Chapter 1

Population, Empire, and America

THERE WAS NO ONE ELEMENT WITHIN Thomas Robert Malthus's principle of population that was wholly new, and yet he managed to make everything about it seem new. He did not invent so much as select from received observations about population and innovate within existing modes of demographic analysis. In intellectual terms, he was a magpie, a thief and reweaver of whatever he stole. That should not diminish his achievement—far from it. His use of familiar features of population analysis, if anything, gave his conclusions added power. But the extent to which he drew upon established modes of inquiry about population, adopting some elements while rejecting others, must be understood in order to appreciate his own and singular contribution: placing new worlds at the heart of population analysis.

Most historians of population studies look too late in the history of the field to make sense of Malthus. In identifying demography as a modern science, they trace its origins to the early modern period, often as late as the eighteenth century, with perhaps a little background on earlier periods. But population had concerned political and religious commentators since ancient times, most notably in Judeo-Christian Scripture. Those traditions of analysis did not cease in the early modern period. Rather, they were overlaid by subsequent and eventually more secular forms of analysis. Because Malthus would draw upon the scriptural and secular, the ancient and the modern, beginning at the beginning of the history of demography (long before it bore that name) is essential to understand his ideas about population and to understand how his contemporaries read them.

Four intellectual strands would be crucial to European comprehension of empires, new worlds, and population, and to Malthus's own eventual work on these long-connected topics. First, there was a natural theology of human generation, an interpretation of material things and processes that explained them as parts of divine mandate; this natural theology of population stressed that humanity had a genealogy precisely because of Adam and Eve's fall from grace and expulsion from Eden, a paradise that the new world was sometimes believed to resemble. Second, reason-of-state arguments from the

Renaissance presented population as a tool of statecraft, one that was particularly relevant for rulers who had or wanted imperial territories. Third, political arithmetic, the early modern ancestor of demography, used statistical analyses to define knowledge of what populations existed, their sizes, and whether they were rising or declining (and why). Fourth, political economy analyzed modern commercial society in terms of whatever had economic value, including land, commodities, and labor; as such, it depended on a stadial theory of society in which a commercial stage was thought to be the last in a series of ever more sophisticated social forms.

From the discovery of the Americas through the US War for Independence, each of these intellectual idioms would define the new world as particularly important for an emerging, modern science of population. A variety of experts would contribute to each tradition. But even more important, some commentators would synthesize what was familiar in order to generate a new kind of understanding. That was what Malthus would do in relation to the Americas (later the other new worlds of the Pacific), and in this regard he would draw upon the most important synthesizer and theorist before him, the American-born Benjamin Franklin.

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Assessments of the peoples within worlds that Europeans categorized as "new" had taken initial form in relation to the Americas, with a mounting sense that the modern empires located there were qualitatively different from ancient empires, notably Rome's, and that these new worlds therefore constituted sites of natural experiments in the differential capacity for various populations to utilize natural resources and to increase their numbers, or else fail to do so. Because of this perception of a new quality for the population dynamics of these new worlds, there had also been a serious question of their relation to the story of humanity's origins as given in Christian Scripture, an emphasis that made especially clear that analysis of population was always an interrogation of the linked qualities of nature and human nature—specifically, of whether there ever could be redemption in the material world.

Natural theology interpreted the material world, including human beings, according to God's will and divine plan. That plan introduced an important and long-lived trope, the breeding pair. European Christians were aware that the Book of Genesis had commanded a primordial dyad, Eve and Adam, to "increase and multiply," eventually to "fill the Earth" as part of

their divine mandate to exert dominion over nature. Humanity's scriptural parents heard that admonition while still in Eden, though they would not actually fulfil their duties until they had sinned, were expelled from paradise, and apportioned painful and gender-specific obligations. "In sorrow," God warned the apple-eating Eve (and her daughters), "thou shalt bring forth children." Meanwhile, "cursed is the ground for thy sake," God told Adam: "in the sweat of thy face shalt thou eat bread," torn from the ground through daily toil. God would repeat the command to "increase and multiply" to Noah and his family after they survived the Deluge. The sons of Noah were presumed to have repopulated the world after God had drowned Adam and Eve's other descendants. Exactly which of Noah's sons had settled in what parts of the world fueled debate, especially the critical question of where Ham (or Cham) had gone after being cursed for looking upon his father's nakedness. Ham and his descendents were doomed to be the hewers of wood and drawers of water for anyone who could extract such labor from them.[1]

Scripture had thus provided Christians with a global genealogy, though one that designated human nature as fallen, postlapsarian. The population imaginary that survives even into the twenty-first century, of the fateful impact one breeding pair might have for the entire globe, does not always bear a religious cast, but it definitely did for the Reverend Malthus and his contemporary readers. The original sin of a divinely created pair of humans had ordained that producing children and feeding them would be painful human obligations, equally unlikely (it seemed) to create a surplus either of people or of food. A subsequent set of sins and a punitive deluge had restarted the process of human generation and divided the globe among different lineages described as unequal, some destined to labor for others. The latter point became notorious as justification for the enslavement of sub-Saharan Africans, on the assumption that Ham's seed, Canaan, had settled in Africa.[2]

The European discovery of the Americas nevertheless challenged the scriptural explanation of how the Earth had been peopled. As evidence accumulated that the lands Columbus described and explored after 1492 were not, as he claimed, parts of Asia but new worlds entirely, it became difficult to explain how these places had acquired human inhabitants. Which of Noah's lineages had ventured that far, and why had God not explained them to the Christian faithful, as He had done for all parts of the "old" world? The idea of a separate creation of human beings, *polygenism*, was technically heretical. Another part of Scripture made that clear: God "hath made of one blood all nations of men for to dwell on all the face of the earth, and hath determined the times before appointed, and the bounds of their habitation."

Native Americans had to come from the same stock as Europeans—but how? In some ways, that the primordial breeding pair had dispersed progeny so far away compounded the wonder of human procreation, but the Americas also confounded Christian faith in the idea of a unified human lineage and destiny.[3]

For that reason, the Americas could be represented either as another Eden, a newly revealed reminder of God's creative beneficence and possible repository of human innocence, or else as a demonic counterfactual, the long-hidden realm of the devil and ultimate proof of the fallen state of humanity. There would be a rich tradition of associating American Indians with the scriptural past, even with paradise: Columbus was not unique in believing that Eden was located in the lands he had first explored. His descriptions of native Caribs as "guileless," moreover, set off a long convention of regarding Indians as primordially innocent, living sweetly naked in free-giving natural worlds, as if released from Eve and Adam's original sin. But equally commonly, the natives of this new world were depicted as Satan's prey and pawns. Suspicion that the peoples of the new world were cannibals was one of the most powerful of prejudices about them. Their presumed anthropophagy indicated both an inversion of European social norms and a desperate appetite unappeased by American foodstuffs, whether due to natural want or social depravity or both.[4]

Theodor De Bry's massive and influential *Grands Voyages: Americae* (1590–1634), for example, reinforced both interpretations. The frontispiece to the seventh part of this compendium on European reconnaissance of the new world displays the title flanked by an Indian man and woman, each gnawing a severed human body part; an infant tied to the woman's back reaches hungrily toward his mother's awful meal. This male-female dyad only reproduces human beings by consuming them, with no net gain. Their postlapsarian state is echoed in another illustration, this within the first part of De Bry's work, in a portrayal of the Fall and expulsion from paradise. Adam and Eve are in the foreground, just about to taste fruit from the tree of knowledge, and their fallen selves are in the background, performing their divinely mandated tasks. Eve nurses an infant Cain in a primitive hut while Adam scores the ground with a primitive hoe. Through the visual twinning of the two illustrations, the peopling of the world is connected to the peoples of the new world, with Edenic and satanic implications depicted in ironic juxtaposition, a new problem for the Christian faithful.[5]

All the same, from 1492 and through the seventeenth century at the least, a central principle of natural theology remained in place: God had created

Figure 1.1. The new world's cannibal parents. Theodor de Bry, *Grands Voyages*, part VII (Frankfurt, 1599). Courtesy of the Library of Congress.

Figure 1.2. Global parents, Adam and Eve, in new world context. Theodor de Bry, *Grands Voyages,* part I (Frankfurt, 1590). Courtesy of the Library of Congress.

a world uniquely suited to its human inhabitants, howsoever many of them there might be. Interpretation of the Americas was important, therefore, in the globalization of that argument from design, a test of Christians' faith in the idea of *plenitude*, which Scripture had promised. Although several new world landmasses were still missing from European globes and world maps, the still-expanding extent of South and North America already showed just how much land existed. That raised the question of how fully it might be populated. Were the inhabitants of the new world fulfilling the mandate to increase and multiply, to subdue the Earth? If not, how many more people could fit into their territories, once these were supplied with dutifully

procreating European migrants equipped with intensive and commercially oriented forms of agriculture?

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Before 1500, Europeans typically regarded population growth as a welcome development, if not a moral obligation. Despite recurring premodern fears about food shortages and concomitant sociopolitical instability, these were regarded as local problems. Ghost acres were important to nations or empires precisely as solutions to these localized difficulties. But incipient concepts of the labor value of property stressed that land was useless without people. Dramatic population decline, as with episodes of famine or plague, for that reason threatened the social order. And the larger argument from design and belief in plenitude for the moment held firm: God would not have created a globe inadequate to the terms of his command that humans should endeavor to fill it up.[6]

Greater fears were expressed about the failure to thrive than about any possibility of overrunning natural resources. Leaders of Protestant nations, including England (later Britain), contrasted their pious fulfillment of the duty to increase and multiply against the Catholics who (the antipapist stereotype went) locked their fertile sons and daughters in monasteries. All the same, Scripture had seemed to warn human rulers that only God should take numerical stock of their peoples: God had punished King David for following Satan's temptation "to number Israel." Together, these dictates indicated that sexual reproduction was a divine mandate, so sacred that secular rulers should not involve themselves overmuch in the result. It is notable that Malthus, a clergyman, was to profoundly ignore both these tenets, instead criticizing population increase as documented by censuses that, like King David's, dared to number the nations. For those innovations, he would be beholden to Renaissance theories about population and the power of states.[7]

During the sixteenth century, reason-of-state arguments for the benefits of a large population began to augment the religious duty to multiply. According to these political texts, any nation, as a territorial unit, was worthless without population. That almost commonsensical warning was then elaborated as a strategy of statecraft. Traditional reason-of-state arguments stressed static measures of political health, as with steady harvests, production of commercial goods, and maintenance of population, three signs of vigor in the body politic. Through their own personal bodily industry, individual humans generated wealth and revenue for the state. Men filled out armies

and navies; women nurtured children who would continue those patriotic tasks in future; all worked to create subsistence and foster commerce. Still, overpopulation was recognized as a problem. Niccolò Machiavelli, not least, warned that overcrowding would eventually weaken a nation, only to be corrected by the natural occurrence of "[in]undations, pestilences, and famines":

> . . . for nature, as in simple bodies, when there is gatherd together enough superfluous matter, moves many times of it self, and makes a purgation, which is the preservation of that bodie; so it falls out in this mixt body of mankinde, that when all countries are stuffed with inhabitants, that they can neither live there, nor go other where, because all places are already possessed and replenish'd, and when the subtilty and wickedness of man is grown to that fulness it can attain to, it holds with reason, that of force the world be purged by one of these three waies.

It was a dire warning, an indication that competent rulers ought to monitor how extensive their populations were and how fast they might be growing.[8]

To that end, in his *Les Six livres de la République* (Six Books of the Commonwealth, 1576), French political philosopher Jean Bodin denied that to take a census was to commit a sin. David had been punished not for numbering his people but for counting his warriors only, omitting the priestly tribes. He had lacked faith in God's favor to Israel, which required the priesthood. The moral, Bodin argued, was that earthly rulers ought to know their *whole* populations, with censuses taken as often as they might benefit a commonwealth. Bodin identified another troubling question about populations, ancient or modern: did slaves count? He said yes, slaves were in fact citizens, however inferior ones, an answer that would continue to perplex rulers of composite populations, especially those acquired by means of imperial expansion, as in the Americas.[9]

Starting with the Jesuit-trained writer Giovanni Botero, reason-of-state arguments stressed not only stability but growth. In his *Delle cause della grandezza delle città* (On the Causes of the Greatness of Cities) of 1588, Botero launched an important defense of large, dense human populations. Human fecundity was the ultimate source of power: one young couple in Mesopotamia (the presumed site of Eden) had produced all the people in the world, even "to the countries we call the New World." Against the prevailing assumption that a great nation needed a large territory, Botero countered that "the multitude and number of the inhabitants and their power" mattered far

more. The bigger the population, the greater the nation and its concomitant military and economic powers—more people allowed intensive and extensive growth, the former necessary for the latter, an important piece of advice for princes. This was an Italian perspective, by which people from a small but densely populated territory criticized the easy assumption that Spain and France were becoming powerful as national (and global) presences because they had greater territory. The assumption that geographic extent did not mean everything would, likewise, prove attractive to the English, denizens of a small but ambitious nation and later pioneers in population analysis.[10]

Botero was careful to specify how climate and human customs affected population, two criteria that would continue to be debated well into the modern period. He accepted prevailing environmental descriptions of human populations, distinguishing between hotter and colder climates as preconditions for human health and power. In the end, however, he stressed the significance of natural resources, which attracted people who would turn those resources into wealth, which then continued to attract (and sustain) population. Likewise, he believed that marital customs, and the treatment of women and children, were critical to a state's fostering of population. He believed that monogamy was the most effective form of marriage—most Christian theorists did—because polygamy denigrated women and their reproductive capacity. These opinions clearly expressed anti-Muslim antagonism. The kernel of the argument, in favor of a married dyad devoted to their common offspring, in which the wife/mother was acknowledged to have rights and deserve respect, would remain a strong element of European population theories, often prejudicial to all non-Christian peoples.[11]

Whatever their advice about fostering a large population, political commentators nevertheless warned that people could outstrip available natural resources, especially land: Malthusianism existed before Malthus. These proto-Malthusian hypotheses represented some of the earliest attempts to define what would later be called *carrying capacity*, the ability to sustain life, interpreted in this case in terms of the whole Earth. No one assumed that the world had infinite carrying capacity; plenitude depended on an optimal level of people, the fulfilment of God's design. Botero thought that the world's population had peaked three thousand years before he wrote and could never grow beyond that size because "the fruits of the earth and the plenty of victual doth not suffice to feed a greater number." Thomas Hariot, the mathematician and astronomer who lived in England's colony at Roanoke (probably present-day North Carolina), calculated the number of

people who, descended from a primordial pair, could "inhabit the whole world" or (in a very different measure) could "stand on ye face of ye whole earth." For the latter case, Hariot thought that, if 6 million people could stand within a square mile, then just over 42 trillion could fit onto the Earth's available land. He estimated only the rate of human reproduction and the physical size of the globe, without analysis of what that globe could produce. But the nightmare image of 42 trillion people crowded elbow-to-elbow begged the question of how a growing global population might feed itself. It was from reason-of-state texts, therefore, that the idea of population varying with the means of subsistence became a commonplace both in small nations (including the Italian lands) and large (including mighty Spain).[12]

This was one reason why empires, as early as the sixteenth century, were described as outlets for any excess population. Bodin recommended that national censuses identify not only the quantity of people but their value as workers or warriors, "thereby to expell all drones [a beehive's nonworker bees] out of a commonweale." Persons without function at home could be exported via imperialism, their capacity to increase wealth and power (according to reason-of-state arguments) thus broadcast over greater territory. To visualize this export, Botero introduced an important metaphor, which might be called the *vegetable imaginary*, in which humans were equivalent to plants. Just as plants multiplied when "transplanted into open ground," so the ancient Romans had benefited from colonies, where the proliferating poor were sent for their further multiplication and production of goods. That scenario imagined land that was somehow clear of other inhabitants, an imperial fantasy (in contrast to the reality of conquest in ancient empires) that would have a long and troubling life in relation to new worlds. The three possibilities that Bodin and Botero had outlined—that empires both required and fostered population growth, that colonial territory must lack significant indigenous population, and that enslaved people had to be taken into account somehow—would continue to influence British-American understandings of colonial populations into the eighteenth century.[13]

Above all, there was new fear that populations could outbreed the resources in their natal lands, hence the need, possibly urgent, for colonies. Again, it seems to have been the unexpected existence of the Americas, and the ongoing discovery of the sizable extent of those new worlds, that teased out this question about the finitude rather than the plenitude of the globe. The idea of scarcity, and its potential transoceanic remedy, had never been defined on the same scale before the age of early modern empires. And because it was the European empires in the Americas that depended on settlement

of European colonists (unlike the imperial zones in Asia and the Near East that for the moment had only small trading enclaves), it was the new world that presented the best modern potential for population-dependent colonies. Bodin's and Botero's arguments for the linked benefits of colonies and population increase would therefore influence an array of authors, as well as imperial schemers.[14]

It was not always certain, however, that Europeans could multiply overseas, whatever their fecundity at home. Because early modern medical theories stressed that human bodies were physically adapted to their natal places, global environments and human populations were not thought to be interchangeable. Rather, contemporary geographies, drawing upon ancient Greek texts, stressed the immense variation among potential sites for human life, from pole to pole via the Equator. Extremes of temperature were disparaged; western Europeans lauded the temperate zones, where they lived, as best for humans. As Europeans correctly observed, the largest populations (which they also deemed to be the most civilized ones) were found at the temperate optimum, as in Europe and China. But if members of those populations were unlikely to thrive elsewhere, they would be unable to expand their power outward. That fear rendered questionable migrants' contribution to the imperial might of modern nations, which, since the discovery of the Americas, had greater scope for expansion. Since the Deluge, the original peopling of the world had required slow movement outward from Mesopotamia ("little by little," as Botero put it), which had permitted gradual climatic adjustment. But modern migrations occurred rapidly. Colonists risked the rough transition known, to the English, as seasoning. Foreign places might kill them faster than they could reproduce.[15]

Anxiety on that score may have encouraged close assessment of new world settler and native populations, especially comparisons between them. It did not reassure Europeans that American Indian populations, whatever their size before contact, failed to thrive afterward. Spanish policy to take Indians' lands was accompanied by strategies to extract labor from them, in order to grow crops and mine precious minerals. But almost immediately, beginning in the greater Caribbean, native populations dramatically declined. Scandal over mistreatment of the Indians, particularly enslaved ones, would culminate in debates at Valladolid, Spain (1550–1551), to determine the justice of imperial treatment of new world natives, establishing a link between Indian mortality and Spanish imperialism. The Black Legend of Spanish cruelty would thus have a Spanish pedigree. But even as it exposed abuse of Indians, the legend also generated a powerful idea of the delicate Indian

body, an emphasis that had a moral function: how much worse to brutalize such a fragile people? The idea of the delicate Indian would have profound implications for subsequent European (and settler) interpretations of the new world, as populated by a people doomed to melt away at the slightest physical provocation. Compared to them, Europeans, however displaced from their homelands, seemed destined to thrive.[16]

The English counted on that possibility—quite literally. Beginning with thorough head counts in the English settlement at Jamestown in Virginia, the first in 1623, population censuses were taken earlier and more often in Anglo-America than in England itself. After several earlier parliamentary attempts to count the English population, England would at last organize its first national census in 1801, whereas in British America before 1776 there would be 124 colonial censuses, including twenty-one of the twenty-six colonies that existed before the American Revolution. Add to that the local histories, governors' letters, militia musters, town bills of mortality, and hundreds of other sources that assessed colonial populations, sometimes with actual enumeration of all persons, and occasionally including Indian populations. The concern to count heads was the result, at least in part, of early fears about the first tiny English settlements, with their notorious "starving times."[17]

Anxiety quickly gave way to confidence. As early as the first part of the seventeenth century, English colonists claimed "a facultie that God hath given the Brittish Ilanders to beget and bring forth more children than any other nation in the world." The chauvinism was foundational to a racialized theory of population dynamics. Ever since Alfred W. Crosby's analysis of "virgin soil epidemics" in the post-Columbian Americas, scholars have known that such epidemics, disastrous causes of Indian population decline, resulted from lack of native immunity to the contagions that Europeans introduced after 1492—plus settler abuse of Indians. But colonists themselves had a different idea. Starting in the seventeenth century, English settlers hypothesized that the epidemics did not result from their arrival (and introduction of diseases such as smallpox) but instead represented outbreaks of endemic maladies. Colonists' superior survival amid these new world hazards thus showed their better and heritable bodily hardiness, a racialized trait that proved their providential ability to live in American environments, compared to Indians. Even in the Caribbean, where Europeans died at appalling rates, colonists pointed out that they outsurvived the indigenous populations, some of which approached extinction. The idea of native American fragility in response to disease would have a long afterlife, not least in Malthus's own principle of population.[18]

Early analyses of Indian subsistence and reproduction added more racialized elements to the comparative dimensions of emerging population analysis. Probably because the earliest accounts of North America were written by men who did not observe Indian women in childbirth, they generated a stereotype that laboring women did not experience pain, or even require assistance, as if they were exempt from God's curse on Eve. Likewise, Indian women were credited with performing most of the agricultural labor—even when pregnant or newly delivered—as if Indian men were released from the curse to delve in the earth for food that had been placed on Adam and were free to hunt (which in Europe was a pastime of the male elite). Altogether, the natives of North America seemed to defy Christian expectations about the constraints on human material existence, the painful businesses of childbearing and digging in the dirt for subsistence. English accounts were in consequence highly disapproving. Could Indian women really be free from Eve's curse yet damningly ignorant of Scripture? That only made sense to Christians if the special status indicated a diabolical rather than Edenic condition.[19]

Finally, it became near-gospel, and a very damaging prejudice, that North America had been underinhabited at the time of contact with Europeans, with a thin native population that declined still further after contact, guaranteeing the cleared ground that Botero had defined as exceedingly advantageous to nations with imperial designs. Although the Spanish discovery of large Indian populations in Central and South America would be famous, alongside the fact that some of these natives lived in densely populated and wealthy cities, Europeans tended to consider the Americas beyond these zones as lightly settled, engendering a debate, which still continues, over the size of the pre-Columbian population. Hariot had pondered these issues in relation to the native Roanok in early Virginia, concluding that the high land-to-inhabitant ratio guaranteed that the English, with methods of more intense agriculture, could easily insert themselves into the landscape. The earliest settlers of New England shared that view. Of the area around Plimouth Plantation, now in Massachusetts, Edward Winslow marveled at the lack of people and considered it an invitation for further English arrivals. "The country wanteth only industrious men to employ," he reported to correspondents back in England, "for it would grieve your hearts if, as I, you had seen so many miles together by goodly rivers uninhabited, and withal, to consider those parts of the world wherein you live to be even greatly burdened with abundance of people."[20]

As a second strand within pre-Malthusian population theory, reason-of-state analysis continued the scriptural, agrarian definitions of human activity and duty to thrive, while elaborating the significance of these activities to the state. The tradition reached an apex with John Locke's famous statement that "in the beginning all the World was *America*." His assertion cleverly echoed the scriptural tradition of creation (the paradise-dwelling human dyad, later expelled from a garden where they had labored not, and cast out into a world of nothing but labor) while establishing America as a prime example in the history of property. In Locke's labor theory of value, human beings used their bodies to convert natural resources into property. This was the point that political arithmeticians and political economists would subsequently elaborate in relation to human population and what it was good for, with a focused attention on what America represented, past and future.[21]

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The modern science of population would draw upon natural theology and reason of state, even as it began to develop a statistical apparatus. Censuses had in several parts of Europe been used to assess national, regional, and urban populations. The English have been acknowledged as the pioneers in using the numbers that were collected to define modes of analysis that represented populations not only as they existed statically but as they might change over place and time. The new political arithmeticians, as they would be called, continued to stress population's significance to government, and they sometimes had connections to the English court and state that made apparent how their calculations were of public consequence.[22]

John Graunt was the pioneering analyst of demographic developments as they evolved through time. His dataset was London's bills of mortality, the lists of the dead that city officials in fact produced in several parts of Europe. The bills had gained notoriety with recent outbreaks of plague in London; other Europeans evidently regarded them as distinctively English. Graunt recognized that the dead could hold a mirror up to the living. At times of average mortality, the numbers of the dead could be used to estimate the total population; during epidemics, the lists revealed which populations (as defined by area of residence, by gender, or by age) suffered most, results that could challenge or reinforce prevailing ideas about disease. Also, rates of death, especially if correlated with their cause and with the age of the deceased, could predict the future size of the population; die-off among the young was more foreboding in this regard than that among the elderly.

Graunt gathered this research into his *Natural and Political Observations Made upon the Bills of Mortality* (1662), which became a model of statistical analysis of population for any place with the requisite lists of the dead.[23]

One of Graunt's main contributions was to generate tables of aggregate death statistics that correlated age and mortality. Although London's bills of mortality would not until 1728 list the ages of the deceased, Graunt deduced age from the stated cause of death, distinguishing among maladies associated with either young or old. The age-specific rates allowed him to focus on the political significance of the populations capable of performing service to the state, including the able-bodied men who could become soldiers and the fertile women who could become mothers. Population grew, he noted, even during epidemics. Such was the unstoppable force of human generation that it could, Graunt estimated, "double" a population every 64 years—thus inventing an arresting statistical hypothesis of geometric progression, expressed as doubling, that would be central to Malthus's analysis, and well beyond. Married Christians underpinned the fastest doubling. Adam and Eve had managed, "by the ordinary proportion of Procreation," to populate the whole planet within 5,610 years. So it continued, with Christians producing a more equal ratio of female to male children (he claimed) than Muslims. However London-bound his data pool, Graunt's thoughts were clearly global.[24]

Was London a universally representative sample? Graunt confined his statistical comparisons to urban London and rural Hampshire, which did not admit much variation into his conclusion. He was typical in this regard. As Lorraine Daston has noted, many early modern statisticians who analyzed populations, frequently through probabilistic calculation, tended to assume a universal mortality rate. The "life table" for actuarial work, which Edmond Halley would develop, based on Graunt's own tables, would continue to present life-spans as unvarying averages. Certainly, this standardization of death made it easy to attach insurance and annuities to individuals at predetermined rates. While the tendency to regard human death as a regular hazard may have seemed convincing within Europe, the Americas presented different possibilities, analysis of which would require the admission of variation in birth and death rates across the different populations that lived in colonized zones.[25]

The relevant pioneer here, William Petty, not only analyzed geographic and cultural variation but did so within an imperial context that included North America. Petty was an Englishman who had acquired Irish lands during Oliver Cromwell's invasion of Ireland, which he managed to keep even

after the restoration of the monarchy. A founding member of the scientifically oriented Royal Society of London (1662), Petty merged his imperial and economic interests into a learned inquiry into the statistical analysis of population. He coined the term *political arithmetic* to describe his method of population analysis, with the political half of the term acknowledging that his new science descended from the tradition of reason of state, at this point expressed explicitly to account for empires that stretched beyond oceans. His imperial focus was deeply influenced by religion. Petty said that "God's first and greatest command to Man and Beast was *to encrease and multiply to replenish the Earth*. Why therefore should this duty bee put off?" His faith in plenitude was firm. Human subsistence was assured until world population averaged one person per three acres, which he estimated would not occur for another one thousand years.[26]

Petty's early comparisons of English and Irish populations, and of English-colonized Ireland and Pennsylvania, identified the imperial dimensions of political arithmetic. He gave numerical precision to the accepted contrast between English colonial increase and American Indian decline, using a hypothetical unit of one thousand Pennsylvania Indians, which dwindled as settlers increased. He contrasted that differential to Ireland. Although the native Irish had been reduced in number during the English reconquest of the 1640s, they were recovering, whereas Indian populations had shrunk due to natural causes (he thought), principally disease and low birthrates, with no signs of recovery. In that situation, the native Irish remained a source of labor, particularly for agriculture, while native Americans did not. (Petty ignored the fact of English enslavement of Indians precisely for work on plantations.) He also hazarded that intermarriage between English and Irish, part of an older pattern of assimilation, might create a strong composite population within England's growing Atlantic empire. His confidence in the basic Irish physical similarity to the English was perhaps the most obvious contrast between Petty's visions of Ireland and of North America; he offered no scenario of intermarriage for the latter.[27]

In his *Political Arithmetick* (1690), Petty continued to assess colonial populations and their value to empire. He estimated that Britons doubled in number only every two hundred years. That statistic made him wary about extending the nation's people over more extensive territory. He noted that the decline of Ireland's population was offset by colonial gains across the Atlantic. "The accession of *Negroes* to the *American* Plantations (being all Men of great Labour and little Expence) is not inconsiderable," he observed, a statement about the merits of slaves to imperial population and economy that

would be fervently debated. Among the free colonial peoples, he believed that population increased particularly rapidly in New England. There, "few or no Women are Barren, and most have many Children, and . . . People live long, and healthfully," which had "produced an increase of as many People, as were destroyed in the late Tumults in *Ireland.*" Small but growing, the American colonies contributed, by Petty's estimate, half a million people to the king's total stock of ten million subjects. But Petty questioned the lasting value of colonial populations. "May not the superfluous Territories be sold," he asked, "and the People with their moveables brought away?" He meant New England's population in particular, which would benefit England if transplanted back to the homeland.[28]

That idea betrayed Petty's top-down vision of empire, acquired from his military experience in Ireland and typifying the preference for "garrison government" that emerged under the later Stuarts and would prove contentious in the American colonies. Petty's vision of New England's Congregationalist settlers, as transients to be ordered back to a land where they would suffer religious discrimination (under the Church of England their ancestors had fled), matched that trend. Petty had a similar garrison-government view of the Caribbean, which he thought the most valuable part of the empire. The sugar islands, intensively cultivated by an alien and subordinated population, black slaves, could generate imperial wealth more efficiently than any scattering abroad of free English people. For all this to work, different colonial populations had to be brought under command, something that neither New Englanders (who had the right to self rule through a colonial house of assembly) nor black slaves (whose acts of rebellion were making the Caribbean a byword for imperial instability) were likely to welcome. Petty's technical achievements in political arithmetic must be understood, therefore, as parts of a metropolitan vision of empire that few residents of England's new world colonies would have welcomed.[29]

A maturing plan for the surveillance of overseas populations was nevertheless evident in the gathering of information. English travelers were instructed to observe and estimate foreign populations, especially in places that offered some commercial or imperial opportunity to their nation. In his 1665 "General Heads for a Natural History of a Country, Great or Small," the natural philosopher Robert Boyle urged travelers to assess the human population of any place they visited, including the "Fruitfulness or Barrenness" of its native women. Even at this rather early moment in the history of what would become the British Empire, Boyle distinguished between the "*Natives*" of a place as well as "*Strangers*, that have been long settled there."

He thus acknowledged that travelers could themselves become inhabitants of extra-European parts of the world, not least as colonists, and that their descendants, if settled abroad long enough, could become natives of a kind. That possibility had already been registered with the Iberian coinage of the word *criollo*, in English "creole," to designate a person of old world ancestry born in the new world. Creole ascendency would be a reality by the time Malthus was born, in 1766, when well over a million individuals who traced descent from Britain lived in the Caribbean and North America. But their potential benefit to Great Britain's empire would depend on victory within the largest conflict that gripped the world to date.[30]

* * *

Malthus would write his *Essay on the Principle of Population* toward the end of a period that historians have called the Second Hundred Years' War, and his concerns would be framed accordingly. As in the medieval Hundred Years' War, the modern conflict embroiled France and England, the latter becoming, after 1707, Great Britain. Beginning with the War of the League of Augsburg and concluding with the Napoleonic Wars, the 125 years from 1689 to 1815 constituted a period of intense imperial rivalry, overwhelmingly over land. The territories in question included parts of Europe, but imperial zones also and new world places particularly were at the heart of the long controversy. The conflict would set preconditions and political ideologies for both the American and French Revolutions and their aftermaths. It also intensified questions about empires and colonies: what, if anything, were they good for?

Within this context, debates over population were crucial. It would be wrong to conclude that all writings on the topic were mere reactions to the Second Hundred Years' War; it would be equally wrong to suppose that they were disinterested. Even so, at a distance of three centuries, the differences between the French and British now seem less significant than their shared concerns, as Emma Rothschild has established in her work on Adam Smith and the marquis de Condorcet. In terms of population, two analytical dimensions interested everyone: the populations of ancient versus modern nations or empires and the comparative values of the different populations that lived within modern empires, slave and free, non-European and European. What was at first a basic debate over the varying virtues of ancient versus modern societies would develop into two analytic fields, one historical, about the stages of progress (or decline) in human society, and the other economic, about the value

generated within commercial society, thought in this proto-industrial age to be the terminal stage for human social organization. These lines of inquiry, stadial theory and political economy, were interconnected. Political economy had a historical definition. It was underpinned by stadial theories of humanity as progressing through different modes of subsistence until it reached the commercial state, though it was debatable whether this represented rise, decline, or some kind of trade-off. That this was a question at all revealed the continuing connection between moral philosophy and political economy. Only once the modern economic condition was generally assumed to be good (perhaps toward the end of Malthus's lifetime, if then) would economists push the history of humankind, as the history of morals, out of immediate sight and focus merely on the presumed good of the present.[31]

Early modern political theorists had already postulated a theoretical originary state of nature and had sometimes examined contemporary "savages" as living representatives of a historic past. The Americas were critical to these intellectual developments. Savagery and barbarism had been ancient categories of assessment (and disparagement). American Indians became modern prototypes for both, but especially the former, and this was particularly true for the peoples of North America and the Caribbean, who were invariably described as hunter-gatherers who lived in small bands. These were the populations that the earliest European accounts had categorized as Edenic or satanic, sometimes both. By the end of the sixteenth century, as Anthony Pagden has pointed out, discussion of Indians as savages had devolved into the rudiments of comparative ethnology. Within this intellectual framework, societies that Europeans deemed primitive were compared to each other but also to the European civilization thought to be superior. They served as reminders, however, of what Europeans might have been in the past: as ancient Britons had been to the Romans who conquered Britain for their empire, so Indians were to the modern Britons who were conquering America for theirs.[32]

The grand synthesis of this ethnohistoric analysis appeared in Joseph François Lafitau's analysis of North America, *Moeurs des sauvages amériquains comparées aux moeurs des premiers temps* (Manners of the American Savages Compared to Those of Past Times) of 1724. In making a case for contemporary savagery as a historical state, comparable to that of a remote past, Lafitau emphasized the roles of language, belief, and symbolic systems to the manners (*moeurs*) of different peoples, what later ethnographers would call culture. Lafitau argued that similarities between native Americans and ancient Greeks proved humanity's monogenetic origins, therefore Indians'

descent from Adam and Eve. Hugely influential, *Moeurs des sauvages* would be widely cited (not least by Malthus) for its myriad examples of native American practices, even as Lafitau's emphasis on nonrational aspects of human belief fell out of step with the criteria with which many Enlightenment theorists preferred to analyze humanity. Nonetheless, the key point that American Indians, as scattered and migratory savages, belonged to a historically prior condition, a hypothesis that Malthus would accept, was the product of several earlier centuries of description and debate about the Americas.[33]

A parallel debate considered Europe's own history and possible destiny as overlords of new world empires that might outdo their ancient prototypes in extent and grandeur. The initiator of this discussion, Charles-Louis de Secondat, baron de La Brède et de Montesquieu, endorsed the widespread opinion that the ancient Mediterranean must have been better peopled than its modern counterpart. He raised this point in his *Lettres Persane* (1721), developing it further in his 1748 *L'Esprit des loix* (The Spirit of Laws). He did not assent to another common opinion, however, that nature was losing its ability to sustain human life. Rather, he described contemporary laws and customs as brakes to reproduction that the ancient world had lacked. Within Europe, he blamed Christianity (especially clerical celibacy and the lack of divorce) for embargoing sexual desire. Modern empires, moreover, oppressed their denizens. The "Negroes" who labored in the Americas had never "filled" them; conquest had diminished American Indians without a compensating growth of colonial populations. That was because humans were adapted to their native climates, so that "the ordinary effect of colonies is the weakening of the countries from whence they are drawn, without peopling that to which they are removed." Montesquieu questioned whether state power could ever boost population. Centralized domination, including imperial conquest, discouraged marriage and family.[34]

David Hume was skeptical that the moderns were less populous than the ancients, which indicated potentially greater power for modern empires. In his essay "On the Populousness of Ancient Nations" (1752), he questioned a longstanding organic analogy between the Earth and the human body, which held that the former must decline in vigor as surely as the latter was known to. There was no empirical reason to accept that analogy, Hume pointed out; just as many ancient sources indicated small and feeble populations as suggested the opposite. Contemporary admiration of classical culture notwithstanding, he concluded that Rome's population must have been small, its empire overstretched, and—crucially—the ancient world's dependence on slaves deplorable. Hume believed that modern society, with its superior

technical and financial skills, combined with "the discovery of new worlds," had expanded humanity's capacity to produce and trade the materials for a good life. In comparison, a merely agricultural society, as the ancient world had been (he thought), was a poor material foundation. In modern times, if every man who thought he could support a family went ahead and did so, "the human species" would "more than double every generation." And yet despite his clear preference for Europe's commercial societies, Hume raised the question of whether the fastest population increase might not occur "in every new colony or settlement," a possibility that again stated the distinctiveness of new world places.[35]

Hume's immediate critic, Robert Wallace, instead extolled the ancient world, particularly its empires, with a troubling endorsement of its slave-inhabited new world counterparts. (Wallace, who served in the Church of Scotland, would be the last ordained minister before Malthus to publish an influential population analysis.) Natural theology inspired his preference for the hypothesis of a long-lost ancient vigor. His *Dissertation on the Numbers of Mankind, in Ancient and Modern Times* (1753) opens with the peopling of the world from a primordial couple. From this original pair, the world's population might have doubled in number within thirty-three and a half years, roughly half the scriptural measure of "three score and ten" (seventy years) as a human lifetime. Wallace gave tables to illustrate the possibility, while conceding that this rate was unlikely to have lasted the full twelve hundred years he used as his temporal unit. "The distressed circumstances of mankind" had (and would) consistently undercut natural increase. At any moment disease, famine, natural disaster, war, corrupt rule, and vice could kill the living and retard their replacement.[36]

Wallace proposed an oscillating pattern of rise and fall. The world's first "rude and barbarous" peoples had not cultivated land for food. It was the ancient civilizations of the Near East and greater Mediterranean—agricultural societies with limited trade—that first achieved large food supplies and population to match. But the Roman Empire, through conquest, domination, and political corruption, destroyed these foundations by making agriculture unrespectable. Population had therefore peaked "about the time of *Alexander the Great* and before the *Roman* empire had enslaved the world." Wallace realized his admiration of the remote ancients might repel readers, as when, in response to Hume, he argued that ancient slaves had been well treated and therefore reproduced. "God forbid! that I should ever be an advocate of slavery," he protested, and yet "the ancient slaves were more serviceable in raising up people, than the inferior ranks of men in modern times." Somewhat

incredibly, Wallace thought that slavery in the British plantations proved his point. Caribbean planters were determined, he said, to maximize the number of creole slaves, and equally eager to end the slave trade. Both impulses showed their care for slaves' physical well-being. However questionable Wallace's ideas, even for the time, they reveal how slavery was becoming a flash point of debate about Atlantic empires and their populations.[37]

But Wallace was otherwise unconvinced that the new world contributed to population growth. Rather, the discovery of the Americas had helped to "drain" people from Europe. Nor did he think commerce added to national strength; hands devoted to trade would be better used to grow food. Piety and virtue, not economic development, were the sources of greatness. "'Twas simplicity of taste, frugality, patience of labour, and contentment with a little, which made the world so populous in ancient times." Luxury "must of course prevent marriage, give check to the increase of mankind, and hinder millions from ever seeing the light." Economic development above the agrarian level was, in short, a sin, a circuitous violation of the divine command to increase and multiply.[38] Wallace was religiously orthodox as well, in believing in nature's plenitude, a topic he developed in his *Various Prospects of Mankind, Nature, and Providence* (1761). Were material conditions optimal—lands fully populated, people justly governed, religions devoted to marriage and family—nature would be generous. Even so, he warned that the Earth was not nor had ever been perfect—its capacity to sustain population had a limit, if as yet unreached.[39]

The general debate over historic population trends and their implications for economic activities were to gain precision after a series of mostly Scottish theorists defined stages through which human civilizations developed. These stadial theories proposed a universal history of succeeding methods of subsistence that expanded the material base for population. Humans, the theory went, had advanced from small populations that hunted and gathered, to somewhat larger groups that practiced nomadic pastoralism, to settled and denser communities that undertook agriculture (presumed to have made subsistence easier and population swell), and then to the commercial society of modern times, in which trade in edible goods as well as other commodities allowed populations to increase in size as well as sophistication.

The resulting schema tended to be analytic rather than constituting a historical narrative. It had seventeenth-century antecedents, not least Locke's contention that "in the beginning all the World was *America*," meaning that all societies began without definitions of property, and only began to develop them, barely, in the hunter-gatherer social economies that American

Indians still inhabited. Several other writers had posited historical stages, including Montesquieu, who had traced the increase of population from pastoral through commercial economies, concluding that countries below these modes of subsistence and "inhabited by savages[,] are usually thinly peopled, from the aversion they almost always have to labour and the cultivation of lands." Male "savages" wanted to hunt, not farm; females preferred abortion to childbirth. But the concept underwent its most intense development in the 1750s, with Adam Smith and Henry Home, Lord Kames cited as pioneers. By the 1760s, many British historians used stadial analysis within conventional narratives; William Robertson and Edward Gibbon are the most famous exemplars. Much of stadial theory drew on primary sources, particularly travelers' accounts of the Americas.[40]

"Stadial theory" as a label somewhat overstates its coherence, however. There was never one theory, and no unified school resulted. Rather, the idea of human history as progressing through modes of subsistence represented an analytic lens, a general way of understanding historical change without consensus over the particulars. The shared element of the strategy may have been simply to criticize older modes of historical narration that had used faith and authority to impose coherence, and to substitute material criteria as the means for historical transformation instead.[41]

Although the four-stage theory was supposed to apply universally to all humans, societal differences across time and space were sometimes difficult to assimilate to it. There was lively debate over who occupied the lowest stage of humanity and whether they could ever move to a higher stage, with the "Hottentot" (Khoisan) people of South Africa and the inhabitants of Tierra del Fuego most frequently designated as such and described as if incapable of change. Conversely, some theorists adapted classical Roman admiration for savages, including the ancient Britons and Germans, into an ideal of living noble savages, with native Americans as frequent exemplars. But the largest question that stadial theorists did not answer—indeed, disagreed over—was that of race, the belief that human difference was rooted within the body and its characteristics transmitted over the generations. Most Europeans held these assumptions, even as they differed over the degree to which they ought to, or should, act according to them; stadial theory emerged alongside and in dialogue with arguments against chattel slavery and concomitant attacks on heritable debasement. Some stadial theorists were forthright in their belief that race explained societal differentiation. Kames, for example, was a polygenist who declared that nature dictated which people were doomed to savagery and which destined for commercial civility. In this extreme case,

stadial theory did not conjecture progress but instead stasis. Kames had his admirers, for his elision of race and culture; he had vehement critics, for the same reason.[42]

Precommercial human populations, past and present, functioned as didactic reminders of misery transcended or virtue abandoned, always in such a way as to bring the focus back to Europeans' true interest: themselves. Jean-Jacques Rousseau was for this reason an important theorist of humanity's natural state. Rousseau did not dispute that primitive society might be miserable; his hypothetical state of nature has an unappealing loneliness and brutality, and the stage he thought occurred after that, among people who had learned to hunt collectively, was not much better. And yet humans in these states, though little differentiated from animals, enjoyed a liberty that agricultural societies, let alone the densely populated commercial society of Rousseau's Europe, had relinquished. Rousseau did not privilege the variable of population in his social critique, but his belief in the tonic freedom of "natural man" is worth noting because Daniel Malthus, Thomas Robert's father, would admire Rousseau greatly.[43]

* * *

The end point of stadial theory was commerce, a terminus on which all theories of population were converging. Reason of state and political arithmetic had defined humans as physical bodies that contributed to commonwealth and empire. The eighteenth-century science of political economy elaborated that definition to specify the economic significance, to nation and to empire, of laboring and consuming bodies. Political economists (most famously Adam Smith) thus defined economic endeavor according to four guiding assumptions. First, national economies were dynamic, no longer describable in terms of stasis, such as a desired balance of trade. Second, economic systems had lawlike properties that could help predict future events. Third, all economic phenomena could be defined in terms of value produced, as represented statistically. Fourth, human economic activities could be categorized as production, consumption, and exchange. All of these features would, by mid-century, invite those who governed nations to think of population in economic terms, either on national or imperial scales. Even so, early political economy represented a philosophical turn that was, for the moment, slightly removed from matters of state. Unlike political arithmeticians, the first generation of political economists were more likely to have connections to universities than to government office. And they still regarded their field

as a branch of moral philosophy (if not occasionally theology), the analysis of the best means to achieve happiness, defined as a good life founded on material benefits.[44]

As a branch of moral philosophy, political economy posited that human nature included "moral sentiments," an innate desire to engage with other human beings, a yearning most evident in commercial societies. There, people were liberated from grinding want and could engage in activities that showed their capacity for civility: commerce made the noneconomic possible. That was nowhere more true than in relations among men and women, who, freed from drudgery, were able to regard each other as engagingly sociable beings. Women in commercial society in particular could achieve the highest social refinement, devoted, that is, to activities that brought people into interaction beyond the marketplace. This opinion was critical of the ways in which women in past times and other places might have hard lives, though it continued to assume that there was something "natural" about women that distinguished them from men. Altogether, commercial society was regarded as having a polishing effect on humanity; when different nations connected through trade, their rough edges were smoothed away. So too did people within a commercial nation become polished through social interaction with each other.[45]

There was probably no point at which early political economy did not address questions of population and Atlantic empire. Few agreed with William Petty's conclusion that the Americas drained away Britain's strength. Rather, colonies contributed to the nation's aggregate population and economic power. What remained debatable was *which* colonial people made the largest economic contributions, either as laborers or consumers, with suspicion that non-Europeans were never as valuable as white settlers. In his widely read 1708 assessment of the British Empire, John Oldmixon summarized, "'Tis said, People are the Wealth of a Nation, and to take away their People is to impoverish them; those that say it, mean only laborious and industrious People." On those grounds, Oldmixon argued, the sugar plantations were the most productive part of the empire, Great Britain included: each Englishman in the Caribbean constituted the economic value of three at home, though this was a measure that rendered African slaves—the real workers—invisible. Colonial ability to consume mattered too. Anyone who earned a surplus was contributing doubly to the economy, first by producing wealth and second by consuming goods. People who were too young, too old, physically disabled, or irrational did not count in the same way. While Oldmixon counted West Indian slaves as consumers, he admitted that they

did not constitute as big a resource as free workers. Nor did "savage" people, whose wants were simple. "The *Indians* make the least consumption of our Goods," Oldmixon concluded.[46]

Both the economic assessment of human population and its distanced analysis of colonial scenarios were controversial, as seemingly inhuman if not inhumane visions of humanity. It is intriguing that individuals from the peripheries of the British Empire made the sharpest criticism of the new trends. Two notorious satires are cases in point.

Jonathan Swift's *Modest Proposal for Preventing the Children of Poor People from Being a Burthen to Their Parents, or the Country, and for Making them Beneficial to the Publick* (1729), is the most famous population satire. As William Petty had predicted, and Swift witnessed, English-occupied Ireland's population was rising faster than its food supply. Swift monetized the ensuing misery, calculating, for instance, that the amount a poor woman might make in begging would, by buying her food, subsidize for about a year her production of breast milk for an infant. Feeding the child thereafter was the problem. Swift proposed selling Irish children to the rich, to be slaughtered as meat. To augment this bold critique of British colonialism, Swift made several telling references to the new world. He presented the Irish option of contractingtheir labor to the English and emigrating to Barbados as even worse than butchering children. And he credited a "very knowing American" with information about the succulence of a suckling infant. In this way, he rehearsed the longstanding conviction that native Americans dined on human flesh, and he assessed the trans-Atlantic transfer of labor (whether as servants or slaves) as ethically similar to cannibalism.[47]

Benjamin Franklin had a lighter touch in his "Speech of Miss Polly Baker," written in 1746 and published anonymously in a London newspaper the next year. Miss Baker speaks from a Connecticut courtroom, where she is charged with fornication, again, having just produced her fifth bastard. But Baker protests that she is merely obeying the "command of Nature, and of Nature's God, *Encrease and Multiply*," and that her "steady Performance of which" benefited "a new Country that really wants People." Persuaded, the justices drop all charges and one of Baker's judges offers "to marry her the next day," making an honest woman of the scripturally literal producer of multiple little colonists. The piece was so ably constructed that readers in Europe and America assumed Baker was a real person and her speech an actual event. Only decades later did Franklin confess his authorship. But he never recanted his belief that North America was "a new Country that really

wants people," and his assumed low labor-to-land ratio would remain central to debates over new world populations.[48]

* * *

If it was obvious that colonial peoples made significant economic contributions, how best to assess and harness them was not yet clear. This was not a theoretical problem, but one of active governance as war and the threat of war continued to make all aspects of empire into critical issues for Europeans and Americans alike.

No one knew this better than Franklin, who, alongside his satirical pieces, had been making serious claims that American populations were underappreciated imperial assets. He shrewdly offered these statements at hot moments in the Second Hundred Years' War, starting in 1747, during the War of the Austrian Succession (King George's War). Franklin had been reading extensively in both political arithmetic and political economy and in 1751 wrote his most important population analysis, "Observations Concerning the Increase of Mankind," which was to provide Malthus with his own principle of population.

Franklin wrote his essay in the wake of the Iron Act (1750), a measure to support British manufactures by preventing colonial production of iron. He proposed that colonists served the empire much better as producer-consumers when freed from such regulation. But his theoretical contribution was to present American populations as distinctive challenges to metropolitan science. He opened with an attack on political arithmetic's reliance on European bills of mortality. Those records failed to explain North America, where births so outstripped deaths that the settler population "must at least be doubled every 20 Years," the fastest "doubling" estimate yet ventured for such a large population. As Polly Baker had surmised, American fecundity had an agrarian basis: rapid increase resulted from accessibility of land in "a new Country that really wants People." Compared to their European counterparts, American settlers could establish their economic independence, get married sooner, and thus produce larger families. Franklin linked the prospect of rapidly replicating American dyads—myriad Adams, multiple Eves—back to commercial development within Europe's Atlantic society, noting that a greater colonial population in British North American population meant greater consumption of British manufactured goods. Unlike Petty or Oldmixon, Franklin favorably compared the continent's economic

contribution to that of the sugar islands, where black slaves, the Caribbean's population majority, barely functioned as consumers.[49]

At this level, Franklin's population analysis was part of an emerging critique of new world slavery, on the grounds that a modern, commercial society needed free workers. The "introduction of Slaves" anywhere, he argued, tended to "diminish" population by edging out white laborers even as the work of slavery (again meaning in the sugar islands) killed slaves faster than they could naturally reproduce, "so that a continual Supply is needed from Africa." While this statement presaged Franklin's eventual humanitarian criticisms of slavery and the slave trade, it was at this point informed by racism. Continental Europeans, he said, "with the English, make the principal Body of White People on the Face of the Earth. I could wish their Numbers were increased." Whatever the value of the sugar and other tropical groceries they grew, slaves were burdens on the freely producing and consuming American societies that were, he contended, the empire's true strength, an important challenge to previous thought.[50]

Franklin drew similar conclusions about America's indigenous populations, partially by using stadial theory. He maintained that American Indians, as migratory hunters and, at best, occasional gardeners, failed to utilize North American land fully. That was prejudicial. All sub-Arctic Indians grew crops. Agriculture was particularly important to the larger populations in the continent's interior. Franklin knew the corn-growing, town-dwelling peoples of the Iroquois Five Nations, for instance, because his colony of Pennsylvania had diplomatic relations with them. In any case, might not Indians become farmers and consumers of manufactures, moving forward through the stages laid out in theory? No: Franklin concurred with the old claims that Indians, compared to colonists, suffered disproportionately from epidemics. He declared that Indian demise was both inevitable and beneficial, given that it would free up yet more land for settlers. In a simultaneous attack on slavery and on non-European peoples, he rejoiced that in the colonies "we have so fair an Opportunity, by excluding all Blacks and Tawneys, of increasing the lovely White and Red" complexion of Europeans.[51]

Franklin's work was, moreover, and despite its formulaic references to Providence, a soundly materialist analysis of human populations as composed of mere bodies. That assumption challenged the natural theology that had been central to population analysis, placing humans above the rest of nature. In contrast, Franklin compared humans to soul-less plants and animals, elaborating in particular a new version of the vegetable imaginary:

> There is in short, no Bound to the prolific Nature of Plants or Animals, but what is made by their crowding and interfering with each others Means of Subsistence. Was the Face of the Earth vacant of other Plants, it might be gradually sowed and overspread with one Kind only; as, for Instance, with Fennel; and were it empty of other Inhabitants, it might in a few Ages be replenish'd from one Nation only; as, for Instance, with Englishmen.

The replenishment was well underway. Franklin estimated that from an original 80,000 migrants (mostly English) to North America, there were now over 1 million white colonists. Should they double their numbers within twenty-five years (estimating conservatively), there would be 2 million of them. Franklin thus drew upon long-established arguments for English bodily supremacy and adaptability to new world places. Colonists' fertile bodies held down territory, generated agricultural products, and consumed manufactures. Their virtues stood in contrast to the incapacity, as Franklin saw it, of Indians and of enslaved workers to contribute comparable benefits. His assessment did not so much neutrally describe the peoples of British America as predict the imperial bastion that one population—the settlers—should become.[52]

Franklin's assurance that the million or so colonists resembled Britons, culturally and physically, and that they would cheerfully buy British manufactures if not annoyed by British regulations, were statements of British imperial loyalty. Rejoicing in his proliferating fellow Americans, he wrote: "What an Accession of Power to the British Empire by Sea as well as Land! What Increase of Trade and Navigation!" Such were the glories of new world ghost acres. But Franklin's analysis contained obvious threats about the cost of alienating so many distant British subjects. His intentions were all the clearer in his decision to publish the essay in 1755, one year after skirmishes in the Ohio Valley between French and British colonial military forces would set off the Seven Years' War (1756–1763).[53]

That great imperial conflict represented the apex of the Hundred Years' War. The war began in North America and would be a turning point for the British Empire because it represented a choice between kinds of land and of population. Even before the war ended, Britons understood that the two big prizes would be "Canada" (the northern portion of New France) or Guadeloupe. Acquisition of both seemed unlikely. The choice between them signified competing conceptions of commercial wealth, based either on extensive population and territory or else on intensive cultivation and

monoculture, with the former tending toward free labor and the latter toward slavery. Franklin's preferences were clear within his essay, but he heightened them with his decision to publish it, anonymously, in tandem with another man's work on the possible annexation of Canada.

The Treaty of Paris (1763), which ended the war, was Great Britain's clear bid for a continental new world empire. Eschewing Guadeloupe, Britain chose Canada, plus Bengal, both formerly French. The British crowed that they now possessed the largest empire since those of Alexander the Great or Caesar Augustus. But victory cost the victors. Debt from the war meant that Britain's annual payment of interest alone was more than any prewar budget had been. Desperate for revenue, British ministers tried multiple times to tax the American colonists, who firmly rejected that scheme. Their protests against taxation without representation would grow critical in 1765, the year of the Stamp Act, and were barely appeased by the revocation of that act yet simultaneous passage, in 1766 (the year of Malthus's birth), of the Declaratory Act, stating that Parliament had sovereignty over the colonists even if they were not directly represented in that body.

It was at this point that Franklin's essay on population achieved its greatest impact, as a warning of Americans' growing power. Its central claim of North America's settler population doubling every twenty-five if not twenty years (a new benchmark of demographic rapidity on a large geographic scale) implied that British America would soon become the population center of the empire, and perhaps the political center of the English-speaking world once Americans outnumbered Britons. That prophecy revealed the new ambition among colonists that would eventually lead into the revolutionary effort against British imperial authority.

So arresting was Franklin's image of rapid American population growth that it fascinated both American patriots and Britons who were either sympathetic to colonial protests or else apprehensive about a rising American proto-nation. The Reverend Ezra Stiles of Princeton University preached a 1761 sermon in which he referred to Franklin's prediction of a great and greatly populated America, also stating that America's population was doubling every twenty-five years. In 1769 the English clergyman and radical political theorist Richard Price wrote a letter on population to Franklin (a personal friend), later printed in the *Philosophical Transactions* of the Royal Society of London. Price then included the piece in his 1771 book, *Observations on Reversionary Payments*, the payments made when property reverted to a designated recipient, as an annuity to a widow (a classic case in political arithmetic). Referring to claims of Madeira's fast population growth, Price

noted to Franklin that "this (as you, Sir, well know) is a very slow increase, compared with that which takes place among our colonies in AMERICA. In the back settlements, where the inhabitants apply themselves entirely to agriculture, and luxury is not known, they double their numbers in 15 years; and all thro' the northern colonies, in 25 years," giving citations to Stiles and to the 1761 edition of Franklin's essay. Price topped it off with the prediction that, within seventy years (the scriptural lifespan), British North Americans would outnumber Britons two to one.[54]

* * *

Even as the multiplying American patriots threatened to reduce the size of the British Empire by declaring independence, Britons had been exploring an extended new world. The conclusion of the Seven Years' War had set off a scramble for new territory, with France in the lead, because motivated to find imperial zones to replace what it had just lost to Great Britain. The Pacific world, only small parts of which had been settled by Spain in the sixteenth century, was the obvious arena of opportunity. From 1764 to 1771, expeditions led by John Byron, Philip Carteret, Samuel Wallis, Louis-Antoine de Bougainville, and James Cook made historic reconnaissance of the interior islands of Polynesia as well as the larger landmasses eventually named New Zealand and Australia.[55]

These significant discoveries were unhappy events for their native populations, who found that they were, among other things, objects of study for population theorists. Expedition leaders and their naturalists were requested to report on these matters. When James Cook sailed into the Pacific in 1769, for example, his initial orders warned him that Tahiti had been described as "populous," which constituted a possible military threat, an impression he was also implicitly invited to confirm or correct. More directly, Cook's secret orders, opened only once he was in the Pacific, instructed him to search for a long-elusive southern continent presumed to exist at the bottom of the globe and, if he found it, "to observe the Genius, Temper, Disposition and Numbers of the Natives, if there be any."[56]

The narrators of the late eighteenth-century Pacific expeditions were right up to date in using stadial theory to describe the newest of worlds. They typically described Pacific peoples as savages, at the earliest or lowest stage of human history. That was not surprising, given that the designation had been bestowed on American Indians even before the development of conjectural history, when "savage" still implied a state of religious oblivion. But

by the late eighteenth century, the savage condition was as frequently correlated with primitive methods of subsistence and lack of recognition of property. The simplicity of savage life could be praised, often when a European observer wanted to stress the natural fecundity of tropical or semitropical places, where little labor was needed to get food. Elsewhere, as in Australia, the underdevelopment of natural resources seemed perilous and the obvious reason for a much more thinly settled landscape, compared to parts of Polynesia and New Zealand. Polynesians and Māori were sometimes described as "barbarians" because they kept domesticated livestock (pigs), practiced agriculture, and appeared to have more complex political formations, compared, at least, to Australian Aborigines. If Europeans began to pitch Aborigines as the new exemplar of humanity's lowest, simplest, earliest social formation, Pacific islanders, particularly on Tahiti, were the newest examples of natural man, noble savages, though the positive and negative valences of these descriptions varied according to the taste and emphasis of the describer.[57]

Concern about food and population extended to interest in marriage customs and the status of women. In the Pacific the absence of legal definitions of property, as Europeans would have recognized them, seemed to include marriage; where no sense of individual ownership existed, monogamy failed. The type specimen for that stereotypic interpretation of Pacific sexuality was Tahiti, where French and British mariners alike remarked on the sexual availability of young women, which resulted neither in marriage nor childbirth. Depending on the commentator, this was either evidence of an Edenic condition—the primal innocence of savage peoples—or else satanic sin and social chaos. Early descriptions of Aboriginal women were if anything even more negative, echoing earlier descriptions of Indian women as woefully exploited by their menfolk, with dire consequences for reproduction. [58]

To a very great extent, these analyses recycled hypotheses that had already been rehearsed in relation to the Americas. Yet again, European observers deployed the two extremes of Edenic bliss versus a fallen state to explain non-European societies. And, yet again, they designated the lands of the Pacific as new worlds. The most striking example of this extension of America over and across the Pacific was the early tendency for British observers to use the word *Indian* to name Polynesian, Australian Aboriginal, and New Zealand Māori peoples, as if they were cognates of, or even somehow related to, the peoples of the Americas. *Indian* was the term used, for example, by Joseph Banks (Cook's chief naturalist), to describe people in New Zealand, Tahiti, New Holland, and New Guinea. The result was to connect the new worlds

of the Pacific back to those of the Atlantic and to thereby distinguish the Pacific from Asia, as well as from Europe and Africa. If Locke had said that the world had begun as it had once existed in America, that primitive beginning was newly represented to Europeans in the worlds of the Pacific.[59]

* * *

The development of population analyses from the 1760s and 1770s onward took place, therefore, within an expanding global geography understood to be a field for imperial rivalry, if not conflict. With either logic or irony, one of the most aggressively imperial eras in modern history was nonetheless precisely also the time of intense questioning about the morals of imperialism. Guillaume-Thomas-François Raynal (the famous abbé Raynal), in his 1770 *Histoire philosophique et politique des établissemens et du commerce des Européens dans les deux Indes* (Philosophical and Political History of European Settlement and Trade in the East and West Indies), expressed his generation's doubts in his great question: "Has the discovery of America been beneficial or harmful to the human race?" Posed as a moral dilemma about the oldest of new worlds, the abbé Raynal's worry would tinge initial perceptions of the newer versions of them.[60]

Stadial theory and political economy offered efficient ways to make sense of what Edmund Burke called "the Great Map of Mankind," including the renewed possibilities of new worlds as originary points for human societies. By the late 1760s, free British subjects on both sides of the Atlantic were accustomed to marveling at the extent of their nation's empire, if equally likely to worry about its continued state of health. Within political economy, both impulses were expressed as numerical evaluations of colonial economic value. For some theorists, expansion constituted a threat; to others, an intoxicating promise of abundance. Two Britons, in works initially published in 1776, the first year of declared war between the United States and Great Britain, represented the two possible responses; Malthus would later read both.

The historian Edward Gibbon was the decided pessimist. In his *History of the Decline and Fall of the Roman Empire*, the first portion of which appeared in 1776, Gibbon traced the fates of the ancient Romans in what was immediately recognized as a commentary on the modern Britons. With caution about imperial over-reach, as well as warnings against the decadence and luxury that accompanied imperial glory, Gibbon (not unlike Wallace) praised the contrastingly simple virtues of the savage and barbarian peoples who eventually defeated Rome. That had an important dimension in relation to

population. It was pastoral nomads who were able to pillage first the outskirts and then the heart of the Roman Empire. Gibbon resolutely portrayed the forest-dwelling barbarians of ancient northern Europe as few in number and distinguished by their "poverty" (as hunting migrants, they had almost no permanent property), and yet for those reasons enjoyed a "liberty" that the wealthy, trading, town-bound Romans had abdicated. Although Gibbon did not spell out a comparison between the British and the "savage" peoples in British America, readers would have been aware of the comparison, brimming with disapproval as it was against their own commercial and imperial statuses.[61]

In contrast, Adam Smith registered optimism over a growing and populous British North America in his *Inquiry into the Nature and Causes of the Wealth of Nations* (1776), an exception to his otherwise skeptical assessment of imperialism. Smith acknowledged the distant glories of ancient empires, and noted the mineral riches of Spanish America, but gave the edge to modern colonies that fostered settlement and settlers. He did not deny that Spain's empire had its strengths, noting that Lima was still larger than any city in British America. Moreover, he concluded of Peru and Mexico that "in spite of the cruel destruction of the natives which followed the conquest, these two great empires are, probably, more populous now than they ever were before: and the people are surely very different; for we must acknowledge . . . that the Spanish creoles are in many respects superior to the ancient Indians." But imperial riches were fleeting. Echoing Hume's and Franklin's reservations about slave-generated wealth, Smith wryly proposed that the biggest revenues from Britain's Atlantic colonies were founded on human weakness: "Sugar, rum, and tobacco are commodities which are nowhere necessaries of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation."[62]

And yet Smith thought some forms of imperialism bore rare fruit: "The colony of a civilised nation which takes possession either of a waste country, or of one so thinly inhabited that the natives easily give place to the new settlers, advances more rapidly to wealth and greatness than any other human society." That was quite a claim. "There are no colonies of which the progress has been more rapid," he concluded, "than that of the English in North America." He identified three factors critical to their success: availability of land, technical knowledge among the newcomers of how to cultivate it, and "liberal" institutions that promoted freedom, including free trade with nations other than Great Britain. In consequence, the British colonies had greater social equality among free settlers, plentiful agricultural production,

and therefore incentives to marry. Nature and human nature were beautifully paired.[63]

Certainly, Smith believed that a large and growing population was an asset to an empire, yet again exemplified in British North America. "The most decisive mark of the prosperity of any country is the increase of the number of its inhabitants," he asserted. People in the aggregate made economic contributions, most obviously as producers but also as consumers. Smith flatly stated that "consumption is the sole end and purpose of all production." Those whose consumer efforts were constrained—as with slaves or even free persons restricted by mercantile regulations—could not fully contribute to a nation's economy. If the British colonies contained less wealth than Britain, their rapid population growth indicated that the balance might shift. "In Great Britain, and most other European countries, they are not supposed to double in less than five hundred years. In the British colonies in North America, it has been found, that they double in twenty or five-and-twenty years." Smith's footnote credited Petty's *Political Arithmetick* for the statistic on Great Britain and Richard Price's *Observations on Reversionary Payments* for the one on North America, the latter text based on Benjamin Franklin.[64]

Indeed, fascination with Franklin's hypothesis about rapid American population growth ruled the day. Though increasingly divorced from its author, the thesis that North America's population doubled every twenty or twenty-five years had a brilliant career, notably in British publications. The *Annual Register* of 1761 (six London editions) took an "Extract from a piece written in Pennsylvania in 1751, entitled Observations concerning the Increase of Mankind," and gave the every-twenty-year estimate of a doubled population. James Burgh, in his *Political Disquisitions* . . . (1774–1775) cited the calculation without giving a source; Burgh also emphasized that British ministers would be mad to risk losing such a large consumer population. *The Politician's Dictionary, or, a Summary of Political Knowledge* (1775) repeated the estimate without any editorializing.[65]

Franklin's text was in fact the lead essay in an edition of his works published during the American War for Independence and, astonishingly, in London. This *Political, Miscellaneous, and Philosophical Pieces* (1779) was edited by an English friend, Benjamin Vaughan, and published by a noted London bookseller and publisher, Joseph Johnson. Vaughan's choice of publisher advertised the essays as a rebuke to the British ministry, because many of Johnson's other publications were just that. Johnson was a religious dissenter, raised as a Baptist, in adult life shifting to Unitarianism, at a time when full participation in British public life required membership in the Church of England.

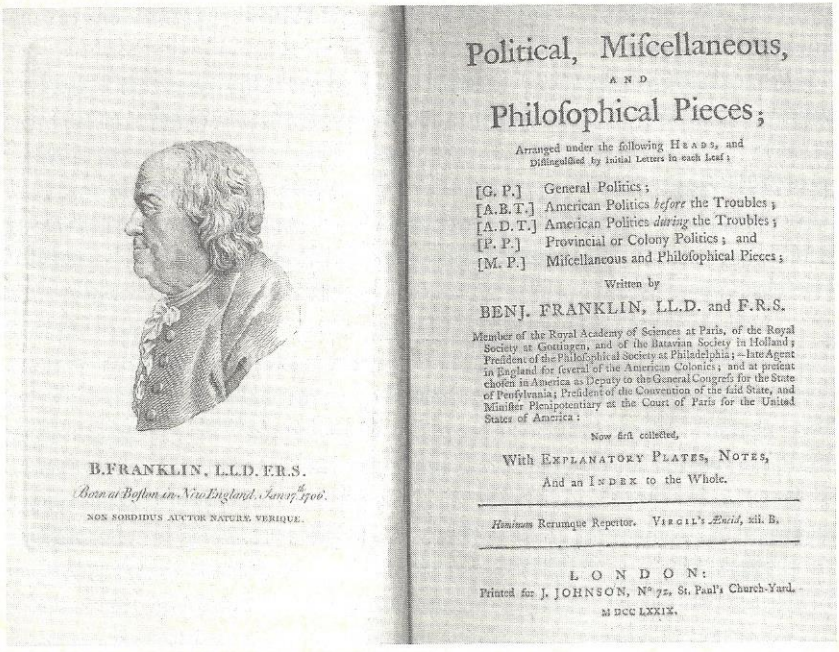

Figure 1.3. Malthus's primary new world source. Benjamin Franklin, *Political, Miscellaneous and Philosophical Pieces* (London: J. Johnson, 1779). Courtesy of the Library Company of Philadelphia.

He had begun his career by publishing fellow religious dissidents, notably Joseph Priestley, another of Franklin's friends. (A surviving letter from Johnson to Franklin, dated 1766, thanks the colonial electrical experimenter for giving, at Priestley's request, a reader's report on Priestley's *History and Present State of Electricity*, which Johnson published the next year.) Johnson also published another of Franklin's radical associates, Richard Price, and his list of critically minded authors would continue to grow until it included T. R. Malthus.[66]

In Johnson's 1779 edition of Franklin, the lead essay on population was accompanied by a 1755 letter to Franklin from "R. J., Esq.," Richard Jackson, a member of Parliament, correspondent, and admirer. Jackson accepted Franklin's point about material circumstances facilitating or inhibiting the growth of population, but his letter otherwise stressed the significance of morals and manners. That was an emphasis on human nature versus nature itself that Franklin would not necessarily have endorsed, at least not at the length and in the detail that Jackson proposed; if he replied to Jackson, the

letter has not survived. In any case, Franklin was not in a position to supervise the edition. He was in the US diplomatic service in Paris, part of the Franco-American war against Great Britain.[67]

In 1781, the United States would win that war. Because they did, the Americas, and new worlds beyond them, would undergo important imperial reconfiguration in the 1780s, even as the arguments for political autonomy associated with the growing and confident US population remained divisive. The most direct connection between North America and New Holland, the eastern half of which had been renamed New South Wales by Cook, was in the latter's repurposing as a convict settlement. The British North American colonies had once filled that function. New South Wales would be pressed into service after Britain's recognition of American independence in 1783, and a new colony of settlement in a new world would be born, even as the meanings and value of empire and population remained in dispute, an unresolved problem of the Second Hundred Years' War.

* * *

Here then are the four intellectual strands, sometimes interwoven with each other, that were available to Malthus as he began to consider population. He would have at his disposal a natural theology of life on Earth, an assertion of the value of population to states and empires, a theoretical but also numerical science of political arithmetic, and a political economy of population and empire that assumed that populations could be classed into historic stages of development based on material subsistence, concluding with commercial society. From his familiarity with these intellectual traditions, Malthus would know of the observations that travelers had made of populations beyond Europe and of the information about political arithmetic that creole settlers themselves possessed. He would have been aware of the extraordinary events of the Second Hundred Years' War that gave any observations about population heightened political as well as moral significance, particularly as they commented upon Britain's ability to command imperial zones over new worlds in the Atlantic and the Pacific. From such scraps, the magpie made his marvel.

Chapter 1: Population, Empire, and America

1. KJV Genesis 1:28, 3:16–19, 9:1; Cohen, *Be Fertile and Increase*.
2. Braude, "Sons of Noah.".
3. KJV Acts 17:26; Grafton, *New Worlds, Ancient Texts*, 11–58, 95–158; Almond, *Adam and Eve*; Gliozzi, *Adam et le Nouveau Monde*.
4. Delumeau, *History of Paradise*, 109–15; Householder, "Eden's Translations."
5. De Bry, Grands Voyages, pt. 1, pt. 7.
6. Laiou, "Economic Thought and Ideology," 1142–44; Jordan, *Great Famine*; Bartlett, *Making of Europe*, esp. pp. 106–66.
7. KJV 1 Chron. 21:1; Cohen, *Be Fertile and Increase*; Cohen, *A Calculating People*, 56–65.
8. Machiavelli, *Machivael's Discourses*, 221–22.
9. Bodin, *Six Bookes*, 387, 637–41.
10. Botero, *Reason of State*, 227, 276, 278.
11. Glacken, *Traces on the Rhodian Shore*, 369–74.
12. Botero, *Reason of State*, 278; Thomas Hariot Mathematical Papers, British Library; Chaplin, *Subject Matter*, 124–25; Smith, "Reception of Malthus' Essay," 550.
13. Bodin, *Six Bookes*, 621; Botero, *Reason of State*, 156–57; Chaplin, *Subject Matter*, 126–27.
14. Glacken, *Traces on the Rhodian Shore*, 625; Chaplin, *Subject Matter*, 126–27; Richards, *Unending Frontier*.
15. Chaplin, *Subject Matter*, 151–52.
16. Pagden, *Fall of Natural Man*; Pagden, *Lords of All the World*, 87, 116.
17. Cassedy, *Demography in Early America*; Wells, *Population of the British Colonies*, 5, 8–11, 13–23; Cohen, *A Calculating People*, 56–65, 78.
18. [Vincent], *A True Relation of the Late Battell*, [1], 21; Chaplin, "Natural Philosophy"; Jones, *Rationalizing Epidemics*, 21–67.
19. Chaplin, *Subject Matter*, 243–79; Morgan, "'Some Could Suckle over Their Shoulder.'"
20. Sokol, "Thomas Harriot," 212; [Winslow], *Mourt's Relation*, 84.
21. [John Locke], *Two Treatises of Government*, book II, ch. 5, § 49.
22. Buck, "People Who Counted," 28–29.
23. Glacken, *Traces on the Rhodian Shore*, 398–99.
24. Glacken, *Traces on the Rhodian Shore*, 398–99; Riley, *Population Thought*, 7–15; Rusnock, "Biopolitics," 56–57; Daston, *Classical Probability in the Enlightenment*, 127–29. On the doubling idea beyond Malthus, see Bashford, *Global Population*, 37, 38, 47, 49, 92, 110–11, 202, 276, 348.
25. Daston, *Classical Probability*, 129–38.
26. Marquis of Lansdowne, *Petty-Southwell Correspondence*, 154.
27. Chaplin, *Subject Matter*, 318–20; McCormick, *William Petty*.
28. Petty, *Political Arithmetick*, 94, 97–98.
29. Webb, *Governors-General*.
30. Boyle, "General Heads for a Natural History," 188; Chaplin, "Creoles in British America," 46–65.

31. Rothschild, *Economic Sentiments*, 2; Marouby, "Adam Smith and the Anthropology of the Enlightenment," 85–102; Cañizares-Esguerra, *How to Write the History of the New World*, 44–51.
32. Pagden, *Fall of Natural Man*.
33. Pagden, *Fall of Natural Man*, 198–209.
34. Montesquieu, *The Persian Letters*, 390–411; Montesquieu, *Spirit of Laws*, 302–18.
35. Hume, "Of the Populousness of Ancient Nations" (1752), in Hume, *Essays Moral, Political, and Literary*, 371–464; Riley, *Population Thought*, 47–57.
36. Wallace, *A Dissertation*, 1–8, 8n., 12–13.
37. Wallace, *A Dissertation*, 15–20, 91, 107–8, 147, 168–208, 268–69, and passim for moralizing analysis of the ancient world.
38. Wallace, *A Dissertation*, 95–96, 160, 270–71.
39. Wallace, *A Dissertation*,149; Glacken, *Traces on the Rhodian Shore*, 630–31, 632–34.
40. Meek, *Social Science and the Ignoble Savage*, esp. 37–67; Pocock, "Gibbon and the Shepherds," 193–202; Marouby, "Adam Smith and the Anthropology of the Enlightenment," 85–102; Montesquieu, *Persian Letters*, 406; Montesquieu, *Spirit of Laws*, 304, 314.
41. Palmeri, "Conjectural History and Satire."
42. Meek, *Social Science and the Ignoble Savage*, 131–76; Marshall and Williams, *Great Map of Mankind*; Schiebinger, *Nature's Body*, 48–74; Sebastiani, *Scottish Enlightenment*, 80–90.
43. Dent, *Rousseau*, esp. 37–112; Wokler, *Rousseau*, 1–28.
44. Appleby, "Ideology and Theory"; Winch, *Riches and Poverty*, 57–89; Montes, *Adam Smith in Context*; Waterman, *Political Economy and Christian Theology*), 1–15, 107–113; Buck, "People Who Counted," 28–29.
45. Rothschild, *Economic Sentiments*; Sebastiani, *Scottish Enlightenment*, 133–62.
46. Oldmixon, *British Empire in America*, vol. 1, xvi, xxi–xxv, xxix, 161.
47. Swift referred to the new world on pp. 3 and 6 of *A Modest Proposal* (q.v.).
48. Franklin, "The Speech of Miss Polly Baker" (1747), *PBF*, vol. 3, 123, 124, 125.
49. Benjamin Franklin, 'Observations Concerning the Increase of Mankind' (1751), *PBF*, vol. 4, 225–31.
50. Franklin, "Observations," 228, 230–31, 234.
51. Franklin, "Observations," 228, 234.
52. Franklin, "Observations," 233; Chaplin, *Benjamin Franklin's Political Arithmetic*.
53. Franklin, "Observations," 231.
54. Ezra Stiles, *A Discourse on the Christian Union*, 108–9; Price, *Observations on Reversionary Payments*, 197–98, 203–5; Mayhew, *Malthus*, 30–35.
55. Chaplin, "Pacific before Empire," 53, 74.
56. Cook, *Journals*, vol. 1, cclxxxiii.
57. Marshall and Williams, *Great Map of Mankind*, ch. 9; Gascoigne, *Encountering the Pacific*.
58. Cheek, *Sexual Antipodes*.
59. Marshall and Williams, *Great Map of Mankind*, 258–98; Banks, *Endeavour Journal*, vol. 1, 400–3, 268–71, vol. 2, 122–30, 142.
60. Pitts, *A Turn to Empire*, 1–21.
61. Gibbon, *Decline and Fall*, vol. 1, 227; Pocock, "Gibbon and the Shepherds."

62. Smith, *Wealth of Nations* (1776), book 4, ch. 7, para. 29, book 5, ch. 3, para. 76. See also Winch, *Classical Political Economy and Colonies*, 6–24; Pitts, *A Turn to Empire*, 25–58.
63. Smith, *Wealth of Nations* (1776), book 4, ch. 7, para. 23–25, 37–43.
64. Smith, *Wealth of Nations* (1776), book 1, ch. 8, para. 23, 23n., book 4, ch. 8, para. 49.
65. *Annual Register*, 191–92; Burgh, *Political Disquisitions*, vol. 2, 287; *Politician's Dictionary*, vol. 1, 147.
66. Braithwaite, *Romanticism, Publishing, and Dissent*, chs. 1, 2; [Joseph] Johnson to BF, November 4, 1766, *PBF*, vol. 12, 484.
67. Franklin, *Political, Miscellaneous, and Philosophical Pieces*, 1–23.