



CAMBRIDGESHIRE GARDENS TRUST

NEWSLETTER No. 32 MAY 2012

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LETTER FROM THE CHAIR

It was with some trepidation that I returned from my holiday in Australia to discover that I had been elected as your chairman in November. The decision was both a pleasant one and a sad one. I am saddened at the state of John's health that led him to take a year out from his chairman's duties but I am delighted to hold the fort until he is well enough to return. He is currently awaiting heart surgery and hopes to be fit again by the next AGM in November of this year. On behalf of all the membership, we wish John a speedy recovery.

The first six months of this year has been a period of changes and progress. The education programme entered its second year with another successful study day. We had four excellent speakers, enjoyed the comforts of the Hemingford Abbots village hall and catering, and generated around £250 towards our other education programmes. Books kindly donated by Barcham Trees were raffled off at the lunch break and assisted in fund-raising for our outreach activities. More details are in an article in this edition.

The first visit of the year took us out to Titchmarsh House near Thrapston with a most splendid turnout of around 30 members. The weather was kind and although it rained before and after the visit we managed to enjoy a dry afternoon in a delightful garden accompanied by a delicious tea.

We have been busy on the publications front. The Gazetteer has been updated over the winter months and republished with a great new photo on the front cover. Copies are available to purchase from the address on the back of the newsletter. Liz Lake Associates kindly sponsored the publication of a pocket guide to tree identification called 'Trees for Dummies' which was given out at the study day. If you would like one please send a stamped, self addressed envelope to the address on the back of the newsletter.

We have launched a new research project which we hope will result in our next publication on the trees in Cambridgeshire. David Brown has kindly agreed to champion the project which will greatly benefit from his extensive arboricultural experience and in-depth local knowledge. We have two volunteer helpers at the moment but would welcome anyone who has the time to help with

research, collation or simple administration – as it all needs to be done! In this edition of the newsletter we are including a sample form for you to fill in at home and return to us. We hope this will start to give us an idea of the types of trees that are being grown in Cambridgeshire today. We want to gather much more information as the project progresses so do watch this space.



One of the changes that is occurring is that the Garden History Society, the only charitable body with statutory authority to evaluate planning applications affecting registered gardens in England, has had its funding greatly reduced and will no longer be able to support regional officers. The Garden History Society has asked the County Gardens Trusts to take up the mantle of responding to planning applications that affect all important landscapes, except Grade 1 which it will continue to monitor and respond to. Mark Wilkinson, our Secretary, continues to be the point of contact within our Trust who deals with planning matters in historic landscapes.

Well, after a rather wet April – which ought to be re-charging the reservoirs and aquifers – let's hope for a sunnier May. I am looking forward to our next garden visits and the season of National Garden Scheme open days. Please write to the Trust if there are subjects that we could include in forthcoming newsletters, or places you would like to visit in the future. We are always in need of volunteers to help with research and education activities and any time you can offer, no matter how small, would be warmly welcomed.

Finally, our website is looking a little tired at the moment and if there is anyone out there interested in updating it please do get in touch.

Julia Weaver, Chair

REFLECTING ON BOTANIC GARDENS: EXPLORING CHANGING HUMAN RESPONSES TO PLANTS

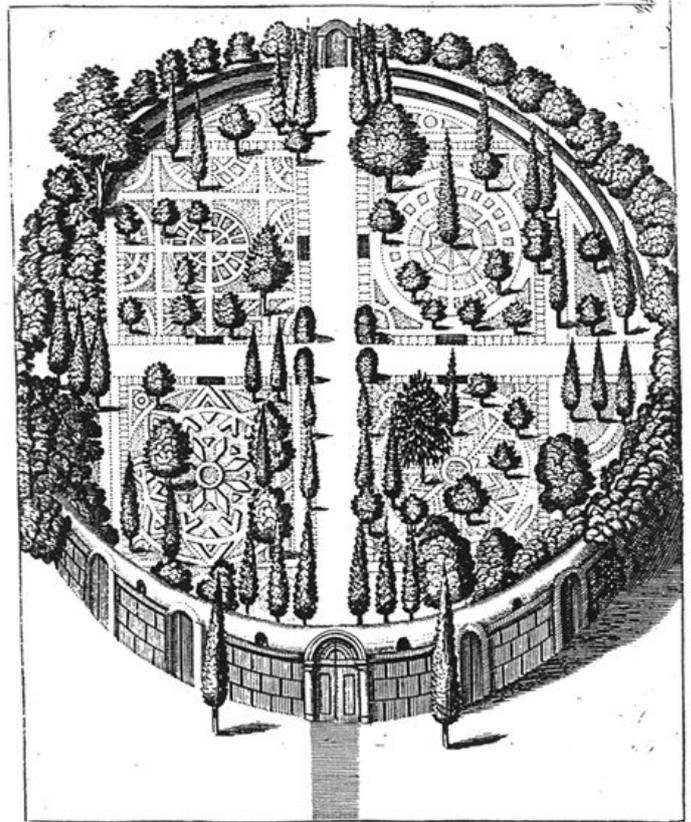
Today our response to gardens is often purely aesthetic. We look for beauty in plants and plantings, in the natural elegance of foliage, flowers and form, in the combination of herbs, shrubs and trees into a coherent and artful design. One strand in our relations with gardens, however, leads us back to the concept of a garden as an enclosed space representing an earthly distillation of heaven. In its Persian origins, a garden was enclosed by a wall, with water, fruit trees and flowers.

