

# Hampden Park Arboretum And History Garden

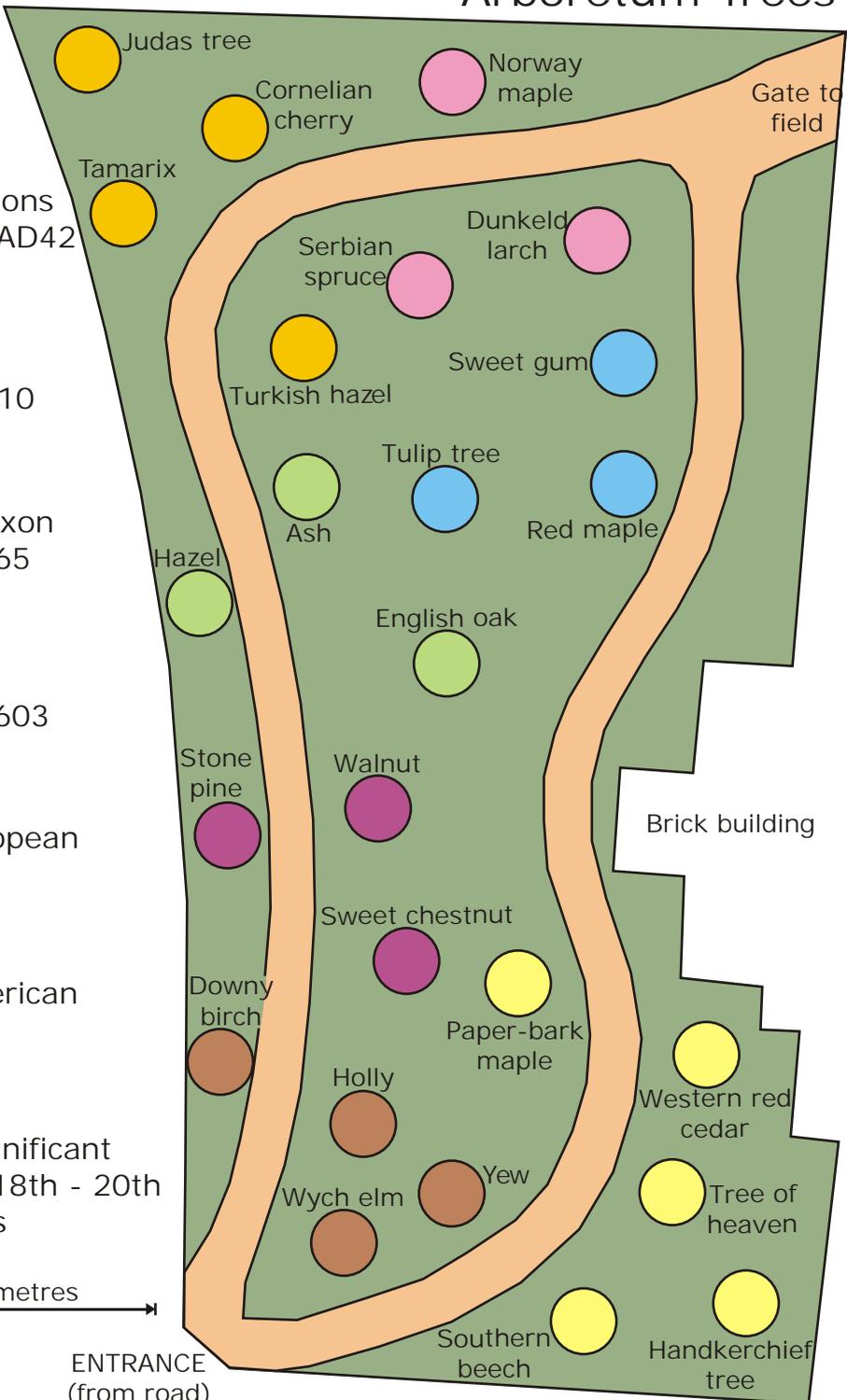
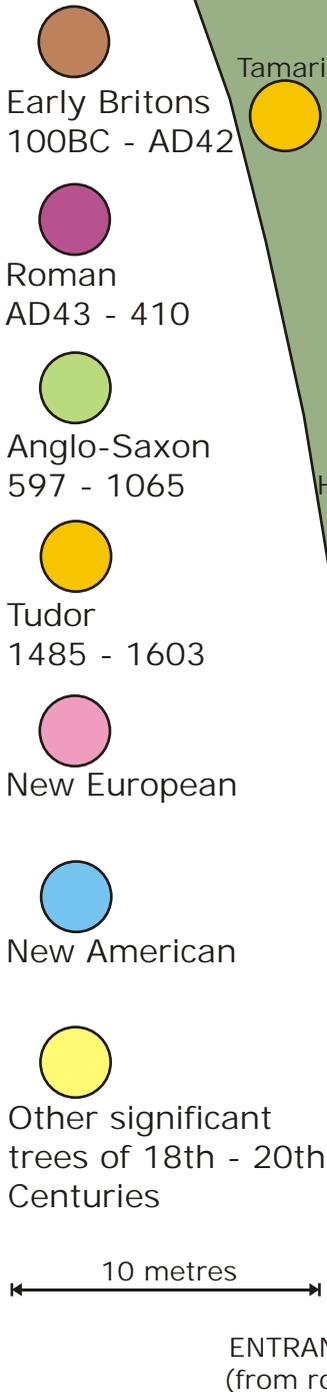


A guide to the plants -  
their origins and uses.



The Friends of The Hampden Park

# Arboretum Trees



# HAMPDEN PARK ARBORETUM AND HISTORY GARDEN

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# HAMPDEN PARK ARBORETUM AND HISTORY GARDEN

## INTRODUCTION

### How to use this guide

This guidebook enables the reader to identify and learn about all of the plants growing in the Arboretum and History Garden at Hampden Park, Eastbourne in East Sussex.

The garden has two main planting themes that are both important to British garden history and the provision of our food and raw materials. The information in the booklet is split into two main sections. Part one deals with the trees and part two describes the underplanting in the border that runs adjacent to the path.

One easy way to appreciate the garden is to do two complete circuits of the path in a clockwise direction from the entrance nearest the road. One lap looking at the trees and one lap to view the underplanting.

The inside front cover shows a plan of the tree locations. An equivalent plan inside the back cover shows how the small plants of the herbaceous border and the historic daffodil varieties around the perimeter of the garden are distributed.

All of the plants are given their common or 'English' names followed by their scientific name. Although plain English has been used as far as possible, occasional technical terms are unavoidable. A glossary of uncommon terms is included near the back of the guide. Also included is a list of references to the most important information sources used to compile this booklet.

### The origin of the Arboretum and History Garden at Hampden Park

During early 2006 the Friends of The Hampden Park proposed to Eastbourne Borough Council Parks and Gardens Section and Trees Section the funding of a new garden feature in Hampden Park. Following the Friends receipt of a substantial Community Chest Global Grant from East Sussex County Council it was agreed that a new arboretum would be designed for a vacant plot of land adjacent to the café.

The arboretum would include a representative range of trees that were either native or introduced to Britain since the end of the last ice age about 10,000 years ago. In addition to this an herbaceous border would be created using smaller plants introduced to Britain in the period from just before the Roman occupation to the present day.

Preparatory work was carried out in mid-2006 and trees were planted in November 2006. During 2007 the first phase of the underplanting was done with help from Friends volunteers and further planting has taken place since as some of the more difficult to source plants have become available.

## Plants in history

It is not possible in this booklet to give a detailed account of world history and exploration. That job is amply covered in the many specialist books available elsewhere. The descriptions of most of the plants do, however, contain details of their origins and uses that often tie in with the history of Britain.

