



GUILDFORD ENVIRONMENTAL FORUM

newsletter

[www.gefweb.org.uk](http://www.gefweb.org.uk)

SEPTEMBER – NOVEMBER 2013

## Rosamund Fruit and Vegetable Garden

*Text by John Bannister, photos by Kate Millington*

WHO IS ROSAMUND? I never met her but she was by all accounts a wonderful woman. She lived and raised two children in a fine house at the top of Longdown Road with commanding views southwards over The Chantries and beyond. To protect a piece of chalk downland from development she purchased 19 acres, which had a history of growing wheat and, more recently, being cut for hay. She has now sadly died and she bequeathed the land to her children, who are working with Surrey Wildlife Trust (SWT) and Transition Guildford (TG) to secure it in the best interests of wildlife. It is a fantastic opportunity for SWT and TG to nurture what everybody agrees is a peaceful and special place.

At the south end of the site there existed a small, neglected polytunnel but little else. But, by what seems a miracle, Transition Guildford was given the opportunity to create a small market garden of about 1 acre in the area beside the polytunnel, and a steady transformation is now taking place.

We named the site after Rosamund in her memory.

### **Come and see**

If you come to our Open Day on Saturday 28th September you will see the rows of vegetables and salads interspersed with bee-loving flowers that have been created so far by a few dedicated

volunteers. It is dedicated work because creating a garden that is in tune with nature, and not artificially forcing things just to get the maximum return in the shortest possible time, takes years. Using no-dig methods and slow natural enrichment, further plots are being prepared and the growing area is slowly expanding.

Two years ago the GEF Food Group was moribund with no direction. It has now been reformed and energised by a merger with Transition Guildford's food group and a great many good things have happened.

Not least, we have planted Guildford's first community orchard. Fifteen apple, plum and pear trees went into Racks Close, and fifteen into the Rosamund Community Garden.

I am happy to report that the vandalised trees in Racks Close are showing good signs of recovery, but we aren't be too optimistic.

### **Join in**

The Rosamund Garden is a community garden and the half-dozen volunteers who have done so well to date would like to see more people get involved. A pleasant way to reach the site is to walk across the top of Pewley Down, then along the ridge through the shaded tunnel of Burgess Way, which brings you to the houses on your right and our entrance is the last farm gate on your left before emerging



onto Longdown Road. Warren Road and One Tree Hill Road are reasonably easy to cycle up, favoured by some. There is some roadside car parking.

We need a mixture of skills – green fingers are a good start but also strong arms to turn compost, put up small structures, repair gates and move loaded wheelbarrows. We want to install simple rainwater harvesting systems. Also, knowledge of beekeeping would be valuable as we have three hives. There is always plenty to do.

Grass cutting is not that demanding because we hold two scything courses a year at the garden and trainees make short work of the mowing. In the process we generate quite a bit of hay, which is stacked and left to rot, creating good habitat for



grass snakes, of which we have a few, as well as some slow worms.

Because ponds support a lot of wildlife, on 29th October there will be a pond-making course at the garden run by SWT (see the calendar). Like every activity at our Rosamund Garden it is sure to be a happy and creative experience, as well as a skill that you can take away and replicate yourself, as the smallest pond can still teem with life.

**We meet regularly at the garden on Friday mornings so that's always a good time to get to see what's happening. Please contact John on 01483 570468 if you want to join this amazing project.**

# Guildford Walkfest

*Text and photos by Raymond Smith*

On a blisteringly hot Sunday in July, Guildford Environmental Forum held its first ever walk as part of the Guildford Walkfest. Given the weather we were pleased to get eleven people turning up (including the three organisers), although only four of us made it all the way round.

Our tour of some of the Green Gems started with the difficult bit, climbing up to the top of Pewley Down, from the riverside. There we were treated to the

sight of pyramidal orchids, and amongst other things a marbled white butterfly (not that uncommon maybe, but a first for me). The view wasn't bad either...

After a well-earned rest at the Rosamund Community Garden at Longdown, we headed down the old track of Cross Lanes, then across Stoke Park and back along the river – no signs of any otters but quite a few male Beautiful Demoiselle damselflies, and a steam launch leaving Dapdune Wharf.

