

Forging the Heart of a Frankensteinian Monster: Urbanization and Modernization in Pre-Imperial Berlin, 1860-1871

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I beheld the wretch—the miserable monster whom I had created . . . His jaws opened, and he muttered some inarticulate sounds, while a grin wrinkled his cheeks. He might have spoken, but I did not hear; one hand was stretched out, seemingly to detain me . . . Oh! No mortal could support the horror of that countenance . . . it became a thing such as even Dante could not have conceived.¹

On January 18, 1871, Frederick Wilhelm I, King of Prussia, was crowned Emperor over newly unified Germany. Wilhelm I's ascension to the throne as German Emperor was the end result of Chancellor Otto von Bismarck's plan for the unification of Germany under Prussian influence, a watershed event that forever altered the course of Germanic and world history.² After unification, the socioeconomic, cultural, and political debates within Germany's many principalities, kingdoms, states, and free-cities centered around the idea of the new

¹Mary Shelley, *Frankenstein: Or, the Modern Prometheus* (1818; reprint, New York: New American Library, 2000), 43.

²Eich Eyck, *Bismarck and the German Empire* (New York: George Allen & Unwin, 1958), 187.

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empire, complicating and, ultimately, defining the nation's new role as an emerging great power in Europe. In the eyes of many outsiders, Bismarck's new German Empire was a "Frankensteinian monster," a horrific aggregate of somewhat incongruous parts that loomed over central Europe, capable of peace or war, of enlightened progress or despotic autocracy, or, most importantly, of lasting unification or chaotic fragmentation.³

This Frankensteinian monster analogy is highly suggestive not only of the unstable and confused domestic future of the German Empire in 1871, but also the impression postwar Germany would have to overcome on an international scale. From an outsider's perspective, Bismarck's aggressive political machine showed no signs of stopping or slowing. The Wars of German Unification had already tarnished Germany's international prestige, and Bismarck's shrewd, often ruthless, tactics of eliminating opposition, especially in domestic arenas, accelerated unabated during the early 1870s.⁴ His international policy, however, became much more passive, arousing suspicion from other European countries, France and Great Britain in particular. In one hand, Bismarck offered the olive branch to Europe; the other hand, many Europeans feared, was busily sharpening the Imperial Sword.⁵ Because of these suspicions, Germany, like Frankenstein's monster, could not easily define for itself a place in European society.

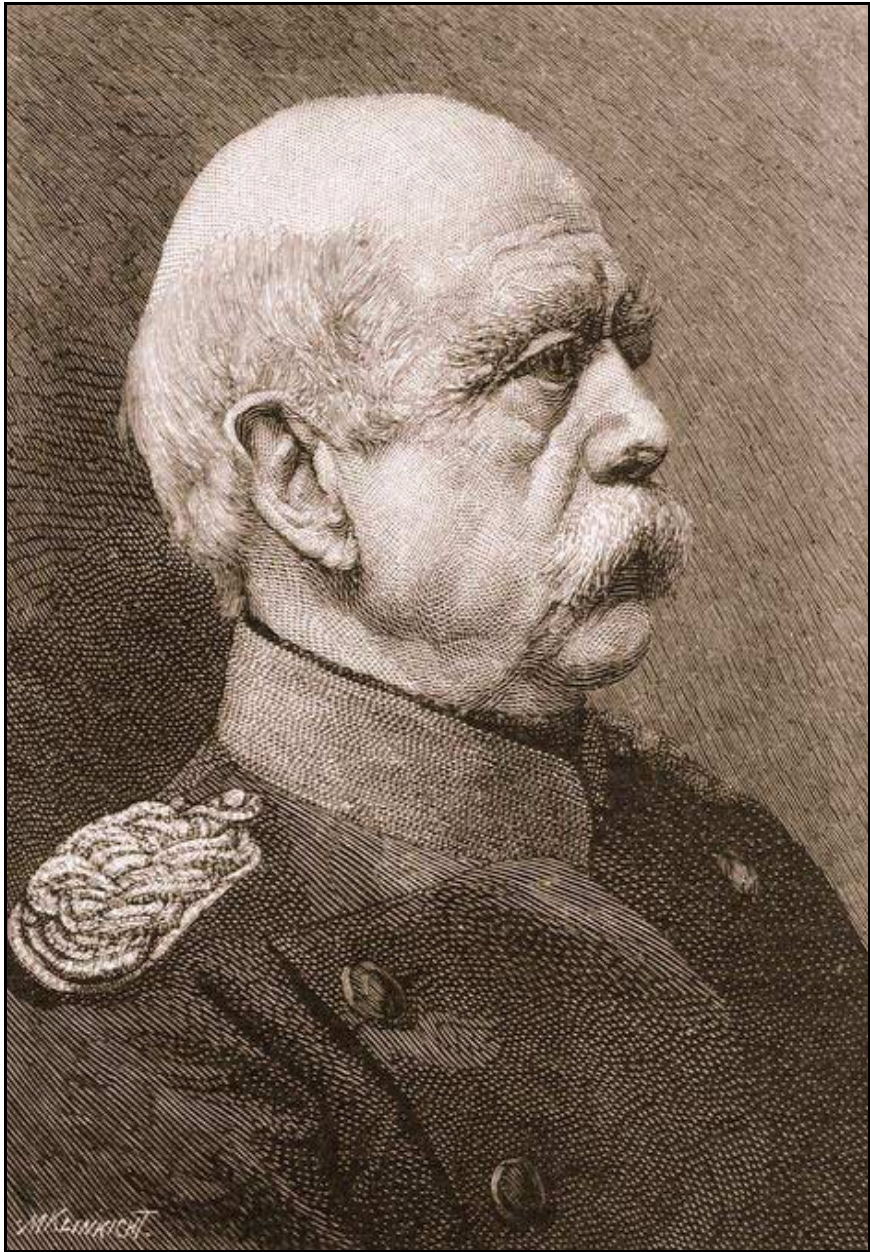
At the center, or heart, of this new German "monster" was Berlin. Declared "Imperial Capital of the Second German Reich" in 1871, Berlin had long been the governmental center of Prussia, extending its political history back to the earliest of Prussian electors and kings of the Middle Ages.⁶ In spite of its political experience, the unification of Germany in 1871 posed a unique, and potentially problematic, situation for Berlin: it was to be both the mouthpiece and heart of not just Prussia, but the entirety of Germany, to speak for and guide a collaboration of disparate peoples unified almost exclusively through Teutonic