The plants found in Britain today reflect both the effect of natural colonisation after the last ice age and the influence of human migration and exploration. Our native plants are largely those that re-colonised the land as the ice sheets retreated from about 10,000 years ago onwards. As the ice and snow retreated so the melt water caused sea level to rise and eventually to cut Britain off from mainland Europe. Just prior to this isolation the warming climate allowed the northward range of many plants to expand naturally into our region.

The earliest human settlers probably brought some plants with them as sources of food or raw materials such as fibres and dyes. Once the English Channel had formed the natural arrival of new plant species slowed considerably and human activity then became the main mechanism affecting the arrival of non-native plants on our island.

The arrival of the Romans in AD43 not only brought a different culture to Britain but many of the plants familiar to the army's homeland. For the first time there are written records of many plants and their uses. The grape vine was probably introduced during this period and there is archaeological evidence at sites such as Fishbourne Roman Palace, near Chichester, of the first large scale ornamental gardens. One feature of the gardens at Fishbourne was the likely use of box (*Buxus sempervirens*) hedging to outline areas and create geometric patterns. Although native to southern Britain this plant has since remained common in gardens right up to the present day. In the garden at Hampden Park it has been used to divide the border into its different historical periods and in this role reflects its longstanding popularity.

Through the centuries overland trade routes have acted as corridors along which plants have both accidentally and intentionally been moved. After the Romans left Britain in around AD410 plants continued to arrive but records are sparse until the Norman Period when the numbers of introductions probably accelerated again. From the late 1400s European voyages of discovery opened up previously unexplored regions from which new plants were collected. Sea routes soon became established between Europe, the New World (North and South America) and the Far East and Australasia.

Plants have been an important source of food and raw materials for humans since the earliest of times. As civilisations developed around the world each gained a detailed knowledge of botany and horticulture with the study of plants becoming more and more scientific. The first botanical garden in Britain was founded at Oxford University in 1621. It was a physic garden in which the plants used in science and medicines were cultivated for study. In London the Chelsea Physic Garden was established in 1673.

Scientific study created vast amounts of new information that needed a system of classification that could be understood and applied by botanists working anywhere around the world. Plants had often been given 'common' names but these would frequently be local and the same plant could have several different names. To add to the confusion it also happened that completely different plants could be given the same name.

It was not until Carl Linne from Sweden invented his binomial (two name) system in 1737 that we arrive at the modern scientific way of naming all plant and animal species. Under this system each plant is given a Latin-style two-part name according to its likely biological relationship with other similar plants.

The first name is the genus. Plants with the same first (generic) name are quite closely related but mostly cannot cross fertilise to produce fertile offspring. The second name is the species. Plants of the same species (specific) name usually look very alike and when fertilised by that species normally produce fertile offspring. Plants are also grouped into much larger or sometimes smaller categories but the binomial name is most commonly used and is recognised world wide. Throughout this booklet the common or 'English' name is used with the scientific name noted in brackets afterwards.

## Trees

The trees in the Hampden Park garden are laid out in themed groups rather than in strict chronological order of their first occurrence in Britain. Originally just the available native species were utilised for materials in the construction of buildings and work implements such as ploughs and wheels on carts. One tree, the yew (*Taxus baccata*), appears to have had religious or ceremonial significance and is often found in much later Christian churchyards.

By the Roman Period exotic foreign species entered the country as the invading forces brought familiar plants with them from the continent. The sweet chestnut (*Castanea sativa*) grows reasonably well in our north European maritime climate and has become naturalised across southern England.

During the Anglo-Saxon Period hard and durable timber for building was mainly sought from oak. Oak also provided one of the raw materials for production of charcoal for the iron industry that produced iron implements hard enough to work oak timber as well as simple items like iron nails for boat building.

In later periods many trees were introduced for ornamental purposes. Political and social stability allowed investment in large formal gardens with intricate designs and the newest exotic plants. Some trees that were originally grown for their fruit later became appreciated for their ornamental qualities such as attractive blossom.

By the mid-1600s new trees were arriving from the Americas where several European countries were exploring and attempting to claim new territories. Interest in North American trees continued well into the 1800s as various explorers and professional plant hunters gradually opened up the interior and west of the continent. During the late 1800s a temporary craze for everything Chinese was fulfilled by the import of large numbers of plants from that region. The plant collector E. H. Wilson introduced so many he was nicknamed 'Chinese' Wilson.

Trees continue to be important as a commercial crop, for food, drugs and for ornament. In recent decades the vital role they play in the well being of the Earth's atmosphere has been recognised. Unregulated destruction of vast forests in other parts of the world is thought to be one factor influencing global climatic change.

## Herbaceous border and daffodils

The border laid out beneath the trees is in the form of a chronological bed. That is one where the plants are presented in the order in which they were introduced to Britain. Chronological beds are not a new idea and this one was initially inspired by that at Cambridge University Botanical Garden.

When viewing the bed there may be gaps that appear to be bare. This might be a space occupied by a plant that is not in season or might be due to plant loss through perhaps disease or weather. The Parks and Gardens Section endeavour to keep a complete range of plants on site but from time to time this may not always be possible.

Almost all of the garden plants we are familiar with have wild origins. Through breeding and selection many look surprisingly different from their wild ancestors. In the Hampden Park garden wild forms or old varieties have been chosen when they have been available but many old garden varieties are no longer grown commercially. The notes about each plant contain more detailed information.

An additional feature, only evident in the spring, is a series of daffodil drifts planted beneath the trees around the perimeter of the garden. Daffodil varieties were developed over many centuries from wild ancestors originating from mainland Europe and North Africa. The drifts are laid out with the oldest variety (perhaps circa 1200) just on the left as you enter from the roadside entrance gate followed by more recent varieties in sequence, up to one registered in 1938.

One of the most complex challenges when planting a chronological garden is the reliability of the information available to accurately date introductions. Generally the farther back in time one looks the more uncertain the exact dates become. Even where reasonable records exist it is often difficult to decide whether a date refers to the time the plant was first noticed or the first time it was grown. Sometimes plants have been introduced more than once many centuries apart and have left multiple records of introduction. Given the problems alluded to the dates given in the notes here are judged to be as accurate as possible and have been subject to a considerable amount of cross-checking. Despite this it is possible conflicting evidence may occasionally surface.

# The Trees in the Arboretum

## EARLY BRITONS 100BC - AD42

### Wych Elm (*Ulmus glabra* 'Camperdown')

This tree is native but not native in much of SE England. The name 'wych' derives from the Anglo-Saxon for pliable and is a reference to the twigs. The timber has many uses and is durable even in waterlogged conditions which historically led to trunks being hollowed out for underground water pipes. The timber is extremely difficult to split making it ideal for the hubs of wooden wheels into which spokes have to be firmly driven. Elm wood is also the traditional wood used for coffins. The Romans used elm trees as living vine supports in their vineyards. European emigrants introduced elm to Australia.

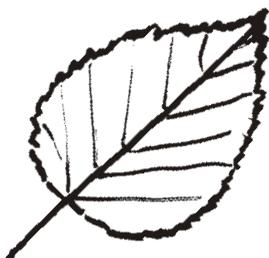


### Holly (*Ilex aquifolium*)

A very familiar native evergreen tree with a particular association with Christmas in Britain. Holly will tolerate a wide variety of growing conditions except on wet soils. The tree sometimes forms pioneer colonies on shingle as at Dungeness in Kent and is frequently seen in hedgerows. The wood is very hard and heavy making it useful for carving and woodcut printing blocks. Male and female flowers occur on separate plants so only the female has the attractive berries. The abundance of berries relates closely to the number of pollinating insects that were around at flowering time.

