The Physic Garden of
The Worshipful Company of Barbers
at Barber-Surgeons’ Hall
**GARDENS IN THE CITY OF LONDON**

In the 13th and 14th centuries, the City of London had important royal, religious and lay residences and most of them had gardens. These medieval gardens had fruit trees, vines, and herbs for the kitchen or for strewing on the floor. Vegetables were less important because this was an age of meat eating but lettuce, spinach, cucumber and cabbage were grown. Some gardens had beehives, because sugar was a rare commodity and there were fine lawns for leisure use with flowerbeds planted with a variety of plants including violets, roses, lilies, irises and peonies.

By the early 1600's the City's population had rapidly increased to 200,000, and the demand for housing led to a considerable loss of gardens. John Stow wrote in 1598 that some streets such as Aldgate and Cheapside were now “fully replenished with buildings”. The gardens surviving in the centre belonged to a few important people and to the City Livery Companies, some of which had acquired former religious institutions and their gardens, following the Dissolution of the monasteries by Henry VIII.

**LIVERY COMPANY GARDENS**

By 1500 there were 26 halls of Livery Companies and by 1600 there were 46 halls, of which 24 had gardens. The Drapers’ Company had a large garden which was open to the public, as did the Grocers’ Company, whilst that of the Parish Clerks’ in Bishopsgate was of a more modest size. The livery gardens were valued for recreation, as well as for growing fruit, herbs and flowers, and several had bowling alleys.
Today ten Companies still have gardens in the City and although, of necessity, a few are small, it is good to find that the tradition of Livery Company gardens lives on. The companies are the Barbers, Drapers, Girdlers, Goldsmiths, Merchant Taylors, Plaisterers, Saddlers, Salters, Stationers, and Tallow Chandlers.

THE PHYSIC GARDEN AT BARBER-SURGEONS' HALL

The Barbers’ Company, founded in 1308, has had a Hall on or very close to the current site since 1445 and it is possible that it had a garden as early as then. In 1540 the Company amalgamated with the Surgeons’ Guild to form the Barber-Surgeons’ Company, hence the name of the Hall today, but in 1745 the surgeons left to create what would become The Royal College of Surgeons, when the Company reverted to its original name, The Worshipful Company of Barbers of London.

John Gerard (1545-1612) became Master of the Company in 1607. He was a surgeon, a renowned plantsman, author and gardener. He wrote a famous and influential Herbal in 1597 describing about 1500 plants with their medicinal and domestic uses. In addition to supervising the garden at the Hall, he also had his own garden nearby at Holborn. Twenty years earlier, in 1577, he began work as superintendent to the gardens of William Cecil, Lord Burghley, the Queen’s Lord High Treasurer, at his homes in the Strand and also at Theobalds, Hertfordshire, a position he held for more than 20 years, until Lord Burghley’s death in 1598. In 1587, the College of Physicians established a physic garden in the City of London with Gerard as its curator, a position he held until 1604. He became Herbarist to King James I in 1605.

There are few references to the garden in our Annals but we do know that in October 1555 the Clerk was given an allowance for “trimming, sweeping and weeding the garden”. The first specific reference to a herb garden as such was at a meeting of the Court on 16th June 1597 when it was proposed that a piece of ground be found “fit to make a garden for to plant all kind of herbes in root
plants and such like as to the said Mr Gerard being a skilful Herbalist should think meet of for the Worship of this society”.

In 1630 the company bought 100 sweet briars (*Rosa rubiginosa*, Eglantine rose) to make a stout hedge and also plants of rosemary, strawberry, violets and vines.

In 1666 the Hall and garden were destroyed by the Great Fire but the Garden prevented the flames from reaching the Anatomical Theatre. The next Hall, which opened in 1675 did not have a garden. It was destroyed in a bombing raid in December 1940, and our new Hall was opened in 1969.

The site of the present garden is of interest. In 120 AD the Roman Emperor Hadrian built a stone fortress in the NW corner of what was then a small trading port of Londinium. This formed the original section of the Roman wall, which later enclosed and protected the City of London. Defensive bastions were then added and the Physic Garden is situated within the bay created by Bastion 13 on the western side of the original fortress.

On the initiative of Past Master Sir Francis Avery Jones, the present garden was conceived in 1987. It was constructed on what had become a derelict bomb site by Liveryman David Jones of the Open
Spaces Department of the Corporation of London, who supplied original Victorian tile edging to define the plots.