³David Calleo uses a similar version of this analogy with reference to the Bismarckian Reich and twentieth-century Germany, commenting that, "if it [the Bismarckian Reich] were resurrected for the reunification of Germany, it would have the same effect as the return of Frankenstein's monster;" *Die Zeit*, January 5, 1990, p. 3.

⁴Eyck, *Bismarck*, 185-186.

⁵After the Franco-Prussian War, Bismarck himself claimed Germany was "saturiert" [saturated], meaning that, after the annexation of Alsace-Lorraine and the formation of the empire, Germany no longer needed to absorb territory; Eyck, *Bismarck*, 188.

⁶Charlemagne established the first German Reich in the ninth century.



Chancellor Otto von Bismarck.

history and a common—albeit dialectically diverse—language.⁷ Without warning, Berlin had moved from its place as a provincial capital into the exalted ranks of metropolitan giants like Paris and London. Dwarfed by these and other European capitals in size, population, cultural status, technological supremacy, and practically every other measure of a modern metropolis, the German Empire forced Berlin to assume a newfound role and transform itself, almost overnight, from the Prussian *Hauptstadt* into the German *Reichsstadt*.

Though the transformation of Berlin into Germany's imperial capital is a major turning point in the history of the city, its socioeconomic and political implications cannot be properly understood without contextualizing them within the greater history of Berlin. By analyzing the political, social, and economic status of Berlin before unification, this essay highlights the steps the city took to modernize and unknowingly prepare itself for the great boon of nationalism of the 1870s and its immediate ramifications. More specifically, by exploring the modernization and urbanization undertaken in Berlin during the 1860s, the city's growth after 1871 can be seen as a change in the rate of socioeconomic growth, which was enhanced, not begun, by Berlin's new role as a *Weltstadt*.

POLITICS AND NATIONALISM IN BERLIN

*Anyone who saw Berlin ten years ago [1851] would not recognize the place today. What used to be a parade-ground, rigid and regimented, has turned into the buzzing center of German heavy industry.*⁸

Karl Marx's assertion of Berlin as a rising industrial stronghold was a profound foreshadowing of the industrial and cultural sparks that would catch fire in the mid-1860s. Residents and regular visitors, like Marx, saw Berlin as the "buzzing center of German heavy industry," yet to infrequent visitors, especially those who had visited metropolitan London, Berlin seemed, and in many ways still was, a minor city. Population growth, industrialization, and urbanization in Berlin during the 1860s paled in comparison to cities like London.

⁷Ronald Taylor, *Berlin and Its Culture* (New Haven: Yale University Press, 1997), 155.

⁸Taylor, *Berlin*, 153-154.

More pertinent to this particular section, however, are the military and diplomatic events that dominated the minds of Germans and other Europeans throughout the 1860 and brought Prussia and Berlin into the forefront of European politics. Otto von Bismarck was Prussia's key political figure during the 1860s. Bismarck's name recalls his ultimate triumph in 1871 with the unification of Germany, the political events of the 1860s considered a long and arduous preamble. Erich Eyck, a biographer of Bismarck, quotes the chancellor as once saying, "I want to make only that music which I myself like, or no music at all."⁹ Eyck uses this theme extensively to convey a simple message—Bismarck was determined to be in charge. As works like Eyck's *Bismarck and the German Empire* convey a sense of Bismarck's political ambitions, it would be frivolous to attempt any sort of brief summary of Bismarck's life. What is possible, however, is to ascertain Bismarck's influence on Berlin as a statesman and as a propagator of a particular brand of nationalism that aimed at maintaining Prussian supremacy in the German Empire, a political tactic that found its roots in Berlin.¹⁰

Since the reign of Frederick the Great, the Berliners had prided themselves on being well-versed in politics. The vast majority of Berliners were working-class Protestants, many of whom were literate or, in the least, had access to readings of weekly newspapers and pamphlets. These publications, outlets of provincial, regional, and international news, were vital to the political and social consciousness of the Berliners during the 1860s. Bismarck's national and imperial ambitions would have failed completely had he been unable to utilize the popular press. The social underpinnings of political awareness, created through improvements in literacy and education, were therefore essential to Berlin's growth during the 1860s and 1870s. In fact, Berlin was the most literate city in Germany. During the 1860s and 1870s, Berliners illiteracy rates ranged from as low as 0.03 percent to 1.10 percent amongst men, and from 2.11 percent to 4.52 percent amongst women. These figures compare favorably to other German cities and regions, many of which had illiteracy rates upwards of 30 to 40 percent.¹¹ Had Berlin been overwhelmingly illiterate during the 1860s, it would have

⁹Eyck, *Bismarck*, 57.