### Yew (*Taxus baccata*)

The native yew tree has a long association with European mythology and is seen in many churchyards where ancient trees suggest a much older pagan site later occupied by a Christian church. During the Middle Ages the timber became particularly valued for the making of longbows with which the English equipped their soldiers. This evergreen tree is a favourite for topiary work and for hedging although the plant is poisonous and should not be used near livestock.



### Downy Birch (*Betula pubescens*)

The downy birch is native, has a delicate appearance and develops distinctive brownish-red or occasionally silvery bark with horizontal fissures. The bark is waterproof and resistant to fungus so is sometimes left as a shell after dead wood has rotted away. The tree will colonise quite poor soils and damp areas near water courses and lakes. The sap has been used as an ingredient in birch wine and the timber is used in the manufacture of furniture, handles and plywood.

## ROMAN AD43 - circa 410

### Stone or Umbrella Pine (*Pinus pinea*)

This tree's natural distribution is uncertain. Prior to the anthropogenic range expansions of the last few thousand years stone pine was probably confined to the Iberian Peninsula, the only area where it is found away from ancient trade routes. It is said to be "impossible to determine its natural range" (Barbéro et al., in Richardson 1998). The species is an archaeophyte (unrecorded introductions by early man) throughout the Mediterranean. The first pine used and cultivated by man. Its edible seeds have been harvested for perhaps half a million years or more, and there is evidence the tree has been planted for them for well over 6,000 years (possibly double this or more).



### Sweet Chestnut (*Castanea sativa*)

Introduced and naturalised only in Southern England. Originally native to southeastern Europe, Mediterranean north Africa and Asia Minor. The Romans used the ground up nut, extracted from within its spiny husk, to produce a kind of porridge and also enjoyed the nut roasted. Nowadays closely associated with traditional chestnut stuffing to accompany turkey at Christmas time, most chestnuts sold in Britain are imported from France and Italy where the climate helps the fruit develop and ripen more fully. The timber is used for panelling and beams but is probably most familiar as the palings in temporary fencing used throughout the country.



### Walnut (*Juglans regia*)

Native to SE Europe and SW and C Asia. The tree produces chemicals called "juglones" that stop other plants growing underneath. The nuts provided food and cooking oil for the Romans although the tree was originally imported to Rome from Greece in about 100BC. The timber is prized for its beautiful graining, much admired in furniture manufacture, and in the 19<sup>th</sup> century walnut oil was used in some soaps.



## ANGLO-SAXON 597 - 1065

### Pedunculate or English Oak (*Quercus robur*)

More symbolic of the British countryside than any other native tree the pedunculate oak, and its close relative the sessile oak, both produce the familiar acorn still valued in some areas as animal food-stuff. The name pedunculate means stalked and refers to the acorns. Its relative has unstalked (sessile) acorns. The hard and durable timber became a favourite construction material for houses and ships once iron cutting tools were developed. Oak charcoal was the original fuel used in iron smelting. Oak bark is a rich source of tannin and was once widely used in the processing of animal hides into leather. The tree supports a greater variety of leaf-eating insects than any other in Britain.



### Ash (*Fraxinus excelsior*)

One of our most common native trees. The winged seeds germinate easily and young saplings can come to dominate the floor of mixed woodland. Although most trees have either male or female flowers (dioecious) some trees 'change sex' yearly and a few will be hermaphrodite (flowers with male and female parts). The fast growing tree produces tough, pale-coloured timber that is favoured for handles on axes and hammers amongst other tools. In more recent times the timber has been used for hockey sticks, tennis rackets and skis.

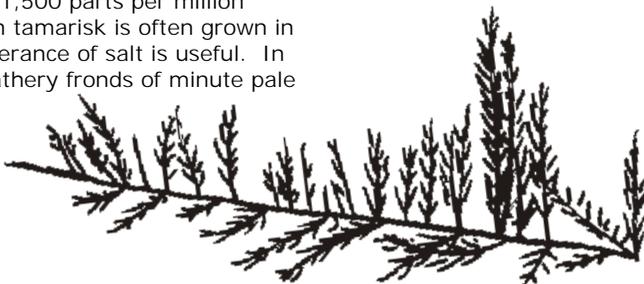


### Hazel (*Corylus avellana*)

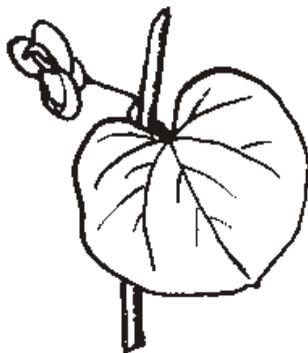
Hazel is native and grows throughout Britain. It is usually covered in attractive yellow catkins, the male flowers, around February each year. After pollination these develop into groups of up to four or so hazel nuts much loved by humans and wildlife. When the plant is coppiced it produces new growth of long rods and thin flexible sticks. From prehistoric times the finer sticks have been woven into baskets and other useful domestic items whilst thicker rods can be used as the supporting element for wattle and daub panels in timber-framed buildings. To ensure a regular crop of new growth the hazel can be coppiced about every three to seven years.

## TUDOR 1485 - 1603

Tamarix (*Tamarix aestivalis*) (Possibly *T. ramosissima* or *T. hispida* but there is confusion in the available literature.) Introduced from its home region that extends from eastern Europe to central and eastern Asia. The presence of salt cedar (a common name for many *Tamarix* species) in an area tends to increase the salinity of the soil and thus prevents the presence of many native species. Salt cedar readily takes up mineral salts from the soil and then dumps them above the ground from its salt glands or by dropping its leaves. Surrounding plants then have difficulty growing in the high salt concentrations (Di Tomaso 1996). Some salt cedars have been shown to tolerate up to 36,000 parts per million of salt whereas native floodplain species such as willow can only tolerate up to 1,500 parts per million (Weisenborn 1996). In Britain tamarisk is often grown in seaside locations where its tolerance of salt is useful. In summer it bears attractive feathery fronds of minute pale pink flowers.



Turkish Hazel or Turkish Filbert (*Corylus colurna*)  
 Introduced in 1582 and native in SE Europe and W Asia.  
 Probably introduced for its edible nuts but once here it did  
 not to crop well in Britain's cooler climate. In Britain it has  
 since been planted chiefly for its decorative value although in  
 its native area its timber is used in furniture manufacture.



Judas Tree (*Cercis siliquastrum*)  
 Brought to Britain in the late 16<sup>th</sup> century (probably 1596)  
 from Mediterranean region. Sometimes it flowers directly  
 from the trunk. The common name is possibly a corruption  
 of 'Judea tree' from its frequency in that area of Israel. It  
 is used as an ornamental plant in the milder parts of  
 Britain.

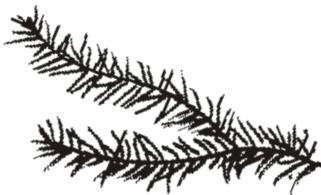
Cornelian Cherry (*Cornus mas*)  
 Probably introduced into Britain from S Europe and SW Asia  
 as a source of fruit in 1382. It was perhaps more popular a  
 little later in the gardens of the Tudor period. It produces  
 yellow blossom in early spring and flourishes in chalky soil.  
 In its native land the ancient Persians, Greeks and Romans  
 utilised the hard wood for arrow, spear and javelin shafts.



