

# **SCOTLAND-UPON-THAMES**

## **Scotland's legacy to Richmond and Kew**

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*The year 2007 marked the 300<sup>th</sup> anniversary of the Union of the English and Scottish Parliaments, an event that had profound effects on both nations and whose repercussions are still being felt today. This story looks at its effects in the 18<sup>th</sup> and 19<sup>th</sup> centuries in what is now the borough of Richmond upon Thames, set against the background of the Scottish Enlightenment and the world-wide diaspora of Scots. The story begins a century before the Union of Parliaments with the southerly migration of a Scottish king and his four-year-old son.*

### **Prologue: Enlightenment and Diaspora**

In 2002 Arthur Herman, an American professor of history, published a book titled *The Scottish Enlightenment* subtitled *the Scots' invention of the modern world*. This stark statement sounds surprising, but Herman was only taking to an extreme something that had been noted in previous generations. Horace Walpole, Twickenham man of letters, described Scotland in 1758 as “the most accomplished nation in Europe.”<sup>1</sup> In France, Voltaire observed with some bitterness: “It is to Scotland we look for our idea of civilisation”<sup>2</sup> and “from Scotland that we get rules of taste in all the arts, from epic poetry to gardening.”<sup>3</sup> Much later (1922) Winston Churchill was more fulsome, although it must be noted he was standing for election in a Scottish constituency at the time: “Of all the small nations of this earth, perhaps only the ancient Greeks surpass the Scots in their contribution to mankind.”<sup>4</sup>

It is important to note that Scotland had been an integral part of the European-wide community of scholars since as far back as medieval times, when the Universities of St. Andrews, Glasgow and Aberdeen were already in existence. Remarkably, before the Reformation, no fewer than seventeen Rectors of the University of Paris had been Scots<sup>5</sup>.

The fact is, in the century or so following the Union of Parliaments, there appeared in Scotland a glittering array of intellectual pioneers, centred primarily in the university cities of Edinburgh, Glasgow and Aberdeen, who made major advances in fields as diverse as science, philosophy, literature, history, economics, the social sciences, medicine and engineering. Edinburgh was known as the “Athens of the North” while Glasgow was well on its way to becoming, after London, the “Second City of the Empire”. Shipbuilding came to the Clyde during the American War of Independence when Glasgow could still be described (in the words of Daniel Defoe) as “the cleanest and beautifullest, and best built city in Britain, London excepted”.<sup>6</sup> Within a century it would become the workshop of the British Empire.

It is all the more remarkable when it is realised that all of this happened in what had been one of the poorest nations in Europe whose population in the second half of the 18<sup>th</sup> century was never more than one and a half million.<sup>7</sup> Significantly, the *Encyclopaedia Britannica* was a Scottish creation of this period: the first edition, with a Scots editor, was published in Edinburgh in 1768.<sup>8</sup> Note that it was called “Britannica” not “Scottica”. Most of the leading lights in Scotland embraced the label British more readily than people south of the border.

The names of some of the greatest figures of the Scottish Enlightenment are certainly recognised world-wide: David Hume, the great sceptical philosopher; Adam Smith, whose free-market economics are still keenly debated today; Walter Scott, inventor of the historical novel; Robert Burns, poet of the common man; Robert Adam, the most distinguished of a distinguished family of neo-classical architects; and James Watt, the mechanical genius whose steam engine powered the Industrial Revolution. But these are just the tip of an iceberg: there were many other significant figures, some of whom laid the foundations of new sciences, notably Joseph Black (chemistry), James Hutton (geology), and Adam Ferguson and John Millar (sociology). Hutton was important for the life sciences too: through his chief convert, Scots born Charles Lyell, he provided Charles Darwin with the timescale needed for his theory of evolution; and he even formulated the principle of natural selection some sixty-five years before Darwin and Alfred Wallace.<sup>9</sup> Another Scot, Patrick Matthew, re-stated the concept and used the actual term “*natural process of selection*” in the year Darwin set sail on the *Beagle*. However, Darwin, who had attended Edinburgh University like his father and grandfather Erasmus Darwin before him, deserves the credit for developing and substantiating the theory (see appendices).

Central to Arthur Herman’s thesis is the phenomenon of the Scottish Diaspora, which was instrumental in spreading Enlightenment ideas and values throughout the world. It is estimated that two and a half million souls, driven by an excess of population and a lack of opportunities at home, left Scotland for every corner of the British Empire, and beyond, between the years 1707 and 1914. Out of all proportion to the size of their tiny nation, they contributed to and benefited from the expansion of the Empire, travelling as soldiers, explorers, administrators, missionaries, physicians and traders as well as ordinary colonists in search of a better life. Well educated and equipped with the Calvinist virtues of hard work and self-reliance (the very term “self-help” was coined by a Scot – Samuel Smiles in his best-selling book of that title<sup>10</sup>) they were remarkably successful. Benjamin Disraeli observed, “It has been my lot to have found myself in many distant lands. I have never been in one without finding a Scotchman, and I have never found a Scotchman who was not at the head of the poll.”<sup>11</sup>

Examples could be given for every continent from Canada to New Zealand. In Canada, for example, both the Hudson Bay Company and the North West Company became effectively Scottish monopolies, and were associated with the epic explorations of Scotsmen Alexander MacKenzie, Simon Fraser and John Rae. In India by 1800 as much as two-thirds of the British presence – administrators, army officers and merchants – were of Scots origin.<sup>12</sup> Sir Walter Scott wryly wrote that the East India Company was “the corn chest for Scotland where we poor gentry must send our youngest sons as we send our black cattle to the south.”<sup>13</sup> This phenomenon is usually attributed to the patronage of Scotsman Henry Dundas, 1<sup>st</sup> Viscount Melville, a politician so powerful

in his day that he was known as “King Harry the Ninth”. (The real King Harry the Ninth, at least according to Jacobite reckoning, was Cardinal Henry Stuart, who lived in exile in Italy and succeeded his brother Prince Charles, the Young Pretender, in 1788.) In reality, it was a process that had started earlier with Robert Walpole and the 3<sup>rd</sup> Duke of Argyll. Patronage was reinforced by networks, often based on kinship. As one historian has put it, “the clan system in the Highlands may have been in its death throes at this time, but clanship was being re-invented in the colonies.”<sup>14</sup>

Many Scots, naturally, sought their fortune in London, including James Boswell, friend and biographer of Samuel Johnson who famously quipped: “The noblest prospect that a Scotchman ever sees is the high road that leads him to England.”<sup>15</sup> Johnson was in a position to know: five of the six “amanuenses” who helped him compile his famous dictionary were Scots! Other Scots, incidentally, became great names in dictionary publication in the 19th century – William and Robert *Chambers*, William *Collins* and James Murray (the first editor of the Oxford English Dictionary).

Other migrants were Tobias Smollett, author of *Humphrey Clinker* and other picaresque novels; John Arbuthnot, the satirist who created the John Bull character and who collaborated with Alexander Pope in Twickenham; John Murray, who founded the famed publishing house that would publish Darwin and Byron (the latter, in his own words, “half a Scot by birth, and bred a whole one”<sup>16</sup>); Allan Ramsay, official portrait painter to George III and prolific essayist; brothers William and John Hunter, the leading physician and surgeon respectively of their day, the latter the founder of the Hunterian Museum in London; Thomas Coutts, the banker who numbered George III and his descendants among his customers; architects Colen Campbell and Robert Mylne, the latter responsible for the 1769 Blackfriars Bridge and “The Wick” on Richmond Hill, and the former for the original design for Marble Hill House in Twickenham; and civil engineers Thomas Telford and John Rennie, the latter responsible for three more bridges over the Thames (Southwark, Waterloo and London) as well as the London and East India docks. Mylne, interestingly, was descended from a succession of Mylnes who were Master Masons to the King of Scotland and who played a part in the origin of freemasonry. Mylne, James Gibbs, Robert Adam, Thomas Telford, James Watt, James Boswell, Robert Burns, Walter Scott, Lord Byron and others mentioned in this book were all freemasons.

With England and Scotland united and a constitutional monarchy securely in place, the scene was set for a remarkable phenomenon.

## PART ONE

### Prologue

When Queen Elizabeth drew her last breath at Richmond Palace in 1603, James VI, the Stuart King of Scotland, inherited the throne of England. James owed his accession to

his great-grandmother, Margaret Tudor, who was the daughter of Henry VII, the king who gave Richmond its name.

Back in 1503, on a journey that would be made in reverse one hundred years later by her great-grandson, Margaret had set out from Richmond Palace to her new home in Holyroodhouse. Her marriage in 1503 to James IV of Scotland, which was intended to unite two warring countries, was eulogised by the contemporary Scots poet William Dunbar as the marriage of the Thistle and the Rose. The wedding, which was negotiated and performed by the Archbishop of Glasgow, Robert Blackadder, was accompanied by a Treaty of Perpetual Peace between the two countries. The perpetual peace ended just a decade later at the bloody Battle of Flodden, in the course of which James IV lost his life.<sup>17</sup> However, a son had been born only seventeen months previously – the future father of Mary Queen of Scots and grandfather of James VI.

In 1603 James VI of Scotland and I of England wasted no time in moving his court to London. On his progress south he dispensed knighthoods and received the homage of his new English subjects. He would return to Scotland only once.

Since there was no longer a functioning court in Edinburgh, many of the Scottish nobility travelled south with James or followed soon after. In London, half of the positions in the Privy Chamber and almost all the positions in the Royal Bedchamber were allocated to Scots. This led one English politician to criticise James because he had ‘brought along with him a crew of necessitous and hungry Scots and filled every corner of the court with these beggarly blue-caps’ (a reference to the woollen headgear favoured by Scots).<sup>18</sup> In Scotland, on the other hand, there were complaints about absentee landlords spending the income from their Scottish estates in England instead of locally. The Scottish poet, William Lithgow, urged that the Scottish nobility “should remain at home/And spend their rents where grows their grain”.<sup>19</sup>

James did not share Queen Elizabeth’s love of Richmond Palace, preferring the Palace of Whitehall. However, he had an inordinate passion for hunting and he enlarged the grounds at Richmond so that he could pursue his passion there. Although he was the son of Catholics – Mary Queen of Scots and Lord Darnley – and was married to the Catholic Anne of Denmark, James had nevertheless been raised a Protestant under the tutorship of the fearsome George Buchanan, who dealt out frequent beatings to the young King.<sup>20</sup>

James had three children who soon followed him to England. The heir apparent, young Prince Henry was given the manors of Richmond, Petersham and Ham including, for his own use, Richmond Palace. Henry was charismatic, had leadership qualities and was more Calvinistic than James (he introduced a swear box at the Palace!).<sup>21</sup> It was a great blow to the nation when he died of a fever at the age of eighteen.

When Princess Elizabeth arrived in England, one of her residences was the house at Kew of her guardian, Lord Harington of Exton. This had been conveniently close to the home of Prince Henry, whom Elizabeth idolised. Harington was impoverished by the cost of maintaining Elizabeth and her entourage until she married. By way of compensation, James granted him the right to mint brass farthings (known as ‘Haringtons’)<sup>22</sup>. Harington and his wife’s pious Protestantism were undoubtedly an

influence on the Princess and her future career on the Continent. Surprisingly, it transpired that the beautiful and tenacious Elizabeth was the one who would play a crucial role in the history of Great Britain and, in particular, the history of Richmond.

In 1613 Elizabeth married the Protestant Frederick V, Count Palatine of the Rhine. Her subsequent career became decidedly rocky when the Germanic states were propelled into the Thirty Years' War (1618-48). An inspiration for the Protestant cause throughout the troubles, Elizabeth was lauded as the 'Queen of Hearts' – apparently the first usage of this expression. However, it was the unlikely pairing of their youngest daughter Sophia with the fourth son of the Duke of Brunswick that produced the child who would become, after the death of the last Stuart monarch in 1714, George I of Great Britain. It is reckoned that there were more than fifty people with a better blood claim to the British throne, but they were all Catholics.

Richmond Palace would be dismantled in the aftermath of the Civil War and would cease to be a royal residence. However, in the 18th century Elizabeth's great-grandson, the Hanoverian George II, and George's son Frederick would establish royalty once again in Richmond and Kew.

Prince Charles was an infant when he came to England in 1604. When he became the new Prince of Wales following his brother Henry's death, he was given Richmond Palace and the surrounding manors for his use. Prince Henry's former attendant, William Murray, is said to have become Charles's official 'whipping boy' – raised alongside Charles and whipped for the latter's misdeeds.<sup>23</sup> William Murray's uncle, Thomas Murray, was Charles's tutor. Thomas Murray and the other Scots attendants who surrounded him were no doubt responsible for the Scottish accent that Charles is said to have retained throughout his life.

Charles inherited his father's love of hunting and this led to the creation of his greatest lasting legacy to Richmond – the enclosure in 1627 of a new 2,400-acre deer park, originally called New Park but today known as Richmond Park. Its creation was unpopular at the time because of the loss of common land, the pressure put on private landowners to sell and the expense to the Exchequer of an eight-mile-long brick wall. We today, however, are the beneficiaries.

### **The Scottish invasion**

The presence of royalty in Richmond was inevitably a magnet for many of the Scots nobility. (The following are Scots unless otherwise stated.) Robert Ker and Jean Drummond, who were to become the Earl and Countess of Roxburghe, were among the first of the Scots to make the journey to Richmond Palace. Robert was elevated to Lord Privy Seal. Two other related Robert Kerrs followed. One, who was a favourite of James 1st, became Earl of Somerset; and the other became Earl of Ancrum and additionally Gentleman of the Bedchamber and Keeper of the Privy Purse to Prince Charles.

One of the Earl of Ancrum's sons, another Charles, bought property in Kew which had been, in Elizabethan times, the Earl of Leicester's estate and would one day be part of

King George II's Richmond estate and finally part of Kew Gardens. Ancrum had been loyal to King Charles throughout the civil war, but his eldest son fought on the opposite side – a not uncommon occurrence in this divisive war and again during the Jacobite uprisings.

James Hay, 1<sup>st</sup> Earl of Carlisle, lived for a while “in a little house in Richmond Park (Old Deer Park) to be near Syon where his mistress stays”<sup>24</sup>. He married the daughter of the 9th (English) Earl of Northumberland, who lived across the Thames in a splendid extant mansion, Syon House. James 1<sup>st</sup> granted Carlisle all the Caribbean islands, which he never visited. Later Robert Douglas, Viscount Belhaven, became Keeper of Richmond Palace and also first Steward of the Court Leet for Richmond and Petersham, which established for the first time Richmond's independence from Kingston. He sadly became blind and had to retire. His successor, responsible for the Palace and Old Deer Park, was James Stewart, fourth Duke of Lennox and 1<sup>st</sup> Duke of Richmond (in Yorkshire). He fought and lost to Cromwell at the Battle of Naseby, but after paying reparations he was allowed to retire to a house in Kent.<sup>25</sup>

Andrew Pitcarne was the son of the 15th Laird, i.e. Lord, of Pitcairn and Forthar (in Fife) not far from Dysart. The Laird had an hereditary right to the positions of Groom of the Bedchamber and Chief Falconer to the King of Scotland. Falconry was a very popular and respected sport at this time and the training of hawks a highly skilled art.<sup>26</sup> As a young page, Andrew accompanied the infant Prince Charles to England and, after Charles's accession, Pitcarne received a sizable income of £860 per annum.

