no overall industrial revolution. Again, the clearest result of improved transport and communication was a growing emphasis on the export of cash crops and minerals to pay for necessary manufactured imports from Europe. An industrial example had been set, and, as in Egypt, a growing though still tiny minority of Middle Easterners gained some factory experience, but no fundamental transformation occurred...

Developments of preliminary industrial trappings—a few factories, a few railroads—nowhere outside Europe converted whole economies to an industrialization process until late in the nineteenth century, though they provided some relevant experience on which later (mainly after 1870) and more intensive efforts could build. A few workers became factory hands and experienced some of the same upheaval as their Western counterparts in terms of new routines and pressures on work pace. Many sought to limit their factory experience, leaving for other work or for the countryside after a short time; transience was a problem for the same reasons as in the West: the clash with traditional work and leisure values. Some technical and business expertise also developed. Governments took the lead in most attempts to imitate the West, which was another portent for the future; with some exceptions, local merchant groups had neither the capital nor the motivation to undertake such ambitious and uncertain projects. By the 1850s a number of governments were clearly beginning to realize that some policy response to the industrial revolution was absolutely essential, lest Western influence become still more overwhelming. On balance, however, the principal results of very limited imitation tended to heighten the economic imbalance with Western Europe, a disparity that made it easier to focus on nonindustrial exports. This too was a heritage for the future...

Mary Antin (1881–1949) grew up in a Jewish family in Polotsk, Russia (now in Belarus). In 1891 her father sailed to America, three years later calling the rest of the family (Mary, her siblings, and their mother) to join him in Boston. This selection from Antin’s memoir contains part of her account of her first year in the United States, initially in Boston and then nearby in Crescent Beach and Chelsea. How did the lives of the Antins change from Polotsk to their first year in the United States? How did they view that change? What connection do you see between immigration and nationalism?

THINKING HISTORICALLY
This selection has numerous references to the material world, capitalism, and the products of the industrial revolution. What are these references? In what ways were their lives in the United States more or less material, capitalist, or industrial than they were in Polotsk?

In our days of affluence in Russia we had been accustomed to upholstered parlor, embroidered linen, silver spoons and candlesticks, goblets of gold, kitchen shelves shining with copper and brass. We had feather beds heaped halfway to the ceiling; we had clothes presses dusky with velvet and silk and fine woollen. The three small rooms into which my father now ushered us, up one flight of stairs, contained only the necessary beds, with lean mattresses; a few wooden chairs; a table or two; a mysterious iron structure, which later turned out to be a stove; a couple of unornamental kerosene lamps; and a scantly array of cooking utensils and crockery. And yet we were all impressed with our new home and its furniture. It was not only because we had just passed through our seven lean years, cooking in earthen vessels, eating black bread on holidays and wearing cotton; it was chiefly because these wooden chairs and tin pans were American chairs and pans that they shone glorious in our eyes. And if there was anything lacking for comfort or decoration we expected it to be presently supplied—at least, we children did. Perhaps my mother alone, of all newcomers, appreciated the shabbiness of the little apartment, and realized that for her there was as yet no laying down of the burden of poverty.

Our initiation into American ways began with the first step on the new soil. My father found occasion to instruct or correct us even on the way from the pier to Wall Street, which journey we made crowded together in a rickety cab. He told us not to lean out of the windows, nor to point, and explained the word “greenhorn.” We did not want to be “greenhorns,” and gave the strictest attention to my father’s instructions. I do not know when my parents found opportunity to review together the history of Polotsk in the three years past, for we

MARY ANTIN

The Promised Land, 1894/1912

The industrial revolution moved huge capital fortunes and millions of laborers across continents and oceans to places where they could be combined to further new and ever larger capitalist and industrial ventures. Not everyone, however, became a major capitalist or industrial worker. Some like Mary Antin’s father played barely supporting roles in the new infrastructure.

children had no patience with the subject; my mother’s narrative was constantly interrupted by irrelevant questions, interjections, and explanations.

The first meal was an object lesson of much variety. My father produced several kinds of food, ready to eat, without any cooking, from little tin cans that had printing all over them. He attempted to introduce us to a queer, slippery kind of fruit, which he called “banana,” but had to give it up for the time being. After the meal, he had better luck with a curious piece of furniture on runners, which he called “rocking-chair.” There were five of us newcomers, and we found five different ways of getting into the American machine of perpetual motion, and as many ways of getting out of it. One born and bred to the use of a rocking-chair cannot imagine how ludicrous people can make themselves when attempting to use it for the first time. We laughed inordinately over our various experiments with the novelty, which was a wholesome way of letting off steam after the unusual excitement of the day.