#### NEW TREES FROM EUROPE

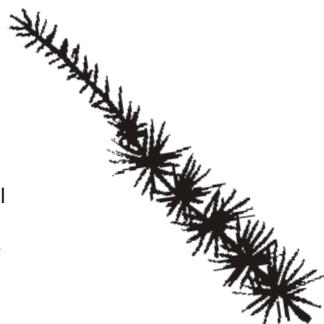
Norway Maple (*Acer platanoides*)  
 Introduced from mainland Europe in 1683. Although at  
 home in the mountains of northern Europe the Norway  
 Maple is often planted in the towns and cities of Britain as it  
 tolerates pollution well. In Scotland it is grown as shelter  
 and for its ornamental qualities. The winged seeds  
 germinate quite easily enabling naturalised groups to  
 establish.

Serbian Spruce (*Picea omorika*)  
 As its common name implies this tree is indeed from Serbia  
 and Bosnia. It is a rare geographically restricted species of  
 spruce, only growing naturally in the Drina River valley in  
 western Serbia and eastern Bosnia near Višegrad. It was  
 originally discovered near the village of Zaovine on the Tara  
 Mountain in 1875, and named by the Serbian botanist Josif  
 Pan i . First planted in Britain for its ornamental qualities in  
 1889 and now quite widely planted in parks and gardens.



### Dunkeld Larch (*Larix x eurolepis*)

This hybrid larch is a conifer which first grew in Scotland in 1897 when two different parent trees, the Japanese Larch and the European Larch, were crossed. The resulting hybrid is a good tree of the mountains with a straight, tapering, conical trunk. The parent trees are naturally found separately in Japan and central Europe. The hybrid offspring can be nearly Japanese type or nearly European type but will grow faster, are hardier and more disease resistant than either parent. The timber is strong and durable and suitable for structural work with smaller timber popular as fencing posts. Before 1629 the parents were grown as ornamental and exotic garden trees.



### New American trees



#### Red Maple (*Acer rubrum*)

Introduced from N. America where it is native from Newfoundland to Texas and was first recorded in Britain 1650. Naturally a tree of stream sides and swamps this species grows best in damper areas of Britain. It is planted for its ornamental value as it is flushed with red flowers in the spring and the leaves, that appear later, also turn to red, purple and yellow during the autumn. Often times even young leaves are tinged with red. The colour is a result of a high sugar content generated by abundant sunshine.

#### Sweet Gum (*Liquidamber styraciflua*)

From the south east United States this tree was first noted by the Spanish naturalist named Hernandez some time after the Spanish conquest of Mexico in 1519. The Latin name derives from the colour and texture of the gum the tree produces. Sweet gum was introduced to Fulham Palace in 1681. In Britain it is grown for its ornamental value, in particular the bright autumn colours, as the timber has no economic value. In the United States some use is made of the gum in adhesives, incense and perfumes.



#### Tulip Tree (*Liriodendron tulipifera*)

Introduced from eastern North America in 1688. Owing to the natural straightness and often unbranched nature of this tree's trunk the North American Indians used to use it for making their canoes. In a good summer the tree bears greenish-yellow tulip-like flowers. It is grown as an ornamental in Britain but elsewhere the easily worked timber is sometimes used in furniture manufacture.

## 18<sup>th</sup> to 20<sup>th</sup> CENTURY INTRODUCTIONS

### Western Red Cedar (*Thuja plicata*)

Originally from western North America it is the Provincial Tree of British Columbia and was once used by North American Indians for their canoes and totem poles. It was initially introduced into the UK as an ornamental tree in about 1850. In 1876 it was planted for the first time as a forest tree around Benmore, Scotland. In Britain the reddish-brown timber is now used extensively for garden sheds, roof shingles and cladding. It is not a true cedar but was misnamed by early European settlers in America.

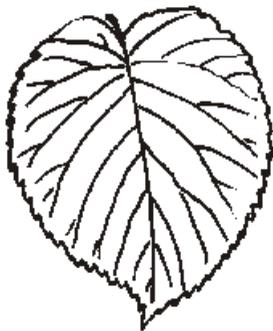


### Tree of Heaven (*Ailanthus altissima*)

Introduced in the mid-18<sup>th</sup> century from China. Grown for its ornamental properties this species is tolerant of pollution and, therefore, useful as a street tree in city environments. In Britain it prefers the warmer southern areas and is happy in quite dry conditions on lighter soils. When required branches can be hard pruned back without causing harm.

### Southern Beech (*Nothofagus Antartctica*)

Native to Chile and Argentina this tree was introduced to Britain during the early 19<sup>th</sup> century as an ornamental. The leaves turn yellow to orange in the autumn. The pinkish-brown hard timber can be used for flooring and in furniture manufacture.



### Handkerchief Tree (*Davidia involucrate*)

Introduced in the late 19<sup>th</sup> century from central and western China where it is endangered. First described from a remote area of China by the French missionary Père David in 1868 after whom the tree derives its Latin name. Doctor Augustine Henry sent some seeds to Britain a while later but these were never sown. It was not until 1900 that Ernest Henry Wilson, after being falsely imprisoned for spying, nearly been drowned and having suffered a serious fever, managed to find a small grove of this rare tree and obtain more seed to send back to Britain. It is grown for the spectacular white flowers (actually bracts), resembling handkerchiefs, that adorn the tree during the summer.

### Paper-bark Maple (*Acer griseum*)

Brought from China in 1901 by Ernest Henry Wilson (1876 - 1930). The E.H. Wilson Memorial Garden opened in Chipping Campden, Gloucester in 1984. The garden commemorates one of the world's most prolific plant collectors. 'Chinese' Wilson, as he became known, was born in Chipping Campden in 1876 and introduced to cultivation over 1,200 plants according to the National Council for the Conservation of Plants and Gardens. The paper-bark-maple is grown for ornament in Britain and as the English name implies the bark peels off in papery pieces to reveal new bark underneath. The new leaves are often pinkish and in autumn can turn red and crimson.

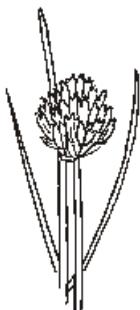
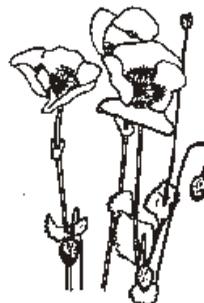


# The Plants in the Herbaceous Border

## PRE-ROMAN

### Opium Poppy (*Papaver somniferum*)

Its original natural distribution is unknown since it has naturalised across huge areas of the world. Probably one of the oldest cultivated plants. The garden varieties developed in the west from the 1500s and do not have the narcotic content of their ancestors. Some produce edible seeds that are included in biscuits and sprinkled on bread.



## ROMAN PERIOD AD43 - AD410

### Chives (*Allium schoenoprasum*)

A native herb used for culinary flavouring and in salads. The leaves are cut for use but throughout the summer small pompoms of mauve flowers appear on taller stalks. Apparently the ancient Roman Emperor Nero ate chives to enhance his voice.

### Box (*Buxus sempervirens*)

Native to northern Europe and southern Britain this slow-growing small-leaved shrub has been used as garden hedging since the Roman Period. The species name 'sempervirens' is a reference to it being evergreen. If planted close together and regularly trimmed it can be shaped into very neat geometric hedges. Left to grow larger it can be cut into topiary figures of people or animals. There is evidence that the Romans planted geometric hedges of box at the famous Fishbourne Roman Palace in Hampshire. Box hedging has been popular at various times since and is still used today. Dense boxwood was used by the Romans to make flutes, boxes and other small items. Small sprigs of box are sometimes found in Roman coffins.