¹⁰*Ibid.*, 187-188.

¹¹Henry Vizetelly, *Berlin under the New Empire: Its Institutions, Inhabitants, Industry, Monuments, Museums, Social Life, Manners and Amusements* (London: Tinsley Brothers, 1879), 2: 45.

been unable to act as an effective mouthpiece of nationalism for the German Empire after 1871.¹²

The period from 1866 to 1871 witnessed the zenith of the German nationalistic movement. Bismarck's political machine, inspired and driven by the literate masses in Berlin, dramatically increased public support for war, especially after Prussia's devastating victory over Austria in 1866. This "Six-Weeks War" was, in the eyes of the Berlinese, a mandate for Prussian supremacy in northern Germany.¹³ After the organization of the North German Confederation, a result of the Six-Weeks War, Bismarck revealed his ultimate nationalistic ambition—the complete unification of Germany under Prussian leadership. This ambition combined the desires of Prussian nationalists, who wanted to see Prussia become the dominant German state, with pan-German nationalists, many of whom saw Prussia's victory over Austria as pointing to the most probable route to a unified German state. Bismarck wagered his nationalistic ideal on the literate population in Prussia, knowing how easy it would be to encourage the political awareness of Berlinese and, in turn, Prussian nationalists in the North German Confederation. If Prussia was deemed by fate to lead the northern states, as Bismarck had already established in 1866, why, then, should it not lead the rest of Germany? This argument, politically driven but overtly tinged with Prussian sociocultural supremacy, was exactly what Bismarck wanted the Berlinese to follow.¹⁴ Berlin, as the center of Prussian nationalist movements, had become a political tool, one which Bismarck would frequently call upon from 1866 onwards to lead not just Prussia, but all of Germany as the center of nationalism.

As the center of Bismarck's German nationalist movement, Prussia benefited from the pan-German Zollverein [customs union]. Formed by Prussia in the early nineteenth century, the Zollverein removed customs duties and taxes on goods traded among the states surrounding Prussia. Though small at first, the Zollverein quickly added new members throughout Germany, coming to its greatest power after the Six-Weeks War between Austria and Prussia in 1866. The Zollverein's rise in economic strength paralleled Prussia's military and nationalistic

¹²Taylor, *Berlin*, 155.

¹³For more on this, see Denis Showalter, *The Wars of German Unification* (London: Hodder Arnold, 2004).

¹⁴Taylor, *Berlin*, 154.

achievements. In other words, from politics to trade, Berlin, as the capital of Prussia, was being continually promoted in the German states and, ultimately, within the German Empire.¹⁵

After 1866, Berlin became the “heart” of Bismarck’s new nationalism. Yet even Bismarck’s nationalistic “heart” would eventually shrivel unless a strong set of economic veins and arteries was established connecting Berlin to the quickly unifying German states. These veins and arteries, forged not of literacy, but of iron, would become the economic driving forces of German nationalists and industrialists, and would give Berlin the socioeconomic stimulus necessary to move beyond its provincial roots and become the rapidly urbanizing *Reichstadt* Germany, under Bismarck, would demand in 1871.

TERRITORIAL AND ECONOMIC EXPANSION

Altogether nothing can be sadder and more desolate looking than this Mark of Brandenburg [Berlin and its surroundings], through which the little river Spree winds its way with such inimitable resignation. Well may Berlin wits pretend that their ancestors would never have settled in so forbidding a territory had there not been a deplorable lack of good maps some thousands of years ago . . . Well might the Brandenburg poet sing

“Oh, what a bare and dreary land!

No hill, no vale, only dry sand,

No roses, not an oak!”¹⁶

In 1860, Berlin was a provincial capital. Vast, open hillsides were but a short distance from the old city walls, the bustling and overcrowded streets of Paris and London a distant and romanticized fantasy. Founded in 1237, Berlin knew little urban development until the late fourteenth century, during which time the Mark of Brandenburg became an Electorate of the Holy Roman Empire. Although it is beyond the scope of this essay to discuss Berlin’s role in the Mark of Brandenburg during the Middle Ages, its socioeconomic progression during the Renaissance and the Reformation, and its modernization under Frederick the Great during the eighteenth century, this sequence

¹⁵W. R. Lee, “Economic Development and the State in Nineteenth-Century Germany,” *Economic History Review* 41 (August 1988): 346-367.

¹⁶Vizetelly, *Berlin under the New Empire*, 1:9-10.

of events has one theme in common: Berlin's development was very slow and controlled well into the nineteenth century. In other words, Berlin in 1860 was not very far removed from Frederick the Great's Berlin a century earlier.¹⁷ As its population increased at a steady rate over the nineteenth century, Berlin resembled much of continental Europe with technological improvements and industrialization remaining a minor, albeit slowly growing, aspect of urban economics and culture.¹⁸

In 1861, however, the first of many urban stimuli of the decade was inaugurated: a significant (41 percent) amount of territory was annexed into Berlin, taking its total area from 35.11 square kilometers to 59.23 square kilometers.

