TOURISTS IN THEIR OWN TIME: GERMAN EXPERIENCES OF MODERNITY AT THE INTERNATIONAL EXHIBITIONS, 1851-1904

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For my dad and for my husband, because without you two this would not have been possible. And for Dr Bitter, because I promised to write you something good.
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Introduction

The World on Display

In 1862, journalist, writer and theater director John Hollingshead wrote of the 1851 Great Exhibition of the Industry of All Nations that:

No one who looked upon this Exhibition when it was full of life could help feeling that it was a great creation. It was like nothing that had been seen before, but like much that had been dreamed of. The long passages lined with the most precious products of industry, - the rich tapestries hanging from lofty galleries, the hum of voices, the strange faces, the mixed costumes, the perfumes of scented water, the trees springing up in the midst of loaded bazaars, the running fountains, and the light glittering roof bending over all, contributed to form a world such as had only been imagined in Eastern fables. When it had melted away, and the green turf began to grow again in its place, no man living thought to look upon its like again.¹

The imagery Hollingshead evokes in his reminiscence on the 1851 Great Exhibition cuts to the heart of discussions on the meaning of the international exhibitions. The exhibitions were simultaneously reflections of the then-current state of industry, science, art, culture and society - “catalysts of Zeitgeist” (the spirit of the times) - and calls to advance the state of the industrialized nations; calls to generate “progress.” They were places in which crowds of visitors were entertained, educated and indoctrinated; spaces in which to imagine nations and empires. They were more than a scenic overlook onto the modern world; they were a way of becoming a tourist within the modern world, a way to experience everything it meant to be “modern.” As the philosopher William Whewell explained in a lecture about the 1851 Exhibition: “[by] annihilating the space which separates different nations, we produce a spectacle in which is also annihilated the time which separates one stage of a nation’s progress from another.” All of history, all of the modern world, all of industry, handicrafts, art, science and culture were, in Whewell’s estimation, on display together at the exhibition.

The international exhibitions provide us with case studies in how modernity was experienced, allowing us to examine both the characteristics of the modern condition and how it was understood by the exhibition observers. Robert Rydell, a prominent historian on the international exhibitions, gives one of the best descriptions of the value of these historical moments in exploring modernity: “This cohesive explanatory blueprint of social experience is what the sponsors of the fairs offered to millions of fairgoers…[but] if one function of the expositions was to make the social world comprehensible, the


directors of the fairs attempted to organize the direction of society from a particular class perspective.” This perspective included, among other things, specific perspectives on nationalism, imperialism and industrialization. This study uses these lenses to examine the experience of modernity presented at various exhibitions during the nineteenth century in order to explore how these events created ideas about nationalism, how modernity was defined by the participants in the exhibitions and how these ideas about nationalism and modernity were transferred into the populations of the German and Austrian empires.

This thesis looks specifically at the experience of modernity for German and Austrian populations because of the influence which these empires had on the development of the rest of Europe. As historian John Davis explained in his study of German influences on Victorian Britain, “…beginning shortly after the turn of the nineteenth century, curiosity grew in British intellectual circles regarding German philosophy, literature and theology…by the 1840s this developed into a more widespread interest in German culture among the educated classes, and the widely held belief there that Germany led Europe intellectually. German publications became crucial reading for humanities scholars generally. Meanwhile, in science, German research and publications began to set the pace.”

The influence of Germany and Austria on the development of nationalism, industrialization and modernity merits further study. The exhibitions provide us with opportunities to study how the German and Austrian empires understood and represented the modern world to their own populations and to other European nations.

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Contemporary sources certainly viewed the exhibitions as places to experience modernity, as Alexander Geppert revealed in his recent study on exhibitions. Geppert analyzed the reports of several contemporary commentators on the Berlin Gewerbeausstellung (industrial exhibition) of 1896, including sociologist Georg Simmel, and prominent commentator Friedrich Naumann. Simmel saw the exhibitions as a “laboratory of modernity,” and understood modernity to be intimately linked with “consumer culture, cosmopolitanism and condensed urban spaces.” Naumann’s comments focus on the links between exhibitions and the study of both industry and the labor force. Naumann argued that the exhibition should be understood as a “shop-window of the industrial world” and that “nowhere else could one gain such profound insights into modern labor.”

These insights were shaped, of course, by the exhibitors. Aram Yengoyan has pointed out that model worker towns put on display at the Chicago Worlds Fair in 1893 were an “attempt to bridge the gap between capitalism and labor...they provided a utopian canopy in which attention and directed action towards visionary goals might create a more humanitarian face to American industrial growth.” This “humanitarian face” of industry is observed in chapter two in the worker exhibits which the Krupp Steelworks put on display during the nineteenth century. An examination of the photographs taken of the workers by the Steelworks photographers for the 1893 Chicago World’s Fair show the worker formally posed to display the idea of what the worker

5 Alexander Geppert, Fleeting Cities: Imperial Expositions in Fin-de-Siècle Europe (New York: Palgrave, 2010), 57.
6 Ibid, 59
should be. No one is smoking, no one is drinking a cup of coffee. The workers are in their uniforms, attending their tasks, rigid and disciplined. These same characteristics are exemplified in the tours of the worker towns organized for visiting dignitaries and exhibition attendees. The workers are posed; they greet the visitor in a central courtyard en masse; they exhibit how they work industriously at their tasks. For those moments they are not individuals, they are a modern, industrial workforce.

**Exploring modernity**

The nature of modernity is perhaps the most critical discussion to historians of the last century. What defines modernity? What are its characteristics? Is it a process or an ideology? Is it a discourse or a destination? These are the questions at the heart of the debate. The term “modernity” was bequeathed to us by nineteenth-century social scientists who were exploring the role of industrialization on modern society. These social scientists, including Weber, Marx and Durkheim, understood nineteenth-century Europe to be something radically different from what had come before, something modern as opposed to something traditional. They saw industrialization as the key to this fundamental difference between modern Europe and its past.

The nineteenth-century German sociologist Max Weber took this theory further and linked industrialization to the formation of the state apparatus. “Where Marx treated bourgeois thought almost exclusively as an expression of class-based ideology, Weber saw its deeper penetration to the institutional foundations of individualistic ethic of contemporary society.”

The uneven development of a modern state apparatus in Germany, according to Weber, was directly related to patterns of industrialization. It was

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only when an area industrialized that modern states were able to form around the needs of
the new middle class. Industrialization, this driving force behind modernity, was not
simply a transition from handicrafts to mechanized production, it was a social transition
which created the modern European state.

Ernest Gellner, who began writing about nationalism in 1964, drew from the
earlier works of Weber and Durkheim for his theories. Like nineteenth-century social
scientists, Gellner argued that the modern world was driven by industrialization, but his
focus was on nationalism. In Gellner’s view, industrialization was an evolution from
“agricultural religious society to industrial scientific society. [Nationalism was] a self-
generated response to the modern need for a mobile work force, which requires a
common education in a common language.”

Gellner linked industrialization directly to
nationalism, but felt that modernity was a by-product of this process. Both Eric
Hobsbawm and Benedict Anderson drew on Gellner’s work in their theories of
nationalism.

Anderson claimed the nation was “an imagined political community;” that is, the
nation only existed so long as a community believed it did. This process of creating
belief in a nation (or nation-building) is referred to as nationalism. Historian Jeffrey
Auerbach used these theories in his work on the exhibitions, the nation and the formation
of a national identity. Auerbach found that the exhibitions were political events with
many different meanings. By carefully selecting rallying points which radically divergent
social and political groups could celebrate, the exhibition organizers designed events

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10 Benedict Anderson: *Imagined Communities: Reflections on the Origin and Spread of Nationalism*
which could serve as a “national common denominator, abstract enough to collapse differences into similarities.” Auerbach concluded that there was not one story of the exhibition but many, and that the “meaning” of a given exhibition evolved over time. That is, the exhibitions retain their nationalist significance to the present day, but they mean something different to the modern observer than they did to contemporary observers.

Hobsbawm did not go so far as to label nations imagined, but he saw the nation as a continuously evolving social entity; an idea of a nation-state which was constantly shaped by the masses. Hobsbawm highlighted the role of mass-media, mass-education and mass-literacy in nationalism. The exhibitions were central points for mass-education. They relied on mass-literacy and mass-media (the press) to advertise their presence, their impact and their legacy. The exhibitions were directly influenced by professionals (particularly scientists) as well as the well-educated middle and upper classes.

Rydell has illustrated the critical role scientists played in influencing mass culture both through establishing museums and through organizing exhibitions. In organizing exhibitions, scientists shaped the image of science which would be presented, but they also influenced the overall direction of the exhibition and the way in which non-scientist organizers conceptualized and presented science. Through their work in building museums (often the museum exhibits came directly from world fairs) scientists created both a lasting memorial to the exhibitions, and preserved the focus of these exhibits and their conceptions about the place of science in culture.

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Richard Bellon agrees with Rydell’s analysis that scientists were a major contributor to exhibition ideology and through it the place of science in mass culture.