In 1622 Andrew acquired a thirty-year-lease on Queen's Farm, an estate beside the Thames at Twickenham which is now known as Orleans Park. The Parliamentary Survey of 1649/50, when the estate was still in the possession of his widow (Charity by name) contains a description of it. The Survey mentions gravelly walks, arbours, balusters, cypresses, “rare and choice” flowers, cherries, vines, peaches, cabbages, turnips and carrots. In 1635 Pitcarne paid £400 for the neighbouring, upstream, estate known as Yorke Farm. Moses Glover's map of that year shows a building apparently under construction, which is believed to be York House – today the headquarters of Richmond Council. The current building of that name certainly has some features dating from this period.<sup>27</sup> The Parliamentary Survey lists “hereditaments of all sorts” including “buildings, structures, granaries, stables, dovecots, gardens, orchards, flower gardens, lands, meadows and pasture”. The estate remained in the ownership of Pitcarne's family until 1656. Andrew also owned land at Whitton in Twickenham.

John Ramsay, Earl of Holderness and Baron of Kingston-upon-Thames, when he was a page, had foiled an attempt by two Scots aristocrats to kill or capture King James. Ramsay occupied for a while Ham House, adjacent to the site of the future Richmond Park. After Charles' accession, “whipping boy” William Murray was granted first an income of £900 as a groom of the Chamber, then the Ham House estate, and finally the title Earl of Dysart after his Fifeshire home. Murray acted as a go-between for the King in his negotiations with the Scottish Covenanters, who were allied with the English Parliamentarians. When the King was captured, Murray fled to the Continent and, until his death in 1655, was involved in attempts to restore the monarchy. His daughter Elizabeth inherited his title and estate.

The civil wars that would engulf all three kingdoms of the British Isles started in Scotland with the First Bishops' War in 1639, when the Presbyterian Covenanters (signatories of the National Covenant) opposed Charles's imposition of Anglican practices on Scotland. Like his father, Charles had occasionally used Richmond Palace whenever plague was rife in London, making Richmond effectively the capital of England for the duration. However, his final connection with the locality, shortly before his execution, was a comfortable imprisonment in Hampton Court in 1647. His children were allowed to join him, he had his own servants, the furnishings were improved and paintings were brought from Whitehall for his short lived pleasure.

### **Lauderdale and Johnston**

John Maitland, Earl of Lauderdale, another Scot, whose fate would become intertwined with Elizabeth's, had initially been a leading negotiator on the Covenanters' side. However, after the execution of Charles I, he, along with many other moderate Covenanters, took the side of Charles II, King in exile. Lauderdale befriended the King in The Hague, and together they confronted Cromwell at the Battle of Worcester in 1651. The Royalists were defeated and Lauderdale was imprisoned until the restoration of Charles in 1660. He then became one of the King's inner circle of advisors, the notorious Cabal. Officially the Secretary of State for Scotland, he was effectively viceroy north of the border, where he proceeded to persecute those Covenanters who had opposed the King.

In 1672 Lauderdale was created Duke and married William Murray's daughter, Elizabeth, who was still living at Ham House. Although an active royalist – she had been a member of a secret organisation called the Sealed Knot that had conducted coded correspondence with exiled royalist supporters – Elizabeth had somehow managed to resist the Parliamentarians' attempts to commandeer the house. Lauderdale added an extension to the building – designed by another Scottish royalist, Sir William Bruce – and created the landscape that largely survives today, with its long avenues of trees radiating outwards from the house.

Lauderdale died in 1682. Meanwhile, James Johnston, the son of one of the leading Scottish Covenanters that Lauderdale had had executed for treason, had fled to the Netherlands and subsequently assisted in William of Orange's bloodless invasion of England of 1688. Johnston was made, in turn, Secretary of State for Scotland and bought a riverside estate in Twickenham directly opposite Ham House. There, in retirement, he grew fruit trees and vines. Daniel Defoe described him as "a master of gardening, perhaps the greatest master now in England"<sup>28</sup>. On one occasion Johnston entertained the Hanoverian royals, Queen Caroline and Prince Frederick, who held him in high regard. Caroline is said to have brought her own chef and gold plate!<sup>29</sup> In 1720, he had an octagonal summerhouse built to the design of his compatriot James Gibbs, best known as the architect of St. Martin-in-the-Fields Church. Johnston's octagon still stands there today, in Orleans Park, looking across the Thames towards the home of his old enemy Lauderdale.

Scotsman William Paterson was the deviser of the notorious Darien scheme – a plan to set up a Scottish colony on the Isthmus of Panama, which was attempted in 1698. This

was a disastrous failure that bankrupted many Scots investors. Paterson then advocated forming a union with England with freedom of trade. This was achieved in 1707.

The Stuarts, with their Catholic faith and their belief in the Divine Right of Kings, had not yet been eradicated. In 1715 John Erskine, 11th Earl of Mar, who at that time had a house beside the Thames at Twickenham on the site now occupied by Thames Eyot,<sup>30</sup> raised the Jacobite standard at Braemar in support of James Stuart, pretender to the throne. By another twist of fate, the two Scots who were to stop him in his tracks were both born at Ham House – brothers John and Archibald Campbell, the future 2<sup>nd</sup> and 3<sup>rd</sup> Dukes of Argyll. They were the grandchildren of Elizabeth, Duchess of Lauderdale by her first marriage to Sir Lyonel Tollemache. Their father, the 1st Duke of Argyll, like James Johnston, had assisted in William of Orange's invasion. Their great-grandfather, like Johnston's father, had been executed on the restoration of Charles II. Their grandfather, on the other hand, had allied himself with Charles and Lauderdale, but had then fallen foul of the Catholic James II and he too had been beheaded. So, needless to say, the young Campbells were not enamoured of the Stuarts.

John had been a soldier from the age of sixteen and had become one of the Duke of Marlborough's most senior generals in his wars in the Low Countries and the Mediterranean. He was known as "Red John of the Battles". Archibald was more intellectual. He was a serious botanist and tree collector, an interest he would later pursue on his estate at Whitton Park in Twickenham. Both brothers were Whigs. "Whig" is derived from "Whiggamore", meaning originally a Scottish Covenanter. They supported the Union of Parliaments in 1707 and the Hanoverian succession in 1714. In the following year they fielded an army against Mar at Sherrifmuir and drove the Jacobites back into the mountains. Archibald was wounded in the battle. John's reward was a grant of land at Sudbrook adjacent to the Ham estate, where James Gibbs built him a handsome villa, today the clubhouse of a private golf course. Meanwhile, the leading English Jacobite, James Butler, 2<sup>nd</sup> Duke of Ormond, had been forced to flee the country, and his Richmond riverside estate consequently reverted to the Crown. It was soon occupied by the future George II and Queen Caroline, and part of it would eventually be absorbed into Kew Gardens.

In 1746, although the 3<sup>rd</sup> Duke of Argyll chose not to get personally involved, a large contingent of Clan Campbell militia helped the Duke of Cumberland defeat the last remnant of Jacobite resistance at Culloden. It is reckoned that there were more Scots in Cumberland's army than there were in Charles Stuart's. And – a further irony – within ten years the Highlands of Scotland, including erstwhile Jacobite strongholds, would become the main recruiting ground for Britain's imperial armies. General Wolfe notoriously said of Highland soldiers that "they are hardy, intrepid, accustomed to a rough country, and no great mischief if they fall"!

The official Secretary of State for Scotland from 1742 had been John Hay, 4th Marquess of Tweeddale. In the critical period 1745/46, Tweeddale is recorded as living in a house in East Twickenham formerly occupied by another Scot, the Earl of Kinnoull. Operating from England, Tweeddale had failed to anticipate the danger posed by the Jacobite uprising that got as far as Derby and London had been in a state of panic. Tweeddale duly lost his position as Secretary of State for Scotland – a position that before his appointment had been vacant for some time and after his resignation was



vacant again until 1885. He continued to be one of the Scottish representative peers at Westminster until 1761. During that time he lived in a house on Twickenham Common. It was here that, for reasons best known to himself, he created a fence made from broadsword blades collected by the Duke of Cumberland from the battlefield at Culloden.<sup>31</sup>

### James Thomson

Walter Scott famously visited Richmond Hill and in his novel *Heart of Midlothian* included a grand description of the view, as seen through the eyes of the 2<sup>nd</sup> Duke of Argyll and the fictional Jeannie Deans.<sup>32</sup> Another eminent Scottish writer, James Thomson, had earlier eulogised the same view in verse,<sup>33</sup> but he came to stay for the rest of his life – in Kew Foot Road to be precise, close both to the Kew estate of Frederick, Prince of Wales, and to his favourite hostelry, the Orange Tree Inn, Richmond. Previously resident in London, Thomson's social circle included Alexander Pope, Tobias Smollet, Samuel Richardson, Richard Savage and many of the other London literati of the day. Although his poetry and plays may not be so popular nowadays (Samuel Taylor Coleridge called him a “a great poet, rather than a good one”!)<sup>34</sup> his poem *The Seasons* (1726-30) ran to a remarkable four hundred editions, including French, German and even Latin translations, in the hundred years or so after its first publication, and made him one of the most famous and influential poets of the 18<sup>th</sup> century.

Inspired by the landscape in his homeland in the Tweed Valley, this grandson of a gardener was the first of the great British nature poets and the forerunner of Romanticism. His verse opened the eyes of people throughout Europe to the beauties of nature. Haydn's oratorio *The Seasons* was inspired by his poem, as were paintings by Constable, Gainsborough, and Turner. A French biographer wrote: “As for Rousseau, it would be impossible to exaggerate the part Thomson's work played in the development of his genius, or at least in the inspiration of his literary work.”<sup>35</sup> Even the curmudgeonly Samuel Johnson wrote: “[Thomson] looks round on nature and on life with the eye that nature bestows only on a poet ... and with a mind that at once comprehends the vast and attends to the minute. The reader of *The Seasons* wonders that he never saw before what Thomson shews him, and that he never yet has felt what Thomson impresses”:-

The morning shines  
Serene, in all her dewy beauty bright,  
Unfolding fair the last autumnal day.  
And now the mounting sun dispels the fog;  
The rigid hoar-frost melts before his beam,  
And hung on every spray, on every blade  
Of grass, the myriad dew-drops twinkle round.<sup>36</sup>

With its forays into Newtonian science, Thomson's poem reflected a growing scientific interest in the natural world. It was also a source of inspiration for the English Landscape school of gardening. Thomson's friend, the artist William Kent, illustrated the 1730 edition of the poem and went on to become the landscape gardener who

famously “leapt the fence and saw that all Nature was a garden”.<sup>37</sup> William Wordsworth commemorated Thomson in a sonnet on birdsong on Richmond Hill:

And scarcely conscious of the dashing oars  
Plied steadily between those willowy shores,  
The sweet-souled Poet of the Seasons stood –  
Listening and listening long in rapturous mood.<sup>38</sup>

Thomson dedicated his whiggish poem “Liberty” to Prince Frederick. Towards the end of his life he was rewarded by Frederick with the grant of a pension. When he died of a chill aged 48, Thomson was buried in Richmond Parish church, and a fine monument to him, designed by Robert Adam, was erected in Poets’ Corner in Westminster Abbey. Unlike his fellow countryman Robert Burns, Thomson had taken the high road to England and had written, not in his native broad Scots, but solely in what was for him, and most other Scottish Enlightenment figures, a foreign language. And in his patriotic anthem “Rule Britannia”, set to music by Thomas Arne for a fete given by Prince Frederick, he lauded the “blest isle” of *Britain* rather than “Scots wha hae wi’ Wallace bled”.

### **Argyll and the Butes**

A key figure in the Scottish Enlightenment was Archibald, 3<sup>rd</sup> Duke of Argyll, who was the fourth Secretary of State for Scotland to be associated with Richmond.<sup>39</sup> Argyll was powerful enough north of the border to be known as the “King of Scotland” in the period before Henry Dundas became “King Harry the Ninth”. He created the chairs of Chemistry and Practical Astronomy at Glasgow University and was responsible for fifty-five appointments at Glasgow and Edinburgh Universities,<sup>40</sup> the most important being that of the Ulster Scot philosopher, Francis Hutcheson, to the chair of Moral Philosophy at Glasgow. For these reasons Argyll has been called the father of the Scottish Enlightenment.<sup>41</sup>

Argyll was an able botanist. On his estate in Whitton, he amassed a fine collection of exotic trees and, in a large greenhouse designed by James Gibbs, cultivated exotic tender plants. So great was the Duke’s horticultural zeal that he lived in a gardener’s cottage while he supervised the laying-out of the gardens, only later getting round to having a house built. Of course he had residences elsewhere, including one in what is today Argyll Street in London. Horace Walpole (a close neighbour of Argyll at Whitton) highlighted in his essay *On Modern Gardening* the importance of the “tree monger”, as he called him: “The introduction of foreign trees and plants, which we owe principally to Archibald, Duke of Argyll, contributed essentially to the richness of colouring so peculiar to our modern landscape”.<sup>42</sup>

A contemporary piece of doggerel recounted the, presumably apocryphal, tale of Argyll opening up vistas at random through the trees at Whitton:

With transport and joy he beheld his first view end  
In a favourite prospect – a church that was ruined.  
But, alas! What a sight did the next cut exhibit!  
At the end of the walk hung a rogue on a gibbet!

He beheld it and wept, for it caused him to muse on  
Full many a Campbell that died with his shoes on.<sup>43</sup>

As many of the Scots who came to London were successful, inevitably some of them met with envy and hostility. The chief Scotophobe of his day was John Wilkes. Or so, at least, he affected to be: in fact he had many Scottish friends until he started his campaign against the then Prime Minister. Wilkes ranted: “the principal part of the Scottish nobility are tyrants and the whole of the common people are slaves.”<sup>44</sup> The main object of this agitator’s venom was Argyll’s nephew and Kew resident, John Stuart, 3<sup>rd</sup> Earl of Bute – who, despite his surname, was never a Jacobite but was the favourite of King George III.