This theme can be seen in mediaeval representations of the Virgin and her entourage, where she is often depicted seated in a flower-filled mead in an orchard, surrounded by elegant, often tall, blossoms. The flowers themselves, however, are symbolic of human attributes; white lilies, for example, represent the Virgin in all her purity.

In the Judaeo-Christian tradition, gardens are associated with the nurturing of humans by God – the blissful days in the Garden of Eden before the Fall. In this context, plants have attributes of utility for humans – for food, or as medicine. Collections of samples were maintained in monasteries, and the 8th century plan of St Gall in Switzerland shows beds for herbs in regular, ordered arrays. This form was later adapted in the sixteenth century by the developing universities in the City States of northern Italy. The universities emerged during the Renaissance as centres of new learning, where the knowledge of the ancients could be challenged by direct observation and experimentation. Thus medicine benefited from the study of human cadavers through dissection, and the formal collection and ordering of plants for investigation as possible treatments for human disease.

The first formally designed botanic garden was probably that of the University of Padua in 1545. It consists of an elegant stone-walled circle with a series of small beds. These beds held plants in arrays, each associated with a part of the body. Thus plants appropriate for treating liver diseases would be held together as a collection, facilitating their study and improving their educational use in teaching and the transmission of knowledge. It is this concept of the plant collection as an aid to knowledge acquisition which has dominated botanic garden development ever since.

The influence of the Renaissance spread gradually through Europe and with this diffusion the need for botanic gardens as an aid to medical education became firmly established. Thus the garden at Leiden in the Low Countries, opened in 1587, was the first in northern countries. This garden became the focus of plant cultivation for unknown species with unexplored uses from the colonies opened up by the Dutch across the world from Africa to Asia. Thus the beautiful and exotic Protea species from the Cape were first grown at Leiden. Stimulated by a visit to Leiden, the Earl of Danby decided that his own University at Oxford would benefit from a systematic collection of plants for the advancement of medical studies, and endowed the Botanic Garden in 1621. It still remains a model of a Renaissance physic garden.



VIRIDARIUM GYMNASII PATAVINI MEDICVM.
De Gmz. nulp.

The Botanic Garden of the University of Padua. The circular, walled garden has planting organised by the parts of the body the plants are supposed to benefit.

Image courtesy of Prof. John Parker

European expansion around the globe in the seventeenth and eighteenth centuries, driven by a search for spices and other plant products, led to a flood of unknown species reaching the now numerous botanic gardens. How were these new plants and the new knowledge associated with them to be handled? A scheme devised by the great Swedish naturalist Carl von Linne (Linnaeus in Latin form) enabled unknown species to be ascribed a place in the collections held and displayed. This was known as the Sexual System and was universally adopted because of its practicality. It did not, however, seek to give a framework for understanding the biology of plants. Linnaeus began to address this through a more 'natural' system which clearly reflected the relatedness of plants, grouping them into species, genera and families.

The exotic imports from tropical countries required novel cultivation techniques in the cold of northern Europe. This led to the development of environments under glass, and displays of the floras of other climes – cactus gardens, tropical water lily houses, and so on. But alongside was a practical regard for plants and their utility to humans, expressed in collections of dead material of economic importance. These were displayed for the public in a magnificent purpose-built Economic Museum at the Royal Botanic Gardens Kew, opened in the mid-nineteenth century under the great Director Sir William Jackson Hooker.

Hooker's adviser for the Economic Museum at Kew was his friend, the Professor of Botany at Cambridge University, John Stevens Henslow. Henslow was a polymath, having studied mathematics as an undergraduate, attending lectures on mineralogy and chemistry, and with a fascination for, and compendious knowledge of, natural history. He was appointed Professor of Mineralogy in 1823 at the age of 27 and Professor of Botany two years later. He inherited a rather run-down Botanic Garden in the centre of Cambridge "unsuitable for the needs of modern botany". This reflects a change in his intellectual approach to the study of plants. No longer was the primary focus of plant investigation to be the improvement of human health or economy; plants were to be studied for their own qualities and for the many fascinating phenomena associated with them. This was an experimentally based discipline of study, and to carry it out required a representative collection of plants held in a new style of botanic garden.

The 'new' Botanic Garden at Cambridge represented both a philosophical and a structural departure from the Renaissance tradition. This was to be a collection for the science of plants, not for medicine, and so must represent all aspects of the diversity of the plant kingdom – herbs, shrubs and trees. In order to accommodate trees, the area must be much larger than traditional physic gardens; the 1762 foundation at Cambridge occupied about 5 acres, the land acquired for the new garden of teaching and research was 40 acres (although Henslow himself was able only to exploit half the area due to funding problems).

The design of the new Botanic Garden was also a break with the classical tradition. It followed the new thinking of J. C. Loudon in the style referred to as 'Gardenesque', which now is identified as the essence of the English garden. This has elements of landscape, in imitation of nature, combined with displays emphasising the individual beauty of trees and shrubs, ideally with each specimen separate so that its growth form can be admired. The style also displays the art and skill of horticulturalists by its combination of fine specimens set amongst lawns and well-managed and often sinuous paths. It was a style highly suited to Henslow's scientific approach to botanic gardens, and Loudon himself remarked that the Gardenesque style is "more suitable for... botanists, rather than general admirers of scenery, as it is best calculated for displaying the individual beauty of trees and other plants...". The Botanic Garden is the first major garden designed in this style.