**The way in which the plants have been selected for the Garden**

It was decided to present a broad view of the way in which plants have been used from the earliest times to the present day in relation to their use in medicine and surgery and also to their use in domestic and civic environments. An emphasis has been put on growing plants mentioned in Gerard’s Herbal of 1597. The partly shaded site of the Garden and its heavy clay soil also influences the selection of plants suitable for inclusion.

**There are four main categories of plants**

1. “Gerard” plants related to surgery, dentistry, wounds and burns
   eg. Parsley, Daisy, Self Heal, Spurge, Comfrey, Bugle, Great Burnet, Yarrow, Lady’s Mantle and St. John’s Wort.

2. Plants used to create pleasant smells, for strewing on the floor, for nosegays, perfumery, insect repellents and for dyeing and washing fabric
   eg. Rose, Sweet Woodruff, Cotton Lavender, Dyer’s Woodruff, Rue, Lemon Balm, Meadowsweet, Marjoram, Iris, Lavender, Hyssop, Tansy and Soapwort.

3. Medicinal plants, formerly in the official pharmacopoeia, but now no longer used
   eg. Lily of the Valley, Lungwort, Rhubarb and Valerian.

4. Plants which contain modern pharmaceutical medicines with confirmed efficacy
   eg. Camellia, Meadowsweet, Mandrake, Foxglove, Liquorice, Yellow Sweet Clover, Meadow saffron, Yew, Feverfew and May Apple.

**PLANT MEDICINES**

Plants are the origin of over 30 major medicines whose value has been proven by scientifically controlled therapeutic trials and which are used worldwide today.

**How were they found?**

Some of these plants were discovered entirely by folk medicine, as with the opium poppy. But in other cases the folk remedy was just the starting point for the development of a better medicine by means of scientific investigation—and this was done in two ways:

(a) a new use was discovered for the plant compound or

(b) an entirely new medicine was synthesised from the plant compound
However, folk medicine is not the only way in which our modern medicines have been discovered from plants. Valuable discoveries have been made in academic chemistry, from veterinary medicine (Melilotus), by large scale screening programmes (Taxus), and by perceptive observations of people on themselves.

**How is the medicine actually obtained from the plant?**

a. It is extracted directly from the plant eg. Foxglove, Meadow Saffron.

b. The plant provides the basic material for a semi-synthetic process eg. Yew.

c. The plant itself is no longer used, but the compounds in it have provided the inspiration for the synthetic production of new medicines, either by altering the molecular structure or by copying the mode of action as with Curare (not in the garden).

The practice of **Herbal Medicine** is different from orthodox western medicine and consists of prescribing the whole plant, or part of it, and not a pure substance extracted from the plant, nor a synthetic medicine. Herbal preparations have not been authenticated by therapeutic clinical trials.

⚠️ Please be aware that most plants are poisonous in one form or another with very few exceptions. Plant chemicals, even ones that can be made into medicines, have mainly evolved to deter passing herbivorous and insectivorous predators from the dinosaurs onwards. Please do not try to eat or smoke any parts of the plants in the Garden and some are risky even to touch without adequate protection.
A DESCRIPTION OF THE PLANTS IN THE GARDEN

Rear Bed

Camellia sinensis (Theaceae), Tea
This was first brought to Europe from China in 1610; it contains caffeine, polyphenols and Theophylline, which has been a good drug for asthma and chronic obstructive pulmonary disease, but the amount in a cup of tea is very low. Formerly it was used as a diuretic to treat the oedema of heart failure. Our plant was donated by the Tregothnan Estate, Cornwall, where it is grown for commercial tea production, on the occasion of a visit by members of The Barbers’ Company in April 2015. The majority of its possible but unproven health benefits are associated with drinking green tea.

Ajuga reptans (Lamiaceae), Bugle
A good wound herb. Known as “carpenter’s herb” due to its ability to stem bleeding. Gerard states, “the decoction of bugle drunken, dissolveth clotted or congealed blood within the bodie, healeth and maketh sound all wounds both inward and outward.” A gargle made from the leaves will soothe a sore throat.

Cynara scolymus (Asteraceae), Globe Artichoke
Cultivated in Europe since ancient times, and still widely used as an herbal supplement because of possible benefits from its active ingredient cynarin to digestive, liver and biliary disorders and its cholesterol lowering effects. Gerard states, “it is best to eat the artichoke boyled, and is accounted a dainty dish, being pleasant to the taste, and good to procure bodily lust. It sendeth forth plenty of stinking urine, whereby the rank and rammish savour of the whole body is much amended.”