Latter-day historians have tended to look kindly on Bute’s brief spell as Prime minister. The minor concessions he made in 1763 in order to bring the Seven Years’ War to an end are generally seen as politic. However, he was at the time exceedingly unpopular because some considered he had sold out to the French and Spanish and because he was a Scot who used his patronage to advance other Scots at home and abroad. As a contemporary, Bishop Warburton, said of him: “Lord Bute is a very unfit man to be Prime Minister of England. First, he is a Scotchman; secondly, he is the King’s friend; and thirdly he is an honest man.”<sup>45</sup> Even worse, a rumour was put about that Bute and Augusta were having an affair. No historian seriously believes that there was any truth in this allegation. King George certainly did not believe that his mother was having an adulterous liaison with his Prime Minister, who was a married man of high moral principles. However, a torrent of cartoons and broadsheets poured off the presses, ridiculing Bute and Augusta and giving them the nicknames “Jack Boot” (a play on his name and title) and “Petticoat”. Thanks largely to Wilkes’ rabble-rousing, Bute was hounded out of office after only ten months.

Bute followed in his uncle and guardian Argyll’s footsteps. The latter instilled in him an interest in science, especially botany, that went far beyond the amateurism of the typical aristocrat. Furthermore, like his uncle, he did a great deal to advance the careers of a number of very gifted Scots, especially William Robertson, Robert Adam and William Chambers. Historian William Robertson’s appointment as Principal of Edinburgh University in 1762 was one of twelve Scottish university appointments attributable to Bute and has been described as “the single most important step in institutionalising Enlightenment values in Edinburgh during the 18<sup>th</sup> century”.<sup>46</sup>

It was also Bute’s influence that secured for Scottish architect Robert Adam numerous commissions in both England and Scotland, including the interiors of Syon House and Osterley House. Adam shared the title Architect of the King’s Works with William Chambers: eventually they were to share the same burial place too – Westminster Abbey. It should be noted that Bute’s patronage was invariably based on merit and was not confined to Scots. His other beneficiaries included Samuel Johnson and William Curtis. The latter’s *Botanical Magazine*, which first appeared in 1787, is still being published today – by Kew Gardens.

From 1761 until his death in 1792, Bute was responsible, as Ranger, for the upkeep of Richmond Park – an office previously performed by the Duke of Lauderdale and, before that, by the Countess of Dysart jointly with her first husband Lionel Tollemache. However, Bute’s great legacy to Richmond was his work on the Kew estate of Prince Frederick and Princess Augusta. Here, a triumvirate of Scots – himself as unofficial

Director, William Chambers as architect and William Aiton as gardener – laid the foundations of what was eventually to become the Royal Botanic Gardens. Bute’s aim was to have a garden that would contain “all the plants known on Earth”.<sup>47</sup> Working from his *pied-à-terre* in Kew Green,<sup>48</sup> his area of influence included landscaping, the acquisition of plants and the recruitment of staff.

On his uncle’s death in 1761, Bute spirited away to Kew the best specimens of tree, some of which are still standing there today, including a fine Oriental Plane and a heavily braced Japanese Pagoda Tree. Other sources of plants for Kew at this time were the Mile End nursery of James Gordon and the Hammersmith nursery of James Lee and Lewis Kennedy. These expatriate Scots were the foremost British suppliers of exotic plants of their day: Lee, who formerly worked for Argyll at Whitton, introduced the Fuchsia into Britain, and Gordon introduced the Ginkgo and the Camellia. John Christian Fabricius, a pupil of the Swedish naturalist Carl Linnaeus, observed: “[James Lee] is a Scot like almost all seedsmen and gardeners in and around London. The Scots have established almost a monopoly in this occupation to the virtual exclusion of the English, and the businesses are handed from one Scot to another”<sup>xlix</sup>. Fabricius also mentions a plethora of Scottish bakers!

Bute liked to encourage women to study botany, an occupation to which he thought they were particularly suited. This led him to publish, after a long gestation period, his lavishly illustrated Botanical Tables [in nine volumes, 1785] containing the different families of British plants. This was intended to be an improvement on the Linnaean system of classification<sup>49</sup> in which the reproductive parts of the plant were curiously referred to as “husbands” and “wives” and other more graphic terms. This led some contemporaries to regard the system as pornographic and therefore unsuitable for teaching to women and children! Bute’s system was based on a wider range of plant characteristics than the Linnaean, and the dedication in his publication declared that it had been “composed solely for the amusement of the Fair Sex ... No improper terms will be found in it”! Only a limited edition of twelve was printed: two of the recipients were Queen Charlotte (wife of George III) and Catherine the Great of Russia.

Augusta eventually developed throat cancer, which she bore with great fortitude. She died in 1772 at the age of 51. At his Luton Hoo estate Bute dedicated a magnificent sandstone column to the memory of Princess Augusta, with a heart-felt inscription taken from Virgil’s Aeneid: “[You will remain in my memory] so long as I am conscious and my spirit controls my limbs”. This column, surmounted by a female figure, can be seen today in a beautiful new setting on the Isle of Bute, overlooking the Firth of Clyde.

### **Scottish Aristocrats**

The Earl of Bute’s two sons, James and Sir Charles Stuart, were both Deputy Rangers in Richmond Park, and both were military men (a common route for the Scottish aristocracy to take). They both saw action in the American War of Independence. Sir Charles also took part in the French Revolutionary Wars (1792-1802) and was a particularly able, if fractious, general. One army historian has ranked him with Wellington, describing him as “a man of talents so rare both as a commander and an

administrator that the imbecility of Henry Dundas [Secretary of War] alone prevented him from winning a name in history even before his premature death”.<sup>50</sup>

A grandson of Bute, Charles Stuart (1775-1796), at the tender age of sixteen joined a future Petersham resident, Captain George Vancouver, on a famous survey of the Pacific coast of North America. Charles was one of two aristocratic midshipmen on that voyage, the other being the English Thomas Pitt whose father, 1st Baron Camelford, like Charles’ father, had a residence in Petersham. During the voyage, Vancouver had the young Pitt publicly flogged for some misdemeanour.<sup>51</sup> At a subsequent dinner, Charles produced a razor and told Vancouver that he would sooner cut his own throat than suffer the humiliation of a flogging. Vancouver thereafter gave Charles a disproportionate number of arduous and hazardous tasks to do, which he carried out with fortitude. Sadly, at the age of twenty, the by-then Lieutenant Stuart died when his ship sank off Madeira.

Douglas, 3rd Duke of Queensberry, whose father had played a prominent role in the negotiations leading to the Union of 1707, was married to Lady Catherine Hyde and had a residence at Douglas House in Petersham on the edge of the Ham estate. It today houses a German school. The Duke and Duchess were great socialites and patrons of the arts, a notable beneficiary being Englishman John Gay who is said to have written the lyrical drama, the *Beggar’s Opera* (1728) while staying at Douglas House. That and a subsequent play, *Folly*, satirised George II’s Prime Minister, Sir Robert Walpole. The Duchess was dismissed from George’s court for enlisting subscribers for Gay’s satirical work. Queensberry thereafter changed his allegiance to Frederick Prince of Wales. Alas, Frederick died at the age of 44 before he could ascend the throne.

William Douglas, 4th Duke of Queensberry, known as “Old Q”, was a confirmed bachelor and a notorious gambler and womaniser. He was also a breeder of racehorses and was an early member of the Jockey Club. He bought a house on the former site of Richmond Palace where he held frequent soirées with illustrious guests such as Horace Walpole, William Pitt, the Duke of Clarence, George Prince of Wales and his illegitimate wife Mrs. Fitzherbert, as well as refugees from the Terror in France. It is difficult to see what attracted such an urbanite to rural Richmond as William Wilberforce quoted him as saying: “What is there to make so much of in the Thames? I am quite weary of it; there it goes, flow, flow, flow, always the same”<sup>52</sup>. Nevertheless, he was popular with the locals because he spent money, supported the arts, and gave generously to charity. However, when he tried to enclose part of the towpath, which was common land, and add it to his own land, Richmond Vestry took him to court and won. Queensberry left Richmond, never to return. He died at the age of eighty-six. A contemporary said that “he would have lived longer but for his imprudent indulgence in eating fruit”!<sup>53</sup>

The 2<sup>nd</sup> Duke of Montrose “had the misfortune, when yet but little past middle age, to suffer the affliction of blindness, which he bore with singular courage and patience.”<sup>54</sup> The Duke in later life lived with his wife mainly in England, most splendidly at Twickenham Park beside the Thames - the former estate of Sir Francis Bacon. The will of the previous owner had made a curious stipulation, which Horace Walpole summarised: “The Countess of Mountrath has bequeathed Twickenham Park to Lord Frederick [Cavendish], but he must permit it to be inhabited by the Duchess of

Montrose till the Duke of Newcastle dies, when the Duchess of Newcastle is to occupy it, and when she dies, the Duchess of Montrose is to return to it, and after her Lord Frederick is to enjoy it.” That indeed is what happened<sup>55</sup>.

Archibald Kennedy had held the titles of 12<sup>th</sup> Earl of Cassilis and Baron Ailsa before his friend William IV, in 1831, created him Marquess of Ailsa. Ailsa Craig is a granite rock of 220 acres in the Firth of Clyde, uninhabited except by puffins and gannets. In 1820 Ailsa acquired the northern half of the former Montrose estate at Twickenham Park. He built a mansion on it and called it St. Margaret's House after the canonised English wife (1045-93) of Malcolm III of Scotland – the king who ousted Macbeth. An article in *The Gardens Magazine* in 1838 gives a detailed description of the gardens' fruit, vegetable and ornamental planting. “not far exceeded by the far-famed orange trees at Versailles”<sup>56</sup>. The Ailsa family retained this estate until 1848, after which the area was developed as a garden suburb. The Marquess's name lives on in a number of place names (Ailsa Road, Ailsa Avenue, Ailsa Tavern and Cassilis Road) and the surrounding district has retained the name of the sainted Queen of Scotland – St. Margaret's. N.B. Ailsa Craig is currently (2023) up for sale at an asking price of £1,500,000.

To the north of the Ailsa estate there stood a fine house overlooking the River that today bears the name Gordon House. From 1832 it was owned and occupied by Lady Augusta Kennedy-Erskine, the illegitimate daughter of Dorothea Jordan and William IV, who is said to have paid 8,000 guineas for the house. The gardens were designed “in the Venetian style, fountains and classical vases meeting the eye at every turn”. The King was a frequent visitor. Augusta married a Scottish aristocrat, Lord John Frederick Gordon, later known as Lord Frederick Gordon-Hallyburton after he had inherited an estate from an uncle with the latter name<sup>57</sup>. The current Haliburton (sic) Road and Gordon Avenue in St. Margaret's commemorate this period.

Alexander Duff was initially the 6th Earl of Fife. By tradition the Earls of Fife are descended from McDuff, Thane of Fife, who features in Shakespeare's *Macbeth*. The 6th Earl was created 1st Duke in the peerage of the United Kingdom on the occasion of his marriage in 1889 to Louise, the future Princess Royal, eldest daughter of Edward VII and Queen Alexandra. This was the last created U.K. dukedom, other than those created (usually re-created) for members of the royal family. Historically, the Earls of Fife had the honour of placing the crown on the head of Kings of Scotland. The 1st Duke had another somewhat less honourable royal connection: he was another descendent of the one-time Richmond residents, William IV and his actress mistress Dorothea Jordan. Some people thought that Louise was marrying beneath her station, but Queen Victoria, who loved all things Scottish, approved.

The very wealthy Duke had grand estates in Scotland, but the happy couple's favourite residence was East Sheen Lodge, adjacent to Richmond Park. When they returned there after the wedding in an open carriage, “the route [through Mortlake] was gaily dressed and spanned with triumphal arches. At the parish boundary, the bridal party was met by a band of children who preceded them, strewing flowers the whole of the way”.<sup>58</sup> Surrounding developments in the early 1900's persuaded the couple to quit the area, but the now named Fife Road remains as a memorial to that period.

## PART TWO

### William Chambers and William Aiton

Scots were great pioneers. The Province of Ulster was colonised in the 17th century by Lowland Scots who retained their Presbyterian faith and culture. Suffering discrimination there at the hands of the ruling Anglican elite, many would subsequently emigrate to America where they provided a high proportion of the rebel troops that defeated the British armies. By some reckonings 13 of the signatories of the Declaration of Independence were of Scots or Scots Irish descent.<sup>59</sup> Also, with their covered wagons and log cabins, they were the original frontiersmen (and women). Davie Crockett, Jim Bowie and Kit Carson were all of Scots or Ulster Scots stock. The most illustrious of their number was Andrew Jackson, USA's first Democrat President.

The countries around the Baltic, including Sweden, Poland and Russia, had also been favourite destinations for large numbers of Scots, especially before the British Empire became available to them. In 1635 the magistrates of Stockholm complained that the Scots "do oust all native competition ... All the best trade they draw to themselves".<sup>60</sup> William Chambers (unrelated to the William Chambers who founded the still thriving publishing company in Edinburgh) was born in Sweden and educated in England, but was of Scottish parentage, and is therefore a product of the Scottish Diaspora.

Chambers had visited China in his youth as an employee of the Swedish East India Company – an organisation which had been founded in 1729 by another expatriate Scot, Colin Campbell, and which had a practice of employing mostly Scots. That visit was the inspiration for Chamber's writings on oriental buildings and gardens, which were extremely popular especially on the continent where "le jardin anglo-chinois" became all the rage. He is also known for his role in the creation of the Royal Academy and as the architect of the magnificent Somerset House. The latter is widely recognised as the single most important building project executed in late eighteenth century Britain.

Chambers also designed many of the iconic buildings at Kew, those still extant being the Orangery, the Pagoda, the Ruined Arch, and three small temples named *Arethusa*, *Bellona* and *Aeolus* (the latter a 19<sup>th</sup> century stone replica). Named after classical deities, these temples evoke an Arcadian paradise. However, their names have another, lesser known, significance: all three were the names of ships of the Royal Navy that were involved in once famous victories against the French in the Seven Years' War (1756-63).<sup>61</sup> The interior of the Temple of Bellona has medallions commemorating British and Hanoverian regiments involved in that war. The vase and patera decoration on the external frieze suggest an honouring of the dead, making this a very early example of a memorial to the fallen as opposed to a trumpeting of a victory. The most important of the early hothouses at Kew was also designed by Chambers. This was the Great Stove, which was the biggest glasshouse of its time and was in use for a hundred years before it was demolished. (N.B. the Marianne North building is not one of Chambers' buildings: that was designed by another Scot, James Fergusson.)