### Saffron Crocus (*Crocus sativus*)

Probably native to Greece and perhaps adjacent lands. The lilac-coloured autumn flowers are sterile so reproduction is only by vegetative means. The Romans, Mongols, Arabs and Greeks grew it for its medicinal and culinary uses. The Romans used saffron oil as an ingredient in perfumes. Large-scale cultivation in England probably dates from the 1340s. Its commercial importance to Saffron Walden in Essex is reflected in the town's name and its depiction on the town's crest. The flower is the source of both red and yellow dye and spice produced from the stamens and stigmas. It takes about 152,000 flowers to yield 1kg of saffron and this fact alone helps make it the most expensive of spices. Saffron dye was extremely important until the 19<sup>th</sup> century when synthetic replacements were developed.

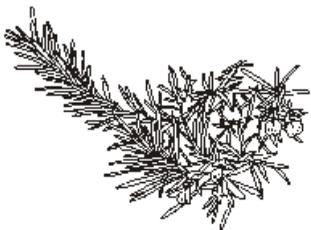
### Garden Thyme (*Thymus vulgaris*)

Native to the western Mediterranean as far east as southern Italy this herb is now mainly used as a food flavouring. It can sometimes be found growing on old walls and stony banks similar to its native habitat. The small grey-green leaves form cushions that bear little purple to white flowers in late spring and early summer. The Romans used oil of thyme for massage and added it to bathing water. Thyme's name is derived from either 'thumus' which is Greek for 'courage' or from 'thymon' meaning 'to fumigate'.



### Rosemary (*Rosmarinus officinalis*)

This small shrub is native to the Mediterranean region. Its name comes from 'ros marinus' meaning 'dew of the sea' or 'sea spray' as it was thought to grow best in coastal regions. Its aromatic leaves can be used as flavouring but Ancient Greek students are said to have twined it in their hair in the belief it might improve their memory. In late spring or early summer it bears many small mauve flowers.



### Lesser Periwinkle (*Vinca minor*)

Probably introduced to Britain from mainland Europe by the Romans or perhaps a little later. The related, and similar, greater periwinkle (*Vinca major*) was introduced from around the Mediterranean. Both have a sprawling habit and often occur around human habitation. Its pliable stems and pretty flowers made it useful in wreaths and garlands. The attractive mauve flowers appear from spring to autumn.



## NORMAN PERIOD 1066 - 1154

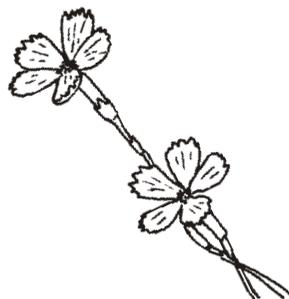


### Wallflower (*Erysimum cheiri* syn. *Cheiranthus cheiri*)

Originally from the eastern Mediterranean the first plants might have arrived as seed with building stone imported by the Normans to build their castles and religious buildings. Pevensey Castle, near Eastbourne, is a good place to see masses of yellow wallflowers growing on the ancient stone walls during the spring. At such a site the origins of the English name become obvious. Our specimens here are of a modern garden variety.

### Wild Carnation (*Dianthus caryophyllus*)

Although brought early into cultivation throughout Europe this plant originates from around the Mediterranean. The Spanish used to dip the clove-scented flowers into wine to add flavour to the drink. This idea spread and with it cultivation of the flower followed. Even today the remains of Norman castles in France and England sometimes have relic populations of the flower growing on and about their walls. The word 'carnation' appears to have entered the English language in 1538 and may be a corruption of 'coronation' based on their use in ceremonial crowns in ancient Greece. Wild flowers are usually pink but the garden varieties vary to deep red. The representative here is *Dianthus deltoides*.



English or Pot Marigold (*Calandula officinalis*)  
 Native to southern Europe this Marigold was originally grown  
 as a source of dye and food, hence the Pot Marigold name.  
 Its decorative qualities were only fully appreciated in later  
 centuries.



MEDIEVAL 1154 - 1485



Sweet Margoram (*Origanum majorana*)

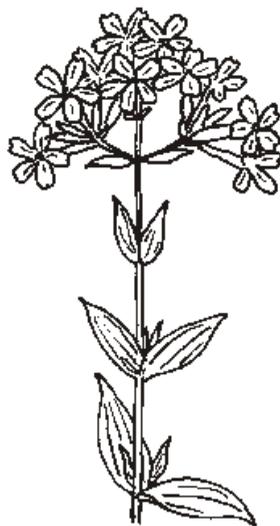
Circa 1200

Brought to Britain from south west Europe and Turkey for  
 use as flavouring. The plant has clusters of small purplish  
 flowers during early to mid-summer. The related but native  
*Origanum vulgare* has been substituted in this planting.

Soapwort (*Saponaria officinalis*)

Circa 1200

Introduced from south west Asia. As the name suggests the  
 plant has cleansing properties. The substance saponin,  
 present in the roots, produces lather when added to water.  
 The flowers of soapwort open in the evening. The very  
 similar related species grown here is *Saponaria ocymoides*, a  
 lower, mat-forming species with pink flowers in summer.



Lavender (*Lavandula angustifolia*)

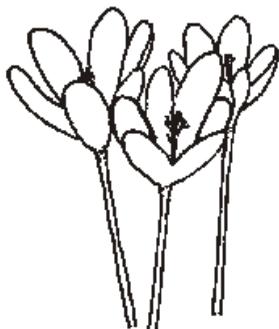
Circa 1265 (perhaps much earlier)

The western Mediterranean is this species' native home.  
 The name derives from 'lavare' or 'lavo' meaning 'to wash'.  
*Angustifolia* relates to the narrow leaves. Many kinds of  
 lavender have been valued through time for their aromatic  
 and cleansing properties. In mid to late summer the plant  
 produces spikes of fragrant mauve flowers much loved by  
 bees.

Dutch Crocus (*Crocus vernus*)

Circa 1350

This is a spring-flowering crocus species that produces flowers of purple and lilac. Native from western Asia through central Europe to Italy. By the Victorian era, *Crocus vernus* had reached such a level of popularity in Britain that entire spring carpet-beds were devoted to the flowers. *Crocus vernus* 'Purpureus Grandiflora', introduced in 1870 and boasting rich purple blossoms, is probably the oldest purple Dutch crocus still available commercially.



Autumn Crocus (*Crocus nudiflorus*)

Circa 1400

Native to the mountain meadows of the French-Spanish border area this autumn-flowering purple crocus was first described from England where there are long-established naturalised populations. There is evidence that this species was used as a source of saffron by the herbalists of the Knights of St John of Jerusalem since many of the English populations are at locations formerly occupied by them. It has also been shown that their stigmas contain the same chemicals as those of the true saffron crocus, *Crocus sativus*, even if they are a lot smaller.

TUDOR 1485 - 1603

Snowdrop (*Galanthus nivalis*)

15<sup>th</sup> Century

It is doubtful that the familiar snowdrop is native to Britain. It appears to have originated in the region extending from the Pyrenees to the Ukraine and may have been brought by monks for their monastery gardens. Whilst it was thought the bulbs had healing properties for cuts and wounds the flower was also considered symbolic of hope and purity. The short narrow leaves and white flowers both appear in the winter.



African Marigold (*Tagetes erecta*)

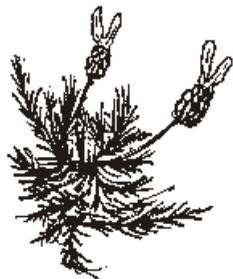
1535

North Europeans thought this plant might have started life in India, Peru or China although it was first brought back from Tunisia and given the English name of African Marigold. However, it was later found to be a native of Mexico from where Spanish conquistadors, perhaps unknowingly, brought it back to Spain and then introduced it to North Africa. The large-headed bright orange and yellow coloured garden varieties grow easily and often self-seed.