Convallaria majalis (Asparagaceae), Lily of the Valley
This sweetly scented woodland plant is highly poisonous and contains cardiac glycosides, like those in the foxglove. It is less potent than foxglove and is not used in Britain to treat heart disease. Gerard states, “the flowers distilled with wine restoreth speech unto those that have the dumb palsy and that are fallen into the apoplexie, and is good against the gout and comforteth the heart.”

Rheum palmatum (Polygonaceae), Chinese or Chinghai Rhubarb
Originally called Turkey rhubarb because it was imported through that country from China into Europe after 1762. It contains purgative compounds called anthraquinones similar to those found in senna, and was used to treat chronic constipation. Prior to antibiotics, it was undoubtedly of value
in treating bacillary dysentery. It was used medicinally in China in 2700 BC and was described in the herbal of Dioscorides in 70CE.

**Hylotelephium spectabile (Crassulaceae), Stonecrop, formerly Sedum**

This plant represents several species of *Sedum* which were used in herbal medicine. The biting stonecrop, *Sedum acre*, was in the famous worm expelling medicine “therine” (treacle). The white stonecrop, *Sedum album*, was used as a cooling plaster for painful haemorrhoids. Gerard states, “the leaves held in the mouth do quench thirst in hot burning fevers.”

**Filipendula ulmaria (Rosaceae), Meadowsweet, formerly Spiraea**

The plant from which salicylic acid was first isolated in 1839, leading to the development of the very valuable drug **Acetylsalicylic acid** in 1899 by Bayer in Germany, which has been an important anti-inflammatory medicine. It was given the name **Aspirin** from *a* for acetyl, *spir* from spiraea and *in* as a common drug terminology. Gerard said it was the best strewing herb, “for the smell thereof makes the heart merrie.”

**Tanacetum balsamita (Asteraceae), Costmary, Alecost**

“The conserve made with the leaves of Costmarie and sugar doth warme and drie the braine, and openeth the stopplings of the same. The leaves of Costmarie boiled in wine and drunketh cureth the griping paine of the bellie, the guts and bowels and cureth the bloody flux. The seed expelleth all manner of wormes out of the belly.” (Gerard)

**Clinopodium nepeta (Lamiaceae), Lesser Calamint**

“The decoction thereof drunk provoceth urine, bringith down the monthly sickness and expelleth the childe. It helpeth those that are bruised, such as are troubled with crampes and convulsions. Being taken aforehand in wine, it keepeth a man from being poisoned. It cureth them that are bitten by serpents.” (Gerard). It is used for flavouring in Italian cuisine (**Mentuccia**) and is one of the central herbs in Roman cooking, helping good digestion.

**Angelica archangelica (Apiaceae), Angelica**

Parkinson rated it the most important of all medicinal herbs and it was common practice to suck a piece of root as a protection against all ills. (The angelic herb)

“The roots are a singular remedy against poison and against the plague and all infections taken by evil and corrupt aire. It openeth the liver and spleen, draweth down the termes, driveth out or
expelleth the secondine (afterbirth) ….. It cureth the bitings of mad dogs and all other venomous beasts.” (Gerard)

The essential oil extracted from the roots is used in the food and drinks industry for flavouring vermouth, spirits and liqueurs.

**Origanum vulgare var. aureum (Lamiaceae), Golden Marjoram**

Has a fragrant odour which persists when the herb is dry, and was valued for strewing in rooms. The great herbalist John Parkinson wrote that it was widely used to make “swete bags” and “swete powders”. These were prized before the introduction of foreign perfumes. Marjoram oil was put into the cavity of a carious tooth to relieve the pain and Gerard said the leaf could be chewed to relieve toothache. The essential oil contains thymol, which is a good oral antiseptic.

**Rosa gallica var. officinalis (Rosaceae), The Apothecarys’ Rose**

The Red Rose of Lancaster. Commonly grown in medieval gardens, its fragrance even when dried and powdered, gave rise to an industry in perfumes, preserves, confections and potpourri by the apothecaries of Provins, near Paris, around 1500.
**Artemisia abrotanum (Asteraceae), Southernwood**

Introduced into this country from Southern Europe in 1548, it has a pungent aromatic scent. It was used to keep moths off clothes, for nosegays to ward off infection in courtrooms, and by ladies to keep them awake in church during the sermon.

