CHAPTER 1

Sir Joseph Banks and his networks

Many men were influential in augmenting the diet of imperialism; none more so than Sir Joseph Banks (1743–1820), a botanist, collector, traveller, adviser of monarch and ministers and President of the Royal Society. Banks combined roles formerly occupied by a number of men. He was a botanical collector on a greater scale than his predecessors James Petiver and Hans Sloane.[1] An explorer and publisher in the manner of the French Louis Antoine de Bougainville and the German Alexander von Humboldt, he had an institutional power greater than theirs. As a longer-serving President of the Royal Society than previous incumbents, he stood astride British science's most prestigious body. A Privy Councillor and adviser to the Admiralty and the East India Company, he wielded political influence as only Count Rumford among contemporary men of science (and that briefly and on a small scale) was able to do. Banks, in fact, was an embodiment of the informal power and influence that, in eighteenth-century society, a wealthy and disinterested gentleman could achieve. Belonging to no profession, dependent on no patron, employed by no company, Banks was an amateur whose vision was that science should continue to flourish as a broad, amateur practice, of immediate practical benefit to agriculture and manufactures if possible. Opposed to professional languages that excluded educated laymen, he disliked the creation of institutions outside the Royal Society that represented narrow specialisms. He was determined that gentlemen who did not themselves pursue enquiry actively should remain members, and presided over science that was researched either by gentlemen or by men whom those gentlemen patronised. By 1833 this approach had come, to new generations of professionalising and institutionalising 'scientists', to seem outdated and haphazard, hence the coining of a new name for the enquirer and the establishment of a new national body to direct research – the British Association for the Advancement of Science. The freshly named scientists, men who felt Banks had paid them and their disciplines insufficient notice, also struggled to control the Royal

Society. Eventually, they succeeded, and reform took place. That the struggle occurred and was so difficult, however, indicates both that Banks had successfully shaped the Society in his image and that by doing so he had so maintained its prestige that it was worth fighting over.

Strong in Britain's chief scientific institution, Banks was still more influential, though less visible, beyond the nation's borders. He was the unseen hand, the shadowy impresario of Britain's colonial expansion in the era before the state had created an administrative machine to run the empire. What academies and institutes did in continental Europe, Banks did for Britain. He sent explorers out to Africa, Australia, China and the North Pole. He prepared their journals for publication. He collected, classified and disseminated data and specimens, turning Kew Gardens and his Soho Square house into centres of a network that spanned the empire. It was a network designed to shape the circulation of both literary and scientific 'knowledge' about remote places and unfamiliar cultures.

The network aimed to globalise economic progress too – on the pattern of the agricultural improvement that had benefited landowners at home. As *de facto* director at Kew Gardens, Banks imported plants and seeds from remote climes, studied and propagated them in the name of science and exported them again to feed Britain's new colonies. He helped form the patterns of colonial capitalism that still shape our world today: he it was who first sent sheep and vines to Australia and organised the smuggling of tea plants from China to British India. However unlikely the product, however remote the source, Banks, it seemed, could procure it. He supplied the drugs with which Coleridge experimented: 'We will have a fair Trial of *Bang*,' wrote the poet after Sir Joseph had sent him some he had obtained from Barbary. Coleridge also intended to try opium, hensbane and Nepenthe, 'a preparation of the Bang known to the Ancients' according to Banks. Sir Joseph gave him a social and historical geography of the drug: 'The Bang, you ask for, is the powder of the Leaves of a kind of Hemp that grows in Hot Climates. It is prepared, and used . . . in all parts of the East, from Morocco to China. In Europe, it is found to act very differently on different Constitutions. Some it elevates in the extreme: others it renders torpid & scarcely observant of any evil that may befall them.'[2] The productive torpidity that released 'Kubla Khan' had, Banks's words remind us, material and Oriental origins.

For Banks, supplying drugs for Coleridge and his friends was a tiny part of his massive and lifelong project. With endless energy, he harnessed his political influence to his scientific curiosity, spanning the world with a web of colonial sites dedicated to furthering scientific knowledge. And this

network, in a period marked by Britain's loss of the lucrative American colonies and by its global struggle with France, helped to spread an empire based on the desire to profit. Building on the collecting and classifying operations of predecessors such as Sloane, dedicated, like the East India Company, to expanding British commerce, it nevertheless constituted an alliance of scientific enquiry with policy and administration on an unprecedented scale. Banks created an unofficial ministry of science, empire and exploration, which anticipated the future organisation of government.[3] He shaped the imaginary of the Romantic period because he manipulated processes by which far-flung countries were made available for penetration by European commerce and colonisation. Importer of drugs, plants and seeds, publisher of explorers' narratives, he gave Britons a taste of exotic lands and then sent them out to conquer the places they had consumed from afar. He opened mental geographies within the minds of Britons that seemed to place foreign realms within their knowledge and power.

