



## The art of medicine Nothing but flowers

Season of mists and mellow fruitfulness,  
Close bosom-friend of the maturing sun,  
Conspiring with him how to load and bless  
With fruit the vines that round the thatch-eves run;

John Keats (1795–1821), *To Autumn*

The polluted streets of Southwark are about as far from the pastoral idyll of John Keats's poetry as one can get. Yet between Borough Market and the Shard—landmarks of ancient and modern London, respectively—is the site where the poet lived as a medical student at Guy's Hospital. A blue plaque affixed to an otherwise unremarkable yellow brick building marks the spot. On the opposite side of St Thomas Street is a dark doorway, in the entrance of which hangs a large metal sculpture of a skull, made up of stylised blades, saws, hearts, and other symbols of the medical profession. Follow the narrow staircase up, and you are in the Herb Garret and Old Operating Theatre of St Thomas' Hospital.

The Garret is an atmospheric space of shadows, dark wooden beams, and a sharp, fragrant scent. It feels like somewhere that has grown spontaneously rather than been built; like the street outside, its contents are a hotchpotch of past, present, and future. Dried herbs hang from the ceiling; jars and baskets of barks and flowers sit next to displays of surgical instruments. These items look incongruous now: they would not have seemed so to Keats and his colleagues. Whereas today's medical students study the interactions between drugs and their receptors, Keats and his fellow students were required to learn about the plants that were sources of their medicines.

Historian Julie Wakefield explains that Keats was "amongst the very first students to be examined under the terms of the Apothecaries Act 1815" that was designed to produce well-rounded general practitioners. Keats proved an "exemplary student", passing his examinations without delay; his contemporaries included the future founder of *The Lancet*, Thomas Wakley (1795–1862). The courses, including anatomy, midwifery, and surgery, would have been broken in the spring by "herborising" field trips to locations such as Hampstead Heath, to learn how to identify different plants. This was done, in part, so that the physician could avoid being duped by bulk suppliers—the historical equivalent of today's traders in counterfeit medicines—in the future. These welcome expeditions were a break from the usual squalor of the students' working conditions. As Keats's botany lecturer mused, "When we consider the laborious duties of the student in medicine...one would almost be led to think it was by Divine dispensation that he is afforded so pleasant a

contrast as the study of Medical Botany, when in pursuit of which he freely ranges the fields breathing the purest atmosphere."

Hampstead Heath was later to become both Keats's home and inspiration. An earlier journey away from town prompted a familiar renunciation of all that led him away from an uncomplicated, healthy existence close to nature: "Banish money—Banish sofas—Banish wine—Banish music—But right Jack Health—Honest Jack Health, true Jack Heath—Banish health and banish all the world." Keats House is a plain white building: it sits back from the road in a well-tended garden that, when Keats lived there between 1818 and 1820, would have edged onto the Heath. The downstairs rooms are light and airy, decorated in natural shades of blue and green. "Our health, temperament, disposition are taken more from the air we breathe than is generally imagined", he once advised his publisher. A reproduction of Keats's qualifying certificate, dated July 25, 1816, hangs on the wall, so small as to be almost unnoticeable. More striking are the contemporary engravings of the south view from the Heath, showing the metropolis as a dark, smoky shadow on the far horizon, with the elevated greenery of Hampstead in the foreground. It was with this view that the young poet wrote *I Stood Tip-Toe upon a Little Hill*, a piece that describes the flora of the Heath in vivid detail:

Here are sweet peas, on tip-toe for a flight:  
With wings of gentle flush o'er delicate white,  
And taper fingers catching at all things,  
To bind them all about with tiny rings.

In its later verses, Keats extemporises on the healing character of a lost classical world, where nature was held in perfect balance:

The breezes were ethereal, and pure,  
And crept through half closed lattices to cure  
The languid sick; it cool'd their fever'd sleep,  
And soothed them into slumbers full and deep.  
Soon they awoke clear eyed: nor burnt with thirsting,  
Nor with hot fingers, nor with temples bursting:

In connecting the contemporary Heath with the world of the past whose very air had healing properties, Keats was reflecting a long tradition in medicine. Here divine providence had created a world in which, whilst diseases existed, their remedies were also present, indeed abundant, in nature.

This belief formed the basis of Edward Stone's (1702–68) use of willow bark—from which acetyl salicylate (aspirin) is derived—for cases of fever. Stone explained in his

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For the **Herb Garret and Old Operating Theatre** see <http://www.thegarret.org.uk>

correspondence with the Royal Society in 1763, "As this tree delights in a moist or wet soil, where agues chiefly abound, the general maxim that many natural maladies carry their cures along with them or that their remedies lie not far from their causes was so very apposite to this particular case that I could not help applying it; and that this might be the intention of Providence here, I must own, had some little weight with me."

This world view proved surprisingly resilient in the medical profession. In 1876 *The Lancet* carried an original report on "The Treatment of Acute Rheumatism by Salicin" by Thomas MacLagan (1838–1903) of the Dundee Royal Infirmary: he described how he considered remedies "among those plants and trees whose favourite habitat presented conditions analogous to those under which the rheumatic miasm seemed most to prevail". His subject was the willow (*Salix*) of which salicin was a simple derivative.

MacLagan was writing at a time when industrialised Britain's population had become increasingly mobile and urbanised. Perhaps the therapeutic use of herbs did not just represent a self-regulating, divinely ordered,

pre-Darwinian view of nature that was slipping away: it may also have represented an instinctive link between the patient and their medication that has today all but vanished. Julie Wakefield explains: "In my view, people must have felt less separated from herbal remedies in the past than we are from our medication today, simply by virtue of the fact that many were making their own medicines either chiefly or wholly from plant ingredients."

This division was an early version of what we might now call a two-tier health system. "Raw" herbs were largely associated with domestic medicine: those who could pay for the privilege preferred their medicine to be packaged with apothecaries' Latin, or for its source to be suitably exotic. A failure to present an appropriately professional image could be disastrous for one's reputation; for instance, George Crabbe (1754–1832), poet, clergyman, naturalist, and apothecary, found the demand for his services dropped off after he was spotted collecting local wildflowers. As his son related: "his ignorant patients, seeing him return from his walks with handfuls of weeds, decided that, as Dr. Crabbe got his medicines in the ditches, he could have little claim for payment".

The ways in which mainstream medicine developed laboratory methods that allowed the identification and extraction of the active agents in herbs, the manufacture of new compounds, and the standardisation of doses is well documented. The progression from willow bark to aspirin is a case in point: in a comparatively short space of time, even the slightest resemblance between plants and the therapeutic agents they yielded was eliminated, and pharmaceuticals were delivered prepackaged from distant locations by large multinational corporations. The history of home-made medications is more diffuse and harder to trace; however, according to Wakefield, it was only with the introduction of the National Health Service in 1948 that these herbal remedies began to die out among the general population in the UK. Within a generation, the practice of centuries had all but ceased except in the most poor and remote areas.

Keats, who never practised formally, found consolation in both his medical training and the natural world: in 1818, he wrote that "Every department of knowledge we see excellent and calculated towards a great whole. I am so convinced of this that I am glad at not having given away my medical books." 3 years later, as he lay dying of tuberculosis, he told his friend Joseph Severn "I would get away from suffering—in watching the growth of a little flower...perhaps the only happiness I have had in the world has been the silent growth of flowers."

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Keats House, Hampstead, London, UK, built c. 1815

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