“It killeth worms and driveth them out: if it be drunke with wine it is a remedy against deadly poysons. It helpeth against the stinging of scorpions and field spiders.” (Gerard)

**Teucrium chamaedrys (Lamiaceae), Wall Germander**

Used as herbal medicine from the 16th century for melancholy, digestive complaints, headaches and coughs, but this long continued use did not reveal its toxicity until modern medical practice showed that it can cause serious liver damage.

**Petroselinum crispum (Apiaceae), Parsley**

One of our best known herbs for garnishing, and rich in vitamins. Gerard wrote, “the leaves are pleasant in sauces and broth, they may be also singular good to take away stoppings and to provoke urine. Being chewed it helpeth the tooth-ache.” A parsley tea was used for dysentery in the 1st World War.

**Colchicum autumnale (Colchicaceae), Meadow Saffron, Naked Ladies**

Used in the 1st century against arthritis. It contains **Colchicine** which has been a good treatment for acute gout, familial Mediterranean fever and pericarditis, but is potentially toxic, and all parts of the plant are poisonous. This alkaloid is used in genetic and cancer research and in the development of new varieties of plants from its ability to double the number of chromosomes and thus produce polyploid strains.

“Those which have eaten of the common meadow saffron must drink the milk of a cow, or else death presently ensueth.” (Gerard)

**Euphorbia epithymoides (Euphorbiaceae), Cushion Spurge**

Contains a very irritating and toxic milky latex in its stem. Gerard wrote, “the juice or milke is good to stop hollow teeth being put into them warily so that you touch neither the gums nor any of the other teeth.” The poisonous latex probably destroyed the nerve endings in the roots of the teeth.
A related spurge species, *E. peplus* is now used to produce a topical agent, **Ingenol mebutate gel**, for treating early skin cancer, but not without producing quite severe and painful inflammatory side effects!

**Pulmonaria officinalis (Boraginaceae), Lungwort**

Selected as a medicinal plant by the ancient Doctrine of Signatures which decreed that the appearance of a plant would indicate its therapeutic use. The spotted leaves resemble the cut surface of the lung and so it was used for respiratory diseases such as bronchitis. It has no known or proven medicinal effects but that did not stop its use!

**Bellis perennis (Asteraceae), Daisy**

Valued in surgical practice by Gerard, who wrote, "it taketh away bruises and swellings...whereupon it was called in old time Bruisewort. The juice put into the eyes cleareth them and taketh away the watering. The decoction of the field daisie made in water and drunke is good against agues, inflammation of the liver and all other inward parts".

**Mandragora officinarum (Solanaceae), Mandrake**

An extract of the root was used at the time of Christ to lessen the pain of amputation, and to relieve the agony of crucifixion..."they filled a sponge with vinegar and put it to His mouth." The sponge contained wine of mandrake. The active ingredient in the root is the alkaloid **Hyoscine (scopolamine)** and this drug is used in its pure form (obtained now from other sources) as a pre-medication injection prior to anaesthesia and surgery. It is exciting to find a medicine whose use has been unchanged for 2000 years. Hyoscine is effective for travel sickness (Kwells).

**Lilium candidum (Liliaceae), Madonna Lily**

Cultivated since antiquity, it has great symbolic value for many cultures. The bible describes the columns at King Solomon’s temple as being adorned with Madonna lilies. It symbolises purity for Roman Catholics and many renaissance paintings of the Virgin Mary show her with this lily.

According to Culpeper, it was, “excellently good in pestilential fevers. The root boiled in any convenient decoction gives speedy delivery to women in travail, and expels the afterbirth.” And Gerard wrote, “the root of the garden lily, stamped with honey, gleweth together sinews that be cut in sunder.”
**Melissa officinalis (Lamiaceae), Lemon Balm**

Used medicinally for over 2000 years, mentioned by Theophrastus in 300BC, and described by Paracelsus as the “elixir of life”, its essential oil is widely used in perfumery and aromatherapy for treating symptoms of stress and leaf extracts are used in food and teas for their strong lemon flavour.

“Drunke in wine is good against the bitings of venomous beasts, comforts the heart and driveth away all melancholy and sadness. The hives of bees being rubbed with the leaves, causeth the bees to keep together and causes others to come unto them. It helpeth the toothache, the mouth being washed with the decoction.” (Gerard)

**Sanguisorba officinalis (Rosaceae), Great Burnet**

“The continual use of it preserves the body in health, and the spirits in vigour. It is a friend to the heart, liver and other principal parts of a man’s body.” (Culpeper)

“Burnet is a singular good herb for wounds. It stauncheth bleeding. The leaves steeped in wine and drunken, comfort the heart and make it merry and are good against the trembling and shaking thereof”. (Gerard). It is used in traditional Chinese medicine to cool the blood, stop bleeding and heal wounds.

