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**Making and Running Great Gardens**

**1700 - 1900**

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In my first Gresham lecture on the economic history of British gardening, two years ago, I argued that gardening is not only a pleasant pastime, or some might say an all-consuming obsession, but also an economic activity of substantial importance. Today, the annual turnover of the horticultural trades is about £5 billion, but even this large sum is dwarfed by the value of the amount of time that we spend on gardening – more on average than we use looking after children – and by the value of the land that we use for gardens in our towns and cities. Moreover, this economic activity has been carried on, on a large scale, since at least the middle of the seventeenth century. For these reasons, gardening deserves to be described and analysed by historians not just as an aspect of the history of art and design – which has been fhe focus of most garden history – but as the history of an important industry.

Most gardening is and was done by ordinary people, growing their vegetables and flowers in backyards, plots and allotments. But one of the most visible signs today of the historical love of gardens and gardening is the plethora of great gardens. These were created during the past four centuries and survive today, lovingly cared for by their owners, by the National Trust or by English Heritage. They are all listed in a Register of Historic Parks and Gardens which contains 1619 entries.

It is these great gardens which I will speak about today. But always remember that they only the tip of the iceberg of the many gardens which were created and have since decayed, or are not of sufficient importance to be listed. An even larger number are the gardens which we love to visit at weekends through the National Gardens Scheme, identifying their plants, criticising their colour schemes and scoffing at their weeds.

All those great gardens had to be designed and constructed. Once built, they had to be maintained. Most have also been altered or entirely reconstructed many times, sometimes by each generation of owners. The work was done by legions of gardeners, managed by head gardeners, all of whom had to be trained as plantsmen and managers of large budgets. All this is my topic today.

I cannot consider all the 1619 listed gardens. English Heritage has done a huge amount of work to document the gardens and to list the books and articles which describe them. But the information which we have about their creation and maintenance is often patchy or has entirely disappeared. So I am going to go to the other extreme and use just four examples. They are two which still exist – the great gardens of Wrest Park in Bedfordshire and of Waddesdon Manor in Buckinghamshire, whose records I have studied, and two which have disappeared, Carlton House Gardens in London and the Royal Kitchen Gardens at Frogmore, which have been studied by others. I’m happy to acknowledge the help I have received from English Heritage, the National Trust, the Bedfordshire Record Office and the Rothschild Archives at Waddesdon.

Wrest Park was created in the late 17th century, Carlton House Gardens in the mid-18th century, the Frogmore kitchen garden in the first half and Waddesdon in the second half of the nineteenth century, so we can see through these examples how garden construction changed over the centuries. I’m going to look first at making the gardens, before turning to the task of maintaining them and the men and women who did that over the centuries.

Wrest Park is described by its guardians, English Heritage, as “an exceptional rarity”, one of the few remaining formal gardens of the early 18th century. It was the creation of its owners for over 600 years, the de Grey family, for many centuries either Earls or Dukes of Kent. The first reference to formal gardens at Wrest is in 1658, in relation to the gardens created by Amabel, second wife of Henry, 10th Earl of Kent. She and her son, Anthony, expanded the gardens and dug out their most prominent feature, the Long Water.

Anthony’s son, Henry, then created what is known as the Great Garden in the first half of the 18th century. Further, but thankfully limited, work was carried out by Capability Brown, while the last phase of garden creation, in the 1830s, accompanied the building of the French-inspired house which we see today.

The first financial accounts relating to Wrest Park date from 1685 and 1686 and are described as “The Accompt of the Charge of Inlargeing Wrast Park.” Two of the largest items relate to trees, one purchase of 36 and another of 41, together with the cost of taking them to Wrest, but the majority of the expense was for labour. Most was paid to people who seem to have been contractors, with significant costs of carting. The trees were clearly already mature and cost over £1 each. The total cost of the project was £260-0-9. I will return in a minute to what such a sum would equate to today.