Chambers was also responsible for George III's fine Observatory in Old Deer Park (built to observe the transit of the planet Venus) and Sir Joshua Reynolds' house next door to "The Wick" on Richmond Hill. After the Duke of Argyll's death, Chambers

purchased part of his Whitton estate, where he built a number of garden buildings that have not survived. William Chambers, incidentally, employed at one time an ambitious young Scottish builder, the afore mentioned Thomas Telford who, together with his compatriot John “Tar” MacAdam, would transform Britain’s transport system by building roads, bridges and canals throughout England, Scotland and Wales, including the Menai Suspension Bridge and the Ellesmere Canal.

The Scottish gardener, William Aiton, was recruited to Kew by Bute in 1759, and set about creating a physic garden and arboretum organised on the basis of the new Linnaean system of classification that was bringing much needed order to the science of botany. That year is regarded as the beginning of the botanic gardens at Kew, which celebrated its 250<sup>th</sup> anniversary in 2009. Another Scot, incidentally, could be said to have been the very first British advocate of the Linnaean system – Isaac Lawson, who attended Leyden University with Bute in the 1730’s. Lawson actually subsidised Linnaeus, who did his most creative work in the Netherlands, and financed the first printing of the Swede’s epoch making *Systema naturae* in 1735.

Aiton is an example of that notable phenomenon of the 18<sup>th</sup> century and beyond - the ubiquitous Scottish gardener. As one French visitor observed, “Almost all the gardeners employed in England are [Lowland] Scots, and you will find not one who is unable to name all the plants in Latin.”<sup>62</sup> Aiton had previously worked at the Chelsea Physic Garden under a Scots nurseryman’s son, Philip Miller, who was the most eminent gardener of his day. By virtue of his five decades of pioneering work at Chelsea (beside the Thames) and his *Garden Dictionary*, which was the fore-runner of all subsequent gardening encyclopaedias, Miller had earned himself an international reputation and had made the Physic Garden the country’s leading centre of horticultural and botanical activity. Appointed in 1722 on the recommendation of the eminent Ulster Scot, Sir Hans Sloane, he had a reputation for employing only Scottish gardeners. “The northern lads” with their “rough tongues and uncouth manners”, as they were characterised by one Englishman who resented their dominance,<sup>63</sup> were favoured by Miller and others because they were sure to be well schooled in writing, arithmetic and the mensuration of land.

The two most commonly cited reasons for the remarkable success of Scottish gardeners at this time were their industriousness and the excellence of their education.<sup>64</sup> Schools legislation in Scotland, inspired by the Presbyterian tenet that everyone ought to be able to read the Bible, meant that Scotland had a literacy rate of around 75% by 1750, compared with 53% in England.<sup>65</sup> The English polemicist, Sydney Smith, remarked: “[The Scots] are perhaps in some points of view the most remarkable nation in the world, and no country can afford an example of so much order, morality, oeconomy [sic] and knowledge among the lower orders of society.”

To emphasise the point made above: Aiton’s successor as Head Gardener at Kew was his son, also William Aiton, who in turn was succeeded by two other Scots, both coincidentally called John Smith, then by three Scottish curators: Alexander Williamson, Allan Black and Alexander Smith. One of Aiton’s Scottish apprentices, James Donn, became curator of the Cambridge University botanic garden, where he produced *Hortus Cantabrigiensis* – so popular that it ran to thirteen editions. Another



Scottish gardener at Kew, John Abercrombie, went on to achieve fame as the author of *Every Man his Own Gardener* and other popular horticultural writings.

William Aiton the Younger, together with fellow Scots James Dickson and William Forsyth (after whom the plants *Dicksonia* and *Forsythia* are named) became three of the seven founders in 1804 of the Royal Horticultural Society. Forsyth was Miller's successor at the Chelsea Physic Garden and he, in turn, was succeeded by at least two other Scots. The Horticultural Society would later employ numerous Scots in their gardens at Chiswick and Kensington Gore, including Superintendents George McEwen and Archibald Barron. The Society would also finance the expeditions of a succession of notable Scottish plant collectors, including George Don, David Douglas, John Jeffrey, Robert Fortune, George Forrest and George Sherriff. Through plant donations, which often took place among botanical institutions, the work of these Scots would help enrich Kew Gardens' plant collection.

Many botanists at this time trained initially as medical doctors, and Edinburgh University Medical School, being the foremost producer of medical doctors in Britain in the late 18th and early 19th century, was to be of enormous importance for Kew, especially in its international operations and for botany in general. Some medical treatment at this time, however, was of dubious value. The Scottish naval surgeon, James Lind, who in the mid-18<sup>th</sup> century advocated the use of lime juice to counteract scurvy, was the first person known to have done any actual clinical testing.<sup>66</sup> Joseph Banks (see below) survived potentially fatal scurvy by taking Lind's citrus juice remedy on his round-the-world voyage. In 1867, by the way, when it became compulsory for all British shipping to carry lime juice, Scotsman Lachlan Rose patented what he would later market as Rose's Lime Juice Cordial – still on sale today.

It has been calculated that a remarkable eighty-seven percent of British doctors in the second half of the eighteenth century were Scottish trained.<sup>67</sup> Physic gardens, founded in 1670 and 1705 respectively, were attached to the Edinburgh and Glasgow Schools, and botany was included in the curriculum as part of a physician's education so that he would be able to prepare his own remedies. Edinburgh, in particular, attracted numerous English students, including Erasmus Darwin and John Fothergill, largely because of its hands-on approach to the teaching of medicine, which was superior to the more aloof style of the two English universities. So great was the demand in Edinburgh for the necessary cadavers that it was met at one stage by the notorious Irish body-snatchers, Burke and Hare.

After 1760 one of the attractions of Edinburgh University for both English and Scottish students was the teaching of another of Bute's important appointees – Professor of Botany, John Hope. Hope was one of the first academics in Britain to teach the new Linnaean system of plant identification, and by 1780 he had around 60 students in his class. These included James Edward Smith, the future founder and first President of the Linnaean Society and, likely, three of the future English founders of the Horticultural Society: Richard Salisbury, Charles Greville, and John Wedgwood (son of Josiah, the potter) who were all Edinburgh alumni of this period. With support from Bute, Hope created a new botanic garden in Edinburgh that became one of the finest in Europe. He also founded in 1763 the Society for the Importation of Foreign Seeds and Plants, which

was the first such syndicate in Britain, and he was to play a part in the next crucial stage of Kew's development – the great age of plant collecting and classification.

### **The Joseph Banks Era**

A brief mention must be made of the Scottish influence at this time on gardening in France – a country that had had longstanding links with Scotland in the days of the “Auld Alliance” and more recently in Jacobite times. William Chambers' influential writings have already been mentioned. Scotsman James Lee had powerful connections in France. He introduced the Scottish gardener and pioneering Alpine plant collector, Thomas Blaikie, to the Comte de Lorraine, and the former proceeded to do for the French aristocracy what “Capability” Brown was doing for the English – until the French Revolution deprived him of his clientele. One client who was guillotined was the Duke of Orleans, whose son fled France and eventually lived in exile in the former residence of James Johnston at Twickenham,

What is less well known is that there was in France in the first half of the 19<sup>th</sup> century a vogue for roses and heathers that had its origins in the romantic writings of James Thomson, Walter Scott and James MacPherson (alias “Ossian”, the counterfeit Celtic bard). The immense popularity of their poems and novels created a wave of “Caledomania” across the continent. Even Napoleon, who was destined to fall foul of the Scottish regiments at Waterloo, carried a copy of MacPherson's *Poems of Ossian* on his military campaigns. Remarkably, at the height of the Napoleonic Wars between Britain and France, the French Empress Eugenie and the British Vineyard Nursery jointly financed Scotsman James Niven to collect new heathers in South Africa. Also, Scotsman John Kennedy received from France a Letter of Immunity guaranteeing him safe passage to deliver plants from the Vineyard Nursery to the gardens in the Chateau de Malmaison. The “Auld Alliance” between Scotland and France had ended in the mid-16<sup>th</sup> century but cultural exchanges had continued.<sup>68</sup>

Bute's successor as unofficial Director at Kew was the great English Enlightenment figure who was President of the Royal Society for forty-two years and the seventh founder member of the Horticultural Society – Sir Joseph Banks. Banks lived at Spring Grove House in Isleworth, across the Thames from Kew, from 1779 until his death in 1820. His education at Oxford University had been less than ideal: he had found it necessary to hire a botanist at his own expense to deliver the lessons the Professor of Botany declined to teach!<sup>69</sup> He therefore completed his education at what I have already indicated was, at that time, the country's leading centre of botanical activity – the Chelsea Physic Garden under son of a Scot, Philip Miller. There he no doubt noted Miller's success in acclimatising exotic plants and transferring economically useful plants to and from the Colonies in America.

Banks also at this time frequented Scotsman James Lee's celebrated Vineyard Nursery in Hammersmith (on the site now occupied by the Olympia exhibition halls) which John Loudon described as “unquestionably the first [i.e. foremost] nursery in Britain, or rather the world”.<sup>70</sup> Lee specialised in the import and export of non-European exotics, and was another early Scottish proponent of the Linnaean system. He published a book on the subject which ran to ten editions and added greatly to his fame.<sup>71</sup> An additional

attraction for Banks at the Vineyard, it must be said, was Lee's ward, Harriet Blosset, whom Banks considered to be "the fairest among the flowers" and with whom he had a youthful liaison.<sup>72</sup>

It was to a Scot, the aforementioned Professor John Hope, that Banks looked from time to time for advice on the recruitment of botanists – to act as plant hunters and to staff the growing international network of botanic gardens centred at Kew. Banks, a great Scotophile, was well aware of developments north of the border. Forty-six years after a visit to Edinburgh, he recalled: "I spent my time so agreeably that the recollection of it has haunted me ever since ... Edinburgh was before that time and ever since a school of the liberal sciences which could not be exceeded and possibly not equalled by any in England. Of such a school I feel myself proud as a Briton."<sup>73</sup> This is reminiscent of the words of Benjamin Franklin: "The time we spent [in Edinburgh] was six weeks of the densest happiness I have met with in any part of my life, and the agreeable and instructive society we found there in such plenty has left so pleasing an impression on my memory that did not strong connections draw me elsewhere, I believe Scotland would be the country I should choose to spend the remainder of my days in."<sup>74</sup> When the two Scots, Sir John Sinclair and "King Harry" Dundas were intent on establishing what would become the British Board of Agriculture in 1793 (110 years later Kew Gardens would come under its control) Banks lent them his support and commented: "that a Scots farmer can get more crop from the earth than an English one seems a fact not to be disputed. To have been the cause of imparting to Englishmen the skill of Scots farmers is indeed a proud recollection."<sup>75</sup>

As England had taken the lead in agricultural reform in the 18<sup>th</sup> century, this is one of the instances of Scots borrowing something from England and improving it. Significant Scottish agricultural innovations of this period included an iron plough, a threshing machine, a reaping machine (forerunner of the combine harvester) and, importantly, hollow pipe drainage (invented by Sir Hugh Dalrymple). It was a feature, incidentally, of the Scottish Enlightenment that there was an equal emphasis on applied and pure sciences – engineering as well as physics, agriculture and horticulture as well as botany. James Hutton, for example, was a great agricultural improver as well as a geologist.

The legacy of the Seven Years' War (secured by Bute) was an enlarged Empire, and Banks was determined to make use of it as a means of obtaining new plant material for Kew and, through inter-continental plant transfers, establishing profitable new plantations in the colonies. Banks, together with two Scottish scientific artists, Sydney Parkinson and Alexander Buchan, had himself spent three years circumnavigating the globe on the first expedition of Captain Cook (whose father, by the way, was a Scot) but had brought back mostly dried specimens.<sup>76</sup> The practice of employing Scots gardeners at Kew continued under Banks, who described Scotland as "a nation of gardeners",<sup>77</sup> and it was from their number that he recruited a high proportion of his collectors of living plant material. Banks declared that he valued a Scottish education in his plant hunters because it inculcated "the habits of industry, attention and frugality".<sup>78</sup>

Two independent Scots explorers provided Banks with plants: James Bruce, one of the earliest African explorers, brought back a large consignment of seeds from Abyssinia where he had been searching for the source of the Nile. Mungo Park, son of a wealthy

farmer, collected plants in Sumatra and wrote a popular book titled *Travels in the Interior Districts of Africa* before his tragic death by drowning.<sup>79</sup>

Francis Masson was the first of the hardy Scots gardeners who suffered dreadful hardships and dangers in search of new plants at the behest of Kew Gardens. Over a period of thirty years he made productive expeditions to Europe, Africa, the West Indies and North America. At one point he was traumatised when captured and imprisoned by the French, an experience that haunted him for the rest of his life. Finally, in 1805, he froze to death in the North American winter. His introductions included *Gladioli*, *Pelargoniums*, *Ericas*, *Crassulas* and *Mesembryanthemums*, as well as the arum lily and the bird of paradise flower.

Scots Gardener William Kerr was among the first to collect plants in the Far East. Kerr had actually been preceded a century earlier by Scottish naval surgeon James Cunningham of the English Company – forerunner of the East India Company – who discovered the conifers *Cryptomeria* and *Cunninghamia*. Kerr's finds included *Pieris japonica*, *Lilium tigrinum* (Tiger Lily) and, of course, *Kerria japonica*. Kerr was later given the task of setting up Ceylon's first Botanic Garden. Another Scottish gardener, Alexander Moon, succeeded him at Ceylon.

Allan Cunningham, son of a Scottish head gardener at Wimbledon House, on the advice of Banks, collected Orchids and Bromeliads in Brazil in the period 1814-16. Brazil at that time was the capital of the Portuguese Empire following the invasion of Portugal by Napoleon's armies. The great Scottish naval hero, Thomas Cochrane, would shortly fulfil the freedom struggles of Brazil, Chile and Peru, doing what his fellow Scot Captain John Paul Jones had already done for the United States of America.<sup>80</sup> Cochrane became the model for the heroes of novelists Captain Marryat, C.S. Forester and Patrick O'Brian. Cunningham went on to collect many more plants throughout Australia and part of New Zealand. As well as being a very prolific plant collector, Cunningham was a prodigious explorer and geographer who opened up vast areas of the Australian continent. He went on to become one of three successive Scots Superintendents of the Sydney Botanic Garden.

The great Scottish plant collector, John Fraser, who introduced many North American plants, collected only a few plants specifically for Banks, but Kew was a customer of his American Nursery in Chelsea. Fraser's other customers included Catherine the Great and Czar Paul of Russia, no less, who paid huge sums for his plants.<sup>81</sup> Russia was another country where numerous Scottish army and naval officers, engineers, architects and botanist-physicians achieved high office.