French Lavender (*Lavandula stoechas*)

1550

Brought to Britain from south west France. Like other lavenders it is valued for its aromatic and cleansing properties. Spikes of purple flowers topped with a conspicuous tuft of purple bracts appear from late spring and on through the summer.



Dyer's Chamomile (*Anthemis tinctoria*)

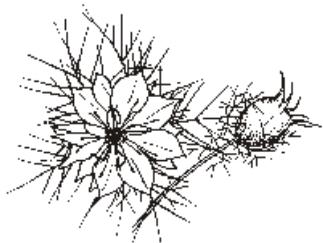
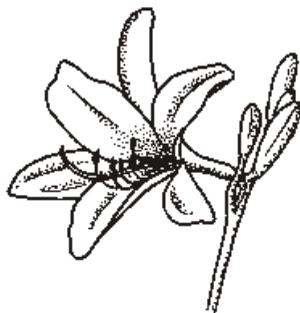
1561

Native to parts of mainland Europe, the Caucasus region, Turkey and Iran. The plant is important for the yellow dye that can be extracted from the daisy-like flowers which appear in summer. Our garden variety is 'Sauce Hollandaise'.

Yellow Day-Lily (*Hemerocallis lilioasphodelus*)

Circa 1570

In China, this plant's native home, day-lily flowers are sometime grown to eat. In the west they are grown for ornament. The name derives from the fact that the flowers only last a short time although modern plant breeders have managed to extend this in some varieties.



Love-in-a-mist (*Nigella damascena*)

1570

Although from the Mediterranean region and north Africa early on gardeners thought the plant came from around Damascus, in modern-day Syria, and hence the specific name. The generic name 'Nigella' is derived from the Latin word 'niger', meaning black, and is the colour of the seeds. It is very much at home in wild and rocky places and readily self-seeds. In summer it bears attractive pale blue flowers followed by long-lasting seed capsules.

French Marigold (*Tagetes patula*)

1572

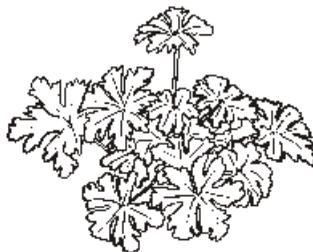
Despite the name this longstanding garden favourite originates from Mexico and was introduced to southern Europe before coming to Britain from France. Its path to Britain is similar to that of the earlier African Marigold but the common name reflects its introduction into Britain by French Huguenot refugees. Despite the pungent scent of the attractive orangey-yellow and red flowers the plant is very popular and will readily self seed.



Rock Crane's-bill (*Geranium macrorrhizum*)

1575

Southern Europe was this plant's native home. Used for decoration, the flowers, in shades from light to dark pink, appear in early summer. The name derives from the Greek for a crane (the bird) as the seed pods look a bit like cranes bills.



Day Lily (*Hemerocallis fulva*)

1576 - 1596

This is one of several species of day lily that were imported from Asia and probably eastern Europe during the mid to late 14<sup>th</sup> century. Evidence shows that they were in cultivation in China, where they originated, by the 12th century where the flowers were treated as a vegetable. Like the Yellow Day-Lily the orangey-brown infertile flowers appear mid-summer onwards and often only last a day each. The plant spreads by underground rhizomes and can eventually form large colonies. The facility of the rhizomes to help bind and stabilise the soil has sometimes been used in the United States to help alleviate erosion problems.



Yellow Crocus (*Crocus flavus*)

Circa 1579

At home on stony slopes in south-eastern Europe including western Turkey. It produces yellow-orange flowers during the spring and was popular in knot gardens and symmetrical raised beds.



Common Turk's-cap Lily (*Lilium martagon*)

1596

Now naturalised in some places but originally from the European mainland and as far east as Mongolia. The trumpet-shaped summer flowers have reflexed (back-bent) petals that give them a shape reminiscent of a kind of Turkish turban (called a 'martagan' in Turkish) and hence their common name. Many different coloured varieties are nowadays available.

## STUART 1603 - 1714

### Golden Garlic (*Allium moly*)

1604 or perhaps a little earlier.

Native to southwest and southern Europe the Elizabethans called all garlics 'molyes'. Grown for its attractive yellow summer flowers and not used for food despite the reference to garlic in its common name.



### Cuban Lily (*Scilla peruviana*)

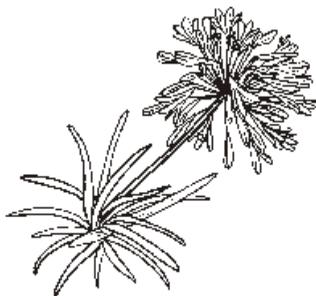
1607

Originating from Portugal, Spain, Italy and North Africa and, despite its name, nothing to do with the countries of Cuba or Peru but was apparently named after the ship, 'The Peru', that first arrived in England with bulbs from Spain. The leaves remain all year but during early summer the plant produces heads of purplish-blue flowers.

### Autumn-flowering Crocus (*Crocus serotinus* subs. *clusii*)

Circa 1620

Introduced from Portugal and western Spain it was popularly used in the knot gardens of the period. In autumn it produces deep to pale lilac flowers with the leaves appearing as the blooms fade.



### African Blue Lily (*Agapanthus africanus*)

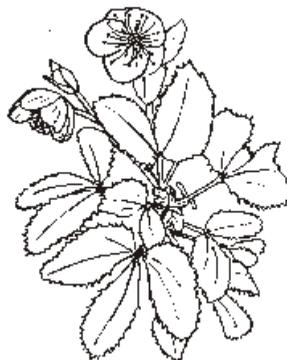
1629

Native to the area around the Cape of Good Hope, South Africa. The variety here is 'Big Blue' which produces heads of trumpet-shaped rich blue flowers in mid to late summer. *Agapanthus praecox* subs. *orientalis* is very similar to *Agapanthus africanus* and was introduced from the same region a in around 1650.

### Christmas Rose (*Helleborus niger*)

1629

Brought from its native area of central and southern Europe including Austria, Switzerland and Italy. It is possible that the date given represents the second introduction of the plant to Britain. From early winter purple-marked stems bear white or pinkish flushed flowers about 4.5 to 8cm across. The time of flowering gives this plant its common name. *Helleborus* is the old Greek name for the plant. The specific name '*niger*', perhaps surprisingly, refers to the black colour of the roots.



Tradescant's Spiderwort (*Tradescantia x andersoniana*)  
1629

Native to the eastern United States the plant was originally brought back to Britain by John Tradescant the Younger, Royal Gardener to Charles I. It was originally named *Tradescantia virginiana*. The plant bears three-petalled purple, blue, pink, white or red flowers from early summer to autumn.



Guernsey Lily (*Nerine sarniensis*)  
1659

At home in the Northern and Western Cape of South Africa. Sometime in the 1650s a ship carrying *Nerine* bulbs was wrecked on the shores of Guernsey where, by chance, some managed to grow in the sand dunes. Botanists noticed the plant but believed it was from Japan as that was where the ship was thought to have originated. The plant's true origin was later recognised as South Africa but the species was named *sarniensis* after Sarnia the classical name for the Channel Islands. Its bright orange-red flowers appear in the autumn.

Michaelmas Daisy (*Aster novae-belgii*)  
New England Aster (*Aster novae-angliae*)  
1710

Both of these originate in North America and are attractive for their relatively late flowering period from late summer to mid-autumn. The specific name '*novae-belgii*' is a reference to New Belgium, the old name for the area around New York where the plant was probably first noticed. The second, '*novae-angliae*' is a reference to New England. Our varieties here are typical representatives with *Aster novae-angliae* being the taller of the pair.