This expansion had an immediate, positive effect on the demographics and economics of Berlin. The new territory added 35,000 residents—bringing the overall population of Berlin to around 547,000, a 7 percent increase—and increased the number of factories, mills, warehouses, stables, and houses by 17 percent. Overall, after 1861 Berlin had: 21,919 large-scale residences; 10,180 stables, barns, and hovels; 1,164 factories, mills, and warehouses; 700 public buildings; 459 government buildings; and 104 academic and religious buildings. These figures give a good general idea of the status of Berlin just before Bismarck's unification movement and highlight that, though the vast majority of Berlin's demographic and economic growth would occur after 1871, the physical underpinnings of such developments were already becoming manifest without the help of imperial nationalism.¹⁹

Though the geographic expansion was a boon for Berlin, its immediate economic significance should not be over-exaggerated. Much of the territory was undeveloped, or at least underdeveloped, thus causing a decline in Berlin's population density.²⁰ This land would prove to be crucial after 1871 in the transformation of Berlin into a capital befitting one of Europe's great powers. In 1861, though, Berlin did not have the resources, nor the necessity, to fully utilize the

¹⁷Ibid., 27-60.

¹⁸Giles MacDonogh, *Berlin: A Portrait of Its Histories, Politics, Architecture and Society* (New York: St. Martin's Press, 1997), xi.

¹⁹Herbert Schwenk, *Lexikon der Berliner Stadtentwicklung* (Berlin: Haude und Spener, 2002), 191-192.

²⁰In 1860, Berlin had 14,489 people per square kilometer. The following year, population density dropped to 9,235 people per square kilometer. The figures are calculated from *ibid.*

new territory. Before it could expand into the new territory, Berlin would first have to harness its older, underused resources and manpower to reenergize the inner-city and, though the residents of Berlin were unaware at the time, prepare the city for its complete overhaul during the 1870s.

A TEMPORARY SOLUTION: THE HOBRECHT PLAN

In 1862, James Hobrecht, younger brother of Berlin's Oberbürgermeister [Mayor] Arthur Hobrecht, began developing a new infrastructure system for Berlin. Entitled "Bebauungsplan der Umgebungen Berlins" [Development Plan for the Environs of Berlin], Hobrecht's design focused on dividing the city into fourteen discrete sections for the administration of public works and services and on the development of large, previously unoccupied space surrounding the city, much of which had been annexed the previous year.²¹ The Hobrecht Plan called for the addition of even more territory than had been annexed in 1861, which would have given the city more land beyond what many considered to be its "natural boundaries."²² Hobrecht justified this action because it would repartition existing sections of the city into more manageable sections, thus eliminating some of the inefficient medieval substructure of Berlin. Hobrecht's proposals, thoroughly researched by himself and his fellow engineers, went so far as to detail the design and placement of benches in to-be-developed parks and plazas. All of this, however, is trivial if not contextualized within Hobrecht's own life and the experiences that allowed him to devise such an ambitious project.

James Hobrecht lived from 1825 until 1902, his career spanning the entire second half of the nineteenth century. As a young adult, he engaged in eleven years of practical training in architecture and building, and, in 1856 and 1858, took and passed two master builder examinations.²³ During this time, Hobrecht also involved himself with

²¹Claus Bernet, "The 'Hobrecht Plan' (1862) and Berlin's Urban Structure" *Journal of Urban History* 31 (Autumn 2004): 400-419.

²²This new territory would have added even more land to Berlin than the expansion of 1861.

²³Bernet, "Hobrecht Plan," 400.



James Hobrecht.

the construction of railroads throughout the Brandenburg [Greater Berlin] region, a task that helped to familiarize him with the city and its outlying towns. From 1858 to 1862, he served on the *Königliche Polizeipräsidium* of Berlin, [Kingly, or Royal, Police Committee] working alongside other engineers devoted to improving Berlin's infrastructure.²⁴ Hobrecht was not the first engineer to notice Berlin's current and potential urban problems, such as inadequate housing, insufficient road and railroad access on the edges of the city, and poorly developed industrial zones. He was, however, the first from this collective of engineers to produce an plan that was put into prac-

²⁴This title implied that Hobrecht served on the city council that oversaw Berlin's urban development.

tice.²⁵ This fact is significant because there were no formal schools of urban development or zoning regulations in Prussia, nor any historical precedents for the city.²⁶ To overcome these shortcomings, Hobrecht relied on a compendium of police regulations to determine which lots would be developed for public, private, residential, governmental, or military use.²⁷ These police regulations were compiled by the city's own *Polizeipräsidium*, which, in turn, answered to the *Königliche Polizeipräsidium* and the King himself.