In our flat we did not think of such a thing as storing the coal in the bathtub. There was no bathtub. So in the evening of the first day my father conducted us to the public baths. As we moved along in a little procession, I was delighted with the illumination of the streets. So many lamps, and they burned until morning, my father said, and so people did not need to carry lanterns. In America, then, everything was free, as we had heard in Russia. Light was free; the streets were as bright as a synagogue on a holy day. Music was free; we had been serenaded, to our gaping delight, by a brass band of many pieces, soon after our installation on Union Place.

Education was free. That subject my father had written about repeatedly, as comprising his chief hope for us children, the essence of American opportunity, the treasure that no thief could touch, not even misfortune or poverty. It was the one thing that he was able to promise us when he sent for us; sure, safer than bread or shelter. On our second day I was thrilled with the realization of what this freedom of education meant. A little girl from across the alley came and offered to conduct us to school. My father was out, but we five between us had a few words of English by this time. We knew the word school. We understood. This child, who had never seen us till yesterday, who could not pronounce our names, who was not much better dressed than we, was able to offer us the freedom of the schools of Boston! No application made, no questions asked, no examinations, rulings, exclusions; no machinations, no fees. The doors stood open for every one of us. The smallest child could show us the way.

This incident impressed me more than anything I had heard in advance of the freedom of education in America. It was a concrete proof—almost the thing itself. One had to experience it to understand it.

It was a great disappointment to be told by my father that we were not to enter upon our school career at once. It was too near the end of the term, he said, and we were going to move to Crescent Beach in a week or so. We had to wait until the opening of the schools in September. What a loss of precious time—from May till September!

Not that the time was really lost. Even the interval on Union Place was crowded with lessons and experiences. We had to visit the stores and be dressed from head to foot in American clothing; we had to learn the mysteries of the iron stove, the washtub, and the speaking-tube; we had to learn to trade with the fruit peddler through the window, and not to be afraid of the policeman; and, above all, we had to learn English...

I am forgetting the more serious business which had brought us to Crescent Beach. While we children digested ourselves like mermaids and menmen in the surf, our respective fathers dispensed cold lemonade, hot peanuts, and pink popcorn, and piled up our respective fortunes, nickel by nickel, penny by penny. I was very proud of my connection with the public life of the beach. I admired greatly our shining soda fountain, the rows of sparkling glasses, the pyramids of oranges, the sausage chains, the near white counter, and the bright array of tin spoons. It seemed to me that none of the other refreshments stands on the beach—there were a few—were half so attractive as ours. I thought my father looked very well in a long white apron and shirt sleeves. He dished out ice cream with enthusiasm, so I supposed he was getting rich. It never occurred to me to compare his present occupation with the position for which he had been originally destined; or if I thought about it, I was just as well content, for by this time I had by heart my father’s saying, “America is not Poland.” All occupations were respectable, all men were equal, in America.

If I admired the soda fountain and the sausage chains, I almost worshipped the partner, Mr. Wilner. I was content to stand for an hour at a time watching him make potato chips. In his cook’s cap and apron, with a ladle in his hand and a smile on his face, he moved about with the greatest agility, whisking his raw materials out of nowhere, dipping into his bubbling kettle with a flourish, and bringing forth the finished product with a caper. Such potato chips were not to be had anywhere else on Crescent Beach. Thin as tissue paper, crisp as dry snow, and salt as the sea—such thirst-producing, lemonade-selling, nickel-bringing potato chips only Mr. Wilner could make. On holidays, when dozens of family parties came out by every train from town, he could hardly keep up with the demand for his potato chips. And with a waiting crowd around him our partner was at his best. He was as voluble as he was skilful, and as
witty as he was voluble; at least so I guessed from the laughter that frequently drowned his voice. I could not understand his jokes, but if I could get near enough to watch his lips and his smile and his merry eyes, I was happy. That any one could talk so fast, and in English, was marvelous enough, but that this prodigy should belong to our establishment was a fact to thrill me. I had never seen anything like Mr. Wilner, except a wedding jestor; but then he spoke common Yiddish. So proud was I of the talent and good taste displayed at our stand that if my father beckoned to me in the crowd and sent me on an errand, I hoped the people noticed that I, too, was connected with the establishment.