Banks's power grew from a small seed – from his schoolboy hobby of botany. The fertile ground was provided by the Chelsea Physic Garden and the British Museum, where he absorbed the knowledge of the foremost botanists and scholars in Britain. Nourishment came from Banks's wealth: at twenty-one he inherited 10,000 acres of rich agricultural land. Equipped to turn his hobby into a vocation, Banks set out for the coast of Newfoundland and Labrador where he collected 340 species of plants and 91 of birds, besides fishes, insects and soil.[4] His intention was to make his name by advancing the burgeoning science of natural history.

As it turned out, the Newfoundland journey was just a practice run, for in 1768 Banks used his money and influence to get himself a place on the most ambitious scientific expedition Britain had ever mounted. He announced, 'my grand tour shall be one round the whole globe': he would complete his education by sailing with Captain Cook through the South Pacific, exploring Tahiti, circumnavigating New Zealand and landing at Botany Bay for the first time.[5] The voyage became as much Banks's as Cook's, for he took with him a retinue of botanists, collectors and artists with the aim of netting and recording every new species within reach. The results were spectacular: Banks and his employees gathered 30,000 specimens of plants and 1,000 of animals, all carefully preserved, drawn, painted and listed.[6]

Collections need classification if they are to attain the status of systematic knowledge. In the eighteenth century, no system had more followers than that of the Swedish botanist Linnaeus, 'that God of my adoration' as Banks

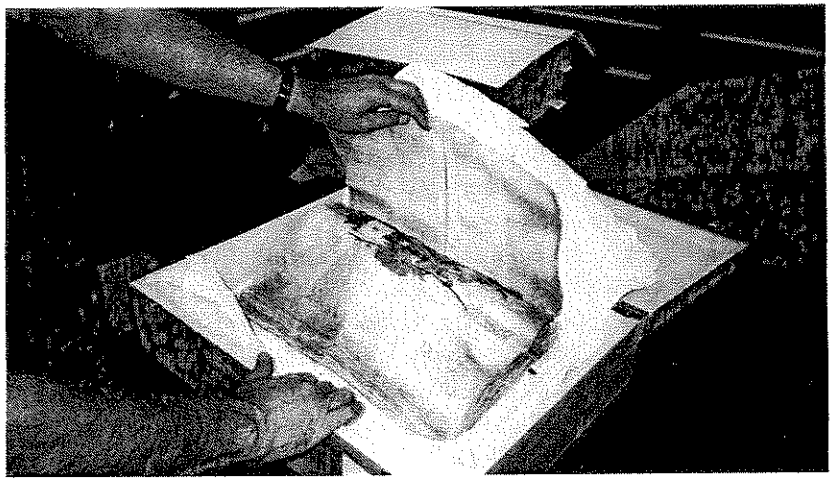

Figure 2. A specimen collected on the *Endeavour* voyage, preserved between proof sheets of Addison's *Spectator* essay on *Paradise Lost*. In the herbarium, Natural History Museum, London.

called him.[7] Linnaeus set the natural world in order in his *Systema naturae*. This system, a procedure of classifying plants and animals into genera and species, enabled European scholars to navigate with relative ease the tangled mass of information compiled in voyage after voyage to the new world and the East.[8] Linnaeus's method turned Banks the collector into Banks the systematiser:[9] when the South Sea specimens were classified (with the help of one of Linnaeus's students), Banks had increased the number of known plant species by nearly 25 per cent, introducing such plants as *Gaultheria mucronata* and the everlasting flower *Helichrysum bracteatum* (Fig. 2). He had discovered 110 new genera, one (*Banksia*) named after him to this day (Fig. 3). The great Linnaeus himself was overwhelmed. Banks's collection, he wrote, was 'matchless and truly astonishing'.[10]

Banks's collection thus gave him the admiration of international science. But what gave him his lasting importance was his ability to set it up in a web of classified information centred on himself, a web dedicated not just to spreading scientific knowledge but to fostering Britain's international growth. It was a web that depended on an established Royal Society practice that Banks dramatically expanded – correspondence.[11] Banks sent over 20,000 letters across Europe, America and the colonies in his efforts to bring the natural productions of the entire globe – and the profits that might accrue from them – within his view.[12] Even more than on correspondence,