As a source of plants, Banks also made use of officials throughout the Empire. In addition to a number of Scots who were former Kew gardeners – including William Kerr and Alexander Moon, who were successive Superintendents of the Ceylon Botanic Garden – his donors included botanists Robert Kyd, William Roxburgh and Francis Buchanan-Hamilton, successive superintendents of the Calcutta Botanic Garden; George Govan, first Superintendent of the Saharampur Botanic Garden; Patrick Russell and James Anderson, botanist and physician-general respectively to the East India Company at Madras; brothers John and Alexander Duncan, surgeons to the East India Company at Canton; George Young and Alexander Anderson, successive

superintendents of the St. Vincent botanic garden; and Thomas Dancer and William Wright, botanist and physician-general respectively in Jamaica. The majority of these Scottish botanists had attended Edinburgh University Medical School as students of Professor Hope.

## PART THREE

### The Remarkable Botanist Physicians

The Scots novelist Tobias Smollet, himself a former naval surgeon, had one of his characters, Roderick Random, present himself for examination in London as a prospective ship's surgeon, only to be met with the wry comment: "We have scarce any other countrymen to examine here – you Scotchmen have overspread us of late as the locusts did Egypt"!<sup>82</sup> Edinburgh trained Manx botanist/physician, Edward Forbes, maintained that "the mental process is the same at the bed-side of the patient and in the cabinet of the naturalist ... correct observation leading to correct diagnosis [i.e. identification]".<sup>83</sup> The Pall Mall Gazette in 1891 stated: "A competent and capable botanist may do more to open up the country than a dozen mining engineers, for the discovery of a single plant useful to commerce may be of greater value to Africa than many gold mines".<sup>84</sup> The following are just a few of the remarkable botanist/physicians who collected plants for Kew Gardens (Scots unless otherwise stated).

**Archibald Menzies** was a pupil of Professor Hope and served as surgeon/naturalist on Captain Vancouver's around-the-world voyage and survey of the Pacific Coast of North America (*HMS Discovery*, 1791-94). This was following Menzies' participation in the American War of Independence, including a British victory against the French at the Battle of the Saints (1782). He obtained seed of the Monkey Puzzle tree (*Araucaria Araucana*) allegedly by picking them out of a dessert he had been offered. He sent back a plethora of other new plant species to Kew and Edinburgh. The Hawaiians called him "the red-faced man who cut off the limbs of men and gathered grass"! Menzies' botanical work, his animal and ethnological collections and meteorological observations make this one of the most important early scientific expeditions<sup>85</sup>.

**Robert Brown** served as naturalist/surgeon on Captain Flinders' expedition around Australia (*HMS Investigator*, 1801-05). He sent back a huge haul of seeds, most of them new to science, prompting Banks to write: "[the seeds] are all sown in Kew Gardens, and much hope is built on their success, which will create a new epoch in the prosperity of that magnificent establishment"<sup>86</sup>. In a career spanning sixty years Brown became the most eminent British botanist of his day. He became President of the Linnaean Society and championed the more natural system of plant classification that would eventually replace the Linnaean. He was also curator of Joseph Banks' incomparable herbarium collection (later the British Museum herbarium) He also advanced the use of microscopy in botany, he named the cell nucleus, and was the first to observe the phenomenon that became known as "Brownian Motion" (the random motion of particles suspended in a liquid or a gas).

**(Sir) John Richardson** served as naturalist/surgeon on Sir John Franklin's first two Arctic expeditions (1819-22, 1825-27). They returned from the first to face accusations of murder and cannibalism, but the matter was not pursued (although there is evidence that it may have been true). Richardson's many finds were the basis for the *Flora Boreali-Americana* and the *Fauna Boreali-Americana*, the former compiled by William Hooker at Glasgow University. Richardson excelled in several fields: a 20<sup>th</sup> century tribute to him stated that "it is not every day that we meet in one person surgeon, physician, sailor, soldier, administrator, explorer, naturalist, author and scholar."<sup>87</sup> N.B. Franklin never returned from his third expedition.

**Charles Darwin** was an Englishman who functioned only as a naturalist, not a surgeon, on the *HMS Beagle* expedition (1831-36). Kew Gardens received plants from this expedition. N.B. Darwin's two years at Edinburgh University Medical School were the only formal scientific training he had received. He was introduced to Lamarckian evolutionary theory there – by his mentor, Scotsman Robert Grant, a zoologist who would become the first Professor of Comparative Anatomy in Britain<sup>88</sup>. Being too squeamish to dissect corpses or amputate limbs, Darwin did not complete the course – unlike his father Robert and grandfather Erasmus (the eminent natural philosopher) who were both practising doctors trained at Edinburgh University. (See Appendices.)

**David Lyall** and Joseph Hooker (the latter an Englishman educated at Glasgow High School and Glasgow University Medical School) were on Scotsman Sir James Clark Ross's Antarctic expedition (*HMS Erebus & HMS Terror*, 1839-42). The two surgeons collected many new land and sea plants, notably cryptogams (lichens, mosses, algae, etc.) Lyall subsequently served as naturalist/surgeon on Captain Stokes' exploration around New Zealand (*HMS Acheron*, 1847-51), then on one of numerous searches for Sir John Franklin, then in the Crimean War (he was present at the bombardment of the mighty fortress of Sveaborg) and finally, c.1858, on a survey of the Canada-USA border. "Back home again, and awash with plants, Lyall enjoyed a few happy years completing his report at Kew."<sup>89</sup> Despite the plethora of plants that he collected from around the world (6,700 specimens), he is largely overlooked. Hooker, on the other hand, went on to become one of the most celebrated botanists of his day.

**John Macgillivray** and **T.H. Huxley**: MacGillivray, like Darwin, did not complete his medical training at Edinburgh. He served as a naturalist on *HMS Fly* (1842-46) surveying the south-western Pacific and the Great Barrier Reef; on *HMS Rattlesnake* (1846-50) off the north-eastern coast of Australia with the English naturalist/surgeon, and Darwin's future "bulldog", T.H. Huxley (London trained and subordinate to MacGillivray); and finally on *HMS Herald* (1852-56) around Fiji and the Pacific. After twelve years spent in cramped Royal Navy ships, MacGillivray descended into alcoholism and died in obscurity in Australia. "He is remembered for his integrity and diligence as a naturalist and collector, enduring uncomfortable, often dangerous, conditions to send back specimens on which other men made their reputations"<sup>90</sup>.

**Francis Buchanan-Hamilton**, after graduating from Edinburgh University, joined the East India Company as a medical officer in the hope of becoming a botanist. However he had to serve ten years as a naval surgeon before he got a land posting in Bengal. He

accompanied Capt. Michael Symes on the latter's diplomatic mission to Burma (1795); he was appointed by Lord Wellesley to survey the newly conquered Kingdom of Mysore (c. 1800); he accompanied Capt. William Knox on his mission to Katmandu (1802-03); and in 1807 he was appointed to carry out a topical survey of Bengal, which occupied the remainder of his time in India. In each of these activities he collected a huge herbarium of plants, earning himself the title "the father of Nepalese botany". His surveys, additionally, included social, economic and archaeological information. In 1814 he achieved his long-time ambition to become Superintendent of Calcutta Botanic Garden, but by then he was ready to retire. He spent the rest of his days in Scotland, writing pieces on natural history. After his brother's death, he established his claim as chief of clan Buchanan!

**John Crawford** was an Edinburgh trained army surgeon who rose to become a distinguished colonial administrator in South-East Asia. He led two diplomatic missions – the first to what is now Thailand and Viet-Nam (1821-22) and the second to the Burmese court (1826-27). Many botanical and geological specimens were collected in the course of these missions. Perhaps Crawford's most famous discovery was the strikingly beautiful flowering tree, *Amherstia nobilis* (Pride of Burma) – just one species among the 18,000 botanical specimens collected on the Burma mission. Apart from his geological findings, Crawford is noted for his writings on the languages, geography and ethnology of South-East Asia.

**Robert Lyall** early in his medical career showed a talent for botany: he had a paper read at the Linnaean society in 1811 and had six others published elsewhere. In 1815, like a number of Scottish physicians, he sought his fortune in Russia, but eight years later he had to leave the country hurriedly after publishing the first of several books and articles criticising aspects of Russian society. However, he delivered a large number of Russian plant seeds to Kew. In 1826 he was appointed the resident British agent in Madagascar, but soon found himself banished as a suspected sorcerer after being discovered collecting plants and reptiles! The plants he collected in Madagascar, Mauritius and St. Helena were dispatched to Kew and other botanical institutions. The final episode in his tragi-comical life was his death in 1831 from malarial fever – a disease he had contracted during his brief stay in Madagascar.

**Walter Oudney** served as a naval surgeon in the East Indies. He had hopes of an academic career, but instead, on the recommendation of an Edinburgh University botanist, he agreed to serve as naturalist in the company of Major Denham and Lieutenant Clapperton on what proved to be an important expedition in search of the upper reaches of the Niger (1821-25). They were the first Europeans to make a north-south crossing of the Sahara and they greatly advanced the state of geographical knowledge of sub-Saharan Africa. Oudney collected hundreds of natural history specimens before his untimely death from malaria in 1824.

**David Livingstone** (Glasgow University trained) kept up a lengthy correspondence with William and Joseph Hooker and sent many "useful vegetables" and artefacts made from plants to Kew during his long sojourn in Africa (1841-52, 1852-56, 1858-64, 1866-73)<sup>91</sup>. The famous missionary was interested in economically important plants

because he believed that the “two pioneers of civilisation – Christianity *and* commerce – should ever be inseparable”.<sup>92</sup> As an explorer he opened up and mapped a vast area of Central Africa, and, as a missionary he was a passionate opponent of slavery and an advocate of education, pointing the way towards a relatively more ethical style of colonisation,

**(Sir) John Kirk** nobly volunteered for service as a surgeon in the Crimean War in 1855 and was stationed in the Dardanelles. He spent his spare time studying the local flora. He was appointed botanist/physician on Livingstone’s second Zambezi expedition (1858-64). Livingstone wrote: “I take ... an economic botanist [Kirk] to give a full report of the vegetable productions – fibrous, gummy and medicinal substances together with dye stuffs – everything which may be useful in commerce”<sup>93</sup>. Kirk corresponded at length with both Hookers, and the plethora of plants he collected formed the basis of the *Flora of Tropical Africa*. He later became British Consul in Zanzibar and negotiated the ending of the slave trade in the region, thereby fulfilling one of Livingstone’s greatest aspirations.

**James E. T. Aitchison**, an Indian born Scot, trained in medicine at Edinburgh University and joined the Bengal Medical Service. He subsequently became the British Commissioner to the strategically important region of Ladakh and accompanied General (Lord) Roberts throughout the Second Anglo-Afghanistan War (1878-80). He combined his military duties with botanical work, although he complained to Joseph Hooker during the war: “We go on to Allykke. I will try to do my best but fighting and botany do not amalgamate”! Nevertheless, in six years he collected c.10,000 specimens (c.800 species) in Afghanistan alone. He collected many more in India. His writings include various articles on the flora and fauna of the region and a Handbook of the Trade Products of Ladakh. In retirement he took up residence near Kew with a view to writing up a Flora based on his plant collections, but he died before he could carry out the project.<sup>94</sup>

**Augustine Henry** was born in Scotland of Irish parents and studied medicine at Edinburgh University. In 1882 he took up a post in Shanghai with the Chinese Imperial Maritime Customs Service, which was an arm of the Chinese government but was staffed at senior levels by mainly British personnel. He became a noted Sinologist and, remarkably, achieved the rank of Mandarin. In 1884 he began collecting plants as a hobby and he wrote to Kew offering to collect specimens for them. Following the Opium Wars, the Yangtze River had been opened up to foreigners, allowing access to vast areas previously unexplored by Westerners. Henry became one of the most important collectors of plants in Central China, sending 15,000 plants, seeds and dried specimens to Kew, including 500 new species and 25 new genera. He spent 1901/02 at Kew sorting his plant collection.

**William Speirs Bruce** studied medicine at Edinburgh and in his spare time worked as a volunteer on some of the HMS Challenger collection (1872-76). Inspired by this, he became a naturalist/surgeon on a whaling expedition in the Antarctic, and then participated in various expeditions in the Arctic regions before organising his own expedition to the Antarctic (Scotia 1902-04) with a personnel that was almost



exclusively Scottish. This was a huge success. New coastline was discovered, the first weather station in the Antarctic was established (which is said to have laid the foundation of modern climate change studies) and their extensive scientific collections, which included plant specimens, provided the basis for the Scottish Oceanographic Institute in Edinburgh. Bruce kept up a correspondence with the aging Joseph Hooker – himself a former Antarctic explorer.

Two Scottish merchants William Jardine and James Matheson acquired great wealth in 19th century China from, among other things, their involvement in the opium trade. Although they were fêted in the nineteenth century (opium was legal in Britain at that time but illegal in China), by the twentieth century they were pilloried for it. The company Jardine Matheson & Co., however, still exists and thrives.

As regards the slavery issue, it has to be acknowledged that many Scottish entrepreneurs – including, as it happens, the father of the great Liberal statesman, William Gladstone – had profited from the pre-existing system of slavery in the American and Caribbean colonies. However, the leading Scottish Enlightenment thinkers had condemned it – Francis Hutcheson because it was immoral, John Millar because it was an anachronism, and Adam Smith because it did not even make economic sense. As early as 1792 the Scottish Prime Minister Henry Dundas tried to introduce a timetable for its gradual abolition but could not get even this compromise past the House of Lords. This was despite Queen Charlotte’s apparent boycott of sugar in support of the abolitionists, as shown in a James Gillray satirical print of that date.<sup>95</sup>. The slave *trade* was abolished in the British Empire in 1807 and a West African Squadron was created to intercept European and American slave ships around the west coast of Africa. Slavery was completely abolished in British colonies in 1834.

As a footnote to the Banksian era, it is worth mentioning an interesting piece of Scottish enterprise. “Farmer” George III was wont to graze merino sheep on his estate at Kew. Captain John Macarthur – the son of a Scotsman who is believed to have fled from the Jacobite persecution after Culloden – was in London to be court-martialled for duelling with a superior officer while serving with the militia in Botany Bay. Having been acquitted and wishing to improve his own flock of Merino sheep, Macarthur purchased nine rams and one ewe from the royal flock. Despite opposition from Governor Bligh (of *Bounty* fame) and Joseph Banks (who reminded him that the penalty for illegally exporting sheep was “cutting off the right hand and branding on the forehead”!) five rams and the single ewe survived the journey to Australia. With this genetic boost Macarthur went on to establish what became Australia’s most important export industry. Another of Macarthur’s achievements was being one of the founding fathers of Australia’s national bank. The founding of banks, especially national ones, including those of Scotland, England, France and the USA, was a Scottish habit.

### **Loudon and the Whigs**

After Banks and George III had died – both in 1820 – the botanic garden at Kew became woefully run down due to lack of interest on the part of both George IV and William IV. This was despite the sterling efforts of the first John Smith (“Old Jock”), the largely

self-taught Scots gardener whose work on the classification of ferns has been described as being fifty years ahead of its time.<sup>96</sup> It was then that another influential Scot played a significant part in saving the garden from destruction – by using the power of the printed word.

