when another

contemporary of Repin, the English poet and novelist Thomas Hardy (1840-1928), was making his writer's way in this country. Thomas Hardy and Ilya Repin were both moved by the lot of the common man and both were keenly aware of the effect on ordinary people of the enormous and rapid changes being wrought by the advent of steam power and soon afterwards that of internal combustion and electricity. What either of them would have made of nuclear power or more recent means of transport must regrettably be left largely to conjecture.

Both knew that one world was being ousted by another and both understood that something had been lost for a not thoroughly understood gain. Neither, of course, had anything like the access we have to statistics and to an overall world picture of the impact of steam, oil, electricity and nuclear energy upon people's lives. It may be doubted, however, that such access has given us anything like the insight and moral impulse which is revealed in their paintings, novels and poems.

It was not so long ago that our feeble frames were brutally subjected to the forces of nature in the form of wind, water, cold, heat, earthquake, pestilence and the greatest of all, gravity (the majority still, unfortunately, are) and now we must seriously reckon to what extent we have become the victims of what earlier promised to be the means of our deliverance. (Shades of Musorgky's music used later for *The Sorcerer's Apprentice*?)

For some of us, existence has certainly become longer and often appears much less brutish until one recalls our shocking inability to reduce warfare and its effects, our inability to counter pollution and its effects and our inability to deal with the deaths and life-style disruption brought about by motor-cars in particular.

In our current unhappy circumstances, we find ourselves in the paradoxical position of distrusting the professional experts, while we still look to them to produce solutions, especially quick ones. Global 'credit crunch' is merely one example of this. The current culture is that of finding whom to blame.

It seems to me that Hardy and Repin, despite their wide geographical and cultural separation, shared the pain of what they observed and at times also pointed a finger at the reprehensible elements in mankind which persist – the elements of greed for possessions and power, of impatience for quick satisfaction, and the failure to perceive and preserve what is really precious in and around us.

The more one looks at the pale, tragic youth depicted amongst the bearded Volga boatmen in Repin's painting, the more he seems representative of the young in any society who are let down by their elders who, in their turn, tolerated or even encouraged regimes and routines which, in their heart of hearts, they knew were intolerable.

Men do not adapt so rapidly as the technologies they invent to the pace of a change driven largely by ill-informed entrepreneurial expedience. Should we not heed the voices of the great writers, painters, composers and philosophers rather more than we do those of the quick fixers, the less scrupulous handlers of the media, or those whose priority is cheap celebrity, and recognise instead the echo of the inspired perception of the former in our own hearts and minds? Ironically, technology has considerably enhanced our capability of doing just that.

Wildlife losses and gains

In the last decade, 100 square miles of ancient woodland in the UK has come under threat from destruction or degradation. This is equivalent to an area the size of Birmingham of irreplaceable habitat. Over the last 50 years our countryside has lost:

- 95% of wildflower meadows
- 82% of partridges
- 75% of skylarks (60% lost since 1972)
- 50% of natural woodland
- 40% of hedgerows

However, compared to non-organic farms, organic farms have:

- 44% more birds in fields
- 25% more birds in field margins
- 60% more insects
- 500% more wild plants in arable fields

Can China adapt?

The Gobi desert, the world's third largest, is spreading. Official statistics show that over 40% of China's land has become desert, with little vegetation remaining in parts of northern and western China. Strong spring winds can remove millions of tonnes of topsoil in a day and Beijing is now only 150km away from the desert's edge. The government has been combating creeping desertification with a national reforestation programme. The aridity and water scarcity are making it more difficult to grow the staple diet of rice – to grow 1 kilogram takes nearly 5,000 litres of water.

Population explosion

World population in 1950 – 2.5 billion
 World population in 2007 – 6.8 billion
 Projected world population in 2050 – 9.2 billion
 Optimum population the world can support at current levels of consumption – 5 billion
 Projected increase in demand for grazing land and fishing grounds by 2050 – 85%
 The population needed in the UK in 2050 to maintain the current 'support ratio' of worker to non-worker – 136 million

Our greed, their need

When "discovered" by whites in 1848, Mount Kilimanjaro had an extensive ice cap. Since the first survey in 1912, more than 80% of the mountain's ice has disappeared, and the rest could be gone in 20 years. Elsewhere in central Africa, Mount Kenya has

lost seven of its 18 glaciers since 1900, and most of the ice on the Rwenzori mountains between Uganda and Congo has disappeared.