And all this splendor and glory and distinction came to a sudden end. There was some trouble about a license—some fee or fine—there was a storm in the night that damaged the soda fountain and other fixtures—there was talk and consultation between the houses of Antin and Wilner—and the promising partnership was dissolved. No more would the merry partner gather the crowd on the beach; no more would the twelve young Wilners gambol like mermaids and mermaids in the surf. And the less numerous tribe of Antin must also say farewell to the joyous seaside life, for men in such humble business as my father's carry their families, along with their other earthly goods, wherever they go, after the manner of the gypsies. We had driven a feeble stake into the sand. The jealous Atlantic, in conspiracy with the Sunday law, had torn it out. We must seek our luck elsewhere.

In Polotzk we had supposed that "America" was practically synonymous with "Boston." When we landed in Boston, the horizon was pushed back, and we annexed Crescent Beach. And now, espying other lands of promise, we took possession of the province of Chelsea, in the name of our necessity.

In Chelsea, as in Boston, we made our stand in the wrong end of the town. Arlington Street was inhabited by poor Jews, poor Negroes, and a sprinkling of poor Irish. The side streets leading from it were occupied by more poor Jews and Negroes. It was a proper locality for a man without capital to do business. My father rented a tenement with a store in the basement. He put in a few barrels of flour and of sugar, a few boxes of crackers, a few gallons of kerosene, an assortment of soap of the "save the coupon" brands; in the cellar, a few barrels of potatoes, and a pyramid of kindling-wood; in the showcase, an alluring display of penny candy. He put out his sign, with a gilt-lettered warning of "Strictly Cash," and proceeded to give credit indiscriminately. That was the regular way to do business on Arlington Street. My father, in his three years' apprenticeship, had learned the tricks of many trades. He knew how and how to "bluff." The legend of "Strictly Cash" was a protection against notoriously irresponsible customers; while none of the "good" customers, who had a record for paying regularly on Saturday, hesitated to enter the store with empty purses.

If my father knew the tricks of the trade, my mother could be counted on to throw all her talent and tact into the business. Of course she had no English yet, but as she could perform the acts of weighing, measuring, and mental computation of fractions mechanically, she was able to give her whole attention to the dark mysteries of the language, as intercourse with her customers gave her opportunity. In this she made such rapid progress that she soon lost all sense of disadvantage, and conducted herself behind the counter very much as if she were back in her old store in Polotzk. It was far more easy than Polotzk—at least, so it seemed to me; for behind the store was the kitchen, where, in the intervals of slack trade, she did her cooking and washing. Arlington Street customers were used to waiting while the storekeeper salted the soup or rescued a loaf from the oven.

Once more Fortune favored my family with a thin little smile, and my father, in reply to a friendly inquiry, would say, "One makes a living," with a shrug of the shoulders that added "but nothing to boast of." It was characteristic of my attitude toward bread-and-butter matters that this contented me, and I felt free to devote myself to the conquest of my new world. Looking back to those critical first years, I see myself always behaving like a child let loose in a garden to play and dig and chase the butterflies. Occasionally, indeed, I was stung by the wasp of family trouble; but I knew a healing ointment—my faith in America. My father had come to America to make a living. America, which was free and fair and kind, must presently yield him what he sought. I had come to America to see a new world, and I followed my own ends with the utmost assiduity, only, as I ran out to explore, I would look back to see if my house were in order behind me—if my family still kept its head above water.

In after years, when I passed as an American among Americans, if I was suddenly made aware of the past that lay forgotten,—if a letter from Russia, or a paragraph in the newspaper, or a conversation overhead in the street-car, suddenly reminded me of what I might have been,—I thought it miracle enough that I, Mashe, the granddaughter of Raphael the Russian, born to a humble destiny, should be at home in an American metropolis, be free to fashion my own life, and should dream my dreams in English phrases. But in the beginning my admiration was spent on more concrete embodiments of the splendors of America; such as fine houses, gay shops, electric engines and apparatus, public buildings, illuminations, and parades. My early letters to my Russian friends were filled with boastful descriptions of these glories of my new country. No native citizen of Chelsea took such pride and delight in its institutions as I did. It required no file and drum corps, no Fourth of July procession, to set me tingling with patriotism. Even the common agents and instruments of municipal life, such as the letter carrier and the fire engine, I regarded with a measure of respect. I know what I thought of
people who said that Chelsea was a very small, dull, unassuming town, with no discernible excuse for a separate name or existence.