 That sum of £260 is dwarfed by the costs of the next phase of the Wrest Gardens. This was to make, between 1686 and 1701, the garden, terrace, walls and wilderness – by which they meant a garden planted with trees – on the south side of the house. Here it is, just after it was finished, in the Knyff and Kip engraving of the house in their *Britannia Illustrata* of 1707.

Here the formal garden lies behind the house as we view it, with the wilderness behind and then the long canal, dug slightly earlier.

The work began in February 1686 with three years spent on levelling the ground and digging and laying the foundations for the terrace wall. Then, from 1690, work began on laying out the gardens, building the walls and laying an elaborate system of pipeworks, 394 yards long, to feed the fountains. A regular item in the accounts throughout this period was “Beer for the Workemen”. In November 1691 a pack of thread was purchased for 2/- to “sett out ye Wilderness Quarter” and soon after the bill was paid for “5650 quicksetts at 6d per 100 to plant in my Lord’s wilderness.” Quicksetts are live hazel or whitethorn cuttings, planted normally to form a hedge.

In 1693 work began on the formal gardens, levelling and digging borders and fetching and laying gravel, while an expensive piece of equipment, brought from London, was an “Iron rowler with an Iron Frame fitted to it.” By 1694 gardening and weeding was taking place, but construction continued with the commissioning of a pair of iron gates; a Mr Hooper spent a month in London bargaining with the Smith and, at the end of that year, the pair of iron gates were installed. They cost £280 – more than the entire cost of the works in 1686-8.

Work continued for another seven years, although by then much of it was routine gardening and maintenance. By the end of the 15 years which the project had taken, the cost was £3348-19-7½. What is the significance of such a sum.

One way of assessing the cost of such a large project is to compare it with other major infrastructure projects of the same period. The biggest projects of the time, also involving moving large amounts of soil, were the river navigation works, the precursors to the canal building of the 18th century. One of the most important of these was the Aire and Calder navigation, carried out between 1699 and 1704 to link Leeds and Wakefield with York and the Humber and Trent; its main use was to carry coal. The work included the construction of 12 locks on the Aire, each 18 metres long by 5 metres wide. The cost was about £10,000; so the works at Wrest Park cost one-third of what has been described as the “most important enterprise of this generation and type.” It should be said, however, that both Wrest Park and the Aire and Calder pale into insignificance compared to the cost of Blenheim Palace, built shortly afterwards; by 1712, when it was still not complete, it had cost over £250,000.

But can we be more precise about what sums like £260, the cost of the first phase at Wrest, or £3349, the second phase, meant in the context of the economy of the time? What would be their equivalent in our economy?

We are used to making adjustments for inflation by using a price index, such as the Retail Prices Index or Consumer Price Index. We do have such price indices for very long periods, in fact back to 1270, so we can apply such an index to that figure of £260 and calculate that its modern equivalent would be £34,480. That is a substantial sum, but it may not be the best way of understanding the significance of the expenditure on improving Wrest. The RPI is made up of items, such as bread, which are not necessarily relevant to the costs of constructing a garden. For that purpose, it may be better to calculate the cost of a project such as the Wrest garden or indeed the Aire and Calder navigation in a different way. Let’s imagine that, hypothetically, the Wrest gardens had cost, in 1686, 1% of the size of the economy in that year, then we could compare them to a project costing 1% of our economy today. On that basis, the figure of £260 equates to the very large sum of £5,788,000. But again it was dwarfed by the second phase, costing £3349, which equates by the same method to £49,830,000 today. The Aire and Calder would have cost £150 million.

Does this figure of nearly £50 million in today’s terms for the improvements to Wrest Park seem reasonable? There is evidence that it may be. English Heritage is engaged at the moment on a 10 year project to restore the gardens of Wrest Park; the work – which does not involve any of the earth moving or wall building of the works of the late 17th century, is estimated to cost £4 million. Another contemporary example is the recent restoration by the Duchess of Northumberland of the gardens of Alnwick Castle.