“[The] organizers of the Great Exhibition of 1851 aspired to do more than diffuse their elite knowledge and social values to a general, and generally untutored, audience; the driving ambition was not merely to educate and improve but to enlist all segments of society in a common and sustained scientific, artistic, and industrial enterprise. Men of science, in this vision, did not form a distinct class but rather occupied an elevated rank within a finely graded social and intellectual hierarchy that mirrored the larger social hierarchy of Victorian Britain.”\(^\text{12}\) It was the influence of science, museologist Samuel Albertini argues, which created a sense of high culture during the Victorian era.

“Haphazard private collections were eclipsed by regulated public museums and dedicated educational collections... Distinctions were reinforced between street shows and worthy museums, between the circus and the zoological garden, between low and high medicine, between unruly crowd and well-behaved visitors.”\(^\text{13}\)

As historians Aileen Fyfe and Bernard Lightman remind us, “the sciences have long been a part of consumer culture.”\(^\text{14}\) To illustrate this point Fyfe and Lightman direct us to the tourist draw of science museums and exhibitions, the purchase of scientific texts, as well as to the modern incarnations of science consumption which has expanded to include television and toys. Further, audiences “saw their role as consumers, whether of books, lectures, zoological gardens, or galleries of practical science.”\(^\text{15}\)

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\(^\text{13}\) Samuel J. M. M. Albertini, “The Museum Affect: Visiting Collections of Anatomy and Natural History” ibid, 393.

\(^\text{14}\) Aileen Fyfe and Bernard Lightman, “Science in the Marketplace, An Introduction” ibid, 1.

\(^\text{15}\) Ibid, 4.
this influence is provided by Bruce Sinclair’s research into the ballet *Excelsior*. Intended to be “a triumphant celebration of technological progress,” *Excelsior* was inspired by the exhibitions. The ballet involved 500 dancers, requiring both coordination and precision that surpassed anything seen on stage to that point, prompting one critic to remark “…that the staging might well have been the work of the German General Staff, and that at any moment during the performance he almost expected to see Field Marshall von Moltke enter on horseback.”

**Art and Science**

Both science and art, as ways of discovering truth, played an important role in state formation. Steven Shapin illustrated this point in his work *The Scientific Revolution*. In examining the debate between Hobbes and Boyle in the seventeenth century, Shapin perceived a deeper social setting: the assertion of state authority upon society. During the seventeenth century the political climate of Europe and the challenges to social order which presented themselves in the Protestant Reformation (and the subsequent religious wars) were the stimulus for reevaluating knowledge formation and legitimacy. “When systems of institutional control are working without significant challenge, the authority of the knowledge embodied in the institutions seems similarly potent.” However, once the system of control was challenged the knowledge it controlled, and the methods used to acquire that knowledge, also came under attack.

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Because they were both seen as a way to reveal truth, both art and science were critical means by which to legitimize state authority during the nineteenth century.

C.P. Snow ushered in an age where science and art were characterized as polar opposites.\(^\text{18}\) Science was characterized as cool and rational, backed by mathematics and experiment while art was passionate, irrational, motivated by emotions and sentiment. However, this was not the view of nineteenth-century philosophers, including William Whewell who is credited with inventing the term “scientist.” As Whewell himself argued, science and art were fundamentally connected. In his remarks on the 1851 Great Exhibition Whewell noted:

> Art was the mother of Science: the vigorous and comely mother of a daughter of far loftier and serener beauty... men were led to seek for science as well as art; for science as the natural complement of art, and the fulfillment of the thoughts and hopes which art exercises; for science as the fully developed blossom, of which art is the wonderfully involved bud.\(^\text{19}\)

For Whewell and his contemporaries science was the culmination of art. Both undertakings were “works of thought, skill, and beauty.”\(^\text{20}\) Science was the passionate search for truth in nature, while art was the passionate search for truth about the meaning of life.\(^\text{21}\)

Historian Margueritte Murphy affirms the relationship between art, science and aesthetics in her 2009 article analyzing the Paris exhibitions. Articles discussing art and industry were often next to each other in newspapers, suggesting they were of equal importance. “That many reviewers were concerned with teaching taste, rather than simply providing information about recent innovations in machines or manufacturing

\[^{18}\text{Sheldon Richmond, “The Interaction of Art and Science” Leonardo, 17 no. 2 (1984), 81.}\]
\[^{19}\text{Whewell, Lectures on the Progress of Arts and Science, 6-7.}\]
\[^{20}\text{Ibid, 24.}\]
\[^{21}\text{Richmond, “The Interaction of Art and Science,” 82.}\]
processes, is another symptom of the kinship between these kinds of reviewing and, presumably, viewing.” With even a cursory glance at the exhibition literature it is impossible to miss the critiques of art, sculpture and the aesthetic quality of manufactured goods.

Nineteenth-century commentators saw science, music, art, architecture, and culture as being intimately tied to modernity. Let us return to Geppert’s analysis of responses to the Berlin Gewerbeausstellung. Museum director Julius Lessing’s commentary comments - understandably linked to the quality of the displays at the exhibition - hint at the importance of culture to modernity. Lessing found that the displays were far more spectacle than quality (“Everywhere mediocrity abounds”), and his overall negative impression of Germany’s participation in its own national exhibition suggests that without culture a nation might be industrialized, but it was not necessarily modern.

Chapter summaries

Chapter one examines how the German states practiced nationalism and how this was represented at the regional industrial exhibitions between 1804 and 1854. The exhibits of the Zollverein (the German customs union) staged at international exhibitions between 1851 and 1871 are examined to study how the states participated - or rejected - a sense of Zollverein national union. Finally, the exhibits staged after unification are examined. These exhibits illustrate a “national aesthetic” which drew on romantic images of Germany and industrial progress to create a sense of modernity.


23 Geppart, Fleeting Cities, 58.
Chapter two looks at industrialization and the special case of the Krupp Steelworks, examining how the company used the exhibitions to market itself and its workforce. The Steelworks also marketed itself directly to its employees through a comprehensive benefit package as well as physical monuments such as hospitals, stores, housing developments and bathing halls which only employees of the Steelworks had access to. The Steelworks appears to use elements of nationalism in order to build up a loyal workforce.

Chapter three examines Austrian nationalism at the Vienna Weltsausstellung. In 1873 Austria hosted the Vienna Weltsausstellung to celebrate Kaiser Franz Joseph’s twenty-fifth year of rule. It was a triumph for the liberals in Vienna who used the exhibition to establish Vienna as a world city and to promote Austrian nationalism to the Slavic populations of Austria. The exhibitions focused on cultural traditions of music and the fine arts to accomplish this.
Chapter 1: Building the Experience of Modernity: Germany at the Fairs, 1824 - 1904

An evaluation of the exhibitions staged by Imperial Germany in the second half of the nineteenth century suggests that German nationalism was neither simple nor straightforward. Nationalism efforts included the promotion of cultural rallying points and the identification of external threats. The external threat of invasion by France acted as an early form of unification.

That France would make that attempt [to invade Germany after the Austro-Prussian war of 1866] appeared certain, but there was a growing confidence that Germany would successfully stand this trial also. As a consequence of this great revolution of popular sentiment there resulted the general endeavor to consolidate quickly what had been attained, to strengthen the feeling of solidarity of North and South despite
the Main boundary and to prepare for the coming struggle.¹

The cultural rallying points included a sense of shared participation in industrialization, education, language, science and art. In a lecture on the importance of an education in the natural sciences, scientist and politician Rudolph Virchow argued:

> It is the task of the most immediate future…to establish a true unification of the minds, to place the many members of the nation upon a common intellectual ground, where one truly feels part of a whole…where people live together in intellectual unity and become aware of a common inner being, so that one can say: When I meet a German, I can presuppose a basis for mutual understanding and speak with him not only about territorial borders, but about common interests of the intellectual life as well.²

Abigail Green, a historian who studies nineteenth-century Germany, has shown that while the *Zollverein* provided a tenuous point of economic unity, it was not the only possible expression of economic unity, nor was it a point of cultural unity. Nationalists hoped that the *Zollverein* would “promote German unity not just by encouraging economic interdependence but by changing what both Germans and foreigners [understood] Germany to be.”³ However, Green found that the southern German states fought against being identified with a collective “*Zollverein*” unit at the international exhibitions between 1851 and 1871.⁴ Green sees the 1850s as a crucial decade in which Germany’s political identity was shaped.

Green argues that during the “crucial decade” of the 1850s there was a growing sense that Austria was a separate entity from the rest of Germany. This sense of difference presents a third type of nationalism, what Said termed “the other.” Austria was

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² Rudolf Virchow, ibid, 84-85.

³ Abigail Green, “Representing Germany? The *Zollverein* at the World Exhibitions, 1851-1862.” *The Journal of Modern History* 75 no. 4 (December 2003), 836.

⁴ Ibid, 844-857.
placed in the role of the “other” in order for Germany to begin creating broad cultural and emotional nationalist ties among the masses. Germany could be defined as a geographic area, rather than one which relied on cultural or historic landmarks. Further, Germans could be identified as a people who were not Austrian but who instead shared a common German culture. Finally, the empire could also be defined as being in opposition to France.

