

The Railroad and the State: War, Politics, and Technology in Nineteenth-Century America. By Robert G. Angevine. Stanford: Stanford University Press, 2004. xvii + 351 pp. Photographs, illustrations, tables, notes, index. Cloth, \$65.00. ISBN: 0-804-74239-1.

Reviewed by Paul C. Jussel

A quintessential image in paintings and photographs of nineteenth-century America is that of railroads crossing the vast plains of the central United States. This image, so rooted in pictorial American history, did not become a reality through pure circumstance, as Robert Angevine explains in *The Railroad and the State*, which explores the part played by the U.S. Army in developing the railroads. Angevine's premise is that engineers trained by the military became active participants in building the railroads during the 1800s; indeed, the two institutions became inextricably intertwined. This relationship enabled the railroads to prosper and the nation to become industrialized, and it helped the army to develop a body of strategic thought. According to the author, the near-symbiotic relationship between the army and railroad companies continued throughout the century.

The railroads expanded across the country in the early nineteenth century under the direction of companies like the Baltimore & Ohio, but army engineers carried out much of the difficult surveying work. The curriculum of the U.S. Military Academy at West Point was oriented toward civil engineering; postgraduation duties for new officers naturally consisted of mapping and surveying. The War Department assigned officers to perform this work, not only to gain military control of new territories but also to support the development of commerce and trade. Early mapping of the United States did not aid the railroads exclusively, as much of the exploration that occurred before the Mexican War aided trading companies as well and enabled the population to grow in areas such as the Western Reserve and the Ohio Valley. The army was intimately involved in this development, and in many cases it acted as the force that brought order out of chaos. Politics entered the picture as well, and Andrew Jackson's sponsorship of railroad construction in Mississippi and Louisiana is but one example of the misuse of military engineers to the benefit of private enterprise (pp. 76–77). The army officers also

advanced technology, as they were able to try out new ideas and methods in unsettled frontier areas.

Difficulties emerged mid-century as the army's ambitions for the corps shifted away from civil development and were directed toward fashioning a more professional, war-oriented organization. By the 1830s, the elite status of West Point graduates was coming under intense criticism, as many of them resigned their commissions after they left school to seek employment in the burgeoning civilian economy. Since their education was provided free in exchange for a commitment to perform national service, politicians tried to discredit the Academy, labeling it a college for the politically connected. Dennis Hart Mahan, professor of engineering and dean at West Point, initiated a subtle campaign to counter the growing distrust and congressional influence-peddling by re-creating an institution that was more focused on war; interest in civilian railroad projects subsequently waned. The Mexican War temporarily awakened the War Department's interest in the railways, but once the fighting ended its attention turned elsewhere. By the late 1850s, few military officers had much interest in, or knowledge of, railroading.

The Civil War revived interest in the railroad business, and army officers once again were assigned to assist private companies. Herman Haupt, a West Point graduate, and Daniel McCallum, the general superintendent of the Erie Railroad, supervised a system of railroads that kept the Union Army supplied, positioned, and prepared for major campaigns. The two men developed techniques for railroad repair and management that became standards during the period of Reconstruction. Postbellum, many officers, both Union and Confederate, entered the railroad business. The War Department's energies turned to settling the West and responding to political pressures to protect new settlements. Grenville M. Dodge, the chief engineer for the Union Pacific and Ulysses S. Grant's former staff officer, was a central figure in railroad development in the late nineteenth century. Epitomizing the drive to connect the two coasts, Dodge capitalized on his army experiences and connections in order to gain the support of President Grant and the successive army commanding generals, William Tecumseh Sherman and Philip Sheridan. These senior officers either turned a blind eye or

condoned army involvement in railroad expansion during the two decades after the Civil War.

But, once again, as the nation settled into a period of relative calm in the 1880s, the army's interest in railroad development waned. There was little effort to prepare the national transportation system—if such a term could even be applied to what existed—for the growing conflict with Spain. Recriminations flew fast and furious following the army's dismal failure in organizing a force to invade Cuba and sail for the distant Philippines. Tales of spoiling food and starving horses filled veterans' accounts of the battles, all the result of a failed transportation system. Mercifully, the Spanish-American War was short, but it served notice to the War Department that organization was necessary to bring order to the mess produced by the conflict. Not least of the subsequent reforms were rudimentary efforts to organize the U.S. transportation system.

In the short space of 230 pages, Angevine skillfully covers the broad subject of army involvement in the development of the nation, using the railroad as an example. The particulars of many areas of railroad development are topics he leaves to future scholars. His concern is to connect examples of the army's deep involvement in settling areas of the nation throughout the nineteenth century. Army officers did not lend their skills only to rail companies; they assisted as well in the construction of canals and road networks.

Angevine's portrait of the parallel development of the army and the railroad, however, focuses too closely on this one aspect of army history. He does not, for example, mention the influence of foreign military theorists, particularly that of the Napoleonic chronicler Baron Antoine-Henri Jomini. Nor does he refer to the economic influences on the waxing and waning of the army's interest in railroads over the course of the century. During periods of prosperity, the rail companies did not have to ask for help, whereas hard times created the need for outside—and free—assistance. But these are minor caveats. This otherwise excellent book contains enough information for the generalist to appreciate the relationship between the army and railroads. Angevine's impressive bibliography offers a point of departure for those who wish to continue reading in more depth about the subject.

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