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## The Industrial Revolution Outside the West

Stearns, a modern historian, discusses the export of industrial machinery and techniques outside the West (Europe and North America) in the nineteenth century. Again and again, he finds that initial attempts at industrialization—in Russia, India, Egypt, and South America—led to increased production of export crops and resources but failed to stimulate true industrial revolutions. Consequently, as producers of raw materials, these countries became more deeply dependent on Western markets for their products, while at the same time importing from the West more valuable manufactured products like machinery. What common reasons can you find for these failures?

### *Thinking Historically*

Did nineteenth-century efforts to ignite industrial revolutions outside the West fail because these societies neglected to develop capitalism, or did they fail because their local needs were subordinated to those of Western capitalists? Explain.

Before the 1870s no industrial revolution occurred outside Western society. The spread of industrialization within western Europe, while by no means automatic, followed from a host of shared economic, cultural, and political features. The quick ascension of the United States was somewhat more surprising—the area was not European and had been far less developed economically during the eighteenth century. Nevertheless, extensive commercial experience in the northern states and the close mercantile and cultural ties with Britain gave the new nation advantages for its rapid imitation of the British lead. Abundant natural resources and extensive investments from Europe kept the process going, joining the United States to the wider dynamic of industrialization in the nineteenth-century West.

Elsewhere, conditions did not permit an industrial revolution, an issue that must be explored in dealing with the international context for this first phase of the world's industrial experience. Yet the West's in-

dustrial revolution did have substantial impact. It led to a number of pilot projects whereby initial machinery and factories were established under Western guidance. More important, it led to new Western demands on the world's economies that instigated significant change without industrialization; indeed, these demands in several cases made industrialization more difficult.

### *Pilot Projects*

Russia's contact with the West's industrial revolution before the 1870s offers an important case study that explains why many societies could not follow the lead of nations like France or the United States in imitating Britain. Yet Russia did introduce some new equipment for economic and military-political reasons, and these initiatives did generate change—they were not mere window dressing.

More than most societies not directly part of Western civilization, Russia had special advantages in reacting to the West's industrial lead and special motivation for paying attention to this lead. Russia had been part of Europe's diplomatic network since about 1700. It saw itself as one of Europe's great powers, a participant in international conferences and military alliances. The country also had close cultural ties with western Europe, sharing in artistic styles and scientific developments—though Russian leadership had stepped back from cultural alignment because of the shock of the French Revolution in 1789 and subsequent political disorders in the West. Russian aristocrats and intellectuals routinely visited western Europe. Finally, Russia had prior experience in imitating Western technology and manufacturing: importation of Western metallurgy and shipbuilding had formed a major part of Peter the Great's reform program in the early eighteenth century.

Contracts of this sort explain why Russia began to receive an industrial outreach from the West within a few decades of the advent of the industrial revolution. British textile machinery was imported beginning in 1843. Ernst Knopp, a German immigrant to Britain who had clerked in a Manchester cotton factory, set himself up as export agent to the Russians. He also sponsored British workers who installed the machinery in Russia and told any Russian entrepreneur brash enough to ask not simply for British models but for alterations or adaptations: "That is not your affair; in England they know better than you." Despite the snobbism, a number of Russian entrepreneurs set up small factories to produce cotton, aware that even in Russia's small urban market they could make a substantial profit by underselling traditional manufactured cloth. Other factories were established directly by Britons.

Europeans and Americans were particularly active in responding to calls by the tsar's government for assistance in establishing railway and