Although, according to the *Daily Express*, English Heritage considers that this work has destroyed one of the great gardens of England, it is thought to have cost between £42 and £50 million. Another comparable project is the Olympic Park, which involved moving and planting 4,000 semi-mature trees and 300,000 wetland plants.

This was of course only a small proportion of the costs for site preparation and infrastructure of £1.822 billion. So Wrest Park was probably an early example of our willingness to spend big money on our gardens – and big money it was, as I summarise in this slide.

My next two examples are both royal gardens. The first, which I described at more length in my last lecture, was the garden built by Frederick, Prince of Wales, and his wife Augusta at Carlton House, London in the 1730s.

 This involved the planting of more than 15,200 trees, many of them mature, as well as “a multitude of shrubs, climbers, bulbs and herbaceous plants.” The plants for the garden, delivered and planted in less than three years and almost all from two London nurseries, cost a total of £1461-16-8, a figure which equates to £20,900,000 today. But this does not include the cost of laying out the gardens nor of the many buildings and statuary which adorned it; this will be the subject of further research.

My third example is the building of the Royal Kitchen Gardens at Frogmore in the 1840s, of which this is a plan.

The tangled history of the provision of vegetables, fruit and flowers for the royal table has been well described by Susan Campbell in an article in *Garden History* in 1984. Complaints about the previous kitchen garden, on the site of what is now Kensington Palace Gardens, began in the early eighteenth century. Because of its inadequacy, the royal household was supplied, at considerable expense, by at least seven other kitchen gardens at other royal palaces around London, at Hampton Court, Kew Palace, Richmond Lodge and Windsor. (Campbell 1988: 101). This was grossly inefficient, but it was not until the accession of Queen Victoria that plans were made for a replacement, inevitably by a committee, which reported in 1838. Inevitably, again, its recommendations were overturned and a decision made to begin work in 1841 on an entirely new site of 27 acres on the Frogmore Estate at Windsor.

The work was completed by 1849. It included a range of hothouses 840ft long which, according to the *Gardeners’ Chronicle* “bid fair to surpass any existing structure of the kind with which we are acquainted.” (Campbell 1988: 116) There were four acres of pits, forcing houses, frames, storerooms, small fruit houses and offices. There were 13 acres of vegetable gardens, enclosed by walls 12ft high. Like the kitchen gardens of many great houses, it was designed to be seen, in this case not least by its royal owners, for whom some special reception rooms were prepared within the range of hothouses. Part of the irrigation system was, therefore, a fountain with a basin 30 ft across and made of polished Peterhead granite, like those in Trafalgar Square.

The total cost of the garden, as published in the *Gardeners’ Chronicle* on 31 March 1849, was £44,962 – 6- 1, but together with the cost of roads and sewerage the entire project cost £65,628-16-8. The modern equivalent is £153,100,000. The garden continued to be used until after the Second World War but, as it became cheaper to buy the royal fruit and veg from the nearest supermarket – or probably even from Harrods - it fell out of use and is now once again an open field.

Building a large garden from scratch on an open field site is relatively rare in recent centuries, but another example is Waddesdon Manor, the splendid creation in the 1870s and 1880s of Baron Ferdinand de Rothschild.

He bought the estate of Waddesdon and Winchendon, altogether 2700 acres, from the Duke of Marlborough in 1874 and set out to realise his dream of emulating one of the chateaux of the Valois. His chateau and garden were to be built on the small but steep Lodge Hill, with views of the Vale of Aylesbury all around. 22 years later, the work was complete.

We do not know how much Waddesdon Manor or its gardens cost, as the relevant papers were destroyed on Baron Ferdinand’s orders after his death. But he did write a short account of the work, known as the Red Book. It reads like a quotation from a television programme such as *Grand Designs*. Baron Ferdinand opens by saying that “I took Waddesdon with its defects and drawbacks … perhaps a little too rashly… (but) it had a bracing and salubrious air, pleasant scenery, excellent hunting, and was untainted by factories and villadom.”