The regional industrial exhibitions which were conducted throughout the German states between 1804 and 1854 show evidence of nation-building using both cultural and industrial themes. This suggests a proto-nationalist movement was underway in each of these states, complicating the picture of nationalism in Germany. Regional exhibitions placed particular emphasis on local culture, local industrial strengths and weaknesses, and local political and social concerns. As the German nations began to participate in the international exhibitions these plural interpretations of national identity continued to be apparent, even within the ostensibly unified exhibits of the Zollverein.

**German Fairs Prior to 1851: A Brief Look**

Handicrafts fairs had been held in Germany from the early eighteenth century. However, the abrupt transition from handicrafts to industrial fairs in 1804 is significant.\(^5\) While industrialization was clearly underway in Germany prior to this point, by 1804 it had achieved a sort of critical mass. Industrial mass-production had overtaken handicrafts as the primary force in the economies of the German states. That this occurred before the formation of the Zollverein means that the Zollverein did not create

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\(^5\) Thomas Großbölting, *Im Reich der Arbeit: die Repräsentation gesellschaftlicher Ordnung in den deutschen Industrie- und Gewerbeausstellungen, 1790-1914* (München: Oldenbourg, 2008), 441. Großbölting notes a combined Art and Handicrafts exhibition held in 1815 in Hamburg, but it is the only one of its kind held after 1804.
industrialization within German nations, though it certainly assisted the growth of industrialization through free trade agreements.

These regional exhibitions were held in established trade centers (Hamburg, Lübeck) and in capital cities (Stuttgart, Düsseldorf, Berlin, Munich, Hannover). Thomas Großböltling’s history of German industrial and trade fairs includes an extensive index of the industrial exhibitions in Germany.\(^6\) His research extended to 1790 and showed that the earliest industrial fairs were art and handicrafts exhibitions (*Kunst- und Handwerksausstellungen*) held between 1790 and 1803 in Hamburg. The transition from a focus on craftsmen to a focus on industry happens abruptly in 1804 when Lübeck hosted its first *Gewerbeausstellung* (industrial exhibition).\(^7\) Between 1804 and 1829 twenty-three *Gewerbeausstellungen* were held in Bavaria, Saxony, Württemberg and Prussia. After 1830 interest in industrial exhibitions had really taken off. Between 1830 and 1839 a total of nineteen industrial exhibitions were staged in the German states, and in the next decade twenty industrial exhibitions were staged.\(^8\) The average number of exhibitions per year had effectively doubled in these decades compared to the previous twenty five years. The exhibitions were clearly effective displays, but what was on display at these exhibitions?

The 1834 Munich industrial exhibition provides an example of the categories which were the mainstays of German industrial exhibitions throughout the nineteenth century. The exhibition included displays in seven categories: mathematical, physical, mechanical, musical and surgical equipment and apparatus; metalwork (including steel

\(^6\) Großböltling, *Im Reich der Arbeit*.

\(^7\) Ibid, 441.

\(^8\) Ibid, 441-445.
fabrication, locks, small arms manufacture and gold- and silversmithing); clay and glass; wood, bone, pelts and leather; spinning, weaving and basket making; chemical manufactures; and food substitution products.\textsuperscript{9} With perhaps the exceptions of chemical manufactures and food substitution products these categories are all former handicrafts specialties. Marx described capitalism as handicrafts subsumed into industry, so this aspect of the industrial exhibitions is not surprising.\textsuperscript{10} It emphasizes that early industrialization, rather than a revolution in products created by industry, was a revolution in production methodology which caused a revolution in society. The industrial exhibitions provided a way of mediating this revolution between industry and society. The exhibitions specifically dealt with promoting industrialization as a benefit to society and economy. The discussion of industrialization and its impacts on society was not just about machinery or economy, but about the decline of one way of life and the advent of another.

The results of the 1834 Munich industrial exhibition were published in a commercial journal rather than in an official report, making it more accessible to the public. This served as much as a piece of advertising for the exhibitors as it did a record of the proceedings.\textsuperscript{11} Commenters cited several obstacles to a prosperous economy in Bavaria.\textsuperscript{12} Foremost among these obstacles was a lack of markets, doubts as to the quality of the goods produced in Bavaria, and a general lack of education (particularly in writing) leading to poor participation in the exhibitions. The capabilities of the craftsman were a

\textsuperscript{9}  Über die Industrie-Ausstellung zu München gehalten im November 1834 (München, 1834), 9-35.


\textsuperscript{11}  Über die Industrie-Ausstellung zu München, 4.

\textsuperscript{12}  Ibid, 7-8.
particular concern of the commenters; they felt that the inability of the craftsman to write meant that they considered the exhibitions places where only master-level work or new inventions could be exhibited, rather than seeing them as places to promote their products and to exchange information - such as the best form of a product or process for manufacture - with merchants and other craftsmen. Here we see the first pushes towards an educational standard, which Weber and Gellner considered a prerequisite for nationalism. The 1834 Munich exhibition account also reveals a positive inclination towards the Zollverein:

We confess that we foster the view that only after a long time and with great sacrifice will the obstacles be overcome...We do not allow ourselves to be discouraged, and rather see the final result with a bit more confidence, that through the training of the industrious in our country - through the commercial and industrial schools, as well as through our polytechnic institutes - we are given a possibility that through the German Zollverein a freer market and a greater awareness in our industry and our trade has been created... 

Let us pause here to look at the attendance statistics of these early industrial fairs. Throughout the 1820s, the best attended industrial fairs - both in terms of visitors and exhibitors - were held in Württemberg. In 1824 the Württemberg industrial exhibition drew 116 exhibitors and 45,726 visitors. By comparison the 1824 Prussian industrial exhibition saw 13,611 visitors. This suggests that industrialization was strongest in the southern states. In general, throughout the 1820s and 30s the exhibitors remained in the hundreds. By 1840 this figure also shot up. The 1840 Nürnberg Bayerische Gewerbeausstellung (Bavarian Industrial Exhibition) hosted 1,000 exhibitors;

13 Ibid, 7-9.
14 Ibid, 6-7.
15 The figures of all of these fairs come from Großbölting’s index of industrial exhibitions in Germany. See Großbölting, Im Reich der Arbeit, 441-445.
16 Ibid, 442.
17 Ibid, 442-444. The 1837 Hannover General Industrial Exhibition saw the largest number of exhibitors, 385, of any of these fairs.
the 1844 große allgemeine deutsche Gewerbeausstellung (General German Industrial Exhibition) in Berlin saw 3,040 exhibitors and 260,000 visitors.\(^\text{18}\)

The interest in industrial exhibitions extended outside of the German states, as evidenced by the report published by Karl Bruner, professor of Chemistry, on the industrial exhibition held in Bern in 1830. In this report, Bruner articulated the reasons for interest in these exhibitions. Notably, these included concerns about the state of German manufacturing, the opportunity provided by the exhibition for manufacturers to make themselves and their products known to the public, the use of the exhibitions as spaces in which to provide instruction to tradesmen on form and technique, and the presence of a reward system by which to gauge the progress of industry.\(^\text{19}\) These same interests would govern the later international industrial exhibitions.

The negotiation of the modern condition through these exhibitions included both the mediation of industrial revolution in society and the development of nationalist ideas. This brings us to our next point: nations negotiated what it meant to be modern through these regional and international exhibitions. It is important to note that so far as the smaller states were concerned, the regional exhibitions which they had staged - for all of Württemberg or Saxony or Bavaria - were effectively national exhibitions. The locations at which these events were staged supports this. The exhibitions which were held in traditional trade centers drew on cultural traditions to create a sense of national unity. For example, annual commercial fairs were held in both Frankfurt and Leipzig and dated back

\(^{18}\) Großböting, *Im Reich der Arbeit*, 445. For comparison, the 1851 World Industrial Exhibition in London hosted 17,062 exhibitors from 28 countries and saw 6,039,195 visitors.

\(^{19}\) Karl Brunner, *Bericht über die im Julius 1830 in Bern eröffnete Industrie-Ausstellung; auf Befehl des Commerzienrathes verfaßt* (Bern: Räther, 1830), 5-12.
at least until the eighteenth century. The Leipzig fairs were often conducted in conjunction with a book fair. These fairs were so well-known that the British consuls established permanent positions within these cities, as well as at ports such as Hamburg, in order to collect statistical data on commerce. It is not surprising that as economies shifted away from handicrafts to industrialization that these traditional centers of trade would host industrial exhibitions. However, exhibitions were also staged in capital cities, and this is perhaps the most important statement of nationalism which developed out of these events. Unlike Frankfurt and Leipzig, the capital cities did not have a legacy of being traditional international trade centers. The exhibitions hosted in capital cities were clearly intended to communicate specific messages to the attendees, and those messages included statements of nationalism.