### Cargo bikes

Opened in the spring, the London Green Cycles shop is the country's first dedicated cargo bike store. The long bicycles are fitted with large boxes or platforms on the front, offering a clean, green and cheap alternative to the traditional means of transporting goods or, as is often the case, children. The London boroughs of Hackney, Brentford, Croydon and Lambeth are all encouraging businesses to trial them, following the example set by Copenhagen and other European cities.

*(Source: Independent, 24 July '13)*

## FACTS & FIGURES

### Sea turtles

In the past two decades, literally millions of sea turtles have drowned in fishing nets or died after swallowing fish hooks. What chance for loggerhead turtles then when females don't start to lay eggs until they are 45 years old?

*(Source: BBC Wildlife, June '12)*

### In Surrey we throw away...

- ...every summer enough cake to cover a 5-mile bike ride
- ...every week enough strawberries to cover a tennis court
- ...every two days shed-loads of bananas

*(Source: Surrey Matters, Spring '13)*

### If the ash goes

No fewer than 29 invertebrate species rely on ash trees for their survival.

*(Source: BBC Wildlife, Jan '13)*



# Guildford



# Walkfest



MY YOUNGEST GRANDDAUGHTER had a school project to write about an endangered species. From my concerned view of the world's wildlife I suggested various animals, but she insisted on the snow leopard, it being, I suppose, more cuddly than a toad or a stag beetle. It was an inspired choice. Snow leopards illustrate very starkly the interconnectedness of the world's top predator (us) and all other animals.

These leopards live at high altitude in central Asia on grasslands supporting antelopes, wild asses, the Przewalski horse and other grazers, and in turn their predators. But in competition with the wild, native grass feeders are increasing numbers of goats, in Mongolia alone up from 5 million in 1990 to 14 million in 2010, tended by herders for the cashmere wool trade. Snow leopards and other creatures unique to the "roof of the world" have become "fashion victims". Clearly all kinds of labelling is needed, such as "Buy this item and help drive snow leopards to extinction".

Here in Guildford GBC is fixated with growth in retail trade to sustain a flawed economy, and doesn't want to think about the consequences of ever more consumption – and preferably in their view high-end consumption. Our homo-centric thinking knows no bounds. As a species we are totally self-obsessed. The talk here is all about the need for new infrastructure to drive – literally, as it is mostly about new roads – our GDP, without any understanding of the vital infrastructure provided by nature underpinning everything we do. To its credit, but late in the day, the government has created the Natural Capital Committee, which is charged with putting an economic value on nature's ecological services. We watch this with interest to see how business will work it to their advantage and whether government accepts its own experts' advice, which it rarely does. See [www.defra.gov.uk/naturalcapitalcommittee](http://www.defra.gov.uk/naturalcapitalcommittee).

Since the explosion in human numbers from 1 billion in 1800 to 7 billion today virtually every creature on earth has become man's victim, many gone forever, having passed into history. Now, for the first time in the UK a collective assessment has been made by 25 UK environmental charities across all biota to review the "State of Nature". I encourage you to read their report at [www.rspb.org.uk/stateofnature](http://www.rspb.org.uk/stateofnature). It shows how UK wildlife is faring across the board, using the best available evidence, and only the best. Here are some of the conclusions:

1. Sixty per cent of the 3148 species assessed have declined over the last 50 years and 31% have declined strongly. (Prior to this of course there were also declines linked particularly to the surge in the widespread use of chemicals since the war.)
2. Conservation priority species have declined by 71% in the last 40 years, with little sign of recovery.
3. There is a lack of knowledge on the trends of most UK species. As a result there are quantitative trends for only 5% of the 59,000 or so terrestrial and freshwater species, and for very few of the 8,500 marine species. (We are flying blind into this crisis).
4. There are many threats to our wildlife, the most severe

acting to either destroy habitat or degrade the quality value of what remains.

The words in brackets are mine.

Yes, it has to be said, that where dedicated individuals and conservation groups have fought against the odds some



good UK news stories are there to celebrate – the otter, bittern, peregrine, cirl bunting, small blue and quite a few others – brought back from the brink. But it is always a battle fought by the concerned few, backed by millions of supporters of wildlife NGOs and volunteers, against the global, rich world's model of economic growth and our own thoughtless greed.