Studies have shown a clear downward trend in rainfall across all agricultural areas and an increase in summer temperatures of 0.6°C per decade over the past 30 years, which is ten times higher than the global average. Decreasing water = decreasing life.

Greening London

London Wildlife Trust's 'Garden for a Living London' campaign, supported by Thames Water, plans to use the city's 3.27 million gardens to combat climate change and habitat fragmentation. The total possible area covers nearly 150 square miles. Every London gardener is invited to undertake one of seven actions:

- Use drought-resistant plants
- Plant a mixed hedgerow
- Plant a broad-leaved tree
- Make a wildlife pond
- Use mulch
- Give the shed a green roof
- Wild up the decking

Art examination

In Venice 250 years ago the painter Canaletto made frequent use of the camera obscura, enabling him to faithfully reproduce the tidelines left behind on the city's buildings. Scientists working to save Venice from sea level rise and subsidence are using his paintings to make their calculations. In St Mark's Square, the lowest of the city, today's tides are 34cm higher than in the 18th century. Approximately 22cm of this are due to sea level rise. Flooding events have increased tenfold since the start of the 20th century.

GOOD NEWS




BAD NEWS

compiled by John Bannister

Long-lasting litter

- Aluminium..... 80-100 years
- Cigarette butts 1-5 years
- Glass bottles..... 1,000,000 years
- Leather..... 50 years
- Milk cartons..... 5 years
- Nylon fabric..... 30-40 years
- Orange/banana peels.... 6 months
- Paper..... 2-5 months
- Plastic film container..... 20-30 years
- Plastic bags 10-20 years*
- Rubber boot sole..... 50-80 years
- Styrofoam Never
- Wool socks..... 1-5 years

(Source: a leaflet for visitors to the Mojave Desert)

* other research shows up to 500 years

More and cleaner water from pedal power

Ideo, a design consultancy, has made a prototype of a tricycle called 'Aqueduct' for use in developing countries where clean supplies of water are scarce. It will transport water fast, purifying it as the tricycle is ridden. Water is collected and poured into a tank between the rear wheels, then the rider's pedal power pumps it through a purifying filter into a container at the front ready for use.

(Source: BBC Focus, Nov 08)

FACTS & FIGURES

Electricity from traffic

Israeli company Innowattech is proposing to harvest mechanical energy from the vibrations caused by cars and lorries. In the construction of a new road, a layer of piezoelectric crystals is put under the asphalt. This converts mechanical energy into an electric voltage as the crystals are distorted by passing traffic. Assuming a flow of 600 vehicles an hour, an output of 400kWh can be produced from a 1km stretch of road – enough to power 600-800 homes.

(Source: BBC Focus, Apr 09)



The British Science Festival is coming to Guildford in September

LAST YEAR it was Liverpool, this year it is Guildford, next year it will be Birmingham. This is a fantastic coup for Guildford and one we should all participate in. The British Science Festival, organised by the British Science Association, will be centred in Guildford, hosted by the University of Surrey, but also at other nearby venues **from 5th to 10th September**. So put this in your diary and stay around for a whole lot of events and talks for all ages and interests.

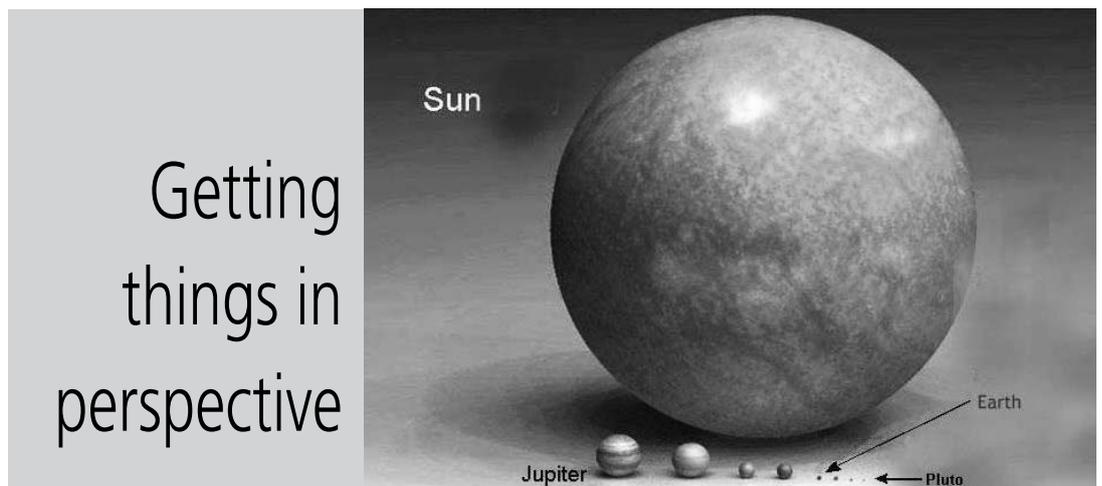
It has been running since the 19th century and is Europe's largest, longest established and most media-worthy science event. Average attendance over the last three years has been 88,000, with millions more involved through the media coverage.