The first task after the designs had been drawn up was to lay on a water supply, which involved laying seven miles of pipes from Aylesbury and building a large storage tank in the grounds. Work then began on the foundations of the house, but did not go well. “The part of the hill we had selected for its site consists of sand, and the foundation after having been proceeded with for some months proved not to have been set deep enough, as they suddenly gave way. The whole of the brick-work had then to be removed and thirty feet of sand excavated until a firm bottom of clay was reached. I now began to realise the importance of the task I had undertaken.”

However, the problems of the house were soon dwarfed by those of the gardens:

“… the difficulty of building a house is insignificant compared with the labour of transforming a bare wilderness into a park, and I was so disheartened at first by the delay and worry that during four years I rarely went near the place. Slowest and most irksome of all was the progress of the roads….. The steepness of the hill necessitated an endless amount of digging and levelling to give an easy gradient to the roads and a natural appearance to the banks and slopes. Landslips constantly occurred. Cutting into the hill interfered with the natural drainage, and, despite the elaborate precautions we had taken, the water often forced its way out of some unexpected place after a spell of wet weather, tearing down great masses of earth. Like Sisyphus, we had repeatedly to take up the same task, though fortunately with a more permanent result.”

The scale of the work was immense. Essentially, the entire top of the hill was removed and the ground levelled, entailing the removal of an average 12 ft of soil from 10.5 acres. Then an elaborate irrigation system was installed before some of the earth was replaced before planting.

 A two-mile railway was built to carry bricks and stones. Percheron mares were imported from Normandy for the cartage of large trees which “were brought from all parts of the neighbourhood, and for the moving of which on the highways the telegraph wires had to be temporarily displaced.” Capability Brown, in the 18th century, had designed a machine for transporting mature trees.

Baron Ferdinand had greater ambitions. Each of his trees with its root ball had to be pulled by 16 Percheron horses, specially imported from Normandy. The large walled kitchen garden was equipped with glasshouses to rival those at Frogmore.

The cost of Waddesdon’s garden is unknown, but it seems unlikely that it could have been less than that of Frogmore. The latter was built on a flat site, did not require the transplanting of mature trees from miles around, and was completed in 3 years. All in all, an estimate of a cost of £250 million in modern terms would seem to be a very conservative estimate for the cost of Waddesdon.

What general conclusions can be drawn from my four examples, whose costs are summarised here?

First, these great gardens were truly great in scale and represented huge infrastructure investments. Yet they were certainly not the largest such projects in their times. Other greater examples would include, in the late seventeenth and eighteenth centuries, Blenheim, Stowe or Stourhead and, in the nineteenth, Osborne and Cragside.

In addition, all three centuries saw continual renewal as garden fashions changed. Think of the hundreds of parks and gardens remodelled by Capability Brown and Humphry Repton while, in the nineteenth century, the municipal parks represented massive investments.

Second, in all these cases the cost of trees and plants was trivial, dwarfed by the costs of landscaping, gates and terraces, lakes, bridges, garden buildings and statuary. Wrest provides examples of all of them, but they were replicated on even larger and in multifarious smaller scales in hundreds of gardens throughout Britain. The Frogmore gardens had many imitators.

The fashion for grottoes in the eighteenth century or rockeries in the nineteenth provided work for quarries and gave rise to a new industry in the form of artificial or Pulham stone.

Third, these gardens and others like them were early examples of what Veblen was later to call “conspicuous consumption.” Their owners often showed great interest in the plants and, presumably, got pleasure from the results. They often competed fiercely with other garden owners for the latest plant introductions from the Americas or China. But there were other motives as well. The great gardens of Rousham, Stowe, or Hartwell were explicitly designed as political statements, in fact as celebrations of English liberty, by the Cobhamite Whigs in the mid-18th century. However, the overwhelming motive seems to have been to make a show, with at least two audiences in mind. First, these houses were designed as places to entertain; the family often only spent a small part of the year living in them, during which time they held lavish house parties. But, second, from at least the early eighteenth century, these gardens were on show, with visitors welcomed – for a fee - to look not only at the houses and gardens but also at the aristocratic guests, the equivalent of modern celebrities. These slides show the guests while, pointing, are the tourists.