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**A case history – the sperm whale**

You may have heard Philip Hoare's Radio 4 talks on his very moving love affair with the sea and the creatures living there. He ranks with the very best nature writers. His book *Leviathan* sits alongside *Moby Dick* on the fate of the whale. Hoare's book, which I urge you to read, points out that it was a young English doctor turned naturalist, Thomas Beale, who in the early 1830s sailed 50,000 miles



on whaling ships studying the behaviour and natural history of whales in a way that nobody before him had thought it necessary to do. Melville incorporated chunks of Beale's findings wholesale into *Moby Dick*. Beale won the silver medal from the Eclectic Society of London for his scientific paper *The Natural History of Sperm Whales* and laid the foundations for an appreciation of their intrinsic wonder and beauty.

Sperm whales have the biggest brain of any creature, they are also the most ancient at 23 million years on this planet, and have developed a complex social structure like ours. Calves are nursed for two years and when a mother dives she leaves her calf in the care of other 'grown ups', a cetacean crèche. Sperm whales will put their lives at risk to rescue a wounded whale. Unlike us, their reproductive rate is very low, in harmony with their element.

They were relatively easy prey. From the early 1700s in Nantucket and New Bedford, with a man (usually a slave) hurling an iron harpoon from the prow of a small rowing boat, to the fleets of whale factory ships in the 19th and 20th centuries whales were there for killing, to be gunned down, decimated and harvested for oil to light lamps and lubricate machines, for corset stays, candles, soap, margarine, meat, shoes, cosmetics, fertilizer. Pregnant females were the hardest to kill, sometimes taking hours of repeated harpoon blows before they died. The Cape Cod fleets were mostly in the control of powerful Quaker families. Whales were beaten into silver, the only precious metal acceptable to a Quaker. It was a Norwegian, Sven

Foyn, inventor of the grenade harpoon that exploded a bomb inside the whale, who in 1868 wrote in his diary "I thank thee O Lord. Thou alone has done all". Whaling was "a tribute to man's ingenuity and God's grace".

The estimated total of 360,000 sperm whales alive today is barely a quarter of their former population. Not as bad as the slaughter of the American buffalo, with 60 million shot for fun to extinction. Today it is our way of life that is eliminating wildlife and we are barely aware of what we are doing.

Today the International Whaling Commission has proved pathetic, and whaling, on spurious scientific research grounds, goes on. Furthermore, whales are persecuted by noise from oil companies searching for gas and oil offshore, from nuclear submarines on exercise, from collision with freighters, by entanglement with or ingestion of some of the millions of tonnes of our plastic waste floating in the oceans, by chemical pollution, with a cocktail of our chemicals accumulated in their fat, which gets passed on to their first born, just as it does to ours. Whales in the St Lawrence seaway have accumulated so many pollutants that one in four die from cancer. By the 1960s cetaceans were being enlisted into the US military for underwater duty and by the same year the blue whale was commercially extinct. Dolphins served in Vietnam and the Gulf Wars. Britain's record is as bad as the worst, with its many whaling ports of London, Liverpool, Bristol, Hull, and Dundee which was our last. Humans, sugar and whales were the foundations of our Empire.

## Such is the state of nature and our role in its demise.

### GUILDFORD PV PROJECT

Lionel Smith

Guildford Borough Council have now completed the solar PV project where 83 kilowatts of solar photovoltaic panels, which generate electricity, are now on six of our public buildings. These are: three sheltered housing sites, the Spectrum, Farnham Road multi-storey car park and Millmead House.

These panels are anticipated to produce 67,305 kWh of electricity a year, enough to power 20 average houses. This will provide an annual income of **£9,324.55** adjusted by the consumer price index for the next 20

years through the government's Feed in Tariff scheme. We also expect to save a further **£6,882.21** a year at current prices in electricity we do not have to buy.

All but one of the sites chosen have south-facing roofs to maximise production and we will use all the energy generated on site. We commissioned the first installation on July 31 2012 and the last was completed on 29 April 2013. By 3 June 2013 we had already saved **£2,626.39**. Payback will be within ten years and we will save 36.4 tonnes of CO<sub>2</sub> emissions annually.

### Greenest government ever?

In 2012, the UK's carbon dioxide emissions jumped by more than any other country in Europe. The rise was 18m tonnes, or 3.9%, as manufacturing increased, households turned up the heating and energy generators largely switched from gas to coal.

(Source: *i*, 30 May '13)

## FACTS & FIGURES

### DIY for bees

When honeybee colonies are infected with a parasite fungus that attacks their larvae, the worker bees self-medicate. They forage for antifungal resins produced by poplars and other trees, mixing them with the wax they use to build their nests.