The theme this year is Creativity, Innovation and Evolution. I will not even attempt to summarise the range of events that will be taking place, it is so vast. The programme of events aimed specifically at children in key stage 1 to key stage 5 (age 8 to 19) is already published (www.britishsiencefestival.org) and the full programme will be out by the time you read this newsletter.

The Forum has entered two events. One is a tour of local renewable energy installations including the mini-hydro at Guildford Mill, the 5kW solar PV system at Sandfield School, the camping barn at Puttenham and the Bricks and Bread Sustainable Living Centre recently established by Trudy Thompson. The second event will be an outdoor showing of the film *The Age of Stupid* powered by the mobile solar generator built by Craig Hills with some financial help from the Forum. (The generator had its first public outing at Compost Heaven on 9th May, where it attracted a lot of attention – see page 5). We are also helping as best we can to ensure there is a full transport plan in place to cope with the influx of visitors, and we have suggested that a precedent is set by attempting to measure the carbon footprint of the Festival.

Finally, the Festival is looking for volunteers and some paid positions to help in the press office, with the children's events and other roles. Please access the website and note that the deadline to sign up in this capacity is 15th July.

John Bannister



Getting things in perspective



Guildford Environmental Forum aims to improve the environment in and around Guildford for wildlife and for people and to build a sustainable future. Forum membership costs only £5 per year or £7 for a couple, and new members are warmly welcomed. Please contact John Bannister on 01483 570468 or e-mail johnw.bannister@virgin.net



CALENDAR

All the Forum's Group meetings are open to the public



Monday 15 June

GEF Waste and Pollution Group.

Sarah Ottaway, Acting Waste Minimisation Manager, Surrey Waste Management, SITA UK:
"Education and Communication to Surrey Residents About the 3 Rs of Waste Minimisation".
1900. Committee Room 1, GBC Millmead Offices.

Monday 13 July

GEF Grow Your Own Food Group in conjunction with Transition Town Guildford.
Dr Howard Lee, Lecturer and Sustainability Champion, Hadlow College:
"Grow Your Own or Starve! The Potential for Grower Groups".
1900. Committee Room 1, GBC Millmead Offices. (Liquid refreshments from 1830)

Wednesday 15 July

GEF Biodiversity Group.

Jodie Mills, People and Wildlife Manager, Surrey Wildlife Trust: **"The Surrey Greenspace Project"**.
Jodie will focus on sites relating to the Guildford communities of Westborough, Bellfields,
Slyfield and Park Barn.
1900. Council Chamber, GBC Millmead Offices. (Liquid refreshments from 1845)

Saturday 5 – Thursday 10 September British Science Festival.

Hosted by the University of Surrey at various Guildford venues.
See www.britisheciencefestival.org for the programme of events.

Thursday 17 September

GEF Sustainable Energy Group in conjunction with Guildford Geographical Association.
Chris Skrebowski, Consulting Editor of *Petroleum Review* and Peak Oil consultant:
"Peak Oil Supplies – Threat or Opportunity?".
1830. Auditorium, Royal Grammar School.

Wednesday 23 September

GEF Biodiversity Group.

James Adler, Grazing Manager, Surrey Wildlife Trust: **"Grazing for Wildlife in Surrey"**.
1900. Council Chamber, GBC Millmead Offices. (Liquid refreshments from 1845)

GUILDFORD ENVIRONMENTAL FORUM

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(John Bannister pro tem)

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The views expressed in this newsletter are strictly those of its contributors and Guildford Environmental Forum.**