The apex of my civic pride and personal contentment was reached on the bright September morning when I entered the public school. That day I must always remember, even if I live to be so old that I cannot tell my name. To most people their first day at school is a memorable occasion. In my case the importance of the day was a hundred times magnified, on account of the years I had waited, the road I had come, and the conscious ambitions I entertained.

I am wearily aware that I am speaking in extreme figures, in superlatives. I wish I knew some other way to render the mental life of the immigrant child of reasoning age. I may have been ever so much an exception in acuteness of observation, powers of comparison, and abnormal self-consciousness; none the less were my thoughts and conduct typical of the attitude of the intelligent immigrant child toward American institutions. And what the child thinks and feels is a reflection of the hopes, desires, and purposes of the parents who brought him overseas, no matter how precocious and independent the child may be. Your immigrant inspectors will tell you what poverty the foreigner brings in his baggage, what want in his pockets. Let the overgrown boy of twelve, reverently drawing his letters in the baby class, testify to the noble dreams and high ideals that may be hidden beneath the greasy capote of the immigrant. Speaking for the Jews, at least, I know I am safe in invoking such an investigation.

Italians in Two Worlds: An Immigrant's Letters from Argentina, 1901

One of the distinctive features of the capitalist industrial revolution was the globalization of capital and labor. The capital for the British industrial revolution, beginning toward the end of the eighteenth century, filtered in from the treasures of the Indies—East and West—and owed much to the labor of slaves and legally free workers who were shipped from one end of the world to the other. By the second half of the nineteenth century, the owners of farms, factories, mines, and railroads called for many more laborers.

Millions of these workers came from Italy alone. From 1860 to 1885, most came from northern Italy to South America, mainly Argentina. Between 1890 and 1915, Italian immigration to Argentina continued, but even more came from southern Italy to the United States. By the beginning of the twentieth century, New York City and Buenos Aires each had larger Italian populations than many Italian cities.

This selection contains the first few letters sent back home by one of those Italian immigrants, Oreste Solai, who arrived in Buenos Aires in 1901 from northern Italy. What do these letters tell you about this immigrant's expectations? What sort of work did he do? How did he manage to navigate his new world? What were his challenges? How would you describe his strengths? Based on the few hints of events in Italy, how was his life in Argentina different from what it would have likely been in Italy?

THINKING HISTORICALLY

What signs do you see in these letters of industrialization in Argentina? What signs do you see of a capitalist economic system? How is the life of Oreste shaped by the needs of capitalists? How is it shaped by a capitalist economic system? How is his life shaped by industrialization?

Letter 1

Buenos Ayres, 17 August 1901

Dearest parents,

I have been here since the 5th of this month; I am in the best of health and we are my two companions. As soon as we got here, we went to the address of Godfather Zocco, who then introduced us to several people from Valdengo who have been in America for some years and all are doing well more or less. The language here is Castilian, quite similar to Spanish, but you don't hear anyone speaking it. Wherever you go, whether in the hotel or at work, everyone speaks either Piedmontese or Italian, even those from other countries, and the Argentines themselves speak Italian.

1 He does not speak or understand Spanish and therefore does not realize that Spanish and Castilian are the same thing. Although 25 percent of the total population and an even higher percentage of the adult population of Buenos Aires was Italian-born, and therefore the Italian language was indeed spoken in many places, Oreste obviously exaggerates when he claims that everyone speaks it.
This city is very beautiful. There is an enormous amount of luxury. All the streets—they call them calle [sic] here—are paved either with hard wood or in cement as smooth as marble, even too smooth since the horses, tram horses as well as carriage horses, which run here, keep slipping constantly. It is not unusual to see twenty or more of them fall in one day.

The piazza Victoria (Plaza de Mayo) is also beautiful, where all around on two sides there are only banks. They are of all nations: English, French, Italian, Spanish, North American, etc., etc. On another side is the government building where the president of the Argentine Republic resides. He is Italian, Rocca by name, the third Italian president in a row who sits on the Argentine throne. There is also the railway station of the south, which is something colossal. With workshops, offices, and the station itself it will cover one million square meters. Now they are at work on a government building for the Congress (Parliament). The architect was an Italian, as is the chief contractor, who is supervising all the work. It is a job which in the end will cost more than 700 million lire. It will occupy an area of a block which is 10,000 square meters and will be surrounded by a square, which, along with the building, will constitute an area of about 100,000 square meters. This work will be better than the first [the railway station], but perhaps I shall not be able to see it finished.