John Claudius Loudon, who came to London in 1806, published a massive eight volume encyclopaedia of trees and shrubs which remains a classic of the genre. However it was through his *Gardeners' Magazine*, edited by him from 1826 until his death in 1843, and through such popular books as *Suburban Gardens* and *Suburban Horticulturist* that he had a huge influence on how the Victorian middle classes did their gardening – and consequently how we do our gardening today. He was also an important innovator in the field of glasshouse design. His introduction of curved wrought iron influenced Decimus Burton's design for Kew's Palm House. Furthermore, in order that "the pale mechanic and the exhausted factory operative might inhale the freshening breeze",<sup>97</sup> he was an advocate, before Frederick Law Olmsted in America, of public parks for the masses living in cities, the provision of which was one of the Victorians' greatest legacies.

Kew Gardens was just one of his causes. Using his influential magazine, Loudon was at the forefront of a campaign to save the botanic garden and turn it into something appropriate to a great capital city. "A twentieth" his magazine proclaimed "or even a fiftieth of the money wasted on one of the follies of George IV at Brighton, Windsor Castle or Buckingham House, would suffice to raise a monument [i.e. as in the poet Horace's "*I have built a monument more lasting than bronze*] worthy of a sovereign and a liberal government."<sup>98</sup> This, however, could not be achieved without the necessary political will. It was around this time that Scottish Enlightenment ideas were making a substantial impact on both Westminster politics and English academia.

In 1826, London University (later known as University College London) was founded on the model of Edinburgh University, with a faculty that was mostly Scots or Scots trained, including zoologist Robert Grant who had been a mentor to Charles Darwin at Edinburgh; physiologist Sir Charles Bell who first described Bell's palsy; and Professor of Chemistry Edward Turner, the son of Scottish sugar planter and a Creole woman.<sup>99</sup> The principal founders were themselves Scotsmen: Henry Brougham, the politician; Thomas Campbell, the poet; and James Mill, the philosopher and father of John Stuart Mill.

Scottish entrepreneurs, as stated, had benefited from the pre-existing system of slavery in the colonies, including the fabulously rich "Tobacco Lords" of Glasgow and sugar plantation owners such as William Gladstone's father. However Scottish Enlightenment thinkers were unanimous in condemning slavery. The Whig government that was responsible for passing the momentous Reform Act of 1832 and Abolition of Slavery Act of 1833 included in its cabinet two Scots – Henry (Lord) Brougham and historian Thomas Babington (Lord) Macaulay – plus three English alumni of Edinburgh University – Lord John Russell, Lord Palmerston and Lord Lansdowne. Brougham and the three Englishmen, two of whom were future Prime Ministers,<sup>100</sup> were all former students of Professor Dugald Stewart, who was the leading disseminator, at that time, of the economic theories of Adam Smith and the "Common Sense" philosophy of the

Aberdonian Thomas Reid. Palmerston ascribed “whatever useful knowledge and habits of mind I possess” to his time at Edinburgh.<sup>101</sup>

Lords Lansdowne and Russell, incidentally, both acquired picturesque residences in Richmond – by Richmond Hill and at Pembroke Lodge in Richmond Park respectively. Cabinet meetings were sometimes held at Pembroke Lodge. Giuseppe Garibaldi, the great Italian hero, visited Russell there in 1864. Also, the *Edinburgh Review*, a periodical with essays by the leading progressive thinkers of the day, founded by Brougham and published quarterly from 1802 to 1927,<sup>102</sup> played such an important part in the formation of Whig thinking in this period that it was called the “Whig Bible”.

Central to the Whig ethos at this time were the Enlightenment, especially Scottish Enlightenment, beliefs in science (pure and applied), progress and “improvement”. An outstanding representative of the improvers was Russell’s father, the 6<sup>th</sup> Duke of Bedford who, by the way, persuaded his son to go to Edinburgh University because, he said, “nothing is to be learned at the English universities” other than “the sciences of horse-racing, fox-hunting and giving extravagant entertainments”!<sup>103</sup> On his estate at Woburn, Bedford had his two Scottish gardeners, George Sinclair and James Forbes, conduct a series of important scientific experiments on such things as the cultivation of grass crops. Both he and Russell were among the staunchest supporters of the campaign to preserve Kew as a scientific institution, and both were able to use their political clout to further that cause and to promote their favoured candidate for the directorship – their friend Sir William Hooker, Professor of Botany at Glasgow University.

In 1838 John Lindley, the first Professor of Botany at the new London University, submitted a report to Lord Melbourne’s Whig government (Melbourne himself had attended Glasgow University as a pupil of John Millar) recommending that the state take over the gardens and develop them for the benefit of botanic science throughout the Empire. Two years later the botanic gardens were transferred to the Office of Woods and Forests on this basis, and William Hooker was appointed as their first official Director. In the words of one historian: “It was Whig aristocrats who came to the rescue of botany in the early 19<sup>th</sup> century.”<sup>104</sup>

### **The Hooker Era**

William Hooker, though English, had held the Chair of Botany at Glasgow University for the previous twenty years. Glasgow was destined to become, in late Victorian times, a leading centre of medical science, but the relevance of botany to a medical doctor’s training was being questioned at this time and Hooker had become increasingly disaffected. His tenure had nonetheless been a very successful one. There was a lasting reciprocal relationship between Hooker and his former students. A colleague wrote: “Numbers [of his students] entered the army, navy and Indian Medical Service or sought other positions in foreign countries. To all Sir William was ready to lend a helping hand, guiding their studies when pupils, and furthering their interests afterwards, *well satisfied to be repaid by a share of their collections*”.<sup>105</sup>

Among Hooker’s *protégés* were further successful Scottish plant collectors: David Douglas, who collected the Douglas Fir and many other North American conifers;

Thomas Drummond of *Phlox drummondii* fame, who sailed with Sir John Franklin on his second Arctic expedition. (The eminent Scottish naturalist, Sir John Richardson, also made his name on that voyage.) Thomas Drummond's brother James was another of Hooker's collectors, in his case operating in Australia. Hooker also employed Scottish gardeners William Purdie, William Milne and Robert Cross as plant collectors, and benefited from the collectors sent out by the famed Veitch Nursery in Exeter. This was founded in 1808 by Scotsman John Veitch, who is believed to have been an apprentice of James Lee.

Another of Hooker's collectors was his son and future successor, Joseph. Joseph had already sailed with Scottish botanist David Lyall on the Antarctic expedition of Scotsman Sir James Clark Ross, discoverer of both magnetic poles. In Tasmania Hooker met yet another Scotsman, Ronald Gunn, who had taught himself botany from books supplied by William Hooker, and who collected the majority of the plants described in Joseph Hooker's *Flora Tasmaniae*.

Later Joseph went trekking around the Himalayas, firstly in the company of Scottish medical doctor Archibald Campbell who was the British agent in Darjeeling. While botanising in Sikkim, which was an independent state, they were both arrested by a Sikkimese government official and Campbell was badly beaten up. Although they were subsequently released, the British used this as an excuse to annex a large part of Sikkim around the district of Darjeeling. Campbell experimented with tea planting there, demonstrating that conditions were ideal for producing the finest tea<sup>106</sup>. The rest, as they say, is history. Two other Scots, Charles Bruce and James Taylor, pioneered tea production in Assam and Ceylon respectively, while their compatriot Robert Fortune introduced improved plant stocks from China. The Glaswegian millionaire, Sir Thomas Lipton, popularised Ceylon tea around the world. In an age when tea was a rare and expensive luxury, Lipton believed that anyone, of any class, should be able to enjoy tea at its best. The legendary tea clippers, *Cutty Sark* and *Thermopylae* were, incidentally, both Scottish built.

As stated, another of Hooker's companions was Thomas Thomson, Joseph's old school and university friend from Glasgow. Thomson's father, like Joseph Hooker's, was a professor at Glasgow University. As an army surgeon, Thomson had been part of the British force that occupied Afghanistan in 1839-42 and was one of the few who came out alive following wholesale massacres of the occupying force. Together Hooker and Thomson collected many new plants, including twenty-eight new species of Rhododendron. The hardiest Rhododendrons were planted out in Capability Brown's "Hollow Walk" at Kew, which was consequently renamed the Rhododendron Dell. The two friends, in collaboration, compiled a flora of India based on their collections.

Many years later Joseph was to take part in another major botanical expedition, this time to the Californian Sierras, in the company of another Scot, John Muir. Muir is revered in the USA as the father of the American conservation movement by virtue of his role in preserving America's major forests through the creation of National Parks. 21 April, Muir's birthday, is designated Muir's Day in the state of California.

According to author Ronald King: "Many [Kew-trained gardeners] went overseas to serve in Empire countries and it was on them that the economic development of the

Empire was built ... Kew-trained men played the key role in this work because of their training in the cultivation of a large number of exotic plants ... When the unbiased story comes to be written in future centuries, the role of these young men will be recognised”<sup>107</sup>.

Gardeners with considerable managerial responsibility, all Scots, were to be found in Australia (Sydney, Melbourne, Brisbane), Asia (Ceylon, Ootacamound, Mungpoo Penang, Malacca), Africa (Durban, Pretoria, Natal, Cape Town, King William’s Town, Entebbe, Mauritius, Pamplémousses), and the Caribbean (Trinidad and Jamaica). Their number included William McIvor, who played a key role in Kew’s important transfer of *Cinchona* (quinine) from its native South America to the Indian Subcontinent, and Thomas Robertson Sim who became the first Conservator of Forests for the Colony of Natal. The most illustrious of these gardeners was Charles Moore - the family name had been changed from its original Scottish form, Muir - who served with distinction at Sydney for forty-eight years, attaining the position of Government Botanist and Director of the Botanic Garden.<sup>108</sup>

An article in *The Gardeners’ Chronicle* of 1872, written presumably by an Englishman, attributed this phenomenon to three main factors: “teeming numbers, climatal difficulties, and the genius and education of the people”.<sup>109</sup> As regards the first, there was a saying that “they strike gardeners in Scotland like gooseberry bushes, and that, moreover, most of them find good warm roomy quarters in the South”. Furthermore, “the genius and education of the nation has fully furnished them for becoming eminent gardeners. Not to notice other qualities, the Scotch are distinguished by perseverance – an immense capacity for holding on and pushing on, which are cousin-german [*sic*] to the highest genius”. Also, the social status of head gardeners was higher in Scotland, therefore “the prizes seem more worth the striving for, and consequently more earnest effort may be put forth to grasp them”. As for climatic factors: “to the majority of Scotch gardeners difficulty is simply a thing to be vanquished ... Cold sunless skies but warm their skill into life; thin poor soils are manured thickly with fruitful expedients”. Under the heading of “genius and education of the nation”, the author listed perseverance, a craving for knowledge, an unquenchable enthusiasm, and a dash of canniness. The author warned, however, that “Scotland must look to her laurels. England is doubtless making great educational efforts, and her rising race of gardeners will be the first to profit by them ... [The Scots] will have in the future a tougher fight than ever to beat or even keep alongside of the English or Irish contingents”. By the end of the century the Scottish dominance did indeed appear to come to an end.

### **British India**

The highest concentration of Scots was to be found in Britain’s “Jewel in the Crown”, the Indian sub-continent. The prestigious Calcutta, Saharanpur and Ceylon Botanic Gardens had all been initiated by Scots, and a succession of Scottish botanists were responsible for administering these and other Indian gardens. The following is not an exhaustive list of the Scottish botanists of this period.

George Gardner was Superintendent of the Ceylon (Sri Lanka) Botanic Garden. Alexander Gibson and Nicol Dalzell were successive Superintendents of the Bombay Botanic Garden and also, importantly, Conservators of Forests for the region. Edward Balfour was surgeon-general at Madras, while Robert Wight was the last to hold the post of botanist there<sup>110</sup>. Hugh Falconer, William Jameson, John Stewart, and (Sir) George King were all, in turn, Superintendents of the Saharanpur Botanic Garden. Another distinguished Saharanpur Superintendent, John Forbes Royle,<sup>111</sup> had a Scottish mother and an Edinburgh education, and became Professor of Materia Medica at King's College London.

Calcutta, the capital of British India, was a particular stronghold of the Scots. Founded in 1787 by Scotsman Colonel Robert Kyd, Joseph Hooker said of its Botanic Garden, which was known as the "Kew of India", that it had "contributed more useful and ornamental tropical plants to the public and private gardens of the world than any other establishment before or since".<sup>112</sup> It had four Scottish Superintendents in this period: Hugh Falconer, Thomas Thomson, Thomas Anderson and George King. All except Anderson were also Professors of Botany at the Calcutta Medical School – as was (Sir) George Watt, author of a massive ten-volume *Dictionary of the Commercial Products of India*. Thomas Anderson's brother, John, was a naturalist in charge of the Calcutta Indian Museum; Ulster Scot, John McClelland,<sup>113</sup> was the founder and editor of the Calcutta Journal of Natural History; and, by no means least, (Sir) David Prain was Curator of the Calcutta Herbarium, and would climb the ladder to become eventually the fourth official Director of Kew Gardens. (The third Director was William Thiselton-Dyer, the son-in-law of Joseph Hooker – clanship was clearly not confined to the Scots!) In Burkill's history of Indian botany there is a map of the Calcutta Botanic Garden, only slightly smaller than Kew Gardens, showing lakes named after David Prain and George King, the latter the first Director of the Botanical Survey of India, and no fewer than ten avenues also named after Scottish botanists. There was even a Scottish crematorium established in Calcutta in 1820 and still extant.

Alexander Anderson (who had served as an army surgeon in the American War of Independence before becoming the Superintendent of the St. Vincent Botanic Garden in 1785) "was the first of a long line of Scottish colonial experts concerned with the relationships between deforestation, climate change, and the extinction of plants and animals as well as indigenous people"<sup>114</sup>. This early example of environmentalism would culminate in what has been called "Scottish Hippocratic responses to ecological crises". Scottish doctors at this time were trained in the environmental causes of disease.<sup>115</sup>

Today the movement of plants between countries is highly regulated, and Kew is now actively involved in the conservation of plants and habitats throughout the world, rather than the exploitation of the world's resources. A remarkable foreshadowing of this great change of direction occurred in India in the early 19<sup>th</sup> century. The Cambridge historian Richard Grove states: "In India, William Roxburgh, Edward Balfour, Alex Gibson and Hugh Cleghorn, all Scottish medical scientists, wrote alarmist narratives relating deforestation to the danger of climate change ... The writings of Edward Balfour and Hugh Cleghorn in the late 1840's in particular illustrate the extent of the permeation of a global environmental consciousness and could be said to constitute some of the first writings on world environmental history."<sup>116</sup>

Edward Balfour was the nephew of Joseph Hume, the Scots leader of the Radicals in the House of Commons, and he and the rest of the Scottish contingent in India espoused such radical causes as social reform, feminism (Madras Medical College was opened to women in 1875 and the first Indian woman student was admitted in 1878) and even outright anti-imperialism, as well as environmental issues. With the crucial support of both Hookers, they mounted a campaign that led to the creation in 1847 of the Bombay Forest Department and later an all-India Forest Department under Hugh Cleghorn. Thereafter, Lord Dalhousie, the Scots Governor-General of India, pursued a vigorous conservation policy very much against the wishes of the private capitalists. This largely Scottish achievement was a very significant development in the early history of the conservation movement that would provide a model for later schemes throughout the world from the USA to Australia<sup>117</sup>. Another of Joseph Hume's relatives, his son Allan Octavian (another botanist physician), founded the Indian National Congress – the political party that would eventually achieve Indian independence.