(Source: *BBC Wildlife*, July '12)

### Pushed for space

"In the last 200 years the population of our planet has grown exponentially, at a rate of 1.9% per year. If it continued at this rate, with the population doubling every 40 years, by 2600 we would all be standing shoulder to shoulder.

(*Stephen Hawking*)

### No, we won't

In the last nine years, EU fisheries ministers have ignored scientific advice in 87% of their decisions. The Common Fisheries Policy is currently under review, which could constitute a last chance to get it right.

(Source: *BBC Wildlife*, Jan '13)

# LOCAL PLAN CONSULTATION

**THINK LOCAL PLANS are boring? Think planning documents are just for geeks? Well, as you will have guessed, I think you would be wrong. If you are faced with a planning application in ten years time that you do not like, it is a bit late then to complain if the policies that would permit it have already been in place for a decade, and you ignored them when they were proposed.**

Guildford Borough Council (GBC) have recently made available a clutch of documents on their website at: <http://www.guildford.gov.uk/evidencebase> This is an "evidence base" ready for a full public consultation in the autumn, but the controversy has already started, and focuses on the erosion of the Green Belt.

The last local plan was completed in 2003. Since then we have had many years of consultation on the "local development framework". After the 2010 General Election it has been back to the drawing board, and they are now being called "local plans" again. This plan will be drawn up under the new "slimmed down" planning regime of the National Planning Policy Framework (NPPF).

Fundamental to the introduction of the NPPF were assurances that the Green Belt would be protected, but in practice the NPPF also requires a review of the boundaries of the Green Belt to see whether it fulfils its declared objective. Partly in the light of this GBC have commissioned a study "to review land within Guildford Borough to determine appropriate Potential Development Areas (PDAs) for future housing and other growth requirements, if suitable land cannot be identified within built-up areas." It argues that "limited alterations of the Green Belt boundary" could be made at some locations and in a nice piece of newspeak, that this would "support the role of the Green Belt".

This would mean in practice taking them out of the Green Belt at some point in the future. Another policy of the NPPF is that councils should "where necessary, identify in their plans areas of 'safeguarded land' between the urban area and the Green Belt, in order to meet longer-term development needs stretching well beyond the plan period".

However in the case, for example, of the downland between Pewley and Merrow, that is already raising deep concerns, the Green Belt and the urban area adjoin each other so there is no land to be "safeguarded" for future development. Instead the Green Belt boundary review process is being used to suggest the removal of land from the Green Belt to create such future development space. So, is the national policy being misused to justify taking land out of the Green Belt?

But where can the new housing be built? Well, part of the answer is to accept that this is not a local problem, it is the result of national-scale issues. Prosperity seems to be increasingly concentrated in the south east. A large part of the answer is to spread prosperity more evenly across the country, then we would not have such a housing demand problem here. (That means things like encouraging the off-shore wind turbine industry in Hull, rather than blighting Cheshire with fracking.)

Studies that cover other policy areas have been produced. The Infrastructure baseline seeks to identify current problems (such as the obvious road congestion) and also potential future problems (like insufficient school places) within infrastructure provision. The most recent is an Employment Land Assessment, but there have also been Settlement Hierarchy and Settlement Profiles, which categorise the various villages and communities across the Borough.

**IN THE CASE OF YOUR OWN BACK YARD, NOW IS NOT TOO SOON TO FIND OUT WHAT IS BEING PROPOSED.**

*Text and photos by Raymond Smith*



**A suitable place for building? One of the Potential Development Areas identified in the document as part of the evidence base for the forthcoming local plan consultation. This means that it would be a possible area for house building in the next review of the local plan (in about ten years time). GBC's consultants say that it is "located on steeply rising topography within the Surrey Hills AONB. Consequently, any significant form of development would be considered 'major development' and would need to demonstrate an 'exceptional circumstance', such as no other suitable sites being available outside the AONB designation".**

**But they also say it "exhibits strong 'inward' visual links to the wider urban context of Guildford town to the north", with the implication that development would have a limited visual impact. The distant horizon visible somewhere in north west Surrey, or Berkshire suggests that the "steeply rising topography" is more significant than they imply.**



**One of the hedgerows that stretch across the site. This one adjoins a track that is at least two centuries old.**



**This is a horse in one of the Potential Development Areas. It is not to be confused with a Trojan Horse....**

### Forest clearance

Every three seconds, according to a report by the World Bank, one hectare of forest is illegally felled. (Source: *BBC Wildlife*, June '12)

### Safe travel – 1

In April 2012, an 11-mile superhighway opened in Copenhagen that allows long-distance commuters to cycle to the city without competing for space with cars. Another 25 similar routes have been agreed. The £950,000 cost of the project was borne by the body responsible for public health and public hospitals.