Within the Botanic Garden, the Systematic Beds are a masterpiece of Gardenesque design. Since the origins of botanic gardens, the systematic collections of plants had been held in severe, rectangular beds, with families following one another in a linear fashion. In the Cambridge design, however, the individual beds have curving edges, which differ in design and in size. No bed holds more than one family, although the largest families have several beds devoted to them. The whole array of 150 beds (containing 1,600 species of about 100 families) is organised following a specific taxonomic arrangement of flowering plants – that of the Swiss botanist De Candolle (1819). There is a central oval group of beds of monocotyledonous families surrounded by a hawthorn hedge, around which are four groups of dicotyledonous families each separated by radiating sinuous hedges. The whole area of the Systematic Beds lacks straight lines, so exemplifying the Gardenesque philosophy. Indeed the whole Botanic Garden has only one straight line – the central Main Walk flanked magnificently by coniferous trees alone.

The Botanic Garden is unique in its design, since it reflects Henslow's underlying botanical research programme. From 1821 to 1835, Henslow's main preoccupation was to address through experiment what he saw as the main biological question of his day - the nature of species. He addressed this problem through the study of variation, and argued that the limits of species could be defined on the basis of their distinct patterns of variation in nature. He displayed this idea both in his herbarium collection of dried plants of the British flora, and also laid out tree groups in the Botanic Garden showing his research



Cambridge Botanic Gardens in June

Photo Judith Christie

concerns. So far we have identified nine remaining tree groups which present patterns of variation, sudden changes in form (what he referred to as 'monstrosity') and hybridisation. Inevitably, other displays have been lost with the passage of time and, sadly, none of his original planting notes or plans has survived.

Long-lived gardens bear the imprint of many minds and hands. So the Botanic Garden designed by Henslow has been overlain by many other influences. The advent of the modern evolutionary theory of Charles Darwin (a student of Henslow) had a major effect, particularly through the studies of William Bateson of Trinity College. Bateson was seeking an understanding of heredity as a necessary underpinning for Darwinian theory, and he carried out his fundamental studies on genetic mechanisms in the Botanic Garden. These



Artist's vision of the future for the Botanical Garden of the University of Padua.

Image courtesy of Prof. John Parker

genetic studies, along with the equally new science of ecology, shifted the emphasis of displays and collections within the Botanic Garden: the nineteenth century concentrated on species, diversity and variation, while the twentieth century was more concerned with groups of organisms and their biological interactions.

Across the world the number of botanic gardens is increasing, although not in Britain. What then are the concerns of these modern institutions? What roles do they play in society? Collections, as an aid to scientific research and teaching, still underpin the functions of botanic gardens, but there is more emphasis on the concentration of horticultural skills held in their personnel. This combination has come into prominence due to our increasing concerns about plants and the planet, and the devastating impact of humans on the environment. Botanic gardens are now centres of conservation science and public education, and are at the forefront of international legislation concerning biodiversity and its exploitation.

The University Botanic Garden was created as the first

garden for science by John Henslow. Henslow's own studies, and indeed plantings, influenced his student's thinking and led him to formulate the most influential theory in western thought – evolution through natural selection. The most recent development of the Botanic Garden has been the construction of the Sainsbury Laboratory in the centre of the Garden in close proximity to the Henslow trees. This Laboratory, opened in 2011, will house 120 plant scientists whose concern will be to understand the nature of plant diversity. They will be seeking to unravel the complex molecular mechanisms by which plants develop, addressing the questions concerning the production of variation in nature. Plant development is itself of enormous fundamental concern as an area of relative ignorance, and on our understanding depends our future survival through plants and plant breeding. Henslow's own unique Botanic Garden is a fitting place for this exciting new sphere of plant science to grow.

John Parker

Director, Cambridge University Botanic Garden 1996-2010

A VISIT TO THE GARDENS OF ROBINSON COLLEGE, CAMBRIDGE

12th October 2011

The site of Robinson College and gardens was within Carmefield, one of the West Fields of Cambridge before the St Giles Enclosure Award of 1802. The 1566 Terrier of St John's College states, "This Carmefield (or College-field) is that which lieth next the town, betwixt Longegreene on the East and Bin brook on the West. Bin brook is a drain that runneth from New Close to Grantchester and doth divide the College Field from Little Field". St John's and other colleges owned land within Carmefield through which were two rights of way provided by ancient long balks. The Long Balk became Parallelogram Road, later Grange Road, leading to St John's Grange farm.

women and to provide a conference centre during vacations. After a competition in 1974, the design of Gillespie, Kidd and Coia, a firm of Glasgow architects, was accepted. Their plan involved the least disturbance with the demolition of four houses, but the retention of Thorneycreek in the centre of the plot, mature trees, lawns and the diagonal waterway. The designers drew on traditional sources in placing the main façade to the public street, Grange Road, whilst behind this the college gardens remain calm and private. At this point tradition ends and the generic college image is re-interpreted. The College is more reminiscent of a castle; the corner entrance has a ramp approach and gatehouse with



Map of Robinson College gardens showing the rich legacy of mature trees retained by the college development plan. The *Juglans regia* (Walnut) planted 1897 to commemorate Queen Victoria's Diamond Jubilee is 301 (highlighted centre, by lake).

Garden plan by kind permission of Robinson College.

Today Robinson College owns a rectangular site of some 12.5 acres purchased from St John's College and bounded by Grange Road to the east, Adams Road to the north, Sylvester Road to the west and Herschel Road to the south. Through this plot flows the Bin brook.