**Central Bed**

---

**Laurus nobilis (Lauraceae), Bay Laurel**

Venerated in ancient Greece and Rome and a symbol of victory and immortality, victorious Roman generals wore laurel crowns and graduating students in Italy continue the custom. (The source of the terms *Baccalaureate* and *Poet Laureate*). Pliny gives a long list of ailments treated by laurel oil:
paralysis, sciatica, bruises, headaches, catarrh and ear infection. Culpeper wrote, “very effectual against the poison of venomous creatures, and the stings of bees and wasps, and also against the pestilence or other infectious diseases.” Widely used as an essential herb in cooking and still used for digestive disorders by boiling a few leaves in water.

**Lavandula angustifolia Hidcote (Lamiaceae), Lavender**

Used by the Romans as a perfume in the bath, hence the name, from the Latin “lavare” - to wash. It was popular as a strewing herb, for scenting linen and as a cosmetic scent from the earliest times. Oil of lavender was obtained by distillation and was used as an insecticide and also medicinally for rheumatism, toothache, and faintness. It is useful when applied to minor wounds and burns. Gerard recommended it highly for the palsy (paralysis). It is used in aromatherapy, potpourri and a refreshing tea to help digestion and headaches.

**Galanthus nivalis (Amaryllidaceae), Snowdrop**

The drug Galantamine, which is used to treat memory loss in mild to moderate Alzheimer’s disease, was first found in 1956 in the snowdrop – *Galanthus* - hence the name of the medicine. It was subsequently sourced from Narcissus (daffodil) and Leucojum (snowflake) bulbs although it is now synthesised. It potentiates the action of the neurohormone acetylcholine, an important chemical for brain function, by inhibiting the action of the enzyme acetylcholinesterase.

**Crocus sativus (Iridaceae), Saffron Crocus**

The source of saffron, one of the world’s most expensive spices, and cultivated and traded in Greece and the Middle East for over four millennia. Iran now accounts for 90% of world production.

“Saffron is endowed with great virtues, for it refreshes the spirits and is good against fainting fits and the palpitation of the heart. It strengthens the stomach, helps digestion, cleanses the lungs, and is good in coughs”. (Culpeper) Recent research shows it may be useful as an anti-depressant.

**Front Left Bed**

**Podophyllum peltatum (Berberidaceae), May Apple**

Used by the Penobscot tribe in Maine, USA in the 19th century to treat skin growths. Then doctors used an extract from the roots called *Podophyllotoxin* to treat the benign tumours called genital warts. It was too toxic to use by injection until a semi-synthetic derivative was produced called *Etoposide*, which is a first class drug for testicular and lung cancer. This is a good example of folk
medicine identifying a plant, with medical research subsequently producing the effective modern drug.

**Digitalis purpurea, lanata & lutea (Plantaginaceae), Foxglove**
Considered poisonous until the pioneering work of Dr William Withering (1785) showed that *D.purpurea* was effective in treating the dropsy (heart failure). It contains cardiac glycosides which control and prevent abnormal heart rhythms and also strengthen the heartbeat. The modern glycoside, **Digoxin**, is extracted directly from the leaves of *D.lanata*, the woolly foxglove, and is safer in its pure form than the mixture of glycosides present in the leaf, which vary in content from season to season.

**Glycyrrhiza glabra (Fabaceae), Liquorice**
An old remedy for indigestion and the source of a modern drug, **Carbenoxalone**, used from the 1960s for peptic, oesophageal and oral ulcers. It contains a steroid which causes salt retention, so it should not be used for more than 4 weeks at a time. Liquorice was used by Roman soldiers to combat thirst. The sweetness of the root can be used to mask the bitterness of other herbs.

“Root of liquorice is good against the rough harshnesse of the throat, it openeth the pipes of the lungs, when they be stuffed, and ripeneth the cough and bringeth forth flegme. The juice of liquorice is profitable against the heate of the stomacke and of the mouth. Being melted under the tongue it quencheth the thirst”. (Gerard)

**Meliolotus officinalis (Fabaceae), Yellow Sweet Clover**
Historically, it was often used in poultices to relieve inflammation, including The King’s Grace ointment designed for King Henry VIII “to coole and dry and comfort the membre”.