'Geranium'  
(*Pelargonium zonale* and *Pelargonium inquinans*)  
1710 and 1714 respectively

The ancestry of most garden varieties leads back to plants native to South Africa. The two species *P. zonale* and *P. inquinans* were hybridised in 1844 to produce the first bright scarlet garden 'Geranium'. 'Geranium' is the commonly misused name for *Pelargonium*. *Pelargonium* varies in several ways from *Geranium*. The *Pelargonium* flower has five petals of which the two upper ones are normally larger than the others and may be colour-blotched. *Geranium* petals, however, are all the same size and colour and the flowers are born individually on separate stems. *Pelargonium* flowers are in clusters at the end of long stalks. The name *Pelargonium* comes from the Greek 'pelargos', meaning stork, owing to the resemblance between the fruiting body and a stork's beak.

## 18<sup>th</sup> CENTURY (after 1714)

### Arum Lily (*Zantedeschia aethiopica*)

1731

Introduced from South Africa and Lesotho where it can be found in moist soils often around lake margins. Despite its specific name *aethiopica* it has nothing to do with Ethiopia. From late spring to mid-summer it bears white trumpet-shaped spathes. (Spathe - A hood-like structure that protects the spadix which is itself covered in minute flowers.)



### Perennial Phlox (*Phlox paniculata*)

1732

Originating in the eastern United States, seeds were probably first sent from Virginia by Mark Catesby to Dr. James Shepherd at Eltham where they were grown for the first time in this country. *Phlox paniculata* is the parent of the summer garden Phlox grown here that flowers in white and shades of red, pink and mauve.

### Elephant's Ears (*Bergenia crassifolia*)

1765

Native to Russia and Siberia, where it grows in meadows, rocky moorland and damp woods. The genus is named after a botanist called Carl von Bergen (1704 - 1760). In late winter and early spring nodding heads of purplish flowers appear.



### Sisyrinchium (*Sisyrinchium striatum*)

1778

This clump-forming plant originates from Chile and Argentina. The long stiff leaves are accompanied by stems with clusters of creamy-yellow flowers during early to mid-summer.

### Lamb's Ears (*Stachys byzantina*)

1782

Originating in the Caucasus region and Iran this plant was introduced to Britain by William Pitcairne (1711 - 1791) who was a physician at St. Bartholomew's Hospital, London. Pitcairne had his own private botanic garden at Islington. The erect stems bear spikes of pinkish-purple flowers from early summer to autumn. The felted leaves help prevent water loss in dry conditions but can lead to water logging and then mildew infection in our wetter British climate.

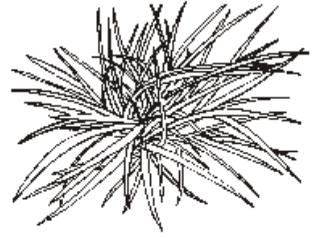


## 19<sup>th</sup> CENTURY

### Astelia (*Astelia nervosa*)

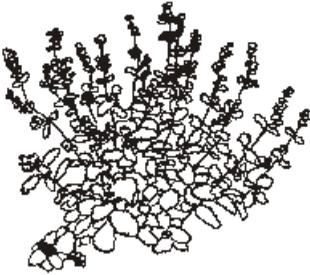
1803

*Astelia nervosa* originates from New Zealand where it grows in peaty soil in sub-alpine and mountainous areas. In summer the arching foliage is accompanied by long stalks of greenish-yellow or purplish flowers. This is followed, in female plants, by orange or red berries.



### Catmint (*Nepeta racemosa* formerly *Nepeta mussinii*) 1803

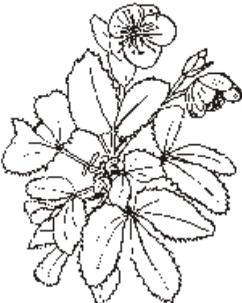
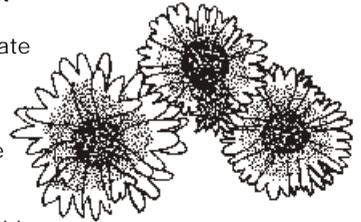
Native to Caucasus, Turkey, north and north west Iran. Seeds were first sent back to Britain by plant collector Count Mussin Puschkin after whom the species was originally named. The name *Nepeta* was used for this plant by the Roman author Pliny the Elder (23AD to August 24<sup>th</sup> 79AD) and may have been called after the Italian town of Nepi. The common name results from the fact that cats are attracted by the chemical nepetalactone which is present in the plant. Records show that plants first flowered at Kew Gardens in 1803. The small heads of deep violet to lilac-blue flowers appear in summer. Nowadays garden hybrids are most commonly grown rather than the pure species.



### Blanket Flower (*Gaillardia aristata*)

1812

A native perennial of the North American Plains where it enjoys hot, dry conditions in well-drained soil. The plant will flower from spring through to late summer and is drought tolerant when established. The generic name is after Gaillard de Charentoneau an 18<sup>th</sup> century French magistrate and patron of botany. The species name, *aristata*, is a reference to the bristly receptacle below the flowerhead. The common name appears to be from its ability to form large colonies. The plant was 'discovered' in 1805 by the explorers Lewis and Clark when they were in Montana travelling west towards the Pacific. President Thomas Jefferson had sent the expedition to see if Americans could journey overland to the Pacific Ocean by following two rivers originating in the Rockies, the east-flowing Missouri and the west-flowing Columbia.



### Hellebore (*Helleborus purpurascens*)

1817

A native of south east Poland, east and north Hungary, the western Ukraine and Slovakia. From mid-winter to early spring the plant produces purplish or slate-grey flowers that are often flushed with pink or purple. The leaves appear after flowering. The substitute plant here is *Helleborus orientalis*.

*Cosmos (Cosmos atrosanguineus)*

1835

This species originated in the scrublands and meadows of Mexico. The name *Cosmos* derives from the Greek word for beautiful and *atrosanguineus* from the Latin for the deep blood-red colour of the mid-summer to autumn flowers. The flower's scent is of chocolate. It is thought that some *Cosmos* species may be ancestral relatives of the garden Dahlias.



Lady's Mantle (*Alchemilla mollis*)

1874

Native to the east Carpathians, Caucasus and Turkey and 'discovered' by the Austrian plant hunter Thomas Pilcher. The name *Alchemilla* derives from Arabic and suggests its former use in alchemy. The common name was originally in the slightly extended form of 'Our Lady's Mantle' because the scalloped shape of the leaves was thought to resemble the mantle (cloak) of the Virgin Mary. The plant bears tiny greenish-yellow flowers from early summer to autumn.

*Nerine (Nerine bowdenii)*

1889

Found growing in the mountain regions of South Africa this *Nerine* was discovered by a government surveyor, Athelstan Bowden. He sent some to his mother in Devon and a few years later experts from Kew Gardens recognised it as a new species and named it after Bowden. The plant is quite hardy and easier to grow in Britain than some other *Nerine* species.

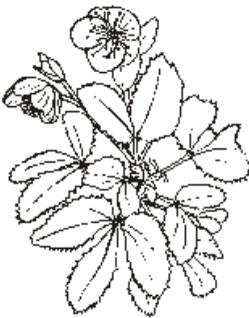


20<sup>th</sup> CENTURY

Corsican Hellebore (*Helleborus argutifolius*)

1909

Native to Corsica and Sardinia, in Britain it produces pale green flowers during the winter. The specific name '*argutifolius*' is a reference to the plant's toothed leaves. When grouped together the plant forms useful ground cover.