The College, together with Corpus Christi College 1352, are the only foundations by Cambridge townsmen. David Robinson, a successful local businessman, gave £20 million to found the first college to be conceived for both men and

portcullis-like screen. Inside, the courts are more like mediaeval streets; long, narrow and somewhat claustrophobic. The whole concrete structure is covered with a non-load bearing 'skin' of hand-made Dorset bricks with some accompanying tile-hanging.

Beyond the massive double wall of the eastern perimeter and the 'courts' is the undisturbed garden area to the west. The College gardens are a fusion of several pre-existing gardens, all subtly linked while retaining their distinctive

character. The west walls of the College are covered with evergreen shrubs and climbers to soften the impact of their brick façade. Crossing an initial lawn and providing access to Thorneycreek is a paved causeway of Indian York stone. This elevated causeway was planned by the Landscape Architect J. S. Bodfan Gruffyd in 1979. In a letter to the Planning Officer he proposed “a wild woodland water garden across the middle of the site with a flood pond to buffer rising water levels and the connecting causeway – a park and informal woodland area with overtones of more sophisticated gardening beyond.” Here is a haven for wildlife with nesting jays, wrens, kingfishers together with water voles, evidence of otters and even a badger’s sett. Beyond is Thorneycreek, built in 1895 for Mr Parker, Manager of St Martin’s Bank. Its wide lawn runs down to the lake and is framed by many stately trees from the original planting and a walnut tree

governments and Leader of the City Council respectively, has an herbaceous border, espalier fruit trees and a mulberry. In addition there is a new thyme-planted seating for the Maria Bjornson outdoor theatre framed by chestnut trees. Some of these are diseased and to be felled. No 4, with its large lawn and yew hedges, was the home of Dr Shillington-Scales who pioneered X-ray techniques in the garage. Mr P. A. Rottenburg at No 5 was a passionate bulb collector of alliums and specimen tulips, but his vegetable garden has been replanted with specimen trees. Lady Thompson, widow of Sir J. J. Thompson, Master of Trinity and discoverer of the electron, on the sale of No 6 stipulated that her cyclamen hederifolium should not be lost; it still flowers today.

To the west No 1 Sylvester Road, former home of Professor D. W. Sciana, sometime Fellow of Trinity and Churchill, has a new Graduate Centre built in its garden. Across this road at



View of Robinson College gardens looking north from the lake.

Photo by Judith Christie.

commemorating Queen Victoria’s Diamond Jubilee. Adjacent to Thorneycreek Terrace are yew hedges in a more formal arrangement and a weeping Wellingtonia, which reinforces the formal-informal juxtaposition. In this area the original Victorian planting of hollies, aucubus, box and philadelphus still flourish. Although over 100 trees, mainly prunus, were felled in 1976, there are some 350 mature trees on the site. An annual audit is held with advice given to the Head Gardener on their management.

The original intention to extend the College’s buildings to the north along Adams Road has been abandoned. All but one of the houses have been purchased and adapted for College purposes and their gardens with original plantings have evolved. The garden of No 2, built in 1898, owned from 1951 by Lord and Lady Kaldor, economic adviser to Labour

Sellinger, No 3, was the home of Lady Barlow, last surviving grandchild of Charles Darwin and cousin of Gwen Raverat. An amateur botanist, her own aquilegia vulgaris, Nora Barlow, still grows and a new court for graduates has been built fronted by a row of golden ginkgos costing £900 each.

The Trust is much indebted to the Head Gardener, Guy Fuller, who provided an excellent tour and exposition of the development and changes within the gardens. Advised by a Garden Committee, he manages this large and attractive garden together with two other gardeners, a part-timer and an apprentice. Robinson College is one of only two college gardens which appoint and pay an apprentice. The Trust’s Committee intends to offer a financial grant to Guy for the support of the apprentice.

Charles Malyon

CAMBRIDGESHIRE GARDENS TRUST STUDY DAY

ARCADIA IN ARDEN: WHAT FUTURE FOR OUR TREES?

17th March 2012

Lord Fairhaven introduced the day by placing trees in perspective, reminding the audience they had been around for 370m years or so in contrast to the very short time humans have been on earth. Trees also play a vital role in taking up carbon dioxide (CO₂) to produce the oxygen (O₂) on which human life depends. After emphasising the importance of trees, the more so because of their relative paucity in Cambridgeshire, Lord Fairhaven introduced the four speakers for the study day.

ORCHARDS IN CAMBRIDGESHIRE

Dr Nigel Russell of Natural England spoke about orchards past and present in Cambridgeshire, emphasising the distinct character of the County's orchards, their importance in encouraging bio-diversity and the need to remember this distinct character when planting modern orchards.

By the 13th century, small orchards were commonplace in manor house gardens, comprising mainly plums and apples. In 1533, Henry VIII's royal fruiterer began importing new fruit varieties and planting model orchards in Kent and by the 17th century top fruit was widely grown in the county including well documented orchards around Cottenham. In the 19th century, new fruit varieties were developed with local nurserymen Rivers in Sawbridgeworth and Laxton in Bedford playing important roles.

However, it was not until the coming of the railways that commercial orchards became widespread, with the heyday of the county's orchards being between the 1870's and 1920's. These orchards were most extensive round Wisbech where marine clays support apples, pears and plums. Orchards are also found in the area round Histon, Willingham and Cottenham. Apricots and peaches were grown on the chalk in the south of the county. Fruit was obviously taken to the main urban conurbations but there were also local jam makers such as Chivers in Histon and St Martins of Ely.