These nationalist statements could be directed to the immediate nation, as in the case of the Munich exhibition of 1834, or they could be addressed across borders. In 1844 the first pan-German industrial exhibition, the große allgemeine deutsche Gewerbeausstellung, was held in Berlin. This event stands out because it brought together all the Zollverein states as well as Austria, Hannover, Oldenburg and Mecklenburg, in a common industrial exhibition. The focus of the exhibition was clearly on uniting the Zollverein states. There were 2,823 exhibitors, the bulk of which (1,866 in total) were from the Prussian territory. Bavaria was represented by 192 exhibitors, Württemberg by 111 and Saxony by 103. Austria was represented by a mere 65

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21 See, for example, “German Papers. Leipsic [sic], May 2,” The Times (London, England), May 20, 1818, and “German Papers. Leipsic [sic], April 19.” The Times (London, England), May 3, 1826.

22 See John Davis, Britain and the German Zollverein, 1848-66, (Great Britain: Macmillan, 1997), 22-23 for an excellent analysis of British trade statistics and their short-comings in the Zollverein.
The number of exhibitions held in the German states suggests that these were successful commercial events, so the low participation numbers from areas outside of Prussia deserve a closer look. This may indicate a lack of transportation infrastructure, that the potential benefits of exhibiting at the exhibition were outweighed by the risks associated with exhibiting, or it may indicate the difficulty of establishing an official or unofficial “center” of the German nations at which to stage an exhibition of this scale. As the regional exhibitions seemed to have no difficulty in recruiting large numbers of exhibitors and a pan-German fair could only provide greater opportunities for industrial promotion, the last suggestion is most probable.

It is at this exhibition that the first hints of the Prussia’s first suggestion of a pan-German nationalism are observed. The commissioners hoped that the exhibition presented by the German nations would encourage the German states to “go forward with united strength.” The commissioners continued this unified outlook among the states by discussing common problems, such as the resistance of the craftsmen to using machines. “Our German workers...stand with other crafts against all machines; they intend more or less to plot openly and secretly on all possible ways against the adoption of all similar machines.” Their argument continued that the machines would “almost never take the bread” from the workers, but instead would effectively liberate the workers because the machines would allow the worker to produce a better product faster, thus making the

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25 Ibid, 80. “Unsere deutschen Arbeiter (und das haben sie wohl mit vielen anderen gemein, welche nur die noch größere Nothwendigkeit zum Schweigen gebracht hat) stemmen sich mit aller Kraft gegen alle Maschinen, die, wie sie meinen, sie mehr oder weniger überflüssig machen und intrigiren daher offen und versteckt auf alle mögliche Weise gegen die Einführung von allen dergleichen Maschinen.”
worker less dependent on their physical abilities. Unity among the German nations and
the promotion of industrialization were two of the central points which the Zollverein
would include in its exhibits at the international exhibitions in order to promote
nationalism.

Multiple nationalities: the Zollverein states at the international exhibitions, 1851 - 1870

As we have seen, the German states - even if they were members of the Zollverein
- had evolved a sense, if not of nationalism, than at least of proto-nationalism. This sense
of union was focused on regional industrialization, politics and cultures. It is thus
interesting, but not surprising that the first international exhibition should demand a
single unified representation of a “German” nation. Historian John Davis has argued that
the Victorians were fascinated by Germany, but they often used a cultural definition,
rather than a political one, to define what Germany was.\textsuperscript{26} It should be kept in mind,
however, that Queen Victoria and her consort Prince Albert firmly believed that Prussian
superiority in Germany was the only way to create a stable middle Europe.\textsuperscript{27} Given these
biases, for a cultural representation of Germany and for a strong Prussian presence, it is
perhaps less shocking that the Zollverein was given a prominent position at the exhibition
and more shocking that the offer to lead the German exhibit was first extended to Austria.

\textsuperscript{26} Davis, \textit{The Victorians and Germany}, see esp. 9-20.

\textsuperscript{27} Victoria, Queen of Great Britain, \textit{The Letters of Queen Victoria: A Selection From Her Majesty’s
Correspondence Between the Years 1837 and 1861}, edited by Arthur Christopher Benson and Viscount
Esher, 3 vols, (London: John Murray, 1908), volume 3, 333. In a letter written in late 1850 from Queen
Victoria to her uncle the King of the Belgians the Queen wrote “The state of Germany is indeed a very
anxious one. It is a mistake to think the supremacy of Prussia is what is wished for. General Radowitz
himself says that what is necessary for Germany [is] that she should take the lead, and should redeem the
pledges given in ’48. Unless this be done in a moderate and determined way, a fearful reaction will take
place, which will overturn Thrones;...Prussia is the only large and powerful really German Power there is,
and therefore she must take the lead; but her constant vacillation - one day doing one thing and another day
another - has caused her to be entirely distrusted.”
By 1850, when the invitations were issued for the Great Exhibition in London, Germany was politically nothing but a collection of states of varying size. Two main economic confederations existed - The Deutscher Bund, led by Austria, and the Zollverein led by Prussia - which could claim a nominal representative ability for the majority of the German states. Neither union could claim any true territorial state, only economic influence. It is possible to isolate two interpretations of German nationalism in these two economic unions. The Zollverein both promoted free trade and standardized weights, measures and currencies among its member states, creating a sense of internal unity or shared culture. Under the leadership of Prince Metternich from 1815 to 1848, the Deutscher Bund had become primarily concerned with the defense of the German states and the preservation of the Austrian status quo.

The British commission wanted a cohesive picture of the industry of Germany and argued against allowing a multitude of exhibits by each German nation. Instead the British commission first proffered an invitation to the Deutscher Bund. The Deutscher Bund had dissolved in the aftermath of the 1848 revolutions, but had re-formed itself in 1850. The Deutscher Bund declined the invitation to coordinate the German exhibit, though it is unclear if this was due to being newly re-formed and unable to allocate the necessary resources for such an undertaking or because the Deutscher Bund was unable to create a unified exhibition of the German nations centered on political unity. The British commission then extended the invitation to coordinate an exhibit to the Zollverein which could provide an economic focus for the German exhibits.28

28 Green, “Representing Germany?,” 845-846.
Prussia’s concept for a “German” exhibition did not go unchallenged. Austria’s interpretation of “Germany” was staged across the hall from that of the Zollverein. Within the Zollverein display itself, many of the non-Prussian states, particularly Württemberg and Saxony, agitated for separate exhibits and exhibition space. The commissioner from Württemberg even went so far as to have a banner hung to highlight Württemberg’s contributions and to try to hold them distinct. Rather than creating for the foreigner an exhibit which explained these political and cultural differences, or which highlighted the manufacturing expertise of the various regions of Germany, the effect was one of confusion.

The Illustrated Cyclopædia of the Great Exhibition - a contemporary publication written as the Exhibition was closing which sought to create a record of “all the more important facts and features of the world’s industrial fair, of scientific, as well as social bearing” - reported on the “chaotic” Zollverein exhibit several times. The Cyclopædia explained to its readers that the exhibit was organized by the Zollverein but represented multiple polities (see Figure 1). The Cyclopædia criticized the exhibit’s layout as it did not assist the observer to understand the relationship between the individual nations and the Zollverein. The mid-sized southern states had their own display rooms, but their best objects were displayed in the central Zollverein room. The Cyclopædia argued that this arrangement led to confusion and the inability

29 Green, “Representing Germany?,” 847-848.

30 The Crystal Palace and its contents: Being an Illustrated Cyclopaedia of the Great Exhibition of the Industry of All Nations, 1851; Embellished with Upwards of Five Hundred Engravings; With a Copious Analytical Index (London: Clark, 1852), 1.
...to compare and contrast what has been done by the lively, vain, egotistical and royal Prussian with the productions of the more solid and somewhat duller Hessian; nor can we conveniently distinguish between the industry which is rooted on the Iser [sic], and that which flourishes on the Elbe or the Rhine... There was a sameness in it throughout, not met with in any other part of the Exhibition, of equal pretensions. 31

It is clear from this review that creating a homogenous interpretation of German industry - let alone nationality - had failed. The observing public wanted to see the German nations simultaneously as individual nations and as part of a single German nation; to have their individual industries and cultures clearly represented while creating a single interpretation of German nationalism for them to experience.

It is not clear if this criticism reveals naiveté on the part of the observer, a weakness on the part of the exhibit itself, or a combination of the two. Regardless, the confusion created in the exhibit runs throughout the commentary of reviewers. Adding to the confusion in their narratives, they used the collective descriptor “Germany” to mean

31 The Crystal Palace and its contents, 85.
variously the Zollverein states, Austria and the Zollverein states, all of the non-Prussian German states, or a combination of various Zollverein member states. For example, when John Tallis, in his contemporary description of the Great Exhibition in London in 1851, ranked Germany third in the family of workmen at the exhibition, he referred to the Zollverein states and Austria together. He went on to write of “German manufacture,” meaning that of the Zollverein states. Tallis then described German workmen, worried their smoking and communal living would lead to socialism. In this last comment, it was not clear what combination of the German states he intended, but, based on later accounts of the 1873 Vienna exhibition, he may well have meant only Austria. Tallis touted the Zollverein as the impetus for “German industrialization” because it promoted free trade - but here again his concept of “Germany” has changed and what he meant was the Zollverein promoted industrialization among the Zollverein states.