All of this is inside the city, but if you should go outside for a few hours, it's worse than a desert. You only find houses made solely out of mortar, with only a ground floor and a door you have to enter on all fours. Outside you don't see a plant; everything is desert. The plain stretches as far as the eye can see; it takes hours on the train before you come to the mountains. There are a few tracts of land, sort of green, where they may let a few horses loose to graze. Here they let the animals go out no matter what the weather might be. Here you can't find a rock, though you pay its weight in gold for it. All the ground is black like mud, thick and muddy. When it doesn't rain, it gets hard, and if you try to dig, it shoots out as if it were rock.

The food here is pretty good, but it doesn't have much flavor. This is true for all Argentina.

All the guys here are jolly as crazy men. In the evening when we get together before going to bed we split our sides laughing. They would all like to go back to Italy, but they don't ever budge. Perhaps I will do the same. Here we eat, drink, and laugh and enjoy ourselves; we are in America.

Take one last loving kiss and hug from your always loving son, Oreste

Letter 2

Mendoza, 18 September 1901

Dearest parents,

I am still in good spirits and happy that I am in America. I am now at Mendoza instead of Buenos Ayres. I didn't like Buenos Ayres too much because you don't get good wine there; and then every day the temperature changes twenty times, and I was always chilly. Otherwise it was fine.

One day I got the idea, knowing that Secondino's brother-in-law and sister were in Mendoza. Since the boss advanced me the money for the trip, I made up my mind to come here, where you see nothing but hills and mountains in the distance, like at home. You drink very well here; the wine costs half what it does in Buenos Ayres and is pure and delicious. I am living here with Carlo and his wife and a man by the name of Luigi Ferraro from Chiavanza, who has been here for seven years traveling around in America. There are few people here from Italy, but there is no shortage of Italians. I still haven't learned a word of Castilian because, everywhere you go, they speak Italian or Piedmontese.

I am better off here than in Buenos Ayres. I am only sorry to be so far from my friends—they didn't want to come—and from Godfather and the rest.

This city is ugly; it never rains even though it is close to the mountains. I have written a friend to send me the address of my schoolmate Berretta, and I might just go and see him in Peru; it takes four days or more on the train. From Buenos Ayres to Mendoza takes two nights and a day on the railroad without ever changing trains or getting off. The longest stop is a half hour. In the entire journey you don't see a plant. There are two or three rivers about 400 meters wide. They are all in the plain, so calm that you can't tell which way the water is going, and yet they flow on in an imperceptible way.

The government of the province of Mendoza and many individual employers made a major effort to attract European immigrants during the two decades preceding World War I. It was not unusual for an employer to advance money to pay for the trip from Buenos Ayres to Mendoza.
Throughout the journey one meets only horses, cows, and goats, none of which have stables. On the rail line you don’t see a house for three hours or more, and everything is like that... 

Everyone, Carlo, Cichina, and Luigi, give their regards to you. Tell Secondino to come and see America, to drink and eat and travel.

Time is pressing since I have to work every evening until ten. I work at home after work.

You should write me at:

El Taller del Ferro Carril G.O.A.
Mendoza

Goodbye everybody. Kisses to Abele and Narcisa. Tell Abele to study hard and to learn to work. Send him to the technical schools; I imagine he has been promoted. Goodbye, Mom and Dad. Be in good spirits as I am.

Yours always,
Orestes

Letter 3

Mendoza, 13 November 1901.

Dearest Father, Mother, brother, and sister,

This morning Secondino arrived as you had already indicated he would in your letter of 14 October. He had a very good trip, and he made everyone happy to see him healthy and cheerful—as we are, Carlo, Cichina, and Luigi. He gave me the trousers which you gave him to bring me and the letter written by Dad and Narcisa.

I have been here in Mendoza for about three months, and I am happy that Secondino is here now too. But I don’t plan to stay fixed here. I would like to go to Peru with Beretta or to Cuba, where dear Cousin Edvino is staying, since I know that those who are there are doing well now. It wouldn’t be bad here except you aren’t sure about employment or anything, especially for the type of work I do. So you can’t even be sure of staying in one place. Before leaving I am waiting to get the address of Beretta.