Modern orchards in the county are characterised by trees with a limited lifespan grown on small rootstocks, closely

planted with a very limited range of varieties. In contrast, traditional orchards had large, long-lived trees grown on vigorous rootstocks, often with a wide variety of cultivars. In Cambridgeshire, unlike other counties, orchards were not grazed. This meant trees could be grown with a much lower canopy so mature trees have quite short trunks with branches spreading from a low height. This made for easier picking of fruit. Some of these old trees make very handsome specimens (see Figures).

In the late 19th and early 20th centuries, trees were sometimes planted in rows with the area between used for commercial growing of flowers or soft fruit such as gooseberries. In the 1920's labour became much more expensive and it became uneconomic to cultivate between the trees in this way.

Gradually, many of these old orchards were abandoned and became overgrown. The low canopy with open branches can break causing trunks to split. However, a few old apple orchards have remained in use or have been restored. These may be grazed by geese or even pigs. One traditional orchard near Over provides an income for the grower with some of their income derived from pressing fruit juice. Another traditional orchard has remained productive with the trees adapted to modern growing methods by removing the top tiers of the canopy. Plum orchards are less likely to have been preserved because they are more fragile due to the way plum trees sucker.

There has been a major decline of the acreage of orchards in the past 40 years. Fruit has not received the subsidies from which arable farming has benefited. Many old orchards were on the edges of villages and have been lost to housing developments. However in a small number of recent developments, old orchard trees have been retained as part of the landscaping.

English Nature and others have been involved in the restoration of old orchards to retain biodiversity and old habitats, rather than primarily for fruit production. The value of this restoration lies in its biodiversity, its landscape



Mature trees from Cambridgeshire orchards and woodlands, illustrating the talk by Dr Nigel Russell

value, as an amenity, to conserve ancient cultivars and its heritage and cultural value. The large trees with open branches create a variety of local habitats, analogous to woodland edge, where sunlight falls between the widely spaced trees. Old and decaying wood and the bark of the old trees provide a good habitat for invertebrates. In one orchard near Wisbech St Mary, a limited survey found 39 species of mosses and liverworts, 44 species of lichen, 54 species of fungi, 130 species of invertebrates including 3 very rare species and a large number of different moths.

In conclusion, traditional Cambridgeshire orchards are characterised by widely spaced large trees with short trunks grown with an open canopy. Dr Russell left us with the thought that the many new orchard plantings with heritage varieties, such as many community orchards, did not replicate this traditional style which requires vigorous rootstocks such as MM25 with a different pruning regime and wider spacing. However, old orchards are increasingly valued as part of our heritage and their contribution to local ecology.

TREES: BUGS AND DISEASES

Tracy Clarke of Tim Moya Associates gave us an update on a number of disturbing diseases and infestations that are affecting our trees. The problems discussed were:

- Acute oak decline
- Bleeding canker of horse chestnuts
- Horse chestnut leaf miner
- Oak processionary moth
- Masarria of London Plane trees
- Phytopthera disease of Lawson Cypress.

Acute oak decline is currently found only in S and SE England but is spreading fast. It affects both species of oak, impacting trees over 50 years old and is very worrying. It affects the bark and can be identified by a D shaped aperture marking the exit hole of the buprestid beetle (*agrilus biguttatus*). There is stem bleeding and often dead tissue under the bark with cavities of a beetle but it is not yet certain what the cause is. For example it is not certain whether the decline is caused by this beetle or whether this beetle is attracted to already affected trees.

Bleeding canker in horse chestnuts: this is very serious in terms of landscape trees. This is a fungal disease mainly caused by a bacterium *pseudomonas syringae* which kills living tissue under the bark. White flowering types of horse chestnut are particularly susceptible but it also affects red flowering types. Trees with minor symptoms can often recover but trees where the stem is girdled with canker should be removed.

House Chestnut Leaf Miner: this is now present throughout England since it first appeared in Wimbledon in 2002. The larva of the *Cameraria ohridella* moth eats the chlorophyll in the leaves which causes the leaves to brown by mid-summer. There are some garlic-derived treatments which seem to be effective against the bleeding canker and/or leaf miner. Trials are under way but the seriousness of these diseases means planting schemes will need to change. The white flowering Indian chestnut does appear to be more resistant. Looking after the roots of trees with a well-rotted mulch is also thought to help.

Oak processionary moth is more of an irritant to humans than a problem for the tree, although there are six larval stages during which leaves are eaten. There are long term health issues if this continues to spread as the hairs of the caterpillar carry a toxin which is irritable to humans, requiring protective clothing to deal with the pest whose discovery is a notifiable event.

Massaria of London Plane. This is a fungal disease which has recently been found in Hyde Park. This will girdle a branch and then kill off the branch. Initially it forms a small lesion which can be hard to spot. The lesions form at the branch collar and work up the branch on the upper surface. One can often see secondary fungi feeding off the dead tissue. Trees may shed branches which is serious for urban tree management

Phytopthera of Lawson Cypress is another fungal disease which kills the roots causing trees to go brown. It is spread through the soil. It was first noticed in Scotland in 2010 and has recently been found in Plymouth.

It was suggested that this influx of new diseases was caused, at least in part, by trees being under stress because of climate change. There is clear indication of diseases moving northwards through Europe and then entering the UK in the south and east. Importing diseased material from elsewhere could also be a factor in this spread. Whatever the cause, these bugs and diseases will cause a rethink in the types of trees planted with a change in our familiar treescapes. Will future generations be able to sit under the spreading chestnut tree?