Across much of mainland Europe the car-speed limit in cities is now 30kmph (18.5mph), in recognition of the fact that a child can't be taught to judge the speed of a moving car well enough to know when it's safe to cross (Source: *New Statesman*, 19-25 July '13)

### Safe travel – 2

Paris has banned HGVs from the city between the hours of 8am and 8pm. There were no cycling deaths in Paris last year. (Source: *New Statesman*, 9-15 Aug '13)

## FACTS & FIGURES

### E-waste

Between now and 2020, e-waste (phones, computers, etc) will amount to 12 million tonnes in the UK. Within that amount will be precious metals worth an estimated £7 billion. (Source: *Independent*, 1 June '13)

# Feeding the cattle at Lydling Farm

Angus Stovold



**AS MANY OF YOU KNOW**, Lydling Farm in Shackleford is mainly a livestock farm on grade 3 sandy loam soil. We produce almost all our own food for our extensive herd of Aberdeen Angus and we do this without artificial fertiliser (only using our own farmyard dung) and without spraying any chemicals.

To do this we need white-clover-rich fields to fix nitrogen and so we don't spray or we would lose the clover; however, the weed burden can be a problem so we top (cut) the swath at least twice in the season.

With wet summers the land is at its best, growing throughout the season. But dry summers can be a problem as the grass and clover burn up on this soil, so then we rent extra grazing along the water meadows by the river Wey (most of the grazing is in Higher Level Stewardship) as insurance.

We can keep the cattle outside on this land all year round, but by November and till April we will not have sufficient growth in the grass and clover to feed the herd. This is when we need the fodder we have produced and stored during the summer months. Winter fodder is an age-old problem for farmers, with a host of "new" ideas every year to solve it!

Of the fodder types listed below, our preferred option is Lucerne (see next page).

### Grass silage

The main fodder is grass silage either put into clamps or into the black round or square bales you see

everywhere (due mainly to nitrate vulnerable zone ((NVZ)) and farmers not using clamps because they are not approved). In a good year and with heavy artificial fertilizer application you could get three cuts off one field. The quality reduces with every cut and the protein remains around the 12% mark, so farmers will have to buy protein in to balance the cattle ration – cattle need 16% average protein, with milking cows requiring more. If you dry the grass you get hay but the food value is half that of silage.

### Whole crop

We could use whole crop which is wheat, barley, oats or peas, cut and silaged when green. It's an expensive crop but good food value, especially peas because they have high protein levels. You will only get one cut per year.

### Fodder beet

Quite a number of farmers use fodder beet, or other similar plants and strip graze it in winter, but it can make quite a mess, with run-off problems.

### Maize

Maize is extensively used. It's a wonderful food but is expensive to grow and will need added protein as it's only around 10%.

### Red clover

We grow Red clover, which needs no inputs, has 18% protein and gives us two cuts a year, and we graze it.

### Lucerne

For the last four years we have been growing Lucerne (alfalfa, a legume plant) which is a most wonderful crop; in fact we have put down a further 50 acres of it and now several other local farmers are growing it as well. It's not new – my grandfather grew it and I grew it 15 years ago, but back then it never developed mainly due to my ignorance into the plant's needs!

So why is it so good? Well, as long as you get the PH levels up around 6.5 to 7 once the crop is sown in the spring, you can take two crops in the first year and then three or four every year for five years with no inputs! The silage or hay gives you consistently 22% protein, with a complete diet except for some basic minerals.

You do have to be very disciplined with the crop, cutting it every four to six weeks and letting it flower once in the season. Ours is purely for fodder, so there is absolutely no grazing. Remarkably, it does very well

both in drought (it has very deep roots) and in wet conditions like last year when it out-performed all our other crops. You leave it short during the winter. By the spring the field is bare, but as the earth warms up the change is astounding and you can almost see the plants grow.