Discussion of the Hooker era would be incomplete without mentioning a Scotsman who was brought by William Hooker from Glasgow to Kew in 1841 – the brilliant botanical artist, Walter Hood Fitch. Fitch was an expert at painting from re-hydrated dry specimens and did much to develop the art of lithography. Almost every publication that issued from Kew over the following forty years, including *Curtis's Botanical Magazine*, was illustrated by him in his flamboyant style that combined botanical accuracy with a flair for design. These publications brought him international fame. Fitch left 3,000 water colour sketches with the Library at Kew – a wonderful legacy. Sadly, he became embittered towards the end of his life because he felt he had given his all for Kew and the Hookers without much reward.

Other Scots have contributed to Kew Gardens. The official history records the debt owed to a string of Scottish colonial administrators, as well as another Kew Director, Sir George Taylor. Another (still living) Director, Sir Ghillean Prance, had a Scottish mother and spent his early childhood in Skye. And, of course, Scots continued to excel in many other spheres. One deserves a mention here: Andrew Carnegie, who declared that “America would have been a poor show had it not been for the Scots”,<sup>118</sup> amassed a vast fortune in the USA from the steel industry, and among his many philanthropic acts was the gift of public libraries to Twickenham and Teddington. Scots in the 19<sup>th</sup> century also founded a number of (eventually) giant corporations including Standard Life Assurance (1821), Jardine Matheson (1832), P&O (1840), HSBC (1865), Bell Telephone Company (1878) and Burmah Oil (1886). All except Bell Telephone still exist.

However, towards the end of the 19<sup>th</sup> century the great age of the Scottish Enlightenment and Diaspora was coming to an end. According to Arthur Herman “isolated giants remained [e.g. Lord Kelvin (who was another Edinburgh University friend of Joseph Hooker), James Clark Maxwell and Sir James Frazer] but Scotland's days as the generator of Europe's most innovative ideas were over. However, she had done her work: the future direction of the modern world, which Scotland had done so much to chart and establish was now set.” Or, to quote a French politician of the late 19<sup>th</sup> century: “Scotland is a little forgotten, but there was a time not so long ago when reason, imagination, the love of truth, of poetry and of nature came towards this country from there, and into our minds and our way of life ... This nation must rank among the

most enlightened in the universe. Politics, religion and literature have made of Scotland something beyond compare.<sup>119</sup>

### Epilogue

Scotsman James 3<sup>rd</sup> Duke of Montrose was responsible in 1782 for bringing about the repeal of the 1747 Act that, in the aftermath of the Battle of Culloden, had prohibited the wearing of highland dress in Scotland. A contemporary Gaelic poet, Duncan ban McIntyre, celebrated this event in verse:-

Indulgent laws at last restore  
The noble dress our fathers wore  
Exulting then let us resume  
The bonnet blue and eagle plume  
The tartan coat and jaunty vest  
And belted plaid becomes us best

In 1822, when the kilt-clad Hanoverian George IV was in Scotland on a visit organised by Sir Walter Scott, he spent two weeks on the estate of another Walter Scott – or, to give him his full title, Walter Montagu-Douglas-Scott, 5<sup>th</sup> Duke of Buccleuch and 7<sup>th</sup> Duke of Queensberry. Only sixteen years old, he was the biggest landowner in the whole of Britain. His grandfather had had Adam Smith as his private tutor and had been a pallbearer at Robert Adam's funeral. But times had changed since the Earl of Bute's day. In the 5<sup>th</sup> Duke's lifetime there were no Jacobite rebellions to take sides in, and a Scotsman could pursue a political career at Westminster without arousing hostility. The Scottish aristocracy were now part of the British Establishment: they sent their sons to Eton and hunted foxes on their estates like their English counterparts.

On his grandmother's death, the Duke inherited a house and a small piece of land on the slopes of Richmond Hill, where James Thomson had once stood enraptured. This no doubt served as a handy retreat when, in 1842, the Duke became Lord Privy Seal in Robert Peel's Tory government. He later purchased Lord Lansdowne's neighbouring property so that the estate now extended to the top of the Hill, with a magnificent view towards Ham House.

The most glittering event to occur in Buccleuch's estate was in June 1842, when Queen Victoria and Prince Albert, King Leopold I and Queen Louise-Marie of the Belgians, Queen Dowager Adelaide and a plethora of royal princes and princesses, together with an aging Duke of Wellington and former Prime Minister Viscount Melbourne, were seen strolling on Buccleuch's riverside lawn. Buccleuch had just been made a Privy Counsellor and Lord Privy Seal in Robert Peel's Tory government – the administration that would be responsible for the momentous repeal of the Corn Laws.

Cannon were fired on the approach of King Leopold and the three Queens. Madrigals, catches and glees were sung. Dances were performed. One of two military bands, the Royal Household Guards, played a selection of waltzes, including one composed by Prince Albert himself. At nine o'clock, the trees and shrubs in the gardens were illuminated and there was a splendid fireworks display. Later in the same year



Buccleuch welcomed Victoria and Albert once again – this time on his Midlothian estate. This was the start of the royal couple’s famous love affair with Scotland.

After the Duke of Buccleuch’s death in 1884, in accordance with the Victorian spirit that John Loudon had done much to engender, Richmond Vestry purchased the land, and within a few months opened it to the public as Richmond’s finest municipal park, Terrace Gardens.<sup>120</sup> A Hanoverian cousin of Queen Victoria, the Duchess of Teck, performed the official opening, and an anonymous poem was written for the occasion:-

Let lads and maidens gladsomeness express,  
Thro’ all the gay machinery of dress!  
Let labour cease awhile its weary moil,  
And snatch a respite from its task of toil,  
And join with youth and age with voice to cheer  
The Royal Lady, doubly welcome here –  
Welcome alike for kindly heart and mien,  
And for her part in this dramatic scene.  
This day she opens, midst the fairest throng,  
The gardens Paradise denied so long.  
Opens to all, with that electric key,  
Her royal word of “Open sesame!”

The Duke of Buccleuch is still remembered today in the name given to a small strip of land beside the Thames: Buccleuch Gardens.

The Eton-educated Anglo-Scottish army officer, Claude Bowes-Lyon, 14<sup>th</sup> Earl of Strathmore and Kinghorne, had previously held another family title: Lord Glamis. As such he was descended from the ancient Scottish Thanes of Glamis (contrary to what Shakespeare wrote, the historic Macbeth, King of Scotland, was never Thane of Glamis). In 1881 he married Cecelia Cavendish-Bentinck who lived at Forbes House in Ham Common. In 1923, the couple’s ninth of ten children, Elizabeth Angela Marguerite Bowes-Lyon, married Prince Albert, the second son of George V and Queen Mary.

As a child, Elizabeth had spent happy holidays at her grandmother’s home in Ham. Now the royal couple took up residence at White Lodge in Richmond Park. The abdication of Edward VIII in 1936 catapulted Elizabeth into the unexpected role of consort to George VI and eventually Queen Mother to our late Queen. This accession of a Scottish Queen is a good place to end a story that began in 1603 with the accession of a Scottish King to the throne of England.

## Elizabeth II's Lineage

James I & VI

|

Princess Elizabeth

|

Princess Sophia

|

George I

|

George II

|

Prince Frederick

|

George III

|

Prince Edward

|

Victoria

|

Edward VII

|

George V

|

George VI

|

Elizabeth II

## Spouses

Princess Anne of Oldenburg

Frederick V, Count Palatine of the Rhine

Ernst Augustus, Elector of Hanover

Princess Sophia Dorothea of Celle (Brunswick-Lüneburg)

Princess Caroline of Brandenburg-Ansbach

Princess Augusta of Saxe-Gotha

Princess Charlotte of Mecklenburg-Strelitz

Princess Victoria of Saxe-Coburg-Saalfeld

Prince Albert of Saxe-Coburg & Gotha

Princess Alexandra of Schleswig-Holstein-Sonderburg-Glücksburg

Princess Mary of Teck (Württemberg)

**Lady Elizabeth Bowes-Lyon**

Prince Philip of Schleswig-Holstein-Sonderburg-Glücksburg

## APPENDICES

### Scots and Evolution

(Names in bold print are Scots)

**John Hunter** (1728-93), medical doctor, founded the science of comparative anatomy. He arranged some of the animal and human bones in his substantial collection in what could be described as evolutionary order. He proposed a gradual formation of species through mutation seventy years before Charles Darwin published his observations. Hunter also introduced the concept of secondary sexual characters, which was the basis for Darwin's concept of sexual selection. Hunter's collection was the basis of the Hunterian Museum in London.

**James Hutton** (1726-97), medically trained at Edinburgh and recognised as the "father of geology", was the first to provide proof that the Earth was inconceivably old. Through his chief convert, Scots born Englishman Charles Lyell, he thereby provided Darwin with the time scale needed for his theory of evolution. In his *An investigation of the principles of knowledge and of progress of reason*, published in 1794, Hutton

also gave an explicit account of the principle of natural selection, as it would later be called, but his turgid prose was a deterrent to readers: “If an organised body is not in the situation and circumstances best adapted to its sustenance and propagation, then, in conceiving an indefinite variety among the individuals of that species, we must be assured, that, on the one hand, those which depart most from the best adapted constitution, will be most liable to perish, while, on the other hand, those organised bodies, which most approach to the best constitution for the present circumstances, will be best adapted to continue, in preserving themselves and multiplying the individuals of their race”!!

Erasmus Darwin (1731- 1802), English grandfather of Charles Darwin, studied medicine at Edinburgh University and was acquainted with John Hunter and James Hutton. He published his *Zoonomia* in three editions, 1794-1801, in which he proposed “in the great length of time since the earth began to exist ... that all warm-blooded animals have arisen from one living filament”.

**William C. Wells** was a medical doctor trained at Edinburgh University and, as later acknowledged by Darwin, he gave a clear account of the principle of natural selection in a paper read before the Royal Society in 1813. However, his account was limited to certain human characteristics such as skin colour.

**Robert Grant**, first Professor of Zoology and Comparative Anatomy at London University, was a leading Lamarckian (Lamarck had published his first work on evolutionary theory in 1801). During Charles Darwin’s period of medical training at Edinburgh University (1825-27) Grant had been his mentor and introduced him to Lamarckism. N.B in editions of *The origin of species*, Darwin accepted some Lamarckian concepts, including the mutability of species and the inheritance of acquired characteristics.

**Patrick Matthew**, an arboriculturist who had been financially unable to complete his education at Edinburgh University, gave the fullest and clearest pre-Darwinian account of natural selection in 1831 (the year Darwin set sail on the *Beagle*) in his publication *On Naval Timber and Arboriculture*. Indeed, he used the actual term “*natural process of selection*” in that publication. Darwin later acknowledged that Matthew “clearly saw the full force of the principle of natural selection”. Mathew also seems to have been the first to grasp the importance of mass extinctions in the process of evolution. [See quotations below.]

**Robert Chambers** (partner in the famous Edinburgh publishing company) anonymously published his own *Vestiges of the Natural History of Creation* in 1844. It created a huge controversy and Charles Darwin later acknowledged that it had paved the way for acceptance in Britain of the concept of higher life forms being descended from ancient primitive organisms. It certainly had a huge impact on Alfred Russell Wallace’s thinking.

Charles Darwin and Alfred Russell Wallace (whose father claimed descent from William “Braveheart” Wallace) had their first papers on natural selection read before the Linnean Society in 1858. The first edition of *The origin of species* was published in 1859, but it was not until the 3<sup>rd</sup> edition of 1861 that Darwin added an “Historical

sketch” that acknowledged the importance of Lamarck and the precedence, with regard to natural selection, of Wells and Matthew.

**Hugh Falconer** (see superintendents of Saharanpur and Calcutta botanic gardens) published in 1863 an account of what would later be known as “punctuated equilibria” This was a century before Stephen Jay Gould and Niles Eldridge. This is the observation that, in the animal fossil record, there are long periods of evolutionary stasis punctuated with periods of rapid evolutionary change – which was a challenge to the Darwinian tenet that change is always gradual and uniform.

### Quotes from Patrick Matthew’s publication of 1831

“The self-regulating adaptive disposition of organised life, may, in part, be traced to the extreme fecundity of Nature, who, as before stated, has, in all the varieties of her offspring, a prolific power much beyond (in many cases a thousandfold) what is necessary to fill up the vacancies caused by senile decay. As the field of existence is limited and pre-occupied, it is only the hardier, more robust, better suited to circumstance individuals, who are able to struggle forward to maturity, these inhabiting only the situations to which they have superior adaptation and greater power of occupancy than any other kind; the weaker, less circumstance-suited, being prematurely destroyed. This principle is in constant action, it regulates the colour, the figure, the capacities, and instincts; those individuals of each species, whose colour and covering are best suited to concealment or protection from enemies, or defence from vicissitude and inclemencies of climate, whose figure is best accommodated to health, strength, defence, and support; whose capacities and instincts can best regulate the physical energies to self-advantage according to circumstances—in such immense waste of primary and youthful life, those only come forward to maturity from the strict ordeal by which Nature tests their adaptation to her standard of perfection and fitness to continue their kind by reproduction.”

“Man’s interference, by preventing this *natural* process of *selection* among plants ... has increased the difference in varieties, particularly in the more domesticated kinds.”

“There is more beauty and unity of design in this continual balancing of life to circumstance, and greater conformity to those dispositions of nature which are manifest to us, than in total destruction and new creation . . . [The] progeny of the same parents, under great differences of circumstance, might, in several generations, even become distinct species, incapable of co-reproduction.”

“The destructive liquid currents, before which the hardest mountains have been swept and comminuted into gravel, sand, and mud, which intervened between and divided these epochs, probably extending over the whole surface of the globe, and destroying nearly all living things, must have reduced existence so much, that an unoccupied field would be formed for new diverging ramifications of life.”