TREES IN HISTORIC DESIGN

David Brown of the CGT discussed the way attitudes towards trees and the ways of growing trees have changed over the past millennium. The attitude towards beauty and functionality when considering trees has shifted over the years.

In medieval times trees and woodlands were part of the village, meeting the need for fuel and wood for buildings etc. The enclosure movement led to differing views on the status of land with the consolidation of land ownership into larger estates. Land owners aspired to hunting parks and a higher status for their land. This was good for woods and trees.

After the restoration, André Mollet, Royal Gardener to King Charles II, brought in new ideas from France and Italy, planting new avenues of trees with consistent planting material. Lime was a very good tree for this purpose. These avenues spread to places such as Wimpole as the landed gentry copied the Royal Family.

In the late 17th and early 18th centuries, avenues of trees planted in estates extended into the surrounding countryside.

By 1720's a more natural style was coming in, with Charles Bridgeman creating more irregular plantings such as the serpentine walk at Kensington Palace gardens. At the same time there was a great influx of new plant material from all over the globe. A trend started which combined pleasure and profit with Ferme Ornée where cattle grazed near ornamental plantings. At this time, a productive garden also needed to be ornamental. Capability Brown began a more naturalistic style keeping old trees and taking

out hedgerows, although to our eyes this too is rather stylised. Brown took out a lot of Bridgeman's timber and much of his planting was of non-native trees as well as native trees. It is the latter which have largely survived. Land owners wanted to reflect their global connections in their gardens.

In 1860's there was a craze for conifers, largely from the west coast of America and Japan. Pleasure grounds were termed 'American Gardens' by Loudon as so many of the plants came from there.

Planting patterns changed again, exemplified by tight curves planted in Stanley Park, Blackpool by Thomas Mawson in 1926. Parterres were reintroduced in the late 19th century even though the piano nobile, from which they were intended to be viewed, had largely disappeared as an architectural feature.

Gardens continued to evolve, landowners with their wealth intended to make permanent plantings but often after a couple of generations things changed. For example steel magnates whose gardens eventually became public parks.

Flowering cherries characterise suburbia. What do we replant with? They are as much part of the character as the architecture is.

The Inhotim Gardens at Belo Horizonte, Brazil, the work of Roberto Burle Marx, look like modern art, and Marx and Neumeier also began the trend of using native species in bold modern patterns.

Modern urban planning generally does not allow trees sufficient space resulting in little grass and compacted top soil. However, today, street tree prunings can be used in biomass boilers, again combining beauty with utility. Now, in some ways, we are going back to the beginning looking at the landscape in terms of both its aesthetics and how it can be used for biomass, firewood or timber. Managing woodlands with coppicing etc. means the trees are managed and there is a commercial outcome.

ANCIENT TREE HUNT

Jill Butler of the Woodland Trust touched on some of the same ground when discussing the Woodland Trust's project to record Ancient Trees.

A tree such as an oak takes 300 years to grow, 300 years to live in maturity and 300 years to die. Many of our ancient trees are in this latter phase. An ancient tree is 'growing downwards'.

The UK has an exceptional landscape of old trees and the Ancient Tree Hunt is a citizen science project where 1000's of volunteers measure and record ancient trees and enter them on a multi-layered, map-based database. To date there are several hundred thousand tree records. For each tree a range of features are also recorded. Another level of information includes old Ordnance Survey maps (first epoch) so that the present day location of candidate ancient trees can be compared with the past. This means that replantings can be linked to the first epoch maps. The project has engaged private landowners, NGOs such as the National Trust as well as local communities.

The project records ancient trees, veteran trees, notable trees and champion trees. For example Wokingham in

Berkshire (which was part of Windsor Forest) has recorded 4 ancient trees, 1200 veterans and 2250 notable trees. There are nine ancient trees recorded to date in Cambridgeshire but few Cambridgeshire trees have been recorded at all so there is considerable scope for hunting trees in the county. Across the whole country the majority of recorded trees are not in protected landscapes. Trees are clustered into 'communities' to try and establish patterns. Some areas are classified by the project as 'red areas' which are important in terms of ancient trees and biodiversity.

These maps coincide with the distribution of the old royal forests (see below). They also indicate the importance of the landed aristocracy in preserving old trees within their estates with a strong correlation between ancient tree hot spots and historic parks and gardens which have been protected from development. The data collection is on-going with plans to record the New Forest which has up to 250,000 trees to be recorded.

The data are being used to ensure that trees are valued and cared for, to highlight trees at risk and to help protect endangered trees. Most trees on the map will not have a tree preservation order (TPO). The project can give advice on looking after and protecting the valuable trees in a particular area. There ought to be a register of Trees of National Special Interest, a proposal in the Woodland Trust's response to government consultation on the National Planning Policy Framework. The data can be used to support tree strategies and tree conservation areas. It allows us to be proactive with owners to manage their trees and possibly to reward them for this.

WHY WE HAVE SO MANY ANCIENT TREES

The oldest trees are yews associated with churchyards and one tree from the Trossachs near Callander is thought to be 5000 years old. Thus one source of ancient trees could be pagan. The main source of ancient trees goes back to the royal deer parks and forests. These forests enabled the king to show off his status and forests were given by the king as presents. The medieval kings valued their hunting forests and Windsor has a fantastic number of ancient trees. The Bayeux tapestry shows trees being pollarded to get the timber for the Norman invasion fleet, rather than being completely felled, as many have previously thought.