The Hobrecht Plan, in spite of its innovations for Berlin, was not completely original. The plan emulated designs and policies from other notable cities and even included elements from some of Berlin's previous, unsuccessful plans. In fact, before the development of his plan, Hobrecht spent over three months visiting cities all over Europe.²⁸ Hobrecht studied Hamburg's sewer system, Paris's famous boulevards, London's squares like Trafalgar, and Vienna's Ringstrasse and included elements of each in his plan, a testament to his research and a credit to designers and engineers working in other European cities. Hobrecht also drew upon the Schmidt Plan, one of Berlin city official Heinrich Köbicke's projects of the 1850s that did not meet with approval, for the fourteen-district system. Ultimately, Hobrecht's plan was an ingenious amalgam of parts of the Schmidt Plan, ideas from other cities he had visited, and his own vision.²⁹

The most important aspects of the Hobrecht Plan were flexibility, growth, and movement. The is seen in his designs for roads, railways,

²⁵Hobrecht's plan was the alternative to a previous plan called the Schmidt Plan. Hobrecht's plan was accepted because Heinrich Köbicke, another engineer in the *Polizeipräsidium*, grew very ill and was unable to finish the revision of the Schmidt Plan; Bernet, "Hobrecht Plan," 402.

²⁶In fact, the terminology of urban development or urban planning was not available to Hobrecht or his fellow engineers, as it is a twentieth century school of design.

²⁷Bernet, "Hobrecht Plan," 402.

²⁸As Bernet (p. 402) points out some scholarly works on Hobrecht erroneously deny that he had any knowledge of foreign cities prior to the development of the Hobrecht Plan. The reasoning of these historians is unknown, whether it be misinformation or a purposeful omission to emphasize Hobrecht's originality and "Germaness." Either of these situations are possible, and, if the latter proves true, reveals much about the significance of Berlin in the national identity of German scholars even today. For more on city planning in Europe, see, e.g., David P. Jordan, *Transforming Paris: The Life and Labors of Baron Haussmann* (New York: Free Press, 1995).

²⁹Growth and development over the past century and a half has modified and re-imagined much of Hobrecht's original design. For more on this, see Bernet, "Hobrecht Plan," *passim*.

and industrial centers. Reinforcing his understanding of the burgeoning rail and street car systems, Hobrecht planned for large-scale economic growth by placing industrially-focused zoning on the outskirts of the city, closest to where train stations, warehouses, and lines of transport would continue to develop. The only planned streets and avenues were to be broad, main thoroughfares; side-streets, he proposed, would be added as necessary during development, thus allowing a greater degree of later freedom in zoning and design. This decision highlighted another of Hobrecht's intentions (as well as one of the reasons why his plan was so readily accepted by the *Königliche Polizeipräsidium*): the plan was designed to serve the needs of the present as well as the future.

As a condition for governmental sanction, however, Hobrecht was required by King Wilhelm I to design a ring of roads around Berlin identical to Vienna's Ringstrasse. Unfortunately, new railways and preexisting structures limited the implementation of a complete ring of roads; the result, named the *Generalzug* in honor of famous Prussian field commanders, was merely a fraction of the ring ordered by Wilhelm I. Later, however, a ring of railroads around the city was incorporated into Hobrecht's plan, creating a quasi-Ringstrasse, which, if compared to the famously beautiful original, appears a cold, but appropriately industrial imitation.³⁰

While efficient thoroughfares and railways were crucial for the continued industrialization of Berlin, Hobrecht also constructed standardized *Mietskasernen* [housing blocks], which came to typify Berlin's residential architecture during the late nineteenth century.³¹ Hobrecht did not concern himself too much with aesthetics in this part of his plan, instead allowing each building, as it was constructed, to be externally or internally modified by the tenants or builders. Hobrecht also initiated the construction of green spaces in Berlin. Areas

³⁰While some scholars deny that Hobrecht was influenced by the plans of other European cities, others criticize his work as being too derivative of these cities and ridicule the plan for its "monotony, speculation and alienation." These critics refuse Hobrecht much of the due credit for his creation because it was inspired by outside sources, insisting that his inspirations, considered wonderful in their own right, became "bland" when combined in the plan for Berlin; Bernet, "Hobrecht Plan," 402.

³¹Surprisingly, the terminology of *Mietskasernen*, used extensively by Hobrecht, became identified with any tenement-style construction in many central European cities, including Vienna, and is reminiscent of the residential blocs constructed in East Berlin during the GDR period.

for plazas, parks, and squares were planned. Unlike the *Mietskasernen*, however, their construction did not typify Berlin's recreational or cultural outlets during the nineteenth century. Few of the green spaces and plazas designed by Hobrecht were developed, mainly because financial and time constraints caused them to be redeveloped into housing or commercial zones. Overall, Hobrecht intended his *Mietskasernen* and green spaces to serve as templates for future development, not necessarily imitable, showcase models.

Although some elements of the Hobrecht Plan took many years to fully realize and others were never implemented, the plan was crucial to Berlin's development in the 1860s and 1870s. Hobrecht helped create strong foundations for the industrial, urbanized city that was already beginning to form. He saw great potential in combining freedom with structure, a design template that gave German architects and engineers infinite options for the future necessities of Berlin. Hobrecht believed that because of the immense breadth of his plan, Berlin would have room to gradually expand for over fifty years.³²