Nine years later, at the 1862 exhibition in London, nationalism among the German states was still being negotiated. On the surface of things, the Zollverein seemed to have finally established a cohesive exhibit of industry in Germany. But an exhibit from the Hanse Towns - a trading network established in the medieval period - suggests that the Zollverein had not managed to accommodate all of its member states in its exhibits, failing once more to create a sense of nationalism which all of the German states could

32 John Tallis, History and Description of the Crystal Palace, and the Exhibition of the World's Industry in 1851: Illustrated by Beautiful Steel Engravings, From Original Drawings and Daguerreotypes by Beard, Mayall, etc. etc. (London: John Tallis and Co., 1852), 70.

33 Ibid, 70.

34 See in particular the discussion in chapter 3 on the challenges of worker housing in Austria and the ethnographic sketch provided by Macleod. Malcolm Macleod, “Social and Working Habits and Customs of German Workmen,” in Artisans Reports upon the Vienna Exhibition (Manchester: Simpkin and Marshall, 1873), 41-55.

35 Tallis, History and Description of the Crystal Palace, 70-71.
agree with. Meanwhile, Austria had also established a picture of nationalism that was clearly distinct from the *Zollverein* states. Each of these exhibits represented a distinct interpretation of what it meant to be a German nation.

The locations of these exhibits in the exhibition hall emphasized their differences. The *Zollverein* exhibit was located directly across from the Austrian exhibit while the Hanse Towns exhibit was located in a completely separate area - on the floor directly below the *Zollverein* exhibit. What this reinforced was that the *Zollverein* had staged a display of nationalism, distinct yet not inseparable from Austria, but clearly removed from the Hanse Towns. Meanwhile, the layout suggested that the Hansa Towns had nothing to do with either Austria or the *Zollverein* politically or geographically, but could be located near to them, perhaps because of both economic and historic association.

It is worth noting that the *Zollverein* interpretation of German nationalism continued to be challenged by the non-Prussian states. Württemberg was particularly vocal in its objection to being located within the *Zollverein* exhibit. The Württemberg commissioners had agitated for a separate exhibit space at each of the international exhibitions, and were initially allocated a small space alongside the Austrian exhibit by the British Commission for the 1862 exhibition. This location effectively isolated the Württemberg display from the rest of the *Zollverein*. Württemberg’s Minister of the Interior eventually pleaded with the Prussians to include Württemberg in the *Zollverein* display. For Württemberg, appearing as a part of the *Zollverein* was distasteful, but appearing with Austria was not an alternative.36 This highlighted the degree to which the smaller states had already identified themselves as “other” from Austria. While these

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36 For further details on Württemberg’s opposition to being included in the *Zollverein* exhibits, see Green, “Representing Germany?,” 853-856.
states may have had closer cultural ties to Catholic Austria than to Protestant Prussia, they were industrialized nations with a vested interest in promoting free trade. Austria was industrialized to a limited degree and preferred a protectionist economy.

Conflicting cultures and interpretations of modernity marked the exhibits of the German nations between 1851 and 1871. The non-Prussian members of the union appeared to be satisfied with the economic benefits of being a member, even if they did not accept wholeheartedly the vision of national culture which Prussia advocated through the union. To return to our framework once more, the threat of an external enemy and the presentation of an external “other” were important aspects of unification, but they did not provide the critical impetus for nationalism. It was a combination of both external and internal factors which allowed for the successful formation of a united Germany. The true impetus for the creation of these internal unifying elements did not appear until the end of the Austro-Prussian (1866) and Franco-Prussian (1870-71) wars. The forced national unity of these wars prompted the negotiation of a common cultural nationalism.

**Imperial Germany at the International Exhibitions 1871-1904**

The 1873 Vienna international exhibition (*Weltpausstellung*) saw the first official exhibition of a united German empire, even if there was dissent within the German empire on what this national identity included. Imperial Germany’s exhibits focused on its military, science and industrial programs. Germany impressed the international crowd, offering over 15,000 exhibits and winning the second largest number of medals overall. Its exhibits, particularly those related to the military, civilian coastal defense, railroads, machinery and science, were met with glowing praise, and even German militarism - frowned at during previous exhibitions - met with approval from 1873 onwards.
Historian Kirsten Belgum, whose work looked closely at how the national press influenced perceptions of the modern nation and supported nationalism, argued that this element of militarism or national defense was a critical one for mass media ideas of nation formation. According to Belgum the mass media concept of a modern nation was one which used technology and innovation to support traditional aspects of the state. “[T]he illustrated magazines celebrated technological advances as the source for national survival and vitality...The depiction of the nation in industrialized, technological terms did not conflict with an ‘invention’ of the nation that recycled the past. By the 1860s both were essential components of a successful, marketable nineteenth-century image of the nation.”

37 The nation was a complex of new technologies applied to traditional statecraft; something both immediately identifiable and new. This example provides us with an excellent vantage point from which to see how industrialization was linked to emotion in order to create a sense of nationalism.

German nationalism was perhaps given its fullest and most identifiable shape by Kaiser Wilhelm II. The German imperial historian Christopher Clark has argued Kaiser Wilhelm II was distinctive among the German emperors because he had a national conception of Germany rather than a Prussian one. Kaiser Wilhelm II advocated for the navy because he felt that it would provide a “genuinely national alternative to the Prussian-dominated army” and attempted to build a national cult around Kaiser Wilhelm I for the same reason. 38 But one of the problems which Kaiser Wilhelm II faced was that there were two cultures in Germany: a conservative, Protestant, Prussian culture which he

37 Kirsten Belgum, Popularizing the Nation: Audience, Representation, and the Production of Identity in Die Gartenlaube, 1853-1900 (Lincoln: University of Nebraska Press, 1998), 83.

was familiar with, and a liberal, Catholic, non-Prussian culture with which he was not. His attempts to reach out to the northern sections of the country were very successful. Unfortunately, he made these attempts in rooms filled with both northern and southern representatives. His speeches, delivered to rooms of northern industrialists or politicians, went over well. However, when they were published in southern newspapers, they won him no favors. Relations with Bavaria remained particularly tense throughout the nineteenth century.\textsuperscript{39} Despite these frictions, it was Kaiser Wilhelm’s concept of Germany, his concept of nationalism, which colored the exhibitions for the balance of the nineteenth century.

As the century wore on the list of things included in the experience of modernity at the international exhibitions expanded. By 1893 - the year of the Chicago Columbian World’s Fair - this list had grown to encompass workers, women, education, militaries, national defense (including coast guards and lighthouses), science, industry, agriculture, livestock, forestry, rural populations, city populations, communication and transportation networks and colonies. All of these experiences were directly related to nationalism.

Workers supported the nation through their labor; industry supported national economies; women supported the nation through maintaining households and caring for the men and children of the nation; militaries and national defense were vital to sustaining the borders of the nation while science and education were vital to maintaining the national culture, and so on and so on.

But, as Yengoyan reminds us, this was also the era during which social critics in Germany identified a “cultural rot” linked directly to industrialization. Everything had

\textsuperscript{39} Clark, \textit{Iron Kingdom}, 590-596.
become mass-produced, including culture, which meant that the cultural landscape was “flattened,” that the aesthetics which had driven culture to this point were meaningless. “Thus, the pinnacle of a national aesthetic had to be formed from a pre-industrial past, such as the Tudor and medieval restoration in England...” For Germans this meant a celebration both of modern Imperial Germany and an idealized romantic past.

At the 1893 Chicago Columbian World’s Fair, Germany projected an image of itself as a leader in industry and focused particularly on education. The educational exhibition was created under the personal direction of the Kaiser and featured every aspect of education from kindergarten through to postgraduate education. The German commissioners also took pains with their naval exhibit, showing that the steamships in the German fleets could be used as effective means of transportation and communication as well as effective military weapons with the use of Krupp’s cannons. The women’s department also displayed “one of the largest and most complete exhibits,” describing both the scientific education of girls (especially in the area of proper nutrition) as well as the charity work performed by women’s groups. This representation was well-received by the reviewers, who praised Germany for the number, quality and value of its exhibits as well as its representation of progress.

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The leading part taken by German in the World Fair classes her and her businessmen among the most progressive of any European country...There was not a department at the Exposition in which she did not have exhibits. The space occupied in the Manufactures and Liberal Arts department far exceeded that of any other foreign nation and the extent and value of the exhibit was in excess of other countries...44

Besides the exhibits of German industry, a German Village was constructed for the Midway in Chicago, cementing the image of Germany in the minds of the exhibition visitors. The German village was organized by the German Ethnographic Exhibition Company.45 Ethnography had become an important science for the exhibitions because it generated data with which to support definitions of modernity. Ethnographists studied people and cultures, and by contrasting “primitive” and “modern” cultures, these studies pushed forward - intentionally or accidentally - the definition of modernity. By comparing Germany’s past and present a sense of progress or modernity within the nation was developed. The influence of ethnography is seen particularly in the Midway and exhibits such as the German village. As architectural historian Zeynip Çelik showed in her study of “Oriental” stereotypes in the exhibitions, the exotic or the fabricated fantasy were critical components of the negotiation of identity and modernity.