Norman forests were open woodland landscapes rather than the dense forests we think of today. Over time, temporary lodges were built in the forests so hunters could stay overnight. These gradually became more permanent structures and eventually the homes of the aristocracy. Capability Brown replicated these estates where the house was surrounded by deer forest.

The majority of ancient trees are not in woods and need the sun to flourish. The maps produced by the Ancient Tree Hunt clearly indicate the extent of these ancient Norman forests.

Early maps such as the 1579 Saxton Map show the location of trees. Painters of the 18th century, such as Gainsborough, portray men clearly showing off their characterful trees. Repton said "A man of science and of taste will discover the beauties in a tree which others would condemn for its decay."

At the same time ordinary people needed trees for living. Pollarding goes back at least 3500 years, demonstrated by a fossil tree of this age. It has been an important tree management practice all across Europe with different styles in different countries. Some of our ancient trees, such as pollarded hornbeams in Hainault forest, record this history of pollarding.

WHY THE ANCIENT TREE HUNT?

- Ancient trees and decaying trees are very important for biodiversity, as seen in the old orchards of Cambridgeshire. A wide variety of fungi and invertebrates live in old bark and rotting timber. Dead ancient trees are not protected but are a valuable habitat.
- To investigate changing uses of trees through pollarding for fruit, timber, fodder, fuel, etc.
- Trees are important for beauty; for example old sweet chestnuts are part of the equestrian route in Greenwich park to be used for the Olympics.
- It continues a history of tree hunting, which started with John Evelyn, by putting them on a map and in a national database.
- Informed tree management and agriculture can do better than modern fertilisers. For example cultivating and

grazing too close to trees can damage roots and the Woodland Trust works with farmers to try and avoid this. Too much nitrate fertilisers can damage the micro-rhizal fungi which protect tree roots. By taking up nutrients from the ground, shedding leaves and allowing them to rot, trees fertilise the ground without needing artificial fertilisers.

- The majority of ancient trees are not in woods and need sun to flourish. The Woodland Trust has worked with forest managers, where an ancient tree has become part of a wood or forest, to fell some trees to let in more light.
- To help develop tree conservation areas.
- Hopefully, to develop a mechanism where landowners could be compensated to look after these old trees and to plant replacements to match the first epoch maps.

At the end of the day, Christopher Vane Percy moved a vote of thanks to all four speakers for what was felt by everyone to have been an informative and entertaining study day. Thanks also go to the organisers and the caterers who worked hard to ensure that the bodily appetite was as well assuaged as that of the mind.

Jane Sills

A VISIT TO TITCHMARSH HOUSE GARDENS 11th April 2012

Our season opener took us into neighbouring Northamptonshire and the attractive village of Titchmarsh. It was very well supported by 30 members and guests. The weather was cool but sunny. We were welcomed by the owners, Sir Ewan and Lady Harper, resident since 1968. Sir Ewan gave us a brief overview of the garden's development(s) which began with the purchase of one acre alongside the house forty-four years ago. To protect the site from development, five other parcels of land were acquired to create what is now a four-and-a-half acre garden divided into a number of interesting 'rooms'. These include a thatched cottage (now Sir Ewan's office) and adjacent lawned area where our tour began.

The layout and planting has evolved gradually over the years 'as family and funds allowed'.

There are superb collections of magnolias, irises, peonies, cherries and shrub roses. These have been planted around the garden, often in long grass to follow the daffodils in spring and to give variety and interest throughout the seasons. Many roses are repeat flowering varieties such as the hybrid musks.

Adjacent to the house, atop a local stone wall, is a magnificent yew hedge which forms the backdrop for a quiet, wind protected garden with a semi-circular fish pond.

Other yews and paulownias provide a pleasing contrast in colour and leaf size set against the contours of the border hedges. A large walled garden on a sloping area of the site affords panoramic views towards Oundle and contains a splendid 100 year old (still fruiting!) apple tree – variety unknown.

Titchmarsh is deservedly well known for its magnolias, prunus and peonies. Although not yet in bloom, particular attention was drawn to:

Magnolias – Wada's Memory, Loebner Merrill and Loebner Messel;

Prunus – *Padus colorata* and Sea Shell;

Peony – *Officinalis Villosa*.

Despite suffering a temperature drop to minus sixteen degrees in February, most trees, shrubs and plants are thriving in this most welcoming garden.

Our visit concluded with welcome refreshments and an opportunity to thank our hosts for a most enjoyable visit. This is truly a garden for all seasons.

Titchmarsh House is located at Chapel Street, Titchmarsh, Northamptonshire NN14 3DA. The gardens are open to the public in 2012 under the National Gardens Scheme on 19 May (14:00–18:00) and 16 June (12:00–17:00), admission £3 (children free).

Alan Brown



Magnolia at Titchmarsh Gardens

photo by Judith Christie.

THE CGT EDUCATION PROGRAMME

May 2012

In September 2010 CGT started its five year education programme, so how have we been doing after 18 months? First of all, here is a summary of the five programmes.

1. CGT Little Seedlings

Formed for Primary School children aged 4–12 years; this programme is a cash grant for education-related activities in horticulture or arboriculture and will be administered via Schools.

2. CGT Bright Futures

Formed for Middle School children aged 12–16 in three parts.