ADVANCEMENTS IN URBAN TRANSPORTATION

During the 1860s, private enterprise introduced to Berlin a revolutionary transportation system that facilitated the expansion of the city in accordance with Hobrecht's plan and stimulated economic growth. Unlike the electric street cars or steam-powered omnibus of the later nineteenth century, this system required no combustion engines or fossil fuels. The *Pferdestrassenbahn-Linien* [Horse-Drawn Street-Car Lines], or *Pferdebahnen*, were revolutionary not just because they represented a technological breakthrough in urban transport, but also because residents of Berlin were finally being provided reliable, affordable transportation around the city. Residents of nearby towns like Charlottenburg or Potsdam could now easily partake of the myriad of urban services being offered in Berlin, ranging from the museums and gardens of the inner-east city to the Berliner Zoo west of the famous Tiergarten. For the first time since Frederick the Great, Berlin was reemerging as a city of accessible cultural interest. Before Berlin's burgeoning cultural scene can be fully understood, however, the physical development of the *Pferdebahnen*, which also contributed

³²Schwenk, *Lexikon*, 193.

greatly to the financial foundation of Berlin's industrial boom during the late 1860s and early 1870s, must be outlined.

Essentially, *Pferdebahnen* were horse-drawn carriages designed to hold up to forty-five people and guided along the streets on recessed iron or steel tracks. The first of these systems appeared on June 22, 1865, built through the private investment of the Berliner Pferdebahngesellschaft [Berlin Horse-Tram Society]. The experimental line, the first of its kind in Berlin to use the embedded-track system, followed a route west from the Brandenburg Gate to Charlottenburg via the Tiergarten. Two months later, the Berlin Horse-Tram Society expanded its line eastward into the middle of Berlin, and in 1871 to the furthest western point of Charlottenburg. By the time of Frederick Wilhelm's coronation as emperor, residents of Berlin could quickly travel the entire length of the city from east to west, and Charlottenburg residents could reach the city proper within ten minutes. This expansion of the *Pferdebahnen*, mostly along the arteries planned by Hobrecht, gave residents of Berlin's outlying towns a greater sense of mobility within and around the city and encouraged an overall increase in the usage of inner-city amenities by outsiders and Berliners alike.

It comes as no surprise, then, that the success of Berliner Pferdebahngesellschaft led to the development of other *Pferdebahnengesellschaften*, notably the Grossen Berliner Pferde-Eisenbahn-AG [Horse-Tram Corporation of Greater Berlin] in 1871 and the Neuen Berliner Pferdebahngesellschaft [New Berlin Horse-Tram Society] in 1877. The popularity of the *Pferdebahnen* continued to increase well into the 1880s, new connecting lines, passenger stations, and more frequent routes being added yearly. By 1888, the city's 36 lines, 5,000 horses, and 1,060 trams had provided transportation to over 100 million travelers since 1865.³³

In order to maintain and support these burgeoning, inner-city transportation networks, entirely new industries developed around the city. Importation of large amounts of feed for horses led to the construction of warehouses at the edges of the city, where carpenters and engineers were also designing ultra-efficient, multi-story stable complexes. One particular stable, located on Kreuzbergstrasse, was

³³Ibid., 182.

three stories tall and used a mechanical elevator to move horses, feed, and waste throughout the complex.

Blacksmiths were attracted to the city as well, hoping to make a profit constructing rails, warehouses, and tram cars.³⁴ In fact, the two fastest growing industrial sectors of Berlin's economy in the mid 1860s were machine construction (including vehicles) and metal refinery, both of which were essential to the continued construction of Berlin's inner-city *Pferdebahnen* networks.³⁵ These industries relied heavily on steam-powered engines and the importation of raw iron, which, as will be shown in the next section, would be transported by Berlin's burgeoning railroad network.

The development of a cheap, efficient transportation system—the *Pferdebahnen*—and the influx of industrial capitalists into Berlin proved vital to the city's further economic and infrastructural growth during the 1860s and 1870s. Berlin's industrialists, after investment in new *Pferdebahnen* became less profitable, began shifting their capital into other burgeoning industries. The most potentially lucrative new industry—and consequently the most popular—was the construction of railroads. Acting as the counterpart and logical extension of the successful inner-city transportation methods of the *Pferdebahnen*, railroads allowed capitalists to take advantage of Berlin's burgeoning economy to redefine the city's role as an international focus of travel and commerce during the 1860s and 1870s.

REDEFINING BERLIN'S RAILROADS

In the 1860s, an advanced rail system provided Prussia with a military advantage over other continental European rivals. Prussia was one of the first countries in Europe to effectively mobilize, transport, and supply troops via rail deployment, a strategy that was first utilized by the British during the Crimean War of the 1850s.³⁶ The best examples of the advantages of Prussia's railroad-based troop deployment system are the victories over Austria in 1866 and France in 1870. Being able to quickly reinforce front-line battalions with soldiers, artil-

³⁴Ibid., 183-184.

³⁵Ibid., 162.