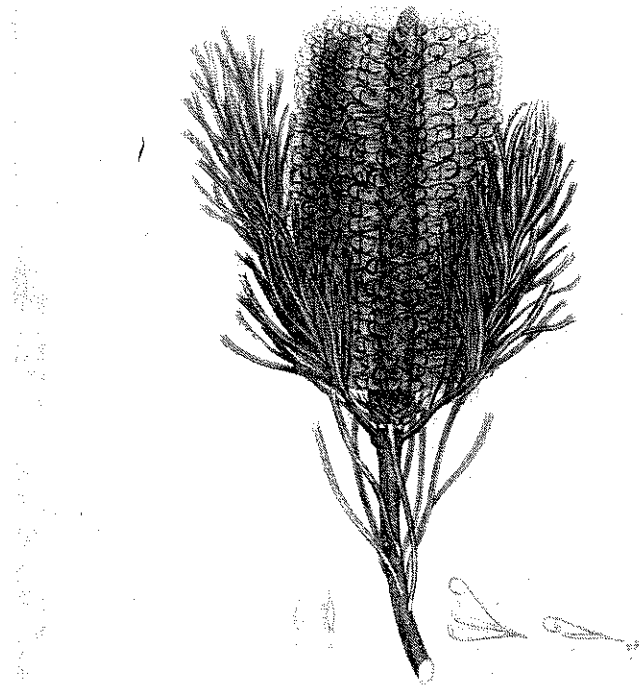

Figure 3. A contemporary engraving of a *Banksia*. James Sowerby, 'Banksia Spinulosa', from James Edward Smith, *A Specimen of the Botany of New Holland* (London, 1794).

however, Banks's web relied on publication. A letter from Linnaeus's son clearly reveals Banks's determination to use his resources to give systematic science widespread appeal:

> [my purpose] is only to continue the system, only to determine the plants' genera and species and thereby preserve the already started central book [*Systema naturae*] . . . but Banks, who has money, wants to illustrate these with descriptions and figures.[13]

The younger Linnaeus was referring to the *Florilegium*, Banks's attempt to publish the botanical collections of the Cook voyage in fourteen volumes of illustrations.[14] Deploying his great wealth, Banks turned his house into a workshop of reproduction. For close on twenty-seven years, as many as ten engravers worked in a back room experimenting with the latest methods. They were striving to achieve the most accurate and beautiful reproduction possible of the visual record of the Cook voyage – '987 plants drawn and coloured by Parkinson; and 1300 or 1400 more drawn with each of them a flower, a leaf, and a portion of the stalk, coloured by the same hand; besides a number of other drawings of animals, birds, fish, etc'.[15] Their work would let Banks turn Linnaeus's system sensual, would supplement description with depiction, delighting European eyes by representing the exotic flora of the South Seas in its overwhelming entirety. The latest technologies of reproduction would bring unfamiliar plants, in all their sensual beauty, within Europe's imaginative grasp.[16]

It was not only through sumptuously illustrated science like the *Florilegium* that Banks sought to open new continents to the European imagination. It was also through the publication of popular narratives of the explorations that he sponsored. His own journal of the Cook voyage formed the core of the account written by John Hawkesworth (1773). Hawkesworth, however, embarrassed the voyagers by spicing the account with hints that Banks, amongst others, had sampled the varied sexual, as well as botanical, delights of Tahiti. And he alienated the public by adding his own, speculative, views. As a result, Banks became an object of satirical attacks. He also became a public symbol of the explorer 'gone native', the gentleman whose scientific desire to record an exotic place led him into adopting the 'primitive' and immoral customs of its inhabitants.[17]

Banks took steps to ensure he never again lost control of the way exploration of the new world was presented to western eyes. He ensured that he had a supervisory role over all the narratives of the expeditions with which he was associated – effectively over most of the major British expeditions between 1774 and 1820, whether to Africa, Australia, China, North America or the North Pole.[18] The travel books were carefully prepared to excite public interest without embarrassing the explorers. The dignity of the aim of increasing scientific knowledge had to be protected from the temptation to pander to a mass reading public which craved sensation. For the burgeoning publishing industry was marketing remote regions to the European public on an unprecedented scale. Readers consumed travel narratives, and devoured danger from the comfort of their homes. William Cowper summed up the excitements of this mental travel:

> He travels and expatiates, as the bee
> From flower to flow'r, so he from land to land;
> The manners, customs, policy of all
> Pay contribution to the store he gleans,
> He sucks intelligence in ev'ry clime,
> And spreads the honey of his deep research
> At his return, a rich repast for me.
> (*Task*, book IV, lines 107–13)

Cowper's poem exemplifies what, according to John Gascoigne, was a conceptual shift. It shows 'the extent to which the natural world [was] refashioned in a scaled-down', and thus accessible, form.[19] The world could be shrunk to a quarto, a map, a botanical engraving sitting on a desktop, and the traveller's fame was directed, like it or not, by the homebound public's hunger for geographic novelty, as Robert Montgomery suggested in *The Age Reviewed* (1827).

> Columbian deeds in story scarcely reign,
> E'en Cook and Otaheite are on the wane:
> So fast learn'd vagabonds defame the earth,
> So fast their blund'ring quartos spring to birth!
> (lines 103–6)[20]

Banks felt the hunger for new discoveries. But, rather than be consumed by it, he fed it. In London, Banks's 'centre of calculation', Banks imported data and objects through which 'some traces of the travel . . . [went] back to the place that sent the expedition away'.[21] He classified, depicted and reproduced these returned fragments of foreign cultures, so that they became a code that could be used, again and again, to make the distant appear familiar. His systematised, illustrated and published collection allowed natural philosophers and explorers to access specimens of foreign cultures, specimens that, having been classified and reproduced, could be compared and contrasted with each other in a way not possible within each of the cultures from which they had been derived. Prepared and guided by this virtual experience, explorers could then go abroad again, exporting to those foreign cultures the versions of them they had constructed at home.

NETWORK CENTRES

Banks's main 'centre of calculation' was his house. If France had the Institut national for the scientific study of other cultures, Britain had Banks's backyard – or rather the complex of offices and storerooms built over his backyard to preserve his collection. No. 32 Soho Square, a house just 18 feet

Figure 4. Banks's home as a warehouse of the exotic. Engraving, 'Sir Joseph Banks at Dinner', from Peter Pindar, *Peter's Prophecy* (London, 1788).

wide, defied its dimensions. It was Banks's home, but it was also an Aladdin's cave of the exotic (Fig. 4). In one room, Banks had 'warlike instruments, mechanical instruments and utensils of every kind, made use of by the Indians of the South Seas'; in another his herbarium – thousands of dried plants preserved in purpose-designed cases and painstakingly catalogued.[22] The house was a bustle as Banks's staff and protégés reproduced the fruits of his travels and arranged the seeds and specimens, the letters and documents that poured in from gardeners, politicians and men of science from all over the world. A librarian worked full-time to catalogue what has been called the greatest natural history library in the world of its time, containing at least 22,000 items.[23] Fully open to scholars, it also held hundreds of maps and travel narratives, effectively becoming a repository of remote places as reconstructed by European knowledge-systems. As if finding the world in a grain of sand, natural philosophers, dignitaries, politicians and explorers discovered there a microcosm of the nature and culture of distant lands. When they travelled to those lands, when they wrote about them, when they colonised them, their view was already shaped by the perspective they had acquired in Soho Square. Mungo Park spent weeks there poring over travel books, maps and manuscripts that presented the latest European view of Africa's hidden interior. The settlement of Australia was planned in Soho Square. Close to the British Museum and to Westminster, Banks's home gave him a semi-institutional position not only as patron of European science but as adviser to government. His 'perfect museum' made him the most powerful man of science living.[24]

Power grew not just in Soho but at Kew. A friend of the King, Banks had at his disposal the Royal Gardens. Here he cultivated seedlings from around the world – increasing the species held from 3,400 to 11,000 – and watched as Britain's knowledge expanded by way of foreign 'growth'. At this central point plants were classified ready for redistribution across the world.

NAVIGATING THE NETWORK

Banks's network extended across the world along its rivers. From Soho Square and Kew Gardens, on the banks of the Thames, it flowed up river valleys into the heart of lands uncharted by Europeans. In Tahiti Banks had explored the Vaipopoo river into the interior. There, the islanders fished with baskets and nets in the stream as he was later to do in Lincolnshire. Not only did Banks import fishing technology from the Vaipopoo: he also brought back rocks which mineralogical analysis showed to be volcanic. Thus the very origin of this unfamiliar land was opened to European

knowledge by Banks's trip up-river. The flow of knowledge was reversible: rivers opened the island to European ideas and technologies. In 1777 shaddock trees were planted in the upper Vaipopoo valley. These had been imported from the Friendly Islands by David Nelson, the gardener Banks had chosen to accompany Captain Cook's third Pacific voyage. In 1792 these shaddocks were 'teeming with fruit'.[25] Banks's river-system flowed both ways: the shaddocks brought up-river were part of his effort to increase Tahiti's prosperity by extending its food supply, goals he pursued actively on his own farms in Lincolnshire. Not for the last time, the islanders proved less open to Banks's imports than were their river valleys. They were reluctant to eat the shaddocks, careless of the English passion for agricultural improvement.

Improvement remained, despite all setbacks, Banks's obsession. He developed on an intercontinental stage agricultural schemes like those that had brought wealth to his fellow landowners in England's eastern counties. Central to those schemes was the introduction of new crops. In 1798 he had eighteen boxes of plants, intended to equip the first colonists of Australia, carried from Kew Gardens down the river Thames to Long Reach, where HMS *Porpoise* lay at anchor. One of the boxes contained the 'Wooginoos', a plant the Abyssinians used against dysentery. The Wooginoos had been brought to Britain by James Bruce, who had encountered it on his exploration of the Blue Nile. Banks had cultivated it at Kew and given it a Linnaean name, *Brucea antidysenterica*. Imported to Britain from an African river, re-exported round the world from the Thames, the plant would, Banks hoped, spread the colony up the river valleys of Australia: 'it is impossible to conceive', he wrote to the colony's prospective governor, 'that such a body, as large as all Europe, does not produce vast rivers, capable of being navigated into the heart of the interior'.[26]

Rivers were routes for exploration and streams of information linking Soho and Kew with the Pacific islands, with the river valleys of Australia and with the great rivers of Africa. They made the world a navigable network centred on the banks of the Thames. Banks kept a jar of Nile sediment at Soho Square: it was a souvenir of Bruce's successful exploration of that mighty river, and a symbol of the secrets of nature that his chosen explorers might bring back from those other African rivers, the Niger and the Congo.

SPREADING THE SEEDS

Banks's influence extended across the globe along rivers, but to flourish and multiply it required gardens and gardeners.[27] 'Imperial Kew', as Erasmus Darwin called it, formed a centre of the overlapping networks of men and

materials on which Banks's empire of knowledge, and the British empire of commerce, depended.[28]

The men were as important as the materials they manipulated. And Banks was just as careful to control them personally. He disseminated botanists like the seeds they tended: 'I can always', he wrote, 'supply a Kew Gardiner in half a week.'[29] In 1791 gardeners from Kew were sent to collect breadfruit for transplantation to the West Indies, where the planters needed an inexpensive food source for their slaves. The ministry gave Banks his choice of commander as well as gardeners. Captain Bligh was accompanied by James Wiles and Christopher Smith. Banks gave the gardeners detailed instructions to ensure the success of the plant transfer. They were to bring plants back to Britain as well as the West Indies. And they were to ensure that they remained in the hands of the authorities, for the plants were essential to the future prosperity of a British empire that was competing with the French:[30] 'never quit them', Banks wrote, 'till you have delivered them to his Majesty's Botanic Gardener at Kew, who will be ready at Kew bridge to receive them; & you are particularly to take notice that no plant, cutting, layer, sucker, or part of Plant, be, on any condition whatever, taken away by any other person, but that the whole be safely & carefully delivered to his Majesties use'.[31] In the event Wiles was allowed to stay in the West Indies to supervise the growth of the breadfruit there: thus Banks exported expertise from his network centre even as he imported plants back to Kew.

As a landowner, gentleman and Knight of the Bath, Banks assumed that it was his prerogative to direct the lives of those in his employ. He could, and did, 'supply' Kew gardeners, trained botanists, explorers, ships' captains and even colonial governors to staff his spreading network. The Banksian empire extended across the globe the systems of stewardship and patronage by which the eighteenth-century aristocracy administered Britain. At the same time, it pioneered the development of bureaucratic data-gathering structures by which nineteenth-century imperial government was to extend its power at home and abroad. The men who worked on Banks's behalf around the globe acted very much as did the steward of his estates at Revesby Abbey, James Roberts (who had himself been round the globe with Banks on the *Endeavour*).[32] Characteristically, Banks expected thoroughness: in 1797 the agricultural writer Arthur Young was staggered by the extent and order of the records kept at Revesby. Banks's steward held catalogued information in 156 drawers of Banks's own design. 'Whether', Young declared, 'the enquiry concerned a man, or a drainage, or an enclosure, or a farm, or a wood, the request was scarcely named before a mass of information was in a moment before me.'[33]

Banks expected detailed reports from his steward so that, although he visited Revesby for only a few weeks each year, he retained effective control of what went on there. He was an absentee landlord who, by virtue of the statistics and observations communicated to him by mail, became a *deus ex machina*. But he was a benevolent (or paternalist) god, who rewarded men who served him well. So too in his worldwide botanical network. A 1796 letter from Francis Robson, deputy governor at St Helena, revealed Banks's postal system in action. Robson reported 'with the greatest regret and concern' the 'death of my valuable acquaintance, Colonel Gordon at the Cape, who shot himself, this has cut off all my resources of Plants from thence. All my Plants of Fern Trees are also dead'.[34] Despite Gordon's inconsiderate interruption of the network, and four months of drought, Robson was, he assured Banks, still planting. And in return for his loyal service he asked Banks to influence the East India Company to procure his son 'a writer's appointment either to Madras or Bombay'.

Banks's influence, like his plants, spread from Africa to India, from London to St Helena. Robson and the other botanic gardeners nurtured Banks's transplanted seedlings in the hope that one part of Britain's empire might grow fat (and rich) on the plants native to other parts. Vines and Merino sheep went to New South Wales. Date trees were brought to India from Persia with the aim of protecting Britain's colonies from famine. Tea plants were smuggled to India in the hope of breaking Britain's financially ruinous dependence on China for its favourite drink.[35] All were to be nurtured in the botanic garden specially established by the East India Company for the purpose of 'promoting the cultivation of articles useful to the manufacturers of Great Britain & consequently important to the Investments of India'.[36] Banks's botanic gardens were seedbeds for a newly global capitalism. They were designed for 'the aggrandisement of the power and commerce of Great Britain', by giving the nation a commercial advantage over its trading rivals.[37]

The East India Company's garden hit a snag. The proposed site in Calcutta was already occupied by local widows who resisted the Company's efforts to move them.[38] The widows were paid off and moved whether they liked it or not. Banks and the Company got their garden where they wanted it. Sometimes, however, the peoples who were subjected to imperialism threatened Banks's network by active as well as passive resistance. In the West Indies slave rebellions made the botanic gardens contested ground. In 1796 Banks's man in St Vincent, Alexander Anderson, was forced to abandon his plot. He wrote to Banks like an anxious steward reporting to an exacting landowner who he fears will not be

inclined to accept war and rebellion as adequate reasons for neglect of duty:

> The unhappy situation of this Island for 12 months past has made me remiss in my duty to you, but I am sure, when you consider the anxiety's and miserys, I, as well as every one else has experienced here, your goodness will forgive my seeming inattentions, and you will certainly be happy in hearing that the Garden has remained safe, & is now in the most flourishing state: as it is my charge & almost only concern you can easily judge my feelings when three times obliged to abandon it with little hopes of ever seeing it more, but at a distance a mass of ruins.[39]

Banks used his influence to ensure Anderson received recognition for his efforts. He was given the Silver Medal of the Society of Arts and was praised by the Royal Society as a result of a report communicated to it by Banks, its president.[40] Banks's network was sustained by such methods, by the ability of Sir Joseph himself to pull enough strings at the imperial centre to keep his far-flung estates and their stewards, as well as the plants they tended, in flourishing condition.

Banks was a dominant figure in science in Britain as well as across the empire. It is, however, the far-flung estates that we are concerned with in this first section of *Literative, Science and Exploration*. In the following chapters, we investigate Banks's explorers and gardeners spreading his network into Africa, India and the West Indies. We show him shaping the course of botany, natural history and race theory, as well as influencing colonial trade and administration. We show him collecting artefacts and people from the Pacific islands, forging his reputation as a man of science in the years after the *Endeavour* voyage. And we examine the effects of this collecting on the Tahitians he collected and on Britons back home. Both in the Pacific and in Britain, the people who responded to his activities gave them unexpected twists, enhancing their power in their own cultures by turning their encounters with Banksian knowledge in directions Sir Joseph himself did not take. Thus, in Britain, Banks's projects helped give rise to literary Romanticism (inflecting its political concerns, its symbolism, its very content) while in Tahiti they gave some islanders opportunities to voyage, explore and build their own centres of calculation. It is on one such islander, Omai, that we focus next.