For the convenience of the visitors, and to make the political points, guidebooks were published and sold.

As these four examples have shown, creating a great garden was a massive undertaking. But, to turn to my second topic, creating a garden is only the beginning. It has to be planted, tended, maintained, renewed, restored. What did these tasks entail for the owners and managers of the great gardens?

In looking at these topics, we are moving from the world of the garden designer, so often the focus of garden history, to the world of the head gardener. Our image of the gardener may be that of Mr McGregor pursuing Peter Rabbit, but in fact head gardeners were important people, both in fact and fiction. Devotees of Wodehouse will recall the trepidation with which Lord Emsworth approached McAllister with a request that he should cut some flowers. Those of you who watch *Downton Abbey* will have noted that, among a number of anachronisms, it fails to pay attention to the gardens which would have been such an important feature of country-house life. The cast – far too small, does not contain a head gardener or any gardening staff.

In reality the head gardener would have been at least as important a figure as the housekeeper, second only to the butler.

What face should we put to the head gardener?

Wrest Park provides an early example of such an imposing person, important enough to the family to have his portrait painted. John Duell was the head gardener there in the early eighteenth century.

Duell was in charge of a large, though fluctuating, labour force. At the beginning of September 1717 he had 10 men, 3 boys and 3 women working under him, but this had risen by the end of the month to 25 men, 4 women and 4 boys, at a weekly cost for labour and materials of £6-13-3½, plus an allowance for his own food and lodging of 6/-. We have, again, a problem of modern equivalence but, as we are mainly assessing the cost of the labour force, it is probably appropriate to use a price index based on GDP per capita, which means that Duell was in charge of weekly expenditure equivalent to £16,450 today.

This seems to have been an unusually expensive week for the de Greys. The household accounts which we have show average weekly costs for the garden of about £4, although the kitchen garden in 1719, under the charge of John Mercer, with 5 men and 2 boys, cost another £1-10-9. At this rate, the gardens would have cost about £250 per annum to maintain, a figure that is not too far from the sum noted in a memorandum on the costs of the garden in 1773-1780. This states that the garden cost £300 and: “This has been a fix’d sum for many years.” It is the modern equivalent of just over half a million pounds, year in, year out, for at least a century. It was not, however, all the expenditure on the gardens, for the accounts show substantial payments to nurserymen for trees, plants and seeds. In 1726, for example, £110-15-0 was paid for such items, a sum of over £250,000 in modern terms.

Duell himself was well paid. “A list of the Duke of Kent’s Servants residing in Bedfordshire” shows him being paid £20 per annum, second only to the house steward, who received £30. The next highest paid employee was Duell’s son, John Duell jnr, who was then in charge of the Kichen Gardens and paid £19. The housemaid and dairy maid each received £5. Duell’s £20 is the modern equivalent of just under £50,000.

I will come back to the work of a head gardener and those who worked for him. My point at the moment is to emphasise the very large sums that were expended, week after week, decade after decade, century after century, on these great gardens. In 1857, for example, the “account of expense of Wrest Gardens” came to £1284-6-2, offset only by sales of shrubs, fruit, flowers and vegetables of £225-10-0. The gardens of Wrest Park were costing the de Grey’s of the time around three-quarters of a million pounds each year in the prices of today.

There is another implication of figures of this kind. The head gardeners of the great gardens had very responsible jobs. They had large budgets, managed large staffs and were responsible for large capital assets. The head gardener at Waddesdon in 1912 had 66 gardeners working for him and in that year spent £4230, the modern equivalent of just under £2 million, excluding the cost of wages. It is notable that the monthly expenditure does not fluctuate much, always being between £300 and £400, suggesting careful attention to cash flow and programming the work.