Just as the “exotic Orient” display helped to negotiate modernity for the Dar al Islam, an idealized pastoral fiefdom, the display in the German Village helped to establish the German experience of the past and, by comparison, of the present. The German Village, by creating an imagined past, also contained an element of what Hobsbawm termed “invented tradition.”46 The past which was put on display was not necessarily an accurate one, but it created the idea of German history which could be used to create a


45 The company was the result of a joint effort of the Deutsche Bank and the National Bank für Deutschland, two large Berlin banks. For additional information on the development of the exhibit and its buildings, see Kate Field, “The German Village,” Rocky Mountain News (Denver, CO), August 21, 1893.

sense of cultural continuity in the young empire. The exhibit featured a castle (figure 2) and several houses representing the various German states. The Hessian courthouse, created in the style of “peasant Renaissance,” housed an exhibit illustrating the evolution of “pre-historic German history.” This consisted of a history of military development in Germany, including ties to Roman, Frankish and Celtic armies. German militarism, it confirmed, had been present from prehistory, and Germany could be linked to the military legacies of Rome, France and England.

To contrast this image of traditional Germany, the empire sponsored a German House which housed the office of the German Commissioner. It was decorated “to resemble the reception room of a man of wealth in Germany.” The German House included an exhibition of book-publishing and bibliography, once more indicating the

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47 World’s Columbian Exposition Illustrated, 257.
importance of education in Germany. According to reports of the fair, the German House was the most expensive of all the foreign buildings.\textsuperscript{48} This was due both to the cost of construction (although much of the building materials were donated by German companies) and the location of the building on the choicest spot on the lake in the exhibition grounds. According to one contemporary reviewer, “There is no spot in the grounds more beautiful, convenient, or desirable generally, than that assigned the German Building, which is so constructed as to afford the fullest enjoyment of the matchless lake view spread out before it.”\textsuperscript{49} The building was intricately decorated both internally and externally. The external decorations included the German eagle, medieval knights defending the German crown and the coats of arms of the German states. Germany’s militarism was also on display here. A fresco in the German House bore the words “I will try to bring the work of my ideas and of my hands into the fighting. I will try to keep up the battle and to learn from the power of other people, in order that henceforth I may do better myself.”\textsuperscript{50} This maxim tied together in a neat package the militarism, progress, industry and scientific philosophy of Imperial Germany’s nationalism and linked it directly to the exhibitions.

\textbf{Conclusion}

\textsuperscript{48} Hubert Howe Bancroft, \textit{The Book of the Fair: an historical and descriptive presentation of the world's science, art, and industry, as viewed through the Columbian Exposition at Chicago in 1893; designed to set forth the display made by the congress of nations, of human achievement in material form, so as the more effectually to illustrate the progress of mankind in all the departments of civilized life} (Chicago: Bancroft, 1893), 254.

\textsuperscript{49} Ibid, 254.

\textsuperscript{50} Ibid, 256.
It was not until a true sense of nationalism developed that the experience of German modernity could be understood. After just over four decades of participation in international exhibitions, 1893 presented the visitor with the clearest example of the experience of German modernity. But just as nationalism continued to evolve with the nation, so the experience evolved with the exhibitions. In 1900 and again in 1904 new nationalist elements presented themselves in Germany’s exhibition catalogs. In both catalogs the embellishments and catalog design were produced by Bavarian artists. The southern states were better represented within the commissioners organizing the exhibitions. Further, the southern states were included as separate entities in the catalog descriptions of transportation and communication networks. By the end of the century, German nationalism was fairly recognizable. Germany’s culture was centered on a common education which was particularly focused on the natural sciences. Germany was one of the European leaders in education: from Kindergarten classes all the way through graduate level work Germans had rationalized education to make it efficient, and from the middle of the century onwards had one of the highest literacy rates in Europe.\textsuperscript{51} Germany was a leader in science, with several scientific institutes as well as strong university and technical school programs. Germany was also a leader of industry: Siemens, Bosch, Krupp and many of the other industrial giants we recognize to this day had already established their industrial empires in Germany. Workers and households were both orderly spaces in which German ideals of productivity, cleanliness, family and nation were promoted.

\footnotesize{\textsuperscript{51} For further discussions of German education, see esp.: Kathryn Olesko “Introduction,” Osiris 2nd Series 5, Science in Germany: The Intersection of Institutional and Intellectual Issues (1989): 7-14; John Davis The Victorians and Germany (Oxford: Peter Lang, 2007); and Schirmacher, ed. German Essays on Science in the 19th Century Vol. 36.}
Chapter 2: Industry and Labor at the Exhibitions: a Case Study of the Krupp Steelworks and its Workers

It would be incomplete to examine modernity at the exhibitions without looking at industrialization. The Krupp Steelworks is used for this purpose for two reasons. First, the Steelworks began exhibiting their products at the 1845 Berlin exhibition and continued to produce exhibits throughout the century. This makes them an excellent candidate for study because they overlap well with the time period under study. They are a classic study in the industrialization process. Starting from a workforce of less than ten in 1829, the Steelworks expanded into a massive, multi-national company with a workforce of thousands by the end of the century. Albert Krupp, the head of the company
from 1826 kept meticulous records of every aspect of the company, providing a rich
resource for historians. The second reason for looking at the Krupp Steelworks is that it
is an unusual case; the exception rather than the rule. Throughout the nineteenth century
the Steelworks, despite their tremendous workforce, was essentially untroubled by strikes
or the threat of unionization. This chapter looks at the way in which the company
marketed its products and its workforce at the exhibitions, and at the way in which the
company marketed itself to its employees. The Steelworks exhibits - both of their
products and employees and to their employees - use the same elements which the
nationalist displays used to advance their message.

Introducing the Krupp Steelworks

In 1844 the Steelworks participated in its first exposition, the Berlin
Gewerbeausstellung. The display included crucible steel rolls, musket barrels, a machine
“...which, by means of roller pressure, converts sheets of raw silver, German silver, or any
other ductile metal, into spoons and forks of any shape and with any usual
ornamentation...” as well as test sheets of the material used by the spoon rolling machine
and a few breastplates.1 The armaments and defensive items did not garner much
attention, but the spoon rolling machine opened up several new business ventures for the
Steelworks.2 The application of steel to produce cheaper utensils was readily understood
and immediately commercially viable.

1 Alfred Krupp, Krupp: A Great Businessman Seen Through His Letters, Wilhelm Berdrow, ed. (New York:
L. Mac-Veagh, 1930), 83-84. William Manchester reports in Arms of Krupp that Hermann Krupp, Alfred’s
brother, invented the machine but that Alfred Krupp takes credit for it.

2 The breast plates did interest the military, but they were marred by scandal as one of Krupp’s associates,
Wilhelm Jäger, claimed that the breast plates (which were an example of the use of crucible steel which
Krupp hoped to make into cannons and muskets) were Jäger’s own production. See ibid, 84-92.
Krupp continued to promote the Steelworks in Germany at the 1854 Munich Exhibition. The age of railroads was well underway, and Krupp had capitalized on this new market from the beginning through the manufacture of railroad springs, track and his weldless railway-tyre. This last invention was debuted at the 1854 Munich Industrial Exhibition and financed the expansion of the steelworks for several years. The invention was revolutionary - no one had yet used casts to make railway tires - and there was no competition for this type of production. However, patent issues plagued this invention. It was not until 1860 that Krupp would outflank the Minister of Commerce, August von der Heydt, and secure an extension on the patent.

From the 1851 London International Exhibition, Alfred Krupp reported that it was the cannon on display, rather than the ingot, breastplate or other items, that was “...the greatest attraction.” From that exhibition onward Krupp formed his exhibits around the spectacle of steel cannons, even though it would take another fifteen years to convince the German military that cast-steel muskets and cannons were safe and effective. Visits by various members of European royalty as well as government and military officials provided opportunities to promote the steelworks’ cannons. At the Great Exhibition of 1851, Queen Victoria “paused by the [Krupp] tent to murmur appreciatively” at Krupp’s six-pounder (see figure 3). At the 1855 Exposition Universelle the Emperor and Empress visited the twelve-pound cannon and the Emperor was so impressed that he immediately appointed Krupp a Knight of the Legion of Honor. The exhibitions also allowed the

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3 Krupp, Letters, 126-127.
Steelworks to display larger and more powerful cannons and to gift these display cannons to heads of state or to the host nation’s military for firing trials.

At the 1862 Exhibition in London the Steelworks was again recognized primarily for their production capabilities (as exemplified by their ingot), but their line of railroad products also received a great deal of attention.