I have been told by my local bee man that the honey from the Lucerne is exceptional, although I haven't tried it. I've not had any experience of disease or pest on the crop, but I believe aphids could be a problem although I would always rely on natural predators rather than spray. It's interesting to walk through the crop and see the huge numbers of insects thriving amongst the plants.

When you finally come to plough in the crop you're left with a clean fertile soil. The one other fact worth mentioning is that the cattle will eat it before anything else. So it must be good!

## What is Environmental History?

Text and photos by Raymond Smith

**There have been several academic publications that address the meaning of environmental history but I am not intending to address that debate. Rather I am starting with a short outline of environmental history that I have given elsewhere.**

**AT TIMES environmental history may seem to be little more than the history of environmentalism. Whilst this is an important part of the subject, it is not the whole story. An extension of this approach is the history of environmental problems, such as water pollution, both in terms of the physical conditions and the policies that were adopted.**

**Equally it can be the use of historical data to address what are currently defined as environmental problems. The history of climate change, the effects of air pollution and land contamination are clear examples.**

**It also embraces the history of past environments which can include climate history, and also elements that can be seen as ecological history, or as landscape history.**

**Above all however, it is the overarching history of the interaction of humanity and the rest of the natural world. This includes the exploitation of resources, the physical constraints placed on that process and the assumptions and attitudes that people have held towards the rest of the world while exploiting it.**

### Modulations in the cycles

From a different viewpoint, environmental history can be seen as the study of humanity's interventions in the processes of the earth.

We are all familiar to some extent with the water, carbon and nitrogen cycles, they are a series of (interconnected) processes that are all driven by solar power. Environmental history can be seen as a small part of these processes, and it is about humanity inducing changes in a part of the process. These changes then have effects, that can be seen as modulations, that reverberate throughout the cycle.

Or to take a slightly different view, humanity's activity can be seen as land, nutrients and other materials, being embodied by energy into usable forms, usually but not always via biological processes. Then in a little more detail it can be seen as material flows, for example from the land to communities and especially to towns, but also as flows of people. A long established example of this has been towns not replacing their populations – i.e. their death rates exceeding their birthrates, and then being supplied with the extra people from rural areas. But just as much it can also be about the flows of people between areas; regions or countries.

These are dynamic flow processes. The historical process is the maintenance or re-organisation of these flows over time, with in practice usually increasing quantities, essentially due to changing technology.

Then is the question of the attitudes to Nature etc. that are exhibited in this process. These may be explicit or implicit – they are the assumptions that must have been made to do what was done, even if those assumptions are never expressed. Environmentalism can be set in this process as a response to pressure on resources, but also to the reduction of the "threat" of "nature" that comes from an increase in overall control of our environment by humankind.

So environmental history is about an integrated approach to the past, in tracking these changes over time. But in practice we still need to divide up the past to study it. Here it faces the same problems as any other approach to history. Is it divided by period, location, topic or process? One approach could be to emphasise the dominant process at any period. The use of production statistics would be important here.

## So what might an environmental history of Guildford might look like?

I am not trying to provide an environmental history of the district, but to outline the framework and identify some of the questions that would need to be addressed. Much of the research needed to create an environmental history has already been done, but it would be a matter of drawing this together, to form an integrated narrative and analysis.

As with any history, environmental history is about change and continuity: what is different, and what stays the same over time. It is also about typicality and distinctiveness – the extent to which a place is like other areas or is different from them. These aspects can be combined as the question: does it follow the usual pattern of change?

As was said earlier we are essentially studying a resource flow process, from the soil and earth and the sun to food and materials. But there are variables coming into the process, from within the system and from outside it. The most obvious is the weather, and the longer term climate. The weather is there all the time, not just there when it is being unusual, though it is likely to be extreme events that are recorded, and typical weather has tended to be overlooked in the writing of history in the past – just taken for granted.

Then there are the fundamentals of the geology, topography and soil, of the area. One could use current information on temperatures, as topography should not have changed much, to see relative conditions in parts of localities in the past. But these could be influenced by land use change, for example deforestation, or afforestation, or creation of water bodies and most obviously by the construction of buildings or roads.

At the human level the local social structure is important and to what extent it was imposed from outside. Examples are the imposition of the “Norman Yoke”, the more centralised authoritarian approach to feudalism; the decline of wealthy families and their replacement; and especially the buying of estates with money from elsewhere.