Introduced from Europe to the prairies in the 1920’s as a forage crop to make hay as a winter feed for cattle. When some animals in Alberta died from internal bleeding it was found that they had eaten mouldy hay and a perceptive veterinary surgeon realised that this hay must contain a haemorrhagic agent. This was identified as **Dicoumarol** and it became the first anticoagulant medicine for the treatment of thrombosis. The related synthetic compound, **Warfarin**, is now widely used instead and its name is derived from “**Wisconsin Alumni Research Foundation** with **arin** as a common ending for a drug name. Its modern use bears no relationship to its use in the past as a strewing herb to scent medieval rooms.
**Eryngium variifolium (Apiaceae), Moroccan Sea Holly**
An old herbal remedy. The celebrated Dutch physician Herman Boerhaave prescribed it in the 17th century for kidney complaints and scurvy. Gerard used it for bladder stones. The roots could be candied by boiling in sugar and sold as a sweetmeat. It was said to be an aphrodisiac which might explain why Falstaff called it “kissing-comfits”, in Shakespeare’s play, *The Merry Wives of Windsor*.

**Ruta graveolens (Rutaceae), Rue**
Known as Herb of Grace from the practice of using a sprig to sprinkle Holy Water on the congregation in Catholic churches. Gerard wrote, “provokes urine, brings downe the sicksnesse, expels the dead child and afterbirth, being inwardly taken.”

“The seed taken in wine is an antidote against all dangerous medicines or deadly poisons. Rue is a plant of many virtues and good against infectious pestilential diseases, and the plague itself”. (Culpeper)

⚠️ **Skin contact with the leaf, especially in sunlight, should be avoided. The psoralens content causes intense photosensitivity, resulting in severe painful blistering.**

**Marrubium vulgare (Lamiaceae), Horehound.**
A member of the mint family, its use in respiratory disorders was described by Celsus 2000 years ago. In modern use it is made into candied lozenges to ease a sore throat, herbal tea and horehound beer.

Gerard wrote, “boyled in water and drunke, it openeth the liver and spleene, cleanseth the brest and lungs and prevails greatly against an old cough.”

“It is a remedy for those that are short wined, have a cough or are fallen into a consumption. It helpeth to expectorate tough phlegm from the chest. It is given to women to bring down their courses, to expel their afterbirth, and to them that have sore and long travailes (labour). (Culpeper)

**Santolina chamaecyparissus (Asteraceae), Cotton Lavender**
An aromatic herb introduced from Southern Europe in the 16th century, it was placed among clothes to repel moths and other insects. The name comes from "sanctum linum", holy flax.

Pliny wrote, “drunke in wine is a good medicine against the poysons of all serpents and venomous beasts”.

“It killeth wormes either given greene or dry and the seed hath the same vertue”. (Gerard)
Hyssopus officinalis (Lamiaceae), Hyssop

It has a very pleasant aromatic odour and was used as a strewing herb, and is still used in cooking. Its essential oil was valued as a perfume, and used in liqueurs such as Chartreuse. Hyssop tea was a popular household remedy for stomach complaints, coughs and sore throats. Its thujone content makes it an effective antiseptic.

Culpeper wrote, “the head being anointed with the oil thereof, it killeth the lice. The greene herb bruised, will speedily heal up any cut or wound”.

Valeriana officinalis (Valerianaceae), Valerian

It has a sedative action and should not be used if driving or operating machinery. It was formerly used for anxiety states, migraine and insomnia. The plant is attractive to rats and it is thought that the Pied Piper of Hamelin may have kept valerian roots in his pockets. It was widely used to treat epilepsy and curiously, the modern anti-epileptic medication, Sodium Valproate, is now made from valproic acid, an analogue of valeric acid found in Valerian.

“It is used generally in cuts, wounds and small hurts”. (Gerard)

“To drink it provokes urine and helps the strangury, and takes away the paines of the sides, provokes women’s courses and is used in antidotes.” (Culpeper)

Symphytum officinale (Boraginaceae), Comfrey

Its root contains a lot of mucilage which becomes hard after being pounded and was used to set fractures, hence the old name Knitbone. The mucilage was also used as a demulcent medicine especially for diseases of the lungs. Gerard wrote, “the slimie substance of the root made in a posset of ale is given to drinke against the paine in the backe gotten by overmuch use of women”.