*Astilbe (Astilbe koreana)*

1917

Introduced from Korea the plant produces feathery heads of small flowers during the summer. In their native lands most *Astilbe* grow in shady mountain ravines and along stream banks.



## Glossary

alchemy

Generally applied to the practice of chemistry during the Medieval Period. It is particularly associated with attempting to turn base metals into gold.

anthropogenic

Derived through human activity.

arboretum

Collection of living trees often containing many different species.

aromatic

Having a scent.

botany

The scientific study of plants.

bract

Modified leaf at the base of a flower or head of flowers.

charcoal

Fuel made by burning wood in a process that excludes oxygen and leaves a porous material resembling coal that is 85% to 98% carbon. Charcoal, unlike wood, can be burnt at temperatures high enough to smelt metal.

chronological

In order of time.

coppiced

Traditional method of woodland management in which young tree stems are periodically cut down to near ground level and then allowed to regrow.

habitat

The natural surroundings in which a plant or animal lives.

herbaceous

Plants that are non-woody.

horticulture

The cultivation or study of plants.

Huguenot

Member of the Protestant Reformed Church of France in the 16<sup>th</sup> to 18<sup>th</sup> centuries.

hybrid

Offspring of two different plant species that have been cross-bred. The process can occur naturally or through human activity such as plant breeding.

knot garden

A knot garden is a very formal design of garden usually based on square compartments. Most knot gardens now have edges made from Box (*Buxus sempervirens*). The original knot gardens did not have the low box hedges, and knot gardens with hedges might more accurately be called parterres.

native

Naturally present. Not introduced through human activity.

narcotic

Chemical agents that numb or deaden, causing loss of feeling.

naturalised

An introduced plant that has become self-perpetuating.

rhizome

Special stem of some plants that grows horizontally along or under the ground.

saffron

Name of the spice that gives colour and flavour to food. Also the name of the dark-yellow dye.

selection

Process by which plant breeders choose plants with particular desirable characteristics and discard those without.

stamen

Male part of a flower.

stigma

Part of the flower that initially receives pollen during the process of fertilisation.

sub-alpine

The zone immediately below the tree line. The altitude of this line varies around the world.

topiary

The art of creating sculpture with various living plants.

underplanting

Growing short plants such as herbs or bulbs under trees and other taller plants.

vegetative

Process by which new plants arise or are obtained without production of seeds or spores. One type of vegetative reproduction is the production of bulbs.

## Selected References

Cambridge University Botanic Garden Chronological Bed, 2<sup>nd</sup> edition, Ruth Stungo, pub.University Botanic Garden

Collins Tree Guide, Owen Johnson and David Moore, pub.Collins, 2004

Complete Gardens CD ROM, pub.Complete Gardens .com Ltd, 2003-2004

Field Guide to the Trees and Shrubs of Britain, pub.Reader's Digest, 1998

Museum of Garden History, [www.museumgardenhistory.org](http://www.museumgardenhistory.org) , Plant List

New Flora of the British Isles, Clive Stace, pub.Cambridge University Press, 2<sup>nd</sup> Edition, 1997

Roman Gardens and Their Plants, Claire Ryley, illustrated by Sally Rigby

Sander's Encyclopaedia of Gardening, pub.Collingridge Books, 22<sup>nd</sup> edition, 1966

The Gardener's Atlas, Dr.John Grimshaw, pub.Little, Brown and Company UK, 2001

The New Horticultural Society Dictionary of Gardening, pub.MacMillan Press Limited, London, 1992

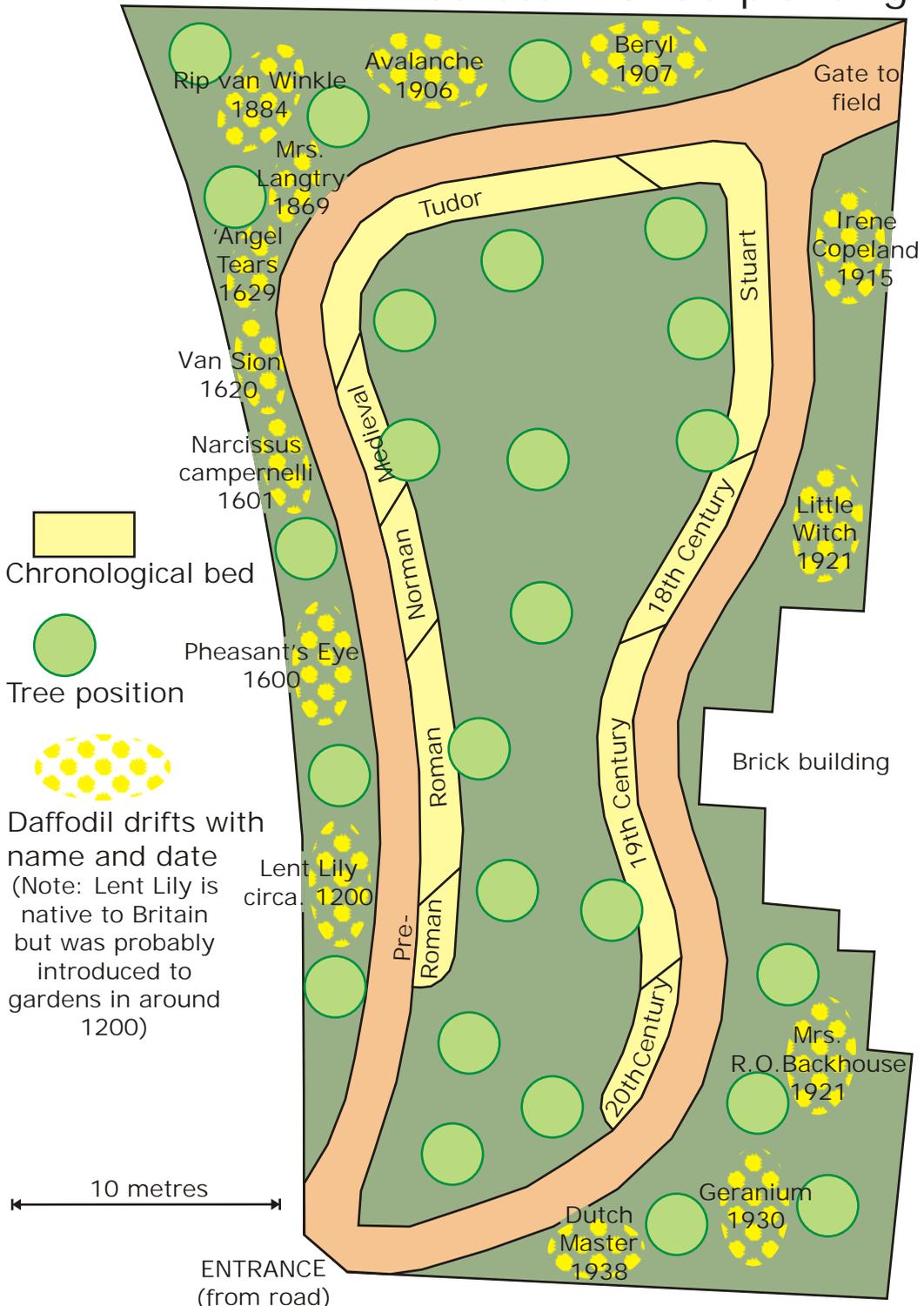
The Origin of Plants, Maggie Cambell-Culver, pub.Headline Book Publishing, 2001

The Royal Horticultural Society A-Z Encyclopaedia of Garden Plants, Editor in Chief Christopher Brickell, pub.Dorling Kindersley, 1996, reprint 1997

[www.britannica.com](http://www.britannica.com)

[www.wikipedia.org](http://www.wikipedia.org)

# Arboretum Underplanting





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