If we start with the topography of Guildford, the key aspect is that it is in a river gap in a hill ridge, that is well drained. This means that two trade and communication routes intersect there and it is an obvious place to start a major settlement, of greater importance than simply a



The crossing point on the Wey. Making the river navigable would have changed the trade, communication and land use patterns.

market centre a convenient day's return walk from the furthest part of its hinterland. But the form of the hills

is in itself significant. Guildford is set within the gap, but this can be contrasted with Dorking, at the next gap in the chalk ridge, which is set to the south of the gap – for the very practical reason that Box Hill is too steep to walk up. The relative importance of them is also different, as Guildford is on a more significant radial route from London.

Starting from the period around the Domesday Book (1086), we can see it was established as a large settlement. In Surrey only Southwark was of a comparable size. No agricultural land was listed with the town, so one might assume that was within the adjoining manors. One established estimate for the population is about 750 people.



The figure above shows the geographical distribution of ploughlands in the manors adjoining Guildford in the Domesday Book, although it would have represented a distribution dating from the Saxon period. The size of a ploughland is approximate and there have been academic debates as to its meaning, but it can be used to compare the relative size of holdings in a particular locality. Stoke manor is large, and more land was ploughed to the north of the river gap compared to the south, where manors were generally smaller. There are empty areas on the map east and west of the town as there were no ploughlands (or settlements) on the Downs, though Stoke being large may have extended into the area south of Worplesdon north of the Downs.

Although how much land was in the direct control of the landowner is often recorded, other land management institutions were not recorded. Whilst much of the land would have been in open fields, whether this was managed in common is not given. Littleton is an example at one end of the size range with just 1 villager and 1 cottager, which would have had a very different management system from Stoke with 24 villagers, 10 smallholders and 5 slaves (serfs).

So that is a snapshot of the productive base, but what were the changes that were taking place? What records are there of these changes?

Climate variations can be deduced from a wider area, as generalised information, limited though that generally is in terms of documentation. But more local data may be recovered from dendrochronology (dating timber by tree ring analysis), or even from palynology (the study of buried pollen remains). The focus of dendrochronology has been on the dating of buildings, but its data can be used the other way round to assess weather and climate.

As to evidence of the changes in production, after the Domesday Book there are assorted taxes, and also other trade statistics through the Middle Ages that could be

called upon. It is, however, also possible to see physical manifestations of the changes in wealth, evidenced in buildings, for example churches – either new building or the lack of new building. There might be unusual local records.

Changes in communication routes are always important. These can be about market connections, whether distant or local, especially with a greater focus on London. The shift from the main street being the north-south Quarry Street from the Saxon era, to the Middle Ages when the burgrave plots were laid out along the east-west High Street may indicate a change in the relative importance of the the two routes, or a change in the route to London. One illustration of changing through routes was the pilgrim trade to Canterbury and its loss from the Reformation. Later there is the effect of the construction of the Navigation of the Wey – different trading methods are obvious, but there may also have been changing land drainage. By this time more map-based evidence is available, and this is of increasing accuracy as time goes on – though the county maps of the 16th to early 18th centuries could be very derivative, mistakes could be copied from one map maker to the next.

Population changes are important – these can be due to disease, famine, or the drift of migration. Migration could be from the pull of towns, or push of rejection by landowners or other taxpayers wanting to remove the poor from their communities. At times there would have been movement of urban wealthy into the wider hinterland. One would assume the usual impacts of population reduction following the Black Death in the 14th century, and the shift nationally to sheep farming, with increasing cloth production. The town therefore became even more a part of a wider resource distribution network, including bringing in locally produced cloth from outlying villages. The district did develop a significant cloth industry but not on the East Anglian scale.

But the most fundamental record is the land. This is not just about using maps of past, but also what it still records. For example the layout of boundaries and roads or tracks and the distribution of common land. There are known changes in land use, for example the royal prerogative of forest being claimed over the area, which was essentially asserting the right to hunt “game” over anyone’s land – nothing to do with tree planting.

The Dissolution of the Monasteries in the Reformation removed the wider level of land management, and introduced scope for short-termist asset stripping, or opportunities for more innovative entrepreneurs.