- i. Sponsorship of an agricultural class at the County Show at Wimpole Hall run by Young Farmers.
- ii. Sponsorship of a botanical event at the Cambridge Science Week at Cambridge University run by the University.
- iii. A Scarecrow Competition held each year in open gardens.

3. CGT Research Grant

Formed for Further Education students over 18 studying Garden History related subjects in Cambridgeshire; it is a cash grant to support a research project on a subject of CGT's choosing.

4. CGT Garden Apprentice

This is open to any age group currently on a garden-related apprenticeship scheme in Cambridgeshire; free membership to Cambridgeshire Gardens Trust for five years providing access to a network of people and information to support them in their careers.

5. CGT Day Lectures

A series of one-day lectures designed for over 18's; these aim to raise funds to support the other four education programmes.

For the 'Little Seedlings' this year we will be sponsoring a 'grow a rainbow' class at the Abbots Ripton Hall garden show. We have been invited to have a stand at the show and if anyone would like to volunteer to staff the stand please let me know.

For our 'Bright Futures' we will again be sponsoring a class at the County Show at Wimpole Hall. We are still looking for a scarecrow competition to sponsor or a botanical event.

We are also seeking a further education student studying garden history in Cambridgeshire for the 'Research Grant' so please do let us know if you know of someone who might qualify.

On a garden visit last year we went to Robinson College and made contacts that have led to our providing a grant to a garden apprentice (to be selected) at Robinson College for the next two years. We hope that (s)he will join us for outings and that you will welcome and share your vast knowledge of gardens, horticulture and garden history with the awardee.

We had a second very successful study day with four stimulating speakers and raised further funds in support of our other education programmes. There is an article with details of the study day in this edition of the newsletter.

There is still a budget for more grants this year so if you have contacts with any of our outreach areas like schools or gardens that could benefit from the education programme please contact Julia Weaver on 01223 842348 or julia.weaver@lizlake.com.

We are of course always ready to welcome volunteers. If you would like to help please contact Julia Weaver as above. We look forward to hearing from you!

Julia Weaver

Activities to date

	2011	2012	2013	2014	2015
Theme	20th Century Gardens in East Anglia	Cambridgeshire Trees	Botanical Collections	Memorial Gardens	
1. Little Seedlings	17th June: Fen Drayton Primary School Sunflower project	30th June/1st July: Abbots Ripton Hall Garden Show 'Grow a rainbow'			
2. Bright Futures	8th May: Scarecrow Competition Ramsey Walled Garden 5th June: Cambridge County Show 'Identify the Vegetable'	10th June: Cambridge County Show			
3. Research Grant					
4. Garden Apprentice		Robinson College apprentice	Robinson College apprentice		
5. Study Day Lectures	12th March: 20th Century Gardens in East Anglia	17th March: Arcadia in Arden: what future for our trees?			

Finances to date

Programme	2011	2012	2013	2014	2015
1. Little Seedlings	- £50	-£250			
2. Bright Futures	-£375	-£50			
3. Research Grant	0				
4. Garden Apprentice	0	-£300	-£300		
5. Day Lectures	+£100	+£250			
Total	-£325	-£350			

DATES FOR THE DIARY IN 2012

As a service for members and readers, we are publishing below brief details of events organised by the CGT, together with other selected events which may also be of interest. If you are aware of an event which you would like to bring to the notice of fellow members, please get in touch with the Newsletter Editor, Phil Christie, on pafc1@slb.com.

29-30th May Chelsea Physic Garden: accessibility workshop and audio-described tours for blind and partially sighted people. Contact: belladarcy@gardensandpeople.co.uk Tel. 01621 892737, or see <http://www.accessiblegardens.org.uk/>.

Thursday 14 June Marks Hall Gardens & Arboretum, Coggeshall, Essex. 11:00 am. Tea shop on site. Members £4 Guests £5.

29th June – 1st July Abbots Ripton Hall Garden Show. See <http://www.abbotsriptonhall.co.uk/> for further details.

Thursday 26 July Holme Hale Hall, near Swaffham, Norfolk 11am and Hilborough House, 2:15pm. Tours & refreshments at each property. Members £20 Guests £25. Includes both properties but if you wish to visit Holme Hale Hall only: Members £12.50 Guests £15 Hilborough House only: Members £15 Guests £17.50.

Wednesday 15 August By invitation of our President, a tour of Kirtling Tower gardens near Newmarket, Suffolk. 2:00pm. Members £4 Guests £5.

Saturday 15 September Sawston Hall, near Cambridge. 2:00pm. Members £5 Guests £6.

Wednesday 10 October Queens' College, Cambridge. 2:00pm. Members £4 Guests £6.

Saturday 10 November CGT AGM Village Hall, Cootes Lane, Fen Drayton CB24 4SL. Lunch at 12:30pm, AGM at 2:00pm.

Tickets/maps for CGT-organised events above are available. Places can be booked by sending cheques payable to Cambridgeshire Gardens Trust with s.a.e. to Mr Alan Brown, Foxhollow, 239 High St., Offord Cluny, St. Neots, PE19 5RT. Tel 01480 811947 / fox.239@btintemet.com

Please book at least 10 days before the visit and if you need to cancel or are able to attend at short notice please also inform Alan.

Alan Brown

Cambridgeshire Gardens Trust
Foxhollow, 239 High Street, Offord Cluny, St Neots, Cambs. PE19 5RT. Tel: 01480 811947
www.cambsgardens.org.uk

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