We cannot leave this important and interesting class without directing attention to the unrivalled [sic] display of steel, as shown by Herr Krupp...The most remarkable object is an ingot of cast steel, about 10 ft. long and 4 ft in diameter, weighing 21 tons...We have nothing at all to touch it in this country; samples of hammered and rolled steel are also shown, as shafts, axles, wheel tyres [sic], &c....We may rest assured that England will not be content...to remain as far behind her Prussian rival in the production of great masses of steel as she is at present...6

At the 1867 Exposition the Steelworks supplied an ingot eight times that shown at the 1855 Exposition. They again won top honors, and Alfred Krupp was elevated to the

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station of Officer in the Legion of Honor by the Emperor due to the cannon displayed at this exhibition (see figure 4).

Ultimately it was the Austro-Prussian war (1866) which provided the impetus for sales of Krupp’s cannons. In the build-up to this war the Steelworks fulfilled cannon orders from all sides of the combat: Prussia, Austria, Baden, Württemberg and Bavaria. When Prussia emerged victorious from the Austro-Prussian war, the other armies of Europe were forced to take notice of the merits of steel cannons. When Prussia emerged an established and powerful military force after the Franco-Prussian war - thanks once more to the employment of cast-steel cannons - the other armies of Europe were forced to re-arm as a matter of national security.

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For the first time the Steelworks truly had to consider how to present itself simultaneously as a patriotic armaments factory devoted to the needs of the new German empire and as an international supplier of cannons. Their exhibit at the Vienna World Exhibition in 1873 displays the Steelwork’s concerns about this dual representation (see figure 5). In a letter to the Prokura, a governing board for the Steelworks, Krupp worried:

> I hope it is not too late for the following remarks. If we exhibit the Russian 4-pounder [a gun intended to be displayed at the Vienna Exhibition], which so far has only been offered to Austria, we bring the design and the projectile itself to public knowledge, without getting any benefit from the fact, and with no other consequences than that the French immediately become acquainted with it and imitate the gun itself...it troubles me, and I shall probably telegraph directly that the 4-pounder and its ammunition are not to be seen by anyone... If we feel inclined to offer such guns to one State or another, they should be invited to Essen; I think,
however, that for the moment we must on no account offer field-guns for sale at all, because we must remain free for Prussia... \(^8\)

The Steelworks intended to retain their position as an industry leader by showing just enough of their products that their dominance in the field would be clear. But the Steelworks was simultaneously negotiating armaments contracts with Prussia, Austria and Russia among other nations, so choosing the right cannon for the display was tricky. They were attempting to be patriotic and to cater to Prussia’s armaments needs, but at the same time were unable to ignore the balance of the arms market. In the end, Krupp decided:

Let Herr Seebold [Krupp’s agent in Vienna] say simply that [the Works] are engaged on Prussian work alone, and that no one should imagine we are exhibiting to obtain orders, but only from the single higher consideration of demonstrating Prussia’s position to the world - what she has achieved for peace and war. \(^9\)

The Steelworks focused on creating a display that highlighted the production capabilities of the Krupp Steelworks yet did not interfere with potential future armaments contracts.

1885 dealt the Steelworks a catastrophic blow. Krupp had long held a virtual monopoly over the international armaments markets because nations were loathe to allow their armaments firms to export the technology they themselves were using for defensive and offensive weapons. As we have seen, Krupp had been a conspicuous exception to this, and thus far with the blessing and tacit encouragement of the German State. \(^10\)

However, in 1885 the French Chamber of Deputies lifted a ban on exports of armaments, prompting an arms market race which was unprecedented. The French armaments industry, supported by the French Foreign Ministry, competed against the Steelworks as

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\(^9\) Ibid, 292.

\(^10\) Towards the end of the nineteenth century, Germany’s navy would come under attack from Krupp cannons sold to the Chinese years before, causing a national outcry against the Steelworks. Further, during the first world war, every nation was armed with some of Krupp’s armaments.
equals, using diplomatic channels and cunning subterfuge to undermine Krupp’s foreign market monopoly. The upshot of this competition was that the Steelworks was pushed out of the Japanese and South American markets, and the firm regrouped by cornering the armor plate market at home.\textsuperscript{11} The Steelworks’ display at the 1893 Chicago World’s Fair - strongly attended by both Japan and South America - reflects this new market pressure.

The 1893 exhibit amounted to a fantastic spectacle with which to frame their cannon display. The railroad line was shifted out of the pavilion for the first time and relegated to the transportation department with the rest of the German exhibits. The floorspace of the Krupp pavilion was taken up by a collection of eighteen cannons, eleven displays of armored plate, a massive propellor and a comprehensive exhibition of the \textit{Krupp\'scher}. The Steelworks’ guidebook was expanded to over 200 pages (by comparison, the Vienna 1873 exhibition guidebook had been 25 pages long) and included three pages of contact information for the firm’s foreign agents. These agents were located in thirty-four countries across six continents. The history of the firm was also revised to focus on the development of the armaments line rather than the traditional points (paternalist management, patriotism, and sole proprietorship). The exhibit was clearly focused on re-acquiring the market for armaments from the French.

Simultaneously, the steel plate and naval portions of the exhibit gave hints of future expansion in the works.

It was a moment of historical intersections. The Krupp foreign market was diminishing and the Steelworks needed a new industry to carry them into the next century. The Steelworks, like many others, had been experimenting with armor plating

\textsuperscript{11} See Manchester, \textit{Arms of Krupp}, 218-219 for an excellent example of the subterfuge used by Krupp and his competitors in order to secure these markets.
for some time. Strength in armor plate was created by making it thicker. As weaponry became stronger the plate thickness increased. In 1892 the Steelworks perfected a new nickel-steel alloy which created a plate that was stronger than anything produced in the world and could retain that strength at half the thickness of any other armored plate. In addition to its clear immediate application to the armor plating industry, Fritz Krupp\(^\text{12}\) felt that it could be used to make cannons which could use the latest and most powerful gun powder.\(^\text{13}\) The Steelworks had begun producing cannons to test the new nickel alloy in the early 1890’s, but it would take time before these could be placed on the market.

At roughly the same time, Kaiser Wilhelm II and Admiral Tirpitz decided that Germany’s defenses could not be complete without a world-class navy. Some historians\(^\text{14}\) have suggested that the Kaiser approached Krupp as early as 1892 with a request that he retool the Steelworks to build a German navy. The historian Richard Owen suggests that this is nothing but rumor and speculation based on the close relationship between the Steelworks and the government. While a conspiracy scenario is likely nothing more than paranoia, Owen has found that when the Kaiser and Admiral Tirpitz met in 1897 to discuss the possibility of building a Navy, the Kaiser suggested that Tirpitz discuss the matter further with Fritz Krupp.\(^\text{15}\)

The Steelworks expansion into shipbuilding was not an unnatural extension of the manufacturing line. As early as 1865 Alfred Krupp had suggested the expansion, and the

\(^\text{12}\) Fritz Krupp, was Alfred Krupp’s heir and had taken over the Steelworks in 1887 after Alfred Krupp’s death.

\(^\text{13}\) Manchester, Arms of Krupp, 214-215. Manchester notes that Nobel’s newest gunpowder was powerful enough to shatter “both brass and cast-steel cannons.”

\(^\text{14}\) Isabella Hull is notable among these; see The Entourage of Kaiser Wilhelm II, 1888-1918 (Cambridge: Cambridge University Press, 1982), 162-69.

issue arose again in 1873 when the Steelworks began to produce armored plating.\textsuperscript{16} It is true that Fritz Krupp subsidized the German Navy League as well as a newspaper whose editorial agenda was to generate support for the Krupp Steelworks, the building of a Navy, and German nationalism. It is not clear, however, if Fritz Krupp began supporting these projects at the behest of the government, if they served his own business ends, or if it was a combination of the two. It is most likely that this was simply a convergence of business interests with imperial interests, even if the business interests took a slightly underhanded approach to the matter. Ultimately, Owen found, Krupp needed to acquire more of the domestic market in the 1890s to secure his profit margins, which “was by no means unwelcome to the Navy, which like the Krupp concern itself, realised [sic] that future armament production required the solid financial backing which only heavy industry could supply.”\textsuperscript{17} Further, naval increases in 1898 and 1900 came at a time when Krupp was perfectly positioned to take advantage of them.

Thus although Krupp’s business with the Army was by no means inconsiderable, it was the Navy which was to assume a position progressively more and more important, until in the financial year 1912-13, Krupp’s share of naval orders amounted to a staggering 53,000,000 Marks or 12 per cent of total Krupp production.\textsuperscript{18}

Krupp was happy to utilize Germany’s national and international political situation to its advantage, but where its corporate aims diverged from the national ones, conflict between industrialist and Kaiser ensued. Sometimes these negotiations centered on or were prompted by the growing power of the labor force and its political arm, the \textit{Sozialdemokratische Partei Deutschlands} (SPD, German Social-Democrats Party).