About two centuries on, there is the question of Enclosure, which in this county seems to have been on a more ad hoc basis, rather than by legislation. Nationally there are arguments about how the “poor” were treated in this. One should not start by assuming either that they were dispossessed nor that they were given a fair share, but should ask how it actually happened locally, indeed try to see whether you could apply both analyses to the evidence, and ask whether it varied from case to



**Guildford Environmental Forum aims to improve the environment in and around Guildford for wildlife and for people and to build a sustainable future.**

Join us in our work for the town and have this newsletter posted to your door four times a year. Forum membership costs only £10 per year or £15 for a couple, and new members are warmly welcomed.

Please contact Adrian Thompson on 01483 222687 or e-mail [adrianthompson46@talktalk.net](mailto:adrianthompson46@talktalk.net)

case. Certainly it would have had a radical change on the cropping, and appearance of the landscape. It would have been seen as increasing “efficiency”, but what is efficiency? Is it measured in terms of profit per land unit, profit per annual investment, or in terms of population supported by a land unit?

With these new agricultural methods, there is likely to have been a loss of “common waste”. Intensification from the 18th century can be presumed, and even more so in the period of high farming in the 1860s. But there is also the pressure of population coming out from London, facilitated by the railways. With agricultural collapse from the late 1870s new building became easier, although much of it was also on the “common waste” by enclosure – in other words the destruction of heathland of which we have often heard here. The stages of increasing built areas are of course again observable on maps.

Changing technology may alter production within an area, or shift production elsewhere. Local examples are glass, lost with coal-based heating from the 17th century and iron with coal used for smelting from the 18th century. Other industries lost are gunpowder, banknotes, cars and tanning.



From The Mount looking into the heart of Guildford with the High Street climbing up from the river crossing. The agricultural lands around Stoke reach out to the north.

Beyond this there are the conscious, and assumed attitudes to the land, the world and human existence, reaching from religion to crop planning. These “mentalities” can be seen in terms of how they are shaped by and how they shape the land. Local sources for these can range from diaries and letters, through court records to newspapers. These are very much the records that other approaches to history would use, but in this case they would be filtered for different information.

The changes that are going on nationally, or even internationally, played out within a local framework are the environmental history of a place.

*This is a revised version of part of the presentation made to the Forum on 31st July, 2013.*



# CALENDAR



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

### Sunday 8 September

We will be **apple pressing at NT Winkworth Arboretum's "Live Local Love Winkworth"** family event. Bring your apples and a plastic container to take your juice home. Better still, please come and help on our stall! Contact John Bannister.

### Saturday 28 September

Our joint Food Group with Transition Guildford is holding an **Open Day at our Rosamund Fruit and Vegetable Garden** on the Downs near Longdown Road. This is a beautiful site and huge progress has been made by our members to improve the soil, plant fruit trees, grow vegetables and encourage wildlife. Advice on wildlife gardening, composting, bee keeping, food growing, etc. Open from 1100 to 1600.

### Saturday 5 and Sunday 6 October

We will be **apple pressing at the Surrey Hills Wood Fair, Birtley House, Bramley** – a really good day out with lots of stalls and woodland activities. Bring your apples and a plastic container to take your juice home. Volunteers get free entry, so please come and help on our stall. Contact John Bannister.

### Wednesday 15 to Sunday 20 October

We will be **apple pressing at RHS Wisley's "Taste of Autumn"** event. This is a marathon effort for us, so please come and help on our stall. Volunteers get free entry. Contact John Bannister.

### Monday 21 October

GEF Biodiversity Group. Dr Colin Summerhayes:  
**"Melting Ice – Rising Sea: Antarctic Climate Change and the Environment"**.  
1900. Committee Room 1, GBC Millmead Offices.

### Tuesday 29 October

Come to a **Wildlife Pond Building Course at our Rosamund Garden** on the Downs near Longdown Road. Surrey Wildlife Trust will run the course, creating a 3m x 2m pond to attract even more wildlife to the site. All materials provided, just your energy needed to help the creative process. The course runs from 1000 to 1500. Contact John Bannister, or Frances Halstead at SWT (01483 795440).

### Wednesday 27 November

GEF Biodiversity Group. Stephen Proud, Senior Ranger – Grazing Team, Surrey Wildlife Trust:  
**"The Pirbright Red Deer Project"**. 1900. Committee Room 1, GBC Millmead Offices.

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Guildford Environmental Forum's newsletter is published in March, June, September and December. Please send contributions for the next issue to Clare Windsor by Monday 11 November. The views expressed in this newsletter are strictly those of its contributors and Guildford Environmental Forum.