³⁶For more on this, see John Sweetman, "'Ad Hoc' Support Services during the Crimean War, 1854-1856: Temporary, Ill-Planned and Largely Unsuccessful" *Military Affairs* 52 (July 1988): 135-140.

lery, and supplies gave Prussian generals a key tactical advantage in both wars. Additionally, the army's logistical system would serve as a model for Prussian economists and industrialists seeking new methods of distribution and resource management in the private sector. And, as is often the case, technologies and theories initially reserved for military purposes often show their greatest potential when applied to economics.³⁷

The first proto-railways appeared in Berlin during the mid-1830s, mimicking the designs and capacities of British railways produced since 1814. In 1835, societies like Die Korporation der Kaufmannschaft Berlins [the Corporation of Berlinese Merchants] began to explore the potential advantages of national and international rail systems. The construction of railways flourished between urbanized areas throughout Prussia from the 1830s through the 1850s, establishing the basic framework for the first Prussian rail network.³⁸

From 1848 until the mid 1850s, however, Germany witnessed an economic downturn that brought railroad growth to a near halt. This sudden downturn occurred for many reasons, the most prominent being the Revolution of 1848. The liberal revolution—a response to Kaiser Friedrich Wilhelm IV's staunch conservatism and his repeated refusals to establish a legislative system—caused economic and political strife throughout Prussia.³⁹ Another reason for Prussia's economic stagnancy, as Jonathan Sperber highlights in *The European Revolutions, 1848-1851*, was the development of generalized workers' associations to complement or, in some cases, supplant the influence of guilds. During 1848 and 1849, two economically-minded political movements developed in central Europe: one was pro-guild; the

³⁷Prussian military logisticians encouraged the construction of multi-track railways and organized arrival and departure charts for the speedy and efficient distribution of troops and supplies along the front-lines in both the Six-Weeks War and the Franco-Prussian War; Michael Howard, *The Franco-Prussian War* (New York: Routledge, 2000), 18; Showalter, *German Unification*, passim.

³⁸Schwenk, *Lexikon*, 186-187.

³⁹A Prussian Constituent Assembly was eventually established after Berlinese workers led an uprising in May 1848, yet it existed only eight months before its dismissal. As an attempt to appease the dissatisfied revolutionaries, the Prussian government issued a constitution by decree, eliminating the system of estates and royal absolutism. The constitution, however, put little real restraint on monarchical power; Jonathan Sperber, *The European Revolutions, 1848-1851* (Cambridge: Cambridge University Press, 2005), 235.



Berlin's Görlitzer Bahn soon after it was completed in 1867.

other pro-laissez faire. These groups divided over two key issues: the rights of guilds versus the rights of journeymen; and, more importantly, interventionist capitalism versus laissez-faire economics. This division helped bring economic growth in many European countries, including Prussia, to a standstill, with many laborers, both urban and rural, refusing to perform their duties. This economic decline was compounded by poor harvests, irregular tax collection, and barriers to trade.⁴⁰

After roughly two decades of stifled growth, the Prussian economy finally rebounded during the middle of the 1860s, helped by the war with Austria and the unification of northern Germany, which solidified Berlin's role as an important political and economic center. Endeavors like the *Königliche Ostbahn* [Royal Eastern Rail] of 1867, which connected Berlin with Kstrin, and the *Berlin-Görlitzer Bahn*, which was also finished in 1867, provided jobs in Berlin for hundreds of workers, creating an atmosphere of gradually escalating economic productivity which complemented the growth of other inner-city projects like the *Pferdebahnen*. New train stations, like the *Görlitzer Bahnhof* [Görlitzer Train Station], took several years to complete (1866-1868) and were situated to conform to Hobrecht's plan. Berlinese residents considered these developments to be technological

⁴⁰Ibid., 234-235.

and architectural marvels. Designed by August Orth, the Görlitzer Bahnhof was modeled after an Italian palazzo, used combinations of Neorenaissance and modern, functionalist architectural types, and employed new materials like steel to make the building taller, wider, and much more durable. These engineering and stylistic techniques reduced maintenance costs and, as an unintended side-effect, inspired German architects to emulate the functionalist, Italianate design for train stations and many other public buildings constructed in Berlin during the late nineteenth century.⁴¹

As an extension of the growth of the 1860s, the 1870s saw the construction of new train stations and lines throughout Berlin. In 1871, the Berlin-Lehrter Bahn was completed, as well as its accompanying train station, the Lehrter Bahnhof. In 1872, the Potsdamer Bahnhof, which provided service to Cologne, Paris, Frankfurt Am Main, Strassburg, and Aix en Provence, was completely rebuilt to support more platforms and travelers. In 1875, a line was completed between Dresden and Berlin, which, accompanied with lines built in 1877, 1878 and 1879, gave Berlin eleven long-distance railways and eight major train stations.⁴²

This railroad construction, which continued well into the twentieth century, was a primary source of new industrial revenue for Berlin. Just as the *Pferdebahnen* brought in its industrial counterparts (stables, warehouses, carpenters and blacksmiths), so too did the expansion of railways foster the growth of new and diverse industries. The majority of this industrial development occurred in the metal-refinery and machine-construction industries, both of which were critical to the continued construction of railroads. Steam engines, which were the literal driving forces behind railroads, were also being put to work in factories throughout Berlin. The combination of all of these industries created a huge demand for specialized labor and increased importation of iron, steel, and coal.⁴³

On an international scale, Berlin's industrialization was a combination of the growth of Prussia's domestic railroads and the greater number of ironworks and coal mines being developed across Europe,

⁴¹Schwenk, *Lexikon*, 188.

⁴²*Ibid.*, 189.

⁴³*Ibid.*, 162.



Berlin's Lehrter Bahnhof, circa 1900.