Head gardeners also had to be excellent organisers. It was said at the end of the nineteenth century that you could measure the status of an owner of a great garden by the number of bedding plants that his gardener laid out, 30,000 for a knight, 40,000 for an earl and 50,000 for a duke.

Although he was not a Duke, Baron Ferdinand was certainly ducal and the famous carpet beds in front of Waddesdon received 50,000 plants twice in spring and summer, before being lifted and replaced by roughly the same number of spring-flowering bulbs.

The planting plans of the great gardens, even before the era of carpet bedding, were complex, not only to provide the appropriate vistas for the owner and his guests but to ensure the supply of flowers for the house. Planting plans of this type also depend on the head gardener having a detailed knowledge of herbaceous and other plants, their growing habits, colours and foliage, in order to achieve an harmonious appearance throughout the season.

How did the hundreds of head gardeners in Britain in the eighteenth and nineteenth centuries secure the botanical knowledge, experience and managerial competence required to do their jobs?

A few head gardeners, such as Capability Brown, went on to such eminence as garden designers that their lives are well – perhaps too well – documented. But they were exceptional. A better source for the generality of head gardeners is the series of biographies of them published in the *Gardeners’ Chronicle* – the main trade journal -in the 1870s. The biographies were illustrated by splendid woodcuts of men such as Anthony Parsons, head gardener at Danesbury Park in Hertfordshire.

I will make more systematic use of these sources in future work, but for the moment they make possible a description of the typical career of a head gardener.

It normally began, probably at the age of 12-14, with work as a gardener’s boy, sometimes followed by a formal apprenticeship. This apprenticeship could be with a head gardener or with one of the nurseries, like Veitch’s, which ran a training programme and employment agency for gardeners. If, on the other hand, the training was within one of the great gardens, the boy would live, with the other younger unmarried gardeners, in a bothy – a rudimentary hostel, usually sited against the north wall of the kitchen garden. Living on site was essential, as the junior gardeners were on call 24 hours a day, ready to deal with urgent tasks such as stoking the greenhouse boilers, protecting tender plants from frost, keeping plants properly watered and securing them against unexpected winds. This was on top of a six-day working week, which could often begin in the summer at 4 a.m.; that was the best time, before the advent of mowing machines, for scything the grass. So this machine was a huge relief for the boys and under-gardeners.

The aspirant gardener, later to rise to the heights of a head gardener, was also expected to become a skilled botanist and horticulturalist. Employers were enjoined to provide a library of books on plants and their cultivation, which the apprentices and junior gardeners were expected to study in their spare time, after working hours. Andrew Turnbull, head gardener at Bothwell Castle, recalled that he had the advantage of working in a garden with numerous well-labelled herbaceous plants and that he would each day, after work, try to memorise 50 of them.

Initial training or formal apprenticeship was followed, for the young gardener, by jobs in a variety of gardens, gradually working up through an hierarchy of posts. It is notable that the biographies show their subjects moving all around the country, from job to job, before achieving their first post as head gardener in their 30s or 40s. Many remained unmarried through their early career, living in what must have been rather unsalubrious conditions – the accounts at Waddesdon provide for payments for fumigating the bothy – before, when they were appointed as head gardener, occupying the head gardener’s cottage which was one of the main perquisites of the job.

This is the cottage at the ancestral home of the Gresham family, Titsey Place. It was situated in the usual place just outside the wall of the kitchen garden.

Even more splendid, of course, was the Head Gardener’s house at Frogmore.

Some of the biographees remained with the same employer until retirement, but the majority held several posts as head gardener, moving if they were fortunate from great garden to greater garden. Some gained local or even national fame for exhibiting their products in horticultural shows; at the first Chelsea Flower Show, in 1913, one-third of the exhibitors were head-gardeners, although the credit normally went to their employers.