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- <sup>1</sup> Horace Walpole, *A catalogue of the royal and noble authors of England*, 1758.
- <sup>2</sup> Quoted in Arthur Herman, *The Scottish Enlightenment: the Scots invention of the modern world*, 2002.
- <sup>3</sup> M. deVoltaire, *Gazette littéraire de l'Europe*, 1764. Quoted in J. Buchan, *Capital of the mind: how Edinburgh changed the world*, 2,000.
- <sup>4</sup> Quoted in Stewart Lamont, *When Scotland ruled the world*, 2002.
- <sup>5</sup> <https://electricScotland.com/france/alliance.htm> gives an ultimate figure of 30.
- <sup>6</sup> *A Tour Through the Whole Island of Great Britain*, letter 12, 1727.
- <sup>7</sup> Statistic from Alexander Webster, 1755:  
[https://en.wikipedia.org/wiki/Demographic\\_history\\_of\\_Scotland](https://en.wikipedia.org/wiki/Demographic_history_of_Scotland).
- <sup>8</sup> *Encyclopedia Britannica* is now an American publication, but its logo is still a Scottish thistle.
- <sup>9</sup> James Hutton, *An investigation of the principles of knowledge and of progress of reason*, 1794. His words were: "If an organised body is not in the situation and circumstances best adapted to its sustenance and propagation, then, in conceiving an indefinite variety among the individuals of that species, we must be assured, that, on the one hand, those which depart most from the best adapted constitution, will be most liable to perish, while, on the other hand, those organised bodies, which most approach to the best constitution for the present circumstances, will be best adapted to continue, in preserving themselves and multiplying the individuals of their race"!!
- <sup>10</sup> Samuel Smiles, *Self help, with illustrations of character and conduct*, John Murray, 1859 - published on the same day and by the same publisher as Darwin's *Origin of species*.
- <sup>11</sup> Quoted in Arthur Herman, *ibid.* For details of Scottish emigration see T.M. Devine, *The Scottish nation 1700-2000*.
- <sup>12</sup> Between 1784 and 1858 British India was governed on behalf of Britain by the East India Company.
- <sup>13</sup> J.G. Lockhart, *Memoirs of the life of Sir Walter Scott, bart.*, 1837.
- <sup>14</sup> Tom Devine, *Scotland's Empire 1600-1815*, 2003.
- <sup>15</sup> Quoted in James Boswell, *The journal of a Tour to the Hebrides with Samuel Johnson*, 1785.
- <sup>16</sup> Lord Byron, *Don Juan*, Canto X, 1823.
- <sup>17</sup> As James had been excommunicated, his body was embalmed, taken to Richmond and kept for a time in Sheen Priory. There is a legend that he was buried nearby in what is now the Royal Mid-Surrey golf course, but he was probably interred eventually in the grounds of St. Paul's Cathedral.
- <sup>18</sup> Quoted in Allan Stewart, *The cradle king*, 2011.
- <sup>19</sup> William Lithgow, "*Scotland's welcome to her native son*", 1633.
- <sup>20</sup> Wikipedia entry for George Buchanan.
- <sup>21</sup> [https://en.wikipedia.org/wiki/Henry\\_Frederick\\_Prince\\_of\\_Wales](https://en.wikipedia.org/wiki/Henry_Frederick_Prince_of_Wales).
- <sup>22</sup> ODNB article on Harington.
- <sup>23</sup> That Murray was Charles's whipping boy was stated in 1724 by Gilbert Burnet in his *History of His Own Time*.
- <sup>24</sup> A.C. Piper, "Richmond and its Scottish associations", Richmond Local Studies archives.
- <sup>25</sup> John Cloke, *Palaces and parks of Richmond and Kew*, vol.1, 1995.
- <sup>26</sup> Constance Pitcairn, *The history of the Fife Pitcairns*, 1905, has two chapters devoted to Andrew Pitcarne
- <sup>27</sup> LBRUT Local history notes, "York House, Twickenham".
- <sup>28</sup> Daniel Defoe, *A tour through the whole island of Great Britain*, 1724-26.
- <sup>29</sup> London Borough of Richmond upon Thames, *History of Orleans House*, 1984.
- <sup>30</sup> A third Scottish aristocrat lived on the Middlesex side of the Thames in this period: 2<sup>nd</sup> Duke of Montrose at Twickenham Park (the former estate of Sir Francis Bacon). Yet another, 1<sup>st</sup> Marquess of Ailsa, would later live at St. Margaret's.
- <sup>31</sup> Lord Archibald Campbell, *Notes on swords from the battlefield of Culloden*, 1894 (Richmond Local Studies, ref. L72883T).
- <sup>32</sup> Walter Scott, 1818.
- <sup>33</sup> James Thomson, *Summer*, 1727.
- <sup>34</sup> Quoted in *The life and writings of William Hazlitt, 1788-1830*.
- <sup>35</sup> Leon Morel, *James Thomson: sa vie et ses oeuvres*, Paris, 1895 (author's translation).
- <sup>36</sup> James Thomson, *The seasons*, "Autumn", 1730.
- <sup>37</sup> Horace Walpole, *On modern gardening*, 1780.
- <sup>38</sup> William Wordsworth, *June 1820*.
- <sup>39</sup> The third was the Earl of Mar. Tom Devine, *The Scottish Nation, 1700-2000*, 1999.

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- <sup>40</sup> Statistic quoted in Arthur Herman, *ibid.*
- <sup>41</sup> *Oxford Dictionary of National Biography.*
- <sup>42</sup> Written in 1770. First published with *Anecdotes of painting in England*, 1780.
- <sup>43</sup> Rev. James Branston, quoted in Horace Walpole, letter to Sir Horace Mann, 3 June 1742.
- <sup>44</sup> Quoted in Arthur Herman, *ibid.*
- <sup>45</sup> Quoted in John Heneage Jesse, *Memoirs of the Life and Reign of King George the Third*, vol.1, ch. 9, 1867.
- <sup>46</sup> William Robertson's entry in *Oxford Dictionary of National Biography.*
- <sup>47</sup> Quoted in Ray Desmond, *History of the Royal Botanic Gardens, Kew*, 1<sup>st</sup> ed., 1995.
- <sup>48</sup> What is now no. 33 the Green was Bute's study, while no. 37 (now the much altered Cambridge Cottage) was for the use of his family.
- <sup>49</sup> Schweizer, *ibid.* iii. To be fair to Linnaeus, he was well aware that his system was not a "natural" one: in fact, it was more of a plant identification key than a classification system. At a time when most of the world's plant species had yet to be discovered, Linnaeus believed that his system was the most useful for the time being, since it could be used even by amateur plant collectors with minimal training.
- <sup>50</sup> John William Fortiscue, *History of the British Army*, 1910-30.
- <sup>51</sup> See: [https://en.wikipedia.org/wiki/Thomas\\_Pitt,\\_2nd\\_Baron\\_Camelford](https://en.wikipedia.org/wiki/Thomas_Pitt,_2nd_Baron_Camelford).
- <sup>52</sup> John Heneage Jesse, *George Selwyn and his contemporaries*, vol.1, 1843, p.203.
- <sup>53</sup> John Heneage Jesse, *ibid.*
- <sup>54</sup> James Balfour Paul, *The Scots Peerage*, 1904-1914, vol.6.
- <sup>55</sup> Letter to Lady Suffolk, 17 July 1766.
- <sup>56</sup> London Borough of Richmond upon Thames, *Blest retreats*, 1984.
- <sup>57</sup> Alan Urwin, *Railshead*, 1973.
- <sup>58</sup> *Thames Valley Times*, 16 August 1905.
- <sup>59</sup> <https://electricscotland.com/history/descendants/chap5.htm>.
- <sup>60</sup> <https://electricscotland.com/history/sweden/sweden02.pdf>.
- <sup>61</sup> See Ron McEwen, *Solving the mysteries of Kew's extant garden temples*, Garden History, vol.46.2, 2016, and *War and Peace*, Richmond History, 2023.
- <sup>62</sup> In *L'Almanach des modes*, 1816 (author's translation). Quoted in H. Dennis, *Flore imaginaire et quotidienne a Paris: bruyeres, et roses ecossaises 1800-1848*, Society of Dix\_Neuviemistes, 2005.
- <sup>63</sup> Stephen Switzer, quoted in Suki Urquart, *The Scottish gardener*, 2005.
- <sup>64</sup> See, for example, *Gardeners Chronicle*, 06/04/1872.
- <sup>65</sup> Quoted in Arthur.Herman, *ibid.*
- <sup>66</sup> David I. Harvie, *Limeys: the conquest of Scurvy*, 2000.
- <sup>67</sup> Statistic quoted in E. Wills, *Scottish firsts*, 2002.
- <sup>68</sup> Tom Devine, *The Scottish Nation*, 1999.
- <sup>69</sup> Harold B. Carter, *Sir Joseph Banks*, 1988.
- <sup>70</sup> John Claudius Loudon, *Encyclopaedia of Gardening*, 1822, quoted in E. Willson, *James Lee and the Vineyard Nursery, Hammersmith*, 1961.
- <sup>71</sup> James Lee, *An introduction to botany*, 1760.
- <sup>72</sup> John Gascoigne, *Joseph Banks and the English Enlightenment*, 2008.
- <sup>73</sup> Letter to a Mr. Allan, 31/07/1819, quoted in John Gascoigne, 2008.
- <sup>74</sup> William Cabell Bruce, *Benjamin Franklin self revealed*, vol.1, 1917.
- <sup>75</sup> In a letter to Sir John Sinclair, 1819. "Quoted in H. Carter, *Sir Joseph Banks*, 1988.
- <sup>76</sup> The ship's surgeon, incidentally, was another distinguished James Lind – a younger cousin.
- <sup>77</sup> Quoted in H. B.Carter, *Sir Joseph Banks*, 1988.
- <sup>78</sup> Quoted in Ray Desmond, *ibid.*
- <sup>79</sup> Mungo Park was the brother-in-law of James Dickson.
- <sup>80</sup> John Paul Jones is widely credited as the father of the American Navy for his successful campaigns during the Revolutionary War.
- <sup>81</sup> [https://en.wikipedia.org/wiki/John\\_Fraser\\_\(botanist\)](https://en.wikipedia.org/wiki/John_Fraser_(botanist)).
- <sup>82</sup> Smollett, *The adventures of Roderick Random*, 1748.
- <sup>83</sup> Forbes 1843 quoted in J. Endersby, *Imperial nature*, 2008.
- <sup>84</sup> *Pall Mall Gazette*, 23 March 1891.
- <sup>85</sup> James McCarthy, *Monkey puzzle man*, 2010.
- <sup>86</sup> Ray Desmond, *History of the Royal Botanic Gardens Kew*, 1995.
- <sup>87</sup> *ODNB* entry for Richardson.
- <sup>88</sup> W.J. Dempster, *The illustrious Hunter and the Darwins*, 2005.
- <sup>89</sup> Ann Lindsay, *Seeds of blood and beauty*, 2005.

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- <sup>90</sup> ODNB entry for MacGillivray.
- <sup>91</sup> <http://www.kew.org/news/kew-blogs/library-art-archives/david-livingstone-bicentenary.htm>
- <sup>92</sup> Livingstone in lecture at Cambridge University, 4 December 1857, quoted in Niall Ferguson, *Empire*, 2003.
- <sup>93</sup> Livingstone in letter to Adam Sedgwick and 8<sup>th</sup> Duke of Argyll, quoted in Niall Ferguson, *ibid.*
- <sup>94</sup> <http://www.kew.org/news/kew-blogs/library-art-archives/aitchison-and-asia.htm>.
- <sup>95</sup> [https://www.britishmuseum.org/collection/object/P\\_1851-0901-592](https://www.britishmuseum.org/collection/object/P_1851-0901-592)
- <sup>96</sup> *Oxford Dictionary of National Biography*.
- <sup>97</sup> Quoted in Martin Hoyles, *The story of gardening*, 1991.
- <sup>98</sup> Quoted in Richard Drayton, *Nature's government: science, imperial Britain, and the improvement of the world*, 2000.
- <sup>99</sup> See <https://profjoecain.net/edward-turner-ucl-professor-chemistry-creole-so-what/>.
- <sup>100</sup> The third, Lord Lansdowne, was the son of a Prime Minister – the 2<sup>nd</sup> Earl of Shelburne.
- <sup>101</sup> Lord Palmerston, *Autobiographical sketch*, quoted in *Oxford Dictionary of National Biography*.
- <sup>102</sup> *The Economist*, on the other hand, founded in 1843 by Scotsman James Wilson, still exists.
- <sup>103</sup> Quoted in S. J. Reid, *Lord John Russell*, 1906.
- <sup>104</sup> Richard. Drayton, *Nature's government: science, imperial Britain, and the improvement of the world*, 2000.
- <sup>105</sup> Obituary by the eminent Scottish geologist, Sir Roderick Murchison, in *Journal of the Royal Geographical Society*, vol. 36, 1866.
- <sup>106</sup> Roy Moxham, *Tea: Addiction, Exploitation and Empire*, 2003.
- <sup>107</sup> Ronald King, *Royal Kew*, 1985.
- <sup>108</sup> Ron McEwen, *The northern lads: Kew Gardens and the Scottish invasion*, published in *Sibbaldia*, the horticultural journal of the Royal Botanic Garden Edinburgh, 2013.
- <sup>109</sup> Anon., *The Gardener's Chronicle* (6 April 1872), pp. 461-2.
- <sup>110</sup> Statistic quoted by Henry Nolte, Royal Botanic Garden Edinburgh.
- <sup>111</sup> Parentage established from Indian Army records, British Library.
- <sup>112</sup> J.D.Hooker, *Himalayan Journals*, vol.1,1854.
- <sup>113</sup> Nationality established from Indian Medical Service records, British Library.
- <sup>114</sup> ODNB entry for Alexander Anderson. <http://www.oxforddnb.com/view/article/465?docPos=2>
- <sup>115</sup> Richard Grove, *Green imperialism: colonial expansion, tropical island paradises and the origins of environmentalism*, 1995.
- <sup>116</sup> Richard Grove et al, *Imperialism, intellectual networks and environmental change*, Economic and Political Weekly, 2006.
- <sup>117</sup> Richard H. Grove, *Green imperialism: colonial expansion, tropical island paradises and the origins of environmentalism*, 1995.
- <sup>118</sup> Quoted in Arthur Herman, *ibid.*
- <sup>119</sup> Charles de Rémusat.
- <sup>120</sup> *Thames Valley Times*, Terrace Gardens Number, 25 May 1887. For a fuller treatment of Terrace Gardens see Ron McEwen, “Princes, Prime Ministers and Pre-raphaelites”, *Richmond History*, 2011.