I thought that I could send something, instead I had to make some purchases. Be patient. I think of our family conditions too often to be able to think of anything else. Excuse me if I have been slow in writing. It’s because I hoped to get a particular job, and I wanted to let you know I was waiting for the decision of the company. The job went to another also Italian, with whom nobody could compete. But let’s leave the subject of work because here there are so many professions and so many trades that you can’t say what you are doing. Today it’s this and tomorrow it’s that. I tried to go into the construction business for myself, but it didn’t work out. So much effort and expense. Now I am doing something else, and I shall change again soon.

My friends as well as Godfather are still in Buenos Aires. They are fine and want to be remembered to you. I receive news (from Buenos Aires) almost every week.

Pardon me, dear parents, brother, and sister, if I am sometimes slow in writing. It is not that I forget, quite the contrary. Only please don’t reproach me the way Narcisa does because, if you knew how painful those reproaches are to us here, especially when they come from the family, you would not believe it. I shall try to write more often.

Narcisa asks me for postcards, Abele for stamps. I cannot satisfy anyone since they don’t sell illustrated postcards here even though there would be many beautiful things to show, like, for example, the ruins of Mendoza of 1860 caused by the earthquake, which often happens here six or seven times a year. If it is a special earthquake, you seem to be in a boat, rocking like at sea. But if it gets a bit strong, you have to lie down so as not to fall. Some attribute it to the various volcanoes, mostly extinct however, which are in the mountains here. Others say it is because of the huge storms of the Pacific meeting the winds that come from the Atlantic. However, no one can verify it.

From what I make out from Dad’s letter, he says that he was planning to send me some clothes when he got established here. Excuse me, dear parents, your sacrifices are already excessive. Now it is my job to pay them back at least in part, and I shall do everything possible to that end. But excuse me, I am old enough now to earn my bread. I beg you not to be offended about this. If later I shall be in a position to, I shall send you money and everything. But for now, first of all, I have clothes to wear. I have already purchased here two suits and four pairs of trousers. So don’t be upset then. Rather, I repeat, as soon as I am able, I’ll see that you get something. Now I cannot; it has gone badly for me before I got started. When I shall again be the way I was in the beginning—but I don’t know when because here [in America] things can change from one day to the next—you will have some repayment.

I have received your newspapers and bulletins, letters and all, because the telegraph and postal service here is something very precise. I was very pleased to get them. I read also in the bulletin of the professional school that they are asking for the address of members who are living outside the country. If I should send it and then, before publication, I should move, I would be in the same situation I was before. Also they want you to indicate the kind of work you are doing for publication in the bulletin because it will be, I believe, an issue with all the graduates of the professional school, and I can’t tell them that. I change from one day to

*The earthquake to which he refers occurred on March 20, 1861. It destroyed the entire city of Mendoza and killed much of its population.
in every profession and everywhere you work nine hours a day and only 'til noon on Saturday. You don't work on Sunday nor after midday meal on Saturday, and you get more respect. When you ask for some improvement in pay, the owners don't say that they will show up with a rifle and fire at the first one who makes trouble, as the famous Giovanni Rivetti used to say. Here, if they don't want to give it to you, they look into it, they review it, but generally they give it to you, and all this without unions or anything. They are capitalists who are more aware; that's all there is to it.

Think always of your loving son who is in America, always in good spirits, even when things are going badly for him.

Oreste Sola

Secondino, like me, is always in good spirits, and we are always together. He sends you his warmest greetings and so does Carlo's family. Secondino would like you to say hello to his wife if it is not too much trouble.

1 Giovanni Rivetti was one of the owners of the Biella textile factory in which Luigi and Margherita worked. Given the size and importance of the factory, Rivetti's conduct greatly influenced that of the other owners in the entire area.

**REFLECTIONS**

It was because of certain traits in private capitalism that the machine—which was a neutral agent—has often seemed, and in fact has sometimes been, a malicious element in society, careless of human life, indifferent to human interests. The machine has suffered for the sins of capitalism; contrariwise, capitalism has often taken credit for the virtues of the machine.

Our chapter turns the above proposition by writer Lewis Mumford into a series of questions: What has been the impact of capitalism? Is the machine only neutral, or does it have its own effects? How can we distinguish between the economic and the technological chains of cause and effect?

Capitalism and industrialization are difficult concepts to distinguish. Adam Smith illustrated the power of the market and the division of labor by imagining their impact not on a shop or trading firm but on a pin factory, an early industrial enterprise. Karl Marx summarized the achievements of the capitalist age by enumerating “wonders far surpassing Egyptian pyramids,” which included chemical industries, steam navigation, railroads, and electric telegraphs. Neither Smith nor