\textsuperscript{16} Owen, “Military Industrial Relations: Krupp and the Imperial Navy Office,” 76.
\textsuperscript{17} Ibid, 82.
\textsuperscript{18} Ibid, 83.
In 1890 Kaiser Wilhelm II, hoping to diminish the political power of the SPD by swaying voters away from the party, proposed legislation to regulate the workforce. The Steelworks felt that the new Emperor had overstepped his bounds. In an audience with Kaiser Wilhelm II, Fritz Krupp threatened to pack up shop and leave Germany. Krupp argued that no one, not even the emperor, knew how to regulate the Krupp workforce better than Krupp himself. Further, Krupp argued, the labor force would not respond to the Kaiser’s legislation and that the Steelworks’ system of management - ruthlessly punishing any Krupp worker for disloyal behavior, including discussing unions or socialism - was the only system which was effective. Additionally, in threatening to remove his company from Germany, Krupp threatened both the industrial strength of Germany and its tax base.\(^{19}\) By the end of his second audience with the Emperor, Krupp had reinforced the Steelworks position. Their markets were not only confirmed, but expanded with new armaments contracts for the German military. Further, the Krupp labor force was still very much under the control of Krupp.

**Krupp’s Social Welfare Program**

Throughout the nineteenth century, paternalism was the preferred management style of the steel and iron industries of Germany. Historian Dennis Sweeney summarized the paternalist system thus:

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\text{[it] combined far-reaching and disciplinary work rules with an extensive array of social provision in order to attract a loyal core of workers and to curb independent labour organization...Derived from the model of the bourgeois family, this gendered imagery served to define relations of power in the factory: the employer, as the male head of the factory family, was responsible for all decisions related to the terms and conditions of work. He claimed the right to establish wage rates, work hours and extensive work rules without the input of workers. Similarly, he rejected}\]

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\(^{19}\) At the time, Krupp himself paid the greatest amount of income tax in all of Germany. See Manchester, 211.
independent trade unions or workers’ representatives as threats to the…employer’s authority as ‘master of the house’…or factory. Sweeney also notes the importance of moral and spiritual dimensions of work within this system. It was not enough that employers concerned themselves with how the work was carried out, they instituted social policies so that the employees received moral and spiritual regulation outside of their work shifts. What emerged from this system was a worker who received in return for company loyalty a comprehensive package of pay, benefits and bonuses for his period of service. These benefits generally included health care, accident and life insurance, retirement programs, housing and social activities. The details of the *Krupp'scher* package followed along with many of the programs adopted throughout the Saar and Ruhr areas.

The Steelworks social welfare program aimed at producing a community of loyal workers for the firm. The Steelworks undertook a program of business investment which focused on the physical, moral and intellectual well-being of the worker. The physical well-being of the worker was satisfied through improved living conditions including: better housing, improved sanitation, the establishment of a company store which provided better foodstuffs at cheaper costs, the building of schools, social insurance schemes (including health, life and accident insurance) and pension funds. The moral and intellectual well-being was addressed through the establishment of company schools (for children as well as adults, boys as well as girls), the establishment of apprenticeships, the

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21 *Krupp'scher* was the name which the employees of the Steelworks adopted. It has been translated as both “Kruppianer” and “Kruppian.”

22 Samuel M. Lindsay, “Social Work at the Krupp Foundries, Essen, A. R., Germany” *Annals of the American Academy of Political and Social Science* 3 (Nov, 1892), 105, points out that the motivation of the Steelworks in undertaking this program was “not merely, nor even for the most part, as a philanthropic movement.”
reduction of work hours in the factory from 11.5 to 10 hours per shift, improved health and safety measures in the Steelworks, and the encouragement of religious teaching, charity work, and external intellectual pursuits. It is important to note that, although Krupp encouraged religious teaching, he did not advocate a particular religion. The company schools were secular because Krupp did not want his labor force to be divided by religious differences. Rather than a humanitarian aim of peace, this was a practical move for the Steelworks: religious loyalty might interfere with the worker’s loyalty to the company, and that was what Krupp intended to secure. He encouraged any program, including religious ones, which would instill the “correct” morality, that is, the company morality that Krupp himself outlined.

The company provisions for moral and intellectual well-being were intended to enforce the identity of a Krupp’scher. Children were educated at the company grade schools. Upon their graduation, the girls had the option to continue in special company school where they learned sewing and needlework, enabling them to be employed in that trade. They also learned how to keep a Krupp’scher home - including the values to which they should aspire. Admission into this special school was limited to female relatives of the workingmen and they were given instruction in “the preparing of meals, in neatness and thrift…and in all forms of housework.” The meals which they prepared as part of their training were served to company widowers and their children, invalids, workmen with sick wives and widowed women who continued to live within the Krupp housing settlements. The act of feeding the needy members of the company community

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24 Ibid, 103.
reinforced the identity of these girls as caretakers of the *Krupp’scher*, and thus reinforced their sense of community identity.

Boys who had completed their education at the company grade schools had the option of applying for an apprenticeship with the company. The apprenticeships were highly sought after, with “…older workmen [making] every effort to get these places for their sons.”25 The apprentices learned valuable skills, were eligible to take classes in the advanced schools, received a small wage during their apprenticeship (though this was not the rule in Germany) and were generally employed by the company after the completion of their training. The Steelworks sought to employ the graduates of their apprenticeship program because they had been taught by the older workmen the proper values of a *Krupp’scher* as well as given a thorough education (provided by the company) in both the theory and the practicalities of their trade. The apprentices were tied to the company not only through company loyalty and the values instilled in them during their apprenticeship, but also through family pressure to conform to the *Krupp’scher* ideal. Company loyalty was one of the main prerequisites for promotion.26 In a 1984 study of White Collar employees at the Krupp Steel Works, historian Toni Pierenkemper found evidence for promotion from blue collar to white collar employees within the Steelworks. Between the years 1878 and 1879 alone approximately 173 workers from the blue collar group were promoted, mostly into technical jobs such as draftsmen and engineers. “[In comparison with promotion to technical positions] blue collar workers very seldom advanced to white collar marketing positions; they were more likely to get service jobs as

25 Lindsay, “Social Work at the Krupp Foundries,” 103.

firemen or porters, for example. Remarkably, fourteen people [from this group of 173]…

had achieved managerial positions by 1900.”

Promotion from within the ranks - even to the level of manager - is not necessarily surprising. Paternalist companies sought to inspire loyalty, but it was only loyalty to the company they desired. Both unions and nepotism became a threat to the factory “head of the family.” As historian Elaine Glovka Spencer explained in her analysis of Ruhr heavy industry supervisory personnel:

Favoritism was especially abhorrent to a managerial elite bent on rationalization, and to combat it they attempted to put as much social distance as possible between overseers and their subordinates. Nepotism [once common place]…was now forbidden. Company housing provided for residential segregation of workers and officials. Separate social and recreational facilities also served to reduce the frequency of contact off the job.

Indeed, Krupp white collar workers were eligible for special social clubs, libraries, and housing programs which the blue collar workers were not and were housed in separate settlements. Yet, despite concerns of nepotism, programs such as the internship mentioned above make it clear that the Steelworks encouraged the sons of employees to attempt higher positions within the company. In 1890 Fritz Krupp established a scholarship fund for foremen’s and workers’ sons “who had been with the firm for at least four years, who had successfully completed extension school, and who had proved themselves especially qualified” to attend advanced technical training. It seems that in this specific case, nepotism was encouraged as it bound the younger workers tighter to the firm. Further, Pierenkemper found that the Steelworks relied upon an internal job market

27 Toni Pierenkemper, “Pre-1900 Industrial White Collar Employees at the Krupp Steel Casting Works: A New Occupational Category in Germany,” Business Historical Review 58, no. 3 (Autumn, 1984), 405.


- that is, recruitment from among its own ranks - to fill white collar and management
positions, rather than an external recruitment program. Pierenkemper also found that the
Krupp job market was “largely closed to the external market” with the exception of top-
level positions.\textsuperscript{30}

The social welfare efforts which the Krupps undertook were not purely motivated
by worker benefit or by a sense of charity:

\begin{quote}
The Krupp firm considers that it has been able, through its social work, to so fully
centre [sic] the interests of its employés [sic] in the neighborhood in which they live,
and so unite them with the interests of the firm, that they have exhibited less desire
to change employment, have been less affected by labor disturbances in other parts
of the country, and have been held at lower wages than would have otherwise been
possible.\textsuperscript{31}
\end{quote}

Alfred Krupp gave the workers an identity using elements of nationalism, and his
successors sustained and reinforced this identity. In an analysis of the Krupp welfare
program, Eugene McCreary found that “natives of Essen still speak of the sense of status
enjoyed by Krupp’s employees prior to World War I. They were not ‘hands’ or laborers
or even steelworkers. They were ‘Kruppians.’”\textsuperscript{32}

Fritz Krupp continued on in the role of company patriarch, building additional
worker housing settlements, contributing to a fund for the care of injured workers and
organizing leisure activities for the white collar workers, including boating, fencing and
glee clubs.\textsuperscript{33} After his death, Krupp’s wife assumed the role of company matriarch. She
spent her mornings going through company business and her afternoons doing her best to

\begin{itemize}
\item \textsuperscript{30} Pierenkemper, “White Collar Employees,” