

CHAPTER 1

Immigrant Potatoes

‘Potatoes . . . are something like Spanish truffles, aside from being a bit bigger and not as tasty. When dried, these roots are called chuño.’¹

Vicente de Valverde, 1539

THIS IS THE FIRST WRITTEN DESCRIPTION OF A POTATO. Vicente de Valverde was a Dominican friar who accompanied the fractious and violent expedition led by Francisco Pizarro and several other Spaniards that overthrew Peru’s Inca empire in the sixteenth century. Valverde played a prominent (and inglorious) role in the kidnapping and murder of the Inca monarch Atahualpa, who was seized by Spanish troops on Valverde’s orders in 1532. After Spanish forces captured the Inca capital of Cuzco, Valverde was named its first bishop, a position he took up in 1538. His prolonged sojourn in Peru familiarised Valverde with the regional foodstuffs, including something he compared to a truffle, or a root: the potato.

Potatoes had for centuries been a staple for the many people living along the Andes. Archaeological excavations suggest that they were cultivated from perhaps 7800 BCE in Peru’s Casma Valley, as well as further south, in what were probably separate processes of domestication. Wild varieties were eaten far earlier. Settlers in Monte Verde, in south-central Chile, were gathering wild potatoes thirteen thousand years ago. A site in Utah, along the northern reaches of the same trans-continental mountain range, has likewise yielded evidence of wild potatoes being eaten from as early as 10,900 BCE. Mountain people prepared potatoes in many ways; the Utah potato-eaters seem to have mashed or ground their tubers. At the time Valverde reached Peru, Andeans ate potato soups and stews, together

with maize, quinoa, roasted guinea pigs and wild game, dried fish, and a great variety of vegetables, beans and tubers, with or without the addition of chilli pepper to add savour. They also devised an effective method for freeze-drying, which converted tender, rot-prone fresh potatoes into a long-lasting rock-like substance called *chuño*. In their many forms potatoes were an ordinary, everyday food. The Inca state, which had established control over a wide sweep of South American territory in the fifteenth century, viewed them with some disdain, unlike maize, whose cultivation was carefully overseen by an annual calendar of ceremonies and rituals.² Potatoes were, however, totally unknown to the rest of the world.

Vicente de Valverde's offhand description of this root was followed by a series of similar reports from other conquistadors, which stressed that the potato was, as they put it, 'the bread of the Indians' – the region's basic foodstuff. The Basque conquistador Pascual de Andagoya, who composed a memoir of his participation in Pizarro's expedition, recorded that 'the foods of those provinces are maize, and some roots that the people there call *papas*, which are like a chestnut, or a nut in shape'.³ Another Spaniard, Pedro Cieza de Leon, writing a decade after Andagoya, also compared them to chestnuts, or truffles. Within a few years Spanish colonists were collecting them as tribute, alongside maize and anything else of marketable value they could extract from local communities. An English pirate found boxes of them, readied for payment, when he stopped off the Chilean coast in 1587. He described them as 'very good to eat'.⁴

Today the potato is a remarkably successful global food. It ranks just behind wheat, maize and rice in terms of the volume harvested each year, and is the world's fifth most valuable food crop. More potatoes are eaten per capita in Malawi than in Peru itself. Overall, Europeans are now the world's most assiduous eaters of potatoes, consuming on average some 82 kilos per person each year.⁵ How did this once-unfamiliar root become part of the European diet?

THE CONSERVATISM OF THE PEASANTS

The standard story about how Europeans learned to eat potatoes goes something like this: potatoes first reached Europe in the late sixteenth century, where they attracted attention as a botanical curiosity, and, very

briefly, as a novelty food for elites. They were, however, shunned by everyone else. Resistance to potatoes is ascribed either to ‘the conservatism of the peasants’, or to fears about the potential health risks posed by this new plant, or to unfamiliarity with the agricultural techniques required to cultivate a plant from tubers rather than seeds. The fact that botanists quickly identified the potato as a species of *Solanum*, the same family as deadly nightshade and the poisonous henbane, is often mentioned as reason for purported suspicion. The tuber’s knobbly shape is sometimes said to have inspired anxieties that it might induce leprosy, since the ravages of that disease left its victims with similarly bulbous appendages in place of limbs.⁶ As the great historian of the potato Redcliffe Salaman put it:

The basic trouble lay in the fact that the potato was in every sense a new type of food, the like of which had not been seen previously in Europe. To eat of it, was not merely a venture in dietetics, but an audacious break with common tradition . . . to which should be added the significant fact that . . . definite objection was taken to the potato because it was not mentioned in the Bible, and hence was not a food designed for man by God.⁷

For these reasons, Europeans are said to have ignored the potato’s multiple charms for the next two hundred years, with the exception of the Irish, whose early enthusiasm is presented as an anomaly. Not until visionary eighteenth-century elite personages such as Frederick the Great of Prussia championed them did potatoes begin to be consumed more widely, or so runs the story. (See figure 4.)

There is little historical basis for any of these claims. Far from labelling potatoes a botanical oddity that required unfamiliar cultivation techniques, early modern Europeans described them simply as roots, akin to a carrot or a parsnip; a shared subterranean habit was more noteworthy than the fact that one was cultivated from a tuber and the others from seeds. Neither did early modern botanical and horticultural texts linger on this matter. They simply explained how to prepare the seed potatoes and advised on the best methods of planting. As to the suggestion that the potato was rejected because it was a member of the *Solanum* family, the equally unfamiliar chilli pepper, another new-world import,



Figure 4 Frederick the Great inspecting a potato harvest. Frederick II is often credited with convincing sceptical Germans to eat potatoes. This nineteenth-century painting imagines the benevolent monarch chatting with a humble farmer, while his courtiers look on suspiciously. In fact, German farmers had been growing potatoes since the sixteenth century. It was only in the eighteenth century, however, that their activities began to earn the approval of princes and statesmen.

was also identified as a *Solanum*. This proved no impediment to the chilli's quickly becoming – as one writer put it in 1590 – ‘a well-known thing’, widely consumed across the Iberian peninsula and beyond.⁸ The only evidence that potatoes were associated with leprosy derives from a second-hand comment in a 1620 herbal, in which the Swiss author recorded hearing that three hundred kilometres away, in Burgundy, both potatoes and Jerusalem artichokes had been prohibited on these grounds.⁹ There is no indication that such a ban in fact occurred, and the herbalist himself was sufficiently confident of the potato's healthfulness to offer several recipes from his native Basle. And the complete absence of cabbages, spinach, oats and many other plants from the Old and New Testaments did not prevent these becoming common foodstuffs across the continent.

What of the claim that peasant conservatism was the main impediment? One authoritative history of the spread of new-world foods opined that ‘weaning the peasantry away from tried and true

agricultural methods and tried and true foods was perhaps just a matter of time, yet in many cases it was a matter of a very long time'.¹⁰ This chapter suggests otherwise: it did not always take a very long time for potatoes to enter the dietaries of ordinary people; indeed, peasants and labourers were among the first to adopt them. Although we possess much more information about how learned individuals responded to this new plant, working people too cultivated and consumed potatoes. Stories of peasant conservatism do a disservice to these culinary pioneers. Early modern Europeans did not shun the potato because they feared it was poisonous, or because they did not understand how to cultivate it, or because it was unfamiliar. The early modern potato, unsurprisingly, did not replace grains as Europe's principal staple, nor did it reach every corner of the continent, but neither was it met with incomprehension and suspicion until scholars and princes convinced a sceptical populace to eat it.

TIME OUT OF MIND

In 1768 the Cornish parish of St Buryan was engulfed in a dispute over potatoes. St Buryan, which lies about five miles from Land's End, is an ancient settlement; earthworks point to its occupation well before the Norman Conquest. The 1768 dispute concerned historical memory. It arose because the rector of the local chapel believed he was entitled to a larger tithe than he was receiving on the potatoes and other 'garden stuff' grown by several of his tenants. The conventions governing this ecclesiastical tax were extremely complex; where potatoes fit into the evolving edifice of case law and formal regulation was unclear. The defendants argued that they should pay a reduced tithe because the potatoes were intended for their own use, rather than for sale. The case highlighted the murky status of plants grown on a small scale in vegetable gardens rather than open fields, a matter that was not well explained in tithe schedules. The defendants further maintained that, whatever the precise legal status of garden stuff, 'for time out of mind' they had been paying a fractional tax on potatoes and other crops cultivated for domestic consumption, and they petitioned for the continuation of this local practice.¹¹ The case thus hinged on whether long-standing local custom

established a precedent, and also on how long potatoes had in fact been grown in St Buryan. The court found in favour of the defendants, and approved the continued payment of a discounted tithe. In so doing, it endorsed the tenants' assertion that they had been cultivating potatoes for their personal use for many generations.

Tithe disputes offer an alternative history of the potato's spread across early modern Europe. In contrast to stories of peasant conservatism and popular rejection, such records document the diffusion of potatoes into cottage gardens in many parts of Europe, through processes whose protagonists were generally the families of agricultural labourers, husbandmen and artisans, rather than noblemen such as Frederick the Great. Because the titheable status of a crop depended in part on whether it was intended for sale or for personal use, and on how long the food had been cultivated in this way, disputes over potato tithes frequently delved into the history and chronology of potato cultivation in the parish. Sometimes defendants insisted that the potato was too recent an arrival to qualify for tithing; on other occasions they maintained that its alleged exemption from a tithe had been custom and practice for generations. Almost invariably, potato cultivation was understood as an activity undertaken by ordinary people for their own sustenance.

In Britain the earliest such disputes date from the late seventeenth century, and became more frequent in subsequent decades. The timing of when potatoes were first cultivated featured prominently in most cases. In the Yorkshire parish of Kirkby Malzeard for instance an investigation in 1736 explicitly questioned deponents over when potatoes had been introduced. 'Have potatoes been grown or cultivated within the said parish of Kirkby Malzeard time beyond memory of man or do you know or can you remember the time of their being first introduced?', witnesses were asked. Parishioners agreed that potatoes had first been cultivated in open fields some time between 1680 and 1700. Prior to that they had been grown in cottage gardens for domestic use. They credited someone named Buck with the innovation of raising potatoes on a large scale, but were unable to remember a time when potatoes were not planted in cottage gardens.¹² In another case, tenants in the Lancashire villages of Formby, Ainsdale and Raven Meols refused, like the inhabitants of St

Buryan, to pay a newly imposed tithe on potatoes and other garden produce on the grounds that they had long cultivated potatoes without any tithe ever being collected. As they insisted, ‘for the preservation of such our rights and properties as the same have heretofore immemorially been held and enjoyed by us . . . [we] will not pay’.¹³

Scholars such as Christian Vandembroeke and Eloy Terrón have traced similar cases in France, Belgium, the Netherlands and Spain, where conflict over the potato’s titheable status began to occur in the early eighteenth century. As these scholars note, such disputes do not arise until a crop is fairly well established, so their occurrence in itself indicates a crop’s prevalence. These sources suggest that potatoes were being cultivated as garden crops in parts of Flanders, Alsace, Galicia and elsewhere from the 1670s. As in England, parishioners typically claimed that their exemption from the potato tithe dated back to ‘time immemorial’.¹⁴ (Clergymen usually countered that potatoes had always been subject to the tithe, even if they had chosen not to exercise their right to collect it.) To be sure, the historical narratives that such cases elicited emerged in a context of legal dispute, in which the date of the tuber’s introduction had direct monetary consequences.¹⁵ Nonetheless, the picture of long-standing localised cultivation and consumption is confirmed by a range of other sources. Working people in various parts of Europe turned to potatoes long before eighteenth-century philosophers and kings thought to encourage them.

LEARNING ABOUT POTATOES

Some of the earliest European discussion of potatoes occurs in herbals. Essentially encyclopaedias of culinary and medicinal flora, herbals enumerated the features of interesting or important plants and explained their uses. Hundreds of these often lavishly illustrated texts were produced during the sixteenth century. Entries on potatoes began to appear in the 1550s, alongside other new-world plants such as sweet potatoes, maize and tomatoes. These works described the botanical features of the potato, and attempted to locate it within existing systems of scientific knowledge and classification.¹⁶ Herbals reveal how learned writers responded to this new plant, and also shed light on its broader diffusion

across Europe. The Flemish botanist Carolus Clusius, author of a celebrated herbal, for instance, acquired some potato plants in 1587. His potatoes came from Italy, via Belgium, or so he reported. He subsequently shared them with his network of correspondents elsewhere on the continent. The letters exchanged between Clusius and his collaborators show clearly that they perceived no challenge in growing potatoes from the tuber, and also that they did not view them as alarming botanical oddities.¹⁷

Herbals moreover reveal that potatoes were cultivated not only by botanists, but also in cottage gardens. Clusius, for example, stated that these plants had become quite common in parts of Germany and Italy, although he did not elaborate on the agricultural experimenters responsible for this development. (Experimentation was necessary to adapt these South American tubers to Europe's shorter day-lengths and longer growing season. Recent research has underscored the careful processes of selection and evaluation that would have been required to produce a reliable harvest.¹⁸) Writing from the Belgian town of Tournai in 1588, another gentleman botanist reported that some years earlier:

a reputable man of authority, being in my garden and seeing my [potato] plants, asked me if I held them in particular regard. I told him that I considered them to be rarities. He replied that that he had seen great abundance of them in Italy and that some people ate them in place of rape-roots, others cooked these bulbs with lamb, and others used them to fatten pigs, each according to his imagination.¹⁹

Evidently, in sixteenth-century Italy, the earliest potato-eaters included people who ordinarily ate the humble rape-root, a variety of turnip consumed by the poor. The Swiss botanist Gaspard Bauhin also indicated that people other than botanists were experimenting with potato cultivation. He stated in 1620 that 'many people' preferred to dig them up in the autumn rather than leaving them to overwinter in the ground. A vernacular fund of agricultural knowledge about potatoes was already emerging.²⁰

Such accounts make clear that these roots were grown not simply to fatten pigs, but also as food for people. Clusius and his correspondents discussed how Italians prepared them in ragouts, in the same way as one

stewed carrots or turnips.²¹ Bauhin recorded that in Basle people roasted them with black pepper.²² The seventeenth-century Roman botanist Tobias Aldini devoted so much attention to their preparation that the author of another herbal complained that Aldini's account appeared more the work of a cook than a scientist. But this critic, the Spanish physician Bernardo de Cienfuegos, agreed with Aldini that there was an infinite number of ways to prepare the potato – roasted; breaded and fried like whitebait; dressed with vinegar, salt and pepper in a salad; sliced and cooked in oil with lemon juice and salt; sautéed like mushrooms with mint; simmered in broth like turnips; made into a casserole . . . In his opinion, however, they required a picante sauce, as they were otherwise extremely bland. Cienfuegos also warned that like all root vegetables they provoked wind, and for that reason incited lust.²³ (See figure 5.)

The authors of sixteenth- and seventeenth-century health manuals also discussed the potato. These practical guides to healthy living were produced across early modern Europe, and promised to explain the principles of good health and well-being.²⁴ Their authors concurred that health was a matter of keeping the body in balance with its larger environment. Eating constituted an open dialogue with the external world and so required particularly careful management lest the body be thrown off kilter. Being thrown off kilter was a perennial risk. All foods were understood to affect the body of the eater in some way, since all had the potential to alter the balance of humours that characterised each person's overall constitution, or 'complexion'. Potatoes, like every other food, thus possessed an inherently medicinal quality. Cienfuegos' comment that potatoes shared both the windy qualities of other root vegetables and their consequent tendency to provoke lasciviousness is typical of this early modern approach to dietetics. In his view, potatoes encouraged the formation of damp humours, and therefore benefited from being prepared with hot, drying spices, which would balance out the potato's moisture. Explanations of how to match potatoes with the appropriate corrective seasonings and cooking methods show that they were amenable to the usual culinary and medicinal techniques necessary to produce a healthful and nourishing meal. These manuals also commented, sometimes at length, on the potato's gustatory qualities, and on which preparation methods produced the tastiest results. An Italian health guide



Figure 5 Drawing of potatoes from Bernardo de Cienfuegos' herbal, c.1630. Bernardo de Cienfuegos was a physician from Aragón, and author of a multi-volume herbal that described hundreds of plants. His entry on 'potatoes' listed many different ways of preparing the roots, and also mentioned that they could be bought at the vegetable market in Madrid. Cienfuegos made clear that he was discussing potatoes rather than sweet potatoes, even though the plant in his drawing resembles the latter.

from 1620 for instance noted that potatoes required quantities of salt and other seasonings, not to render them more healthful, but simply to overcome their bland taste.²⁵ Then, as now, potatoes provided a blank canvas for the imaginative cook.

YOU SAY POTATO . . .

But what exactly was a potato? Today biologists explain that the ‘ordinary’, ‘Irish’, or ‘white’ potato, *Solanum tuberosum*, is entirely distinct from sweet potatoes (*Ipomoea batatas*) and other American tubers such as the Jerusalem artichoke (*Helianthus tuberosus*), as well as from the African yam (*Dioscorea*). ‘White’ potatoes are members of the *Solanacea* family, which also includes tomatoes, chilli peppers and aubergines. Sweet potatoes are related to bindweed, the irritating garden pest, but are only distant relatives of the ordinary potato. Jerusalem artichokes and yams belong to different genera altogether. The clarity with which botanical science now distinguishes these plants reflects a classification system quite different from the ones employed in the sixteenth and seventeenth centuries. Although early modern botanists promptly classified the potato as a *Solanum*, this did not render it entirely distinct from other botanically dissimilar plants. The overlapping names for these new roots reflect their multiple interconnections, as well as their links to existing European foodstuffs.

In early modern England, ‘potato’ might mean either the sweet or ordinary variety, or even the Jerusalem artichoke. When writers wished to distinguish clearly they sometimes referred to sweet potatoes as ‘Spanish potatoes’, while ‘potatoes of Canada’ usually referenced the Jerusalem artichoke. ‘Virginia potatoes’ often meant the ordinary potato, since many English writers believed the plants originated there. All three were, however, considered to be ‘potatoes’. The Spanish nomenclature overlapped in similar ways. Spaniards first encountered sweet potatoes in the 1490s in the Caribbean, where these tubers were called ‘batatas’. This is the source of the English word ‘potato’. Columbus described them as a sort of yam, an African tuber with which Europeans were already familiar. The Spanish invasion of the American mainland added new terms for sweet potatoes to the Iberian lexicon, and also introduced

Europeans to ordinary potatoes, which were known in Quechua, the lingua franca of the Inca empire, as ‘papas’. Then as now, Spanish-speakers in the Americas often preserved this distinction between ‘batatas’ (sweet potatoes) and ‘papas’ (potatoes), but in Spain itself ‘patata’ came to refer to either.²⁶ There, ‘batatas’ or ‘patatas de Málaga’ usually meant the sweet potato, which was cultivated on a commercial scale around Málaga from as early as the sixteenth century, while ‘patatas de la Mancha’ referred to the ordinary potato.²⁷ A Jerusalem artichoke, in turn, might be labelled a ‘pataca’. As in English, in Spanish a similar vocabulary emphasised the interconnections between these different new-world roots. Sixteenth-century German writers also employed a range of overlapping terms: ‘Griblingsbaum’ (truffle plant), ‘Erdäpffeln’ (earth-apples), ‘Erd Artischocken’ (earth-artichokes), ‘Tartuffeln’ (truffles) and simply ‘Knollen’, or roots. The semantic link to truffles dates back to the earliest Spanish descriptions, and was common in a number of European languages. Writing in the 1590s, the nobleman Wilhelm IV von Hessen for instance reported that Italians referred to these new roots as ‘Taratouphli’; other Italians described them as a kind of ‘Tartufole’, or truffle.²⁸ This is the origin of the German term ‘Kartoffel’. Scandinavian writers referred to ‘jordpäron’ (earth-pears), ‘jordäpple’ (earth-apples), ‘artiskocker af Wirginien’ (Virginia artichokes) and ‘peruianska natts-katta’ (Peruvian nightshade) as well as ‘potatoës’.²⁹ In the late sixteenth century the botanist Clusius and his polyglot network drew on multiple vocabularies in their references to ‘taratonfli’, ‘tartufy’, ‘papas americanorum’, ‘papos’ and ‘papes’.

Overall, early modern authors sometimes differentiated between potatoes, sweet potatoes and Jerusalem artichokes, at times devoting pages to untangling the complex nomenclatures that fostered confusion. On other occasions they moved smoothly from one to the other, simultaneously distinguishing and combining them. William Coles’ seventeenth-century botanical handbook first listed a series of recipes suitable for the ‘potato’, and then commented simply that these recipes worked equally well for ‘Virginia potatoes’. As he noted, the ‘names and kinds [were] thus mixed together’.³⁰ As a result of such mixing, there is simply no way of ascertaining whether the ten pounds of ‘potatoes’

presented by the mayor of Southampton to Lord Hertford in 1593 were sweet or ordinary, since both kinds were already being grown in England.³¹ Potatoes, sweet potatoes and Jerusalem artichokes continued to be grouped together in both learned and vernacular taxonomies well into the eighteenth century. A French botanist explained in the 1720s that sweet potatoes were a type of ordinary potato comparable to Jerusalem artichokes; an English traveller in Spain similarly described sweet potatoes as simply another variety of ‘the common potato’. Eighteenth-century lexicographers felt no more obligation to differentiate these plants into separate dictionary entries than did travellers or botanists.³² The commonalities, rather than the differences, are what emerge most strongly from this early modern vocabulary.

Such flexibility is not surprising. All three plants originated in the Americas, and all three travelled around the world as part of the ‘Columbian exchange’, the world-wide transfer of plants and animals begun in 1492 with Columbus’ arrival in the West Indies. There were therefore many reasons to view these plants as deeply interconnected. Their overlapping names remind us of this shared history. If sixteenth-century Europeans failed to distinguish clearly between these different vegetables, this was because they perceived them as similar. All three were new roots from the new world, and all three were eaten by Europeans, who were evidently undeterred by the taxonomic challenges posed by novel tubers lacking biblical provenance.³³

PARE YOUR POTATON

Readers seeking advice on how to prepare these new roots could turn to the emerging genre of the printed recipe book. The first recipe for something resembling a potato dates from 1581. It appears in a cookbook authored by Marx Rumpolts and published in Frankfurt. Rumpolts worked as personal chef for the wealthy Archbishop-Elector of Mainz. He later went on to cook for a Danish queen. His cookbook offered some two thousand recipes, as well as over thirty sample menus and advice on shopping and table etiquette. Alongside instructions for

making a Hungarian tart with many layers and crafting sugar into the shape of an entire Parmesan cheese, *Ein new Kochbuch* included recipes for a number of American novelties such as kidney beans. It moreover explained how to cook typical Spanish dishes such as *olla podrida* (or, as English-speakers called it, *olio*), a complex stew in this case to be prepared with new-world turkey, which had rapidly become a modish banqueting dish in various European courts.³⁴ Rumpolts was evidently familiar with Iberian cooking traditions, as well as with some of the new ingredients introduced into Europe by the Spanish following their colonisation of the Americas.

His cookbook also printed several recipes for ‘earth-apples’. Perhaps by ‘Erdteppffel’ he was referring to the potato, or perhaps the Jerusalem artichoke, or perhaps something else; we cannot be certain. The recipes for other new-world and Iberian dishes, however, make it plausible that Rumpolts was acquainted with these American tubers. In any event, he instructed readers to ‘peel and cut them small. Parboil them in water and press well in a fine cloth. Chop them small and roast with bacon cut into little pieces. Add a little milk and let cook together. This way it is tasty and good.’³⁵

Two decades after Rumpolts’ earth-apple recipe, a French cookbook explained how to prepare a new kind truffle, or ‘tartoufle’. It recommended several different preparations, from roasting them like chestnuts to dressing with butter and sweet wine.³⁶ From England, the 1596 *Good Huswife’s Jewell* offered a recipe for ‘a tart that is a courage to a man or woman’. Actually more of a pudding, the tart was a rich dish that included butter, eggs, spices and ‘the braynes of three or four cocke-sparrows’ alongside a ‘potaton’.³⁷ Sweetened potato tarts of this sort soon became immensely fashionable across Europe; by 1611 Spanish cookbooks were criticising these extravaganzas as culinary abominations to be avoided at all costs. Good advice, since in 1624 Richard Sackville, third Earl of Dorset, died while gobbling up ‘a potato pie’.³⁸ (See recipes for ‘Truffles’.)

Like title disputes and herbals, printed and manuscript cookery books indicate that new-world roots were being cultivated on a small scale for domestic use in parts of Germany, England and elsewhere. As one 1651

Four Recipes for ‘Truffles’

Mentions of a new kind of ‘truffle’ started to appear in European sources in the late sixteenth century. Although it is hard to be certain, these are likely to refer to potatoes or some other American tuber. Lancelot de Casteau, a professional chef who worked for several princely households in Liège, offered four different recipes for these ‘truffles’ in his 1604 cookbook. He also described how to make a cheese-and-herb quiche, leg of mutton in the Irish style, and other up-to-the minute delicacies.

Four Recipes for ‘Truffles’*Boiled ‘Truffle’*

Take well-washed ‘truffle’, & put it to boil in water, when cooked it must be peeled & cut into slices, melted butter thereon, & pepper.

Another ‘Truffle’

Cut the ‘truffle’ into slices as above, & put it to stew with Spanish wine & new butter, & nutmeg.

Another

Take the sliced ‘truffle’ & put to stew with butter, chopped marjoram, parsley: then take four or five egg yolks beaten with a little wine, & cast it boiling thereon, & remove from the fire, & so serve.

*Another*

Put the ‘truffle’ to roast in the hot embers as one cooks chestnuts, then it must be peeled & cut into slices, put chopped mint, boiled currants on top, & vinegar, a little pepper, & so serve.

cookbook from the Saxon city of Braunschweig noted, ‘earth-artichokes or roots . . . have become so common that practically every farmer grows them in his garden’.³⁹ By the early eighteenth century, German cookery books often distinguished explicitly between different new-world tubers,

and made clear that in some regions the ordinary potato was ‘quite common’.⁴⁰ As the century progressed, potato recipes could be found in ever-more published and manuscript recipe collections from many different parts of Europe.⁴¹

Other sources too indicate that potatoes were cultivated as an ordinary foodstuff far sooner than has been recognised. It is notable that from the early seventeenth century French, Italian and English agricultural manuals began explaining how to grow them. The French horticultural writer Olivier de Serres’ 1603 *Theatre d’agriculture et mesnage des champs* described potatoes not as botanical curiosities, but as horticultural plants. The English botanist John Parkinson’s 1629 *Paradisi in Sole Paradisus Terrestris* treated the potato in the same fashion. Parkinson, who distinguished carefully between the different sorts of potatoes, reported that ‘Virginia’ potatoes were ‘well knowne unto us’ and explained how to cultivate and eat them.⁴² He recommended roasting in hot embers, or baking with wine and a little sugar. John Evelyn’s 1666 *Kalendarium Hortense* reminded gardeners that in February they should ‘sow *Beans, Pease, Radish, Parsneps, Carrots, Onions, Garlick, &c.* and plant *Potatoes* in your worst ground’, since they would thrive even in marginal soil. A few decades later a German handbook similarly explained how to cultivate them, noting that they had become very common in parts of Austria.⁴³

Customs records and account books also help trace the trajectories of these new roots across Europe, once they had moved from a garden crop raised for household consumption to the status of commodity. In most parts of Europe potatoes remained a garden crop well into the eighteenth century, but new-world roots were traded internationally from the late sixteenth century. Customs records show that as early as the 1570s ‘patatas’ were grown on a commercial scale in the Canary Islands, from where they were shipped to France and the Netherlands.⁴⁴ It is impossible to determine whether these sources refer to potatoes, sweet potatoes, or both, but in any case they indicate that a new-world root was the object of long-distance commercial trade in sixteenth-century Europe. We can in contrast be certain that the new-world

roots on sale in Madrid markets in the 1620s were potatoes, since the Aragonese physician Bernardo de Cienfuegos who reported this fact carefully distinguished ‘papas del Perú’ (Peruvian potatoes) from other types of tuber. He noted that these ‘papas’ were purchased by both returning colonists and locals. The Peruvian historian and jurist Antonio Leon Pinelo, who travelled to Spain in the early seventeenth century and would have been very familiar with the Andean potato, observed the same thing.⁴⁵ Tax records show that something called ‘jordpäron’, earth-pears, were being imported from Portugal and northern Germany into the southern Swedish province of Småland through the port of Karlshamn from the 1630s.⁴⁶ By the late seventeenth century there were specialized potato markets in Lancashire and other northern counties of England, as well as in parts of Scotland and Ireland, and trade legislation detailed the duties owed on this commodity.⁴⁷ The potato’s shift from subsistence foodstuff to commodity helps explain the increasing number of disputes concerning the potato tithe, since until a potato crop acquired a market value its appeal to tithe-owners was limited. It is likely that the many eighteenth-century conflicts between tenants and clergy over the potato tithe reflect the commodification of the potato as well as an increase in the area under cultivation.⁴⁸ Other sorts of economic and legal data too point to the potato’s growing status as a commercial crop. Protestants in Ireland for instance claimed monetary compensation for the loss of their potato harvest after the 1641 Catholic uprising against English rule. Such sources further indicate how the potato was incorporated into existing systems of classification and consumption. When officials in the French region of the Vivarais began conducting agricultural surveys in 1690, they listed potatoes together with chestnuts, turnips and other root vegetables, doubtless because all these foods provided a starchy basis for peasant meals.⁴⁹ (See figure 6.)

Potatoes, in sum, were present, alongside other new-world tubers, in parts of the British Isles, Spain, Germany, Italy and France within seventy years of Pascual de Andagoya’s casual description of these



Figure 6 An itinerant potato seller, from an eighteenth-century British ballad. Eighteenth-century Britons were familiar with potatoes, and potato merchants. The engraving shows one at work, with his basket of potatoes and donkey. Hawking potatoes on the streets of London is not this potato seller's only source of income. As the ballad explains, he's also a pimp, whose moll sells 'fine fruit' of her own.

chestnut-like roots. In her convent in Ávila, St Teresa ate a gift of ‘patatas’ she had been sent from Seville in 1577.⁵⁰ In the same years satirical literature from England mocked their alleged potential to stimulate sexual appetites.⁵¹ Travellers in Italy and Germany noted the ways in which locals prepared them, and botanists tracked their appearance in cottage gardens. Over the next century cultivation spread further into France through Franche-Comté and Lorraine, into Flanders, and eastward into Brandenburg. In Flanders, they were being raised in such quantities that during the Nine Years War (1688–97) soldiers there were able to sustain themselves ‘most plenteously’ with potatoes they pillaged from local fields.⁵² Such snippets tally with the evidence of tithe disputes and other sources to suggest that by the late seventeenth century potatoes had made their way into the culinary and agricultural practices of many Europeans.

Certainly potatoes were not known in all parts of Europe. There is little evidence for their presence in Russia or Finland before the eighteenth century, and their early introduction as a field crop in Alsace, Franche-Comté and environs was replicated in few other parts of France. Their uneven spread through German lands has been charted in detail by the historian Günter Wiegelmann. David Zylberberg has moreover shown that a local supply of affordable fuel was a prerequisite for the potato to make inroads into English eating habits. Potato consumption, he explains, ‘began in peat-burning communities, before spreading to coal-burning ones and was less common in wood-burning regions prior to 1830’.⁵³ Careful local studies of this sort are necessary to explain the potato’s precise trajectory in specific locales. Nor were potatoes eaten as the principal staple. Grains, whether baked as bread or made into porridge, remained the foundation of most meals in most parts of Europe well into the eighteenth century. Nonetheless a picture of blanket rejection prompted by fear and unfamiliarity does not match the historical record. Europeans have been eating potatoes for a long time.

SPREADING POTATOES

It is difficult to identify the people who spread potatoes across early modern Europe. The historian William McNeill hypothesised that Spanish and Basque sailors and fishermen played an important role. These men might well have introduced potatoes to western Ireland, a customary stopping point on fishing voyages back from Newfoundland, for instance. It is also plausible, as McNeill proposed, that Spanish vessels took the potato to Habsburg territories in southern Italy and the Netherlands. Sailors disseminated other novel commodities such as tobacco, together with new consumer practices; there is no reason to suppose they did not play a comparable role with American foodstuffs, but we have little direct evidence.⁵⁴ Only exceptionally do sources refer explicitly to the agents of transmission. A Florentine agricultural handbook composed some time before 1606 stated that potatoes had been introduced into Tuscany by Carmelite monks from Spain and Portugal. Another Italian text from a few years later credits 'the French' with bringing potatoes to the Piedmont region. Travelling glassblowers and other artisans from southern Germany reportedly carried potatoes into the north German region of Mecklenburg in the early eighteenth century.⁵⁵

Many decades ago the historian Douglas Hall observed that the reason why the early modern movements of plants are so difficult to reconstruct is that their agents were often ordinary people below the sight lines of contemporary writers.⁵⁶ The names and lives of the labourers and small farmers who grew potatoes in their gardens and cooked them like carrots are largely lost to us. Rarely can we do more than note the conclusions of tithe courts such as the one convened in 1766, which determined that in the county of Hainaut potatoes were first cultivated in kitchen gardens by labourers.⁵⁷ At that century's end, however, Frederick Morton Eden, second Baronet of Maryland and founder of an insurance company, chose to record the name of the man who first raised potatoes in open fields in Scotland. In the 1790s Eden composed a multi-volume account of 'the labouring classes in England', based on surveys by collaborators, some direct observation, and Eden's extensive reading of British history. Eden was interested in potatoes, which he regarded as an excellent foodstuff. Large-scale cultivation was in his view to be encouraged. According to

Eden, ‘Thomas Prentice, a day-labourer’ in the Lanarkshire village of Kilsyth, was responsible for this innovation. So great was Prentice’s success, Eden noted, that ‘every farmer and cottager followed his example, and for many years past it has become a staple article’.⁵⁸ I have found no trace of any Prentices in Kilsyth; perhaps Eden’s pioneer was the Thomas Prentice born about eight hours’ walk away, in Carluke, in 1701.

What is clear is that potatoes spread in an uneven and diffuse fashion, becoming a significant part of the ordinary diet in various parts of Europe by the early eighteenth century. That this was the case in Ireland is well established; potatoes there formed the ‘most part of the poors food every one hath his potato garden’, according to one writer in the 1650s.⁵⁹ In seventeenth-century England too, poor tenants and husbandmen subsisted on ‘brown bread and milk, and pease pies and apple pies, and puddings and pancakes, and gruel and flummery and frumenty, yea dry bread and butter and cheese, and cabbages and turnips, and parsnips and carrots, and onions and potatoes, and whey and buttermilk, and small drink’, in the opinion of the cleric Richard Baxter.⁶⁰ In the eastern Brandenburg town of Frankfurt an der Oder, a naturalist noted in the 1680s that ‘around here they have become quite common’.⁶¹

Baked in cinders or added to stews with cabbages and carrots, potatoes fit easily into the cooking practices of poor families in many parts of Europe, whose meals were usually built around a starchy base, whether provided by oat porridge, rye bread, millet polenta, or a great number of other grain-based dishes invented by the nameless masters of early modern *cucina povera*. Such foods constituted the core of daily diets for the majority of the population. Working men and women hoped to consume something on the order of a pound of bread, or its equivalent, each day. Small quantities of cheese, buttermilk, vegetables, beans and other filling and savoury additions typically accompanied these breads and pottages. Accommodating this cuisine to the potato was straightforward. In soups potatoes were substituted for or used alongside turnips and other roots, or combined with a bit of meat and an onion, whose flavours they would absorb and extend. In areas where fuel was affordable enough to make home baking feasible, potatoes might be baked into farls or other forms of bread. German cookery books described how they were made into salads and eaten cold, and also how to braise them with onions and

a splash of vinegar.⁶² None of these recipes required unfamiliar techniques or new equipment, and so they could easily enter into everyday cooking practices.

The protagonists of the potato's early incorporation into the European dietary seem to have been the farmers in 1651 Braunschweig who grew 'earth-artichokes or roots' in their gardens, the nameless Italians who planted them in 'great abundance' in the 1580s, and the villagers across Europe who resented handing over their crops of garden stuff to the local priest.⁶³ These men and women also undertook the experimentation necessary to adapt Andean cultivars to Europe's different day-lengths and growing conditions. It was thus peasants in the Vivarais who, as the historian Madeleine Ferrières put it, 'invented' the potato in that region. Even in areas where potato cultivation began later, in the eighteenth century, villagers and peasants were often the first to raise the crop. This was for instance the case in Galicia, in southern Poland, where potatoes were grown in peasant gardens before they were introduced into the kitchens of landed estates.⁶⁴ Just as Europe's artisans developed the new skills necessary to produce the novel commodities desired by early modern consumers, so peasants and small farmers learned to grow new foods. In contrast to craftsmen, however, they were often able to enjoy the fruits of their labours.⁶⁵

Why might potatoes have proved a success with peasants and labourers, beyond their ease of adaption into existing cooking regimes? Their fiscal invisibility was surely part of their appeal. As tithe disputes indicate, parishioners might cultivate this modest root for decades without attracting the attention of the local rector and his agents. In addition, potatoes are an exceptionally efficient way of converting sunlight, soil and water into nourishment. While a hectare of land sown with wheat may yield enough protein to feed seven people over the course of a year, a hectare of potatoes will nourish seventeen. The contrast is even more striking as regards calories: a hectare of land will produce three times the calories if sown with potatoes compared to wheat or oats. Potatoes also require less water than other major crops.⁶⁶ The potato is thus an excellent way of feeding more people from the same agricultural inputs. It has further merits, since it flourishes in a range of climates and growing conditions, and is rich in vitamin C and other

necessary nutrients. When accompanied by dairy products and a ready supply of fuel for home-cooking, potatoes allowed families to feed themselves far more effectively than virtually any of the available alternatives. In eighteenth-century England, even potatoes purchased at a market provided nearly three times more calories per penny than wheat bread, and about five times as many as meat.⁶⁷ Doubtless for these reasons, potatoes proved particularly popular both in Ireland, where English colonisation pushed the rural population onto ever-smaller patches of ground, and regions such as Galicia and Asturias, where peasants enjoyed greater access to land and considerable freedom to plant what they liked.⁶⁸

The anthropologist Robert Netting studied the impact of potatoes on the Alpine village of Törbel, whose peasant inhabitants began to grow them on a significant scale in the eighteenth century.⁶⁹ How villagers would themselves have explained their embrace of the potato is a question we are in little position to answer, but Netting was able to show that in Törbel potatoes offered a three-fold improvement over rye, the region's staple, in terms of calories per hectare, and could moreover be grown on lands that were too steep or barren to support cereals. He concluded that potatoes help explain why Törbel's population doubled in the century after their introduction.⁷⁰

In Törbel, potatoes were first cultivated in garden plots, which means they were first cultivated by women. In most parts of early modern Europe maintaining kitchen gardens was a woman's responsibility, as they were considered better suited to the fiddly work of hoeing root crops and other tasks that did not require larger tools such as a plough or scythe. Small-scale potato culture carried out with a hoe fit well into the activities typically undertaken by women, alongside raising chickens and the myriad other tasks required to maintain a farming household. It is therefore likely that in Europe, peasant women, in particular, were in the vanguard of potato cultivation. The 'garden stuff' demanded by the rector in St Buryan was probably grown by that village's women.⁷¹

Altogether, such features suggest that in early modern Europe potatoes could be classified as 'state evading' – a phrase coined by the political anthropologist James C. Scott to describe crops that enable

a degree of autonomy from state control because they can be cultivated on marginal ground and contribute to complex household provisioning systems that are difficult to measure and tax efficiently. Unlike cereals, potatoes do not need to be harvested at a precise moment, and can be left in the ground for weeks or even months. Once harvested, they are cumbersome to transport elsewhere. From a fiscal perspective, the potatoes raised in a kitchen garden are scarcely worth the trouble to tax, and so create, in Scott's words, 'a nonstate space', particularly where there is no established commercial framework for marketing these roots.⁷² These qualities surely go some way in explaining their popularity with peasants in Galicia, farmers in Flanders, and poor tenants in England.

Wealthy landowners, in contrast, were less certain of the merits of the potato. Efforts in early eighteenth-century Sweden to encourage potatoes came to nothing because of hostility from landlords, who suspected that the potato's prolific yield would make peasants more self-sufficient, and so less inclined to work for them.⁷³ Landowners viewed the plant as a costly intrusion into fields that could otherwise produce more marketable commodities. In 1727, an experienced estate manager who had worked for several English dukes recommended that his clients prohibit their tenants from growing potatoes at all, 'except in small quantities for their own use'. Tenants who persisted in planting this crop in open fields should be fined £10 for every acre they wasted on potatoes. They should also be obliged to enrich these fields with an additional load of manure, to compensate for the nutrients that he believed potatoes extracted from the soil.⁷⁴ If tenants and labourers wished to eat them, that was their business, but landowners should not countenance the diversion of valuable land to this purpose. Potatoes to him were associated with backwardness and uneconomic practices. He was not alone in this view. Contemplating regional diets in 1740s Sweden, the great botanist Carl Linnaeus, who harboured doubts about the potato's nutritive qualities, wondered why on earth servants 'find it so necessary to go on eating' them.⁷⁵ From the perspective of these wealthier men, the potato was a mundane food grown and eaten by ordinary people, which offered little to interest those concerned with the management of great estates, let alone affairs of state.

DEEP-ROOTED INERTIA

Labourers ‘blindly repeat what they have seen their fathers and grandfathers do’.⁷⁶

Bernardo Ward, 1779

The peasant is characterised by a deep-rooted inertia; he accepts progress only when someone has forced him out of his inaction by demonstrating the improvement to him dozens of times. Only then will he risk trying it himself. His limited vision inclines him to exaggerate the merits of plants that he has cultivated successfully in the past.⁷⁷

Amédée Dechambre, 1877

It was a long time before people learnt to eat potatoes. In some parts they were ready enough to accept them as cattle-fodder, but not for human consumption. There was stubborn resistance to be overcome. People were afraid that the potato would cause all sorts of illnesses, such as leprosy, glandular disease, tuberculosis or fevers. Because of its resemblance to nightshade, some also feared it was poisonous. Moreover, they did not yet know the best ways of preparing it.⁷⁸

Bernard Hendrik Slicher van Bath, 1960

This chapter has presented an alternative account of how early modern Europeans came to eat potatoes, which accords importance not to experts who patiently demonstrate an improvement dozens of times, but rather to peasants and small farmers. These men and women were raising potatoes long before the root attracted the attention of tithe collectors and other representatives of the state. By 1700 potatoes were grown on a small scale, in kitchen gardens, by villagers, peasants and labourers, in many parts of the British Isles and continental Europe. There is no evidence that the potato’s tuberous habit confused farmers any more than it troubled botanists, and Europeans great and small invented many ways of preparing and consuming this starchy root. Insofar as we can detect the direction of transmission, it was the opposite of that imagined by scholars.

It should surprise no one that peasants and villagers were in the vanguard of agricultural and culinary innovation in early modern Europe. These groups were among the first to cultivate maize, another

American import that was to effect an equally dramatic transformation in global diets in the centuries after Spaniards brought it to Europe and West Africa in the sixteenth century. As early as the 1540s maize was growing in the Veneto, where peasants used it in place of millet or other cheap grain to make a new sort of polenta. By the early seventeenth century maize polenta had become the principal food of the region's peasants and the poor.⁷⁹ Venetian peasants were evidently unperturbed by maize's novelty or lack of biblical pedigree. Ordinary people in East Anglia were equally willing to adopt the unfamiliar agricultural techniques required to cultivate carrots and other root vegetables when these were introduced by Protestant refugees in the 1550s. Overall, as the historian Philip Hoffman has shown very clearly in the case of France, early modern peasants were by no means opposed to agricultural experimentation.⁸⁰ A substantial body of research has moreover established that small farmers in other parts of the world are perfectly capable of innovative agricultural strategies when faced with new plants and new economic situations – a matter to which we will return in the conclusion.

Nor did European agronomic science develop separately from peasant agriculture. Early modern scientific knowledge of all sorts often relied on information, methodologies and theorising produced outside of the community of European savants.⁸¹ The new agronomic practices that made commercial agriculture in seventeenth- and eighteenth-century England and the Netherlands significantly more productive drew on the agricultural practices of peasant farmers. During this period the introduction of new crops and techniques, together with legislative changes that favoured large-scale agriculture, combined to create a new type of agrarian capitalism. This transformation relied in crucial ways on techniques derived from peasant agriculture. A key element of the new agronomy was the use of fodder crops such as lucerne (alfalfa), clover and sainfoin. When ploughed into the earth these plants are an effective means of enriching the soil with nitrogen and other necessary nutrients. The use of such soil-enrichers helped alleviate the need to leave fields to lie fallow to recover lost fertility. Fields could henceforth be cultivated continuously, which dramatically increased the area of land in cultivation. These crops can also be used to feed farm animals, whose manure further enriches the soil. The entire process, however, depended on

a reliable commercial supply of seed for these cultivars. The people with the expertise to enable this proved to be Italian peasants, who possessed technical skills and practical knowledge about these plants that were entirely lacking elsewhere. As a result, as the historian Mauro Ambrosoli put it, ‘plants grown by the peasantry passed into capitalist agriculture’.⁸²

Peasant agricultural expertise most often becomes visible to the historian when it becomes visible to non-peasants. In the case of sainfoin and clover, the importance of these crops to new agronomic practices focused the attention of improving landlords on the Italian peasants who had long cultivated these now-interesting plants. As regards the potato, most sixteenth- and seventeenth-century landlords displayed little interest in its commercial potential, which in part explains the difficulty in charting the tuber’s early European history. Only occasionally can we glimpse the traces of its progress across the continent. These suggest that small farmers played a far more important role in its dissemination than has hitherto been acknowledged. Cross-referencing with what we know about peasant practice in other periods and places supports this view. For instance, although scholars sometimes suggest that the potato’s excellence as an animal feed demonstrated to early modern peasants that it was ‘fit only for animal fodder’, this conclusion does not match what we know about farming practice either in Europe or elsewhere.⁸³ It is a positive advantage for crops to address multiple needs. Farmers in Mexico have long appreciated the maize plant’s ability to provide both food and also fodder, fuel and construction material. In Europe itself, wheat’s status as an enormously important foodstuff and religious symbol was not undermined by the fact that wheat stalks also serve as bedding for lowly farm animals, or that poultry enjoy its grains as feed. There is no reason to suppose that early modern farmers viewed the potato’s versatility any less favourably.⁸⁴

While small farmers were quietly raising potatoes, hoping not to arouse the attention of a tithe-collecting cleric, potatoes were not an object of particular interest among landlords and the owners of large estates. Certainly potatoes were served at the tables of the wealthy. Recipe books explained how to prepare elaborate and expensive dishes such as the potato pie that vanquished the Earl of Dorset, and household records

document the purchase of both ordinary and sweet potatoes in great households in Britain, France and elsewhere. They were also raised on a commercial scale in some areas, such as the north of England and Ireland, on occasion on the estates of the nobility. Early modern elites did not spurn the potato, but neither were they particularly interested in it.

Nor were potatoes viewed as an important component of state policy. Extending potato cultivation was not a goal for officials or statesmen, and with a tiny handful of exceptions, no one penned treatises lauding the merits of the potato as a food whose greater consumption would bring widespread public benefits.⁸⁵ On the contrary, politically minded commentators lamented the fact that potatoes offered the poor a way to evade the state. William Petty, a philosopher and politician who spent many years in Ireland as a representative of the English colonial government, held precisely this view. Born in England in the 1620s, Petty had an eventful life that took him to France and Holland, as well as Oxford and London, where he taught music and anatomy and helped found the Royal Society. In the 1650s he travelled to Ireland, which had recently been annexed by English forces under the leadership of Oliver Cromwell. Petty worked for many years as a representative of the English colonial state, which aimed to extract as much profit as possible from its new possession. Petty himself acquired several large estates. Petty viewed potatoes as an impediment to Ireland's development as a productive source of revenue for its colonisers. Because it was so easy to live on potatoes, the Irish did not work as hard as Petty would have liked, with the result that the state was able to levy only about half the tax that Petty calculated a more industrious population would have yielded. Potatoes allowed their cultivators too much autonomy from the English state, which in Petty's view would have been better off had the Irish eaten fewer of them.⁸⁶

This attitude was to change dramatically over the course of the eighteenth century. From the 1750s increasing numbers of statesmen, political economists, agronomists, philosophers and landlords championed the potato, arguing that everyone, and in particular the poor, ought to grow and eat more of them. They composed handbooks on potato cultivation, experimented with cooking techniques, and proselytised

about the potato's many merits. The next chapter examines the potato's enormous visibility in the eighteenth century, to show how changing ideas about effective statecraft and the importance of building a healthy population shone a spotlight on the hitherto uninteresting eating practices of ordinary people.

The loud voices of these eighteenth-century potato-boosters have resulted in the potato history summarised at the start of this chapter, which asserts that prior to the eighteenth century Europeans did not in general take to the potato, and that peasant farmers were particularly slow to embrace it. Scholars have listened to the eighteenth-century sources, and have rightly heard an eighteenth-century consensus that people ought to eat more potatoes. If we listen carefully we can hear other stories. These tell us both that potatoes were eaten long before eighteenth-century philosophers began to promote them, and also that kitchen gardens are a sensible place to hunt for culinary and agricultural pioneers.