Great Britain included. Because of this, Berlin's industrialization mirrored similar patterns occurring in other German cities and states, the main difference being Berlin's status as a major financial and entrepreneurial center.⁴⁴ Berlin, and Prussia as a whole, was able to finance the importation of vast amounts of coal, iron, and steel from provinces within the German states, other continental nations, and Great Britain. Such importation was an absolute necessity because Berlin, in spite of its burgeoning industrialization, could not produce or refine enough of these materials to meet its needs. This situation caused problems throughout parts of central Europe, as Berlin, by importing other regions' resources, was able to garner an industrial advantage by stifling the expansion of railroads elsewhere. Furthermore, the growth of railroads in and around Berlin encouraged Prussian industrialists to expand their own production of coal, iron, and steel to capitalize on the high price of these international commodities.⁴⁵ Berlin, in other words, fostered industrial growth by creating a

⁴⁴Toni Pierenkemper and Richard H. Tilly, *The German Economy during the Nineteenth Century* (New York: Berghahn Books, 2004), 64.

⁴⁵*Ibid.*, 63.

large demand for the importation of raw material, which in turn pushed the city's industrialists to become self-sufficient through capitalist incentive.

Overall, Berlin's economic expansion, fostered by *Pferdebahnen*, railroads, and their accompanying industrial sectors, created a demand for labor that led to a population explosion. From 1861-1875, Berlin's male working-class population grew from 119,595 to 282,982, an increase of 137 percent. The female workforce, called *Diensboden* [servants], increased from 32,000 to 76,000 during the 1860s and 1870s (an increase of 138 percent). This new workforce (predominantly aged between twenty and thirty years old), which included industrial workers, servants, merchants, and transportation workers, was part of a larger urban-migration movement that typified Berlin's new industrialization.⁴⁶

The connections between economic stimuli and population growth were a vital aspect of this phase of development in Berlin. By expanding middle-class capitalism in Berlin (in this case, the financing and construction of the *Pferdebahnen* and railroads), entrepreneurs had stimulated a demand for working-class labor, housing, public services, which in turn had led to the continued development of urban infrastructure to move goods and services around the city. This cycle of supply, demand, and enterprise served as an essential precursor to full urban industrialization; an influx of capital through enterprise was the device which, in this case, literally put the wheels of industrialization into motion. These patterns of industrialization would continue unabated until the unification of Germany in 1871, an event which abruptly ended the pre-imperial phase of Berlin's growth and, ultimately, asked more of the city's economic achievements than ever before.

CONSEQUENCES OF GRÜNDERJAHRE NATIONALISM

Following Germany's unification in January 1871, the next phase of Berlin's development began. The construction of new imperial institutions, such as the Reichstag [Germany's seat of parliament] and the Reichsbank [Imperial Bank], was accompanied by increasing industrial and capitalist development that took advantage of Berlin's

⁴⁶Schwenk, *Lexikon*, 168.

modernized railways, inner-city transportation, and Hobrecht's ample, well designed real estate sectors. This phase of development, known as the *Gründerjahre* [Founding Years], differentiated the Berlin of the 1870s from the Berlin of the 1860s not because of what was being built, but because of the rate at which new construction began. For example, from 1861-1870, around 457 factories—roughly 46 per year—were constructed within Berlin. From 1871-1875, however, over 681 new factories were constructed within the city, a rate of 136 per year. In other words, the rate of factory construction increased nearly three fold.⁴⁷

This increased rate of growth, essential to understanding Berlin's *Gründerjahre* period, is typical of nearly every aspect of Berlin's sociocultural, economic, and political development after 1871. Forgoing the steady, albeit increasingly growing rates of urbanization and industrialization of the 1860s, the new *Weltstadt* of the 1870s intended to transform itself immediately into a metropolis the likes of London or Paris, with little regard for the consequences.

This decision, made because of a combination of economic optimism, nationalism, and a positive social outlook, had severe ramifications for Berlin during the 1870s. From the lower-classes to the aristocracy, the *Gründerjahre* severely disrupted the delicate social frameworks of Berlin that, up until this point, had been a product of the stable growth and expansion beginning in 1860.⁴⁸ Hobrecht's plan, designed meet Berlin's infrastructure needs for fifty years or more, was exhausted by 1880, though immigrants continued to arrive in the city. Poor sanitation, disease, high grain prices, and expensive housing further complicated Berlin's problems, all of which were exacerbated by a financial crash in 1873.⁴⁹

This sequence of events revealed Berlin's true, post-1871 form: because it was barreling so quickly towards the future, the city was unable to manage its problems, and was quickly abandoning its provincial, pre-imperial history. The realization of these errors, the last in particular, led to a reevaluation of German nationalism during the mid-1870s,

⁴⁷Ibid., 161-164.

⁴⁸Gordon Craig, *Theodor Fontane: Literature and History in the Bismarck Reich* (Oxford: Oxford University Press, 1999), passim.

⁴⁹For more on these topics, see Taylor, *Berlin and Its Culture*; Klaus Strohmeier, *James Hobrecht und die Modernisierung der Stadt* (Berlin: Haudem + Spenersche, 2002; Vizetelly, *Berlin under the New Empire*.

which fostered a renewed interest not only in fixing Berlin's many urban dilemmas, but in preserving and emulating the successful modernization techniques of the 1860s. Therefore, the second phase of the Gründerjahre was tied heavily to the successes of the city's pre-imperial past, and pushed Berlin, as the "mouthpiece" of Germany, to the forefront of urbanization and international politics during the late-nineteenth century.