Has been widely used in herbal teas but is now known to be a liver poison due to the presence of pyrrolizidine alkaloids and should not be used internally.
**Taxus brevifolia (Taxaceae), Pacific Yew**

It was found to be active against malignant cells when it was one of thousands of plant extracts tested in a laboratory screening programme in the 1960s, in the USA. Clinical trials showed it to be a first class drug, now named Paclitaxel (Taxol), for treating ovarian cancer and breast cancer. But eight trees were needed to produce enough drug to treat one patient, and fortunately it is now possible to obtain it semi-synthetically in industrial fermenters from yew tree clippings, including those from the English yew, *Taxus baccata*. More recently it has been embedded in coronary artery stents to slow down the rate of re-occlusion by the adjoining endothelial cells lining the arteries.

**Tanacetum parthenium (Asteraceae), Feverfew**

The common name is derived from the Latin word *febrifugia*, meaning “fever reducer”. One of the medicinal herbs grown in the 18th century for the London market, it was used to treat fevers and headache. Modern research has proven its value, if taken daily, in preventing migraine, although sudden cessation of its use can lead to a withdrawal syndrome of rebound headaches and joint pains. It can interact adversely with other medicines which are metabolised in the liver.

"If the concoction is drunk it cleanses the womb, expels the afterbirth and does a woman all the good she can desire of an herb." (Culpeper)
**Achillea millefolium (Asteraceae), Yarrow**

The name is derived from the mythical Greek hero Achilles who carried the herb into battle with his army to treat their wounds in the Trojan wars. Traditional names include *Soldiers woundwort* and *Staunchweed* which gives the clue to its uses. It was used in brewing to add bite to the flavour, and as a preservative, before hops replaced it.

Gerard wrote, “The leaves of yarrow do close up wounds. It stauncheth blood in any part of the body. Most men say that the leaves chewed are a remedy for the toothache.”

**Saponaria officinalis (Caryophyllaceae), Soapwort**

As its name suggests it can be used as a gentle soap to clean delicate fabrics. “Bruised and agitated with water it raises a lather like soap which easily washes away greasy spots out of clothes. Applied externally, it cures the itch. The Germans make use of it for the cure of venereal disorders. In fact it cures virulent gonorrhoeas.” (Culpeper)

Gerard mentions that it is useful in treating the French pox!

**Front Right Bed**

**Hypericum perforatum (Hypericaceae), St. John’s Wort**

Named because it flowers around St John’s day on June 24th. Currently popular for treating mild depression but it can interact dangerously with a variety of prescribed conventional medicine. An important Gerard plant. He wrote of it as, “a most precious remedy for deep wounds and those which are thorow the body...for I undertake to cure any such wound as absolutely better than any man with naturall balsam.” Recent research offers support for its wound-healing effects.
**Galium odoratum (Rubiaceae), Sweet Woodruff**

When it is dried it gives off a sweet and pleasant smell, like that of newly mown hay, due to its content of coumarins. It was hung up and strewed in churches in the Middle Ages, used as a moth deterrent and added to potpourri.

"It doth very well attemper the air, and to be good for the heart and liver. The root thereof drunke in wine stirreth up bodily lust." (Gerard)

**Alchemilla vulgaris (Rosaceae), Lady’s Mantle**

It collects dew in the folds of its leaves and 16th century alchemists (hence its name) thought dew had magical properties. It is an important Gerard plant, and he wrote, “it is applied to all inward wounds and outward hurts, it stoppeth bleeding, it keeps down maidens paps or dugs, and when they be too great or flaggy it maketh them lesser or harder”.

"If it is applied to wounds it stoppeth bleeding”. (Culpeper)

Currently used for menstrual irregularities, but it interacts with anticoagulants and it impairs absorption of iron.

**Tanacetum vulgare (Asteraceae), Tansy**

It was used in the Middle Ages as a strewing herb and as an insect repellent, being rubbed over meat to keep flies away. Cakes, called Tansies, were eaten in the 16th century as a remembrance of the bitter herbs eaten at Passover.

Gerard wrote, “the seede of tansie is a singular and approved medicine against wormes, it killeth and driveth them forth”.

**Prunella vulgaris (Lamiaceae), Self Heal**

An important wound herb for Gerard. He wrote, “The decoction of Prunell made with wine or water doth joine together and make whole and sounde all wounds both inward and outward. It serveth for the same that Bugle (*Ajuga reptans*) doth and in all the world there are not two better wound herbs.” Used from the 15th century to treat wounds and especially to stop bleeding.

"Self-Heal whereby when you are hurt, you may heal yourself". (Culpeper). Being a very common plant it was always available. Roman soldiers carried it into battle to treat their own wounds.
Salvia officinalis (Lamiaceae), Garden Sage
A favourite and essential Mediterranean herb for cooking, it has been used as a medicinal herb since ancient times. Gerard, quoting Agrippa, wrote, “women with childe if they be like to come before their time, and are troubled with abortments, do eate thereof to their great good. Sage is singular good for the head and braine. It quickneth the senses and memory. It is likewise commended against the spitting of bloode, the cough, the paines of the sides and the bitings of serpents. No man needs to doubt of the wholesomenesse of Sage Ale, being brewed as it should be with Sage, Scabious, Betony, Spikenard, Squinanth and Fennell seeds.”

There is modern interest in its potential to aid memory and learning and possibly improve the symptoms of Alzheimer’s disease.

Echinacea purpurea (Asteraceae), Purple Coneflower
A North American species, used by indigenous Native Americans for a variety of ailments but especially coughs, colds and sore throats. Now widely used as an herbal medicine for its "immuno-stimulant" effects, for which scientific evidence is sadly lacking. As far as its use in cancer is concerned, “there is no scientific evidence to show that Echinacea can help treat, prevent or cure cancer in any way. (Cancer Research UK). A variety of side effects, some serious, have been reported as well as interactions with conventional medicines. If taken at all, it should not be taken continuously, and for not longer than eight weeks (MHRA).

Asperula tinctoria (Rubiaceae), Dyer’s Woodruff
A Mediterranean plant which was formerly valued because its root yields a red dye for dyeing clothes. This plant is a reminder of the age old tradition of using plants for dyeing cloth and wool and is a link with the Worshipful Company of Dyers of London.

Iris pallida (Iridaceae), Iris
One of the two species of Iris which from ancient times were used to produce ‘Orris Root’. The dried root has a violet-like odour and was widely used in perfumery and potpourri. It was made into face powder and tooth powder, and distilled to produce oil of orris which was used to make scents. It is also an ingredient in certain brands of gin.

Rosmarinus officinalis (Lamiaceae), Rosemary
The name derives from the Latin for “dew” (ros) and “sea” (marinus). It is widely cultivated as an ornamental garden plant and the leaves are used to flavour a range of foods in Mediterranean
cuisine, but especially roasted lamb in the UK. It is used as a symbol of remembrance as well as during war commemorations and funerals.

Rosemary oil is used in the perfumery industry and is added to toiletries for its scent which is believed to improve mental performance when inhaled. There is little scientific evidence for medicinal qualities, but Gerard wrote, “it is given against all fluxes of blood; it is also good for all infirmities of the head and brain, proceeding of a cold and moist cause. The distilled water of the floures being drunk at morning and evening, taketh away the stench of the mouth and breath, making it sweet”.

**Stachys officinalis (Lamiaceae), Betony**

A herb with a very long history of use, first written about by Antonius Musa, physician to the Roman Emperor Augustus Caesar, “it is a very precious herb and most fitting to be kept in a man’s house”. Culpeper wrote, “it preserveth the liver and bodies of men from the danger of epidemical diseases, and from witchcraft also”.

“Good for them that be subject to the falling sicknesse. It cleanseth the lungs and chest, it is good against the yellow jaundice. It maketh a man to have a good stomack and appetite. It maketh a man to pisse well. It is singular against all paines of the head, it killeth wormes in the belly, helpeth the ague, cleanseth the mother, and hath great vertue to heale the body.” (Gerard)

A veritable cure-all! An Italian proverb advises “sell your coat and buy Betony”.

**Officinalis plants**

The word *officinalis* is the species name of some medicinal plants. It means ‘from the monastic storeroom’, the *officina*, or in today’s language relating to drugs from a pharmacy. The first *officinae* became established in monasteries about 1100AD. We would now call them pharmacies.

**References to the literature**


Gerard, J. *The Herball or Generall Historie of Plantes*. 1597.

Parkinson, J. *Theatrum Botanicum*, 1640.
Pliny the Elder. *Naturalis Historia*, ca. 77 CE.
Dioscorides, Pedanius. *De Materia Medica*, ca. 50-70 CE.
Celsus, Aulus Cornelius. *De Medicina*. ca. 47 CE.

Gerard dedicated his Herbal to Lord Burghley with the following:

“What greater delight is there than to behold the earth apparaled with plants, as with a robe of imbroidered worke, set with orient pearles and garnished with great diversitie of rare and costly jewels?”

Dr T P Cutler MA MB BChir FRCP FLS
Honorary Curator of the Physic Garden
Master 2018-2019

March 2019