At any one time, of course, the majority of gardening staff were not head gardeners. So what do we know about the others, the boys, young men and (few) women who worked in these gardens? For most of them, the most that we can know are their wages, their hours of work and, very occasionally, what they looked like when the garden staff were assembled for a group photograph.

How many gardeners were there?

The first indication that we have of the number of gardeners comes from 1701, when the Company of Gardeners attempted, unsuccessfully, to obtain an Act of Parliament which would extend its influence from the City of London to the whole of England and Wales. The Bill proposed that the Company would incorporate 10 garden designers, 150 noblemens’ gardeners, 400 gentlemens’ gardeners, 100 nurserymen, 150 florists, 20 botanists and 200 market gardeners, 1030 men in all. We can assume that this is very much a minimum figure for the actual number then working, since it would not include apprentices and journeymen.

By the middle of the nineteenth century we can be much more precise. The graph in the PowerPoint presentation (slide 41) shows the number of gardeners and nurserymen and women counted by each census from 1851 to 1981, by which time the number had become too small to be separately listed. In 1861, the census reported that gardeners were the 22nd largest occupation and, at least until the second world war, they made up a significant proportion of the employed population. But the high point of gardening employment – as with much else in the history of gardening and, of course, domestic service – was the late nineteenth century and the years up to the first World War.

These figures include all gardeners and employees of nurseries, but it is also possible in the earlier census returns to discover the number of “domestic gardeners”. That number rose from 5052 in the 1851 census to just under 130,000 on the eve of the First World War.

These were the men – there were hardly any women in this category – who worked within households and therefore within the great gardens on which I am focussing. These numbers are such that there must have been a very active employment market and there are, indeed, other signs that this was so.

This slide shows a page from the *Gardeners’ Chronicle*  of the 1870s, with its long list of gardeners seeking employment. It was, as I have already emphasised, a national market.

Let me sum up. The great gardens of Britain are justly celebrated for their beauty, but they deserve also to be celebrated as the creation of a great British industry.

First, as I stressed at the outset, gardening has been, since at least the seventeenth century, a major economic activity in this country. It employed a significant part of the labour force and was on a scale which required careful and expert management.

Second, the investment made in the great gardens during their construction was very large indeed. It bears comparison, in fact, with major infrastructure investments, of which there are relatively few in the eighteenth century; the only other examples on such a scale are river navigations, canals, ports and turnpike roads. In the nineteenth century, investment in gardens remained very large, but other investments such as railways and, of course, the building of the growing towns and cities, reduced its relative importance.

Third, although much of the focus of garden history is naturally on plants, it is likely that expenditure on plants was a small fraction of the cost either of building or of maintaining the gardens. Earth-moving, building walls, terraces, fountains, pergolas and greenhouses, together with the labour needed to weed flowerbeds, plant bedding plants, mow grass and prune shrubs and trees, dwarfed in cost the plants themselves.

Fourth, maintaining and renewing the great gardens was the task of a workforce, led by the head gardeners, which deserves more recognition than has normally been given. The expertise and skill, not just of the head gardeners but also of their assistants, was considerable, built up over many years of study – albeit not usually in formal education – and amounting to what would now be called substantial intellectual capital.

Fifth, there is much more to the business of gardening than I have been able to consider today. Nurseries and seed producers, garden tools and machinery, pots and other containers, statuary, greenhouses, decorative and useful garden buildings, books and periodicals, all need to be added to the picture of a large and vibrant industry. It has been, moreover, highly innovative. Plant hunting in far-flung parts of the world began early in the eighteenth century; plant breeding soon followed and the industry was characterised then – as it is today - by a ferment of fashion, competition and emulation.

Perhaps above all, the garden industry has always rested on the expenditure of millions of consumers, from the slum-dweller in the east end of London with a window box, through the town-dweller with his backyard or even allotment, through the middle classes in their suburbs and garden cities to the few, though influential, patrons of the great gardens that I have considered today. There is much more to find out about this great British obsession.

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