

Enlightenment included entries on arts and crafts, philosophy, politics, theology, and language. Articles displaying cross-references manifested the view that all knowledge is related and dependent on other knowledge. The state of war that characterized Anglo-French relations for much of the eighteenth century did not affect the flow of scientific information between the two nations. These wars, for the most part, took place in the colonies, and in contrast to the bloody seventeenth century, most European nations in the eighteenth century, with the exception of Prussia, were spared the horrors and devastation of wars from the end of the War of the Spanish Succession in 1713 to the beginning of the wars of the French Revolution in 1792. Peace made restrictions on the diffusion of technology difficult to enforce.¹⁹

Eighteenth-century Europe saw a dramatic acceleration in geographic mobility. Rapid demographic growth, from eighty-one million people in 1700 to one hundred twenty-three million in 1800, placed additional demands on the diminishing supply of agricultural land. The creation of substantial employment outside agriculture and the absence of bloody conflicts allowed an increasing number of people to move into urban areas. Industrialization was not confined to the growing commercial urban centers. In search of lowering the costs of production, capitalists invested in rural areas, creating vibrant rural industries. The productive process connected distant economies. Goods produced in villages were finished in towns and marketed across national and continental borders. The emerging market capitalism and the Industrial Revolution tied workers, in urban centers and remote rural areas alike, into the web of Europe's growing economy. Naturally, those who did not own land and who consequently made a living off the emerging cottage industries were the most mobile. For the first time in Europe's history hundreds of thousands of individuals literally packed up and left their homes and cultures in search of livelihoods in other countries. Confining

workers to a particular locality became all the more difficult in this context of rising mobility and massive displacements.²⁰

What stood in the way of technology diffusion in the eighteenth century, above all, was the centrality of the artisan to the new methods. Many of the important innovations that were so instrumental in quickening the pace and lowering the costs of production were adjustments by individual artisans. Technical knowledge was organized like a pyramid with steeply pitched sides. In every industry there were a few knowledgeable artisans. The level of technical skill beyond this select few was markedly inferior. The empirical origins and craft basis of the new technology meant that little of it was put into writing, less into print, and even what was published was difficult to copy. The most efficient and direct way of acquiring new technology was to entice artisans with the right skills to migrate.²¹

The growing geographical mobility of the era combined with promises of patent monopolies and cash rewards undermined states' efforts to control the diffusion of technology. The American republic was born into a world that could not resolve the tension between national economic development and international intellectual property. The following pages chronicle the particular American manner of living with and resolving the tension. They analyze the manner in which underdeveloped former British colonies on the Atlantic North American coast that cared little about the rights of foreign inventors emerged as the primary agents of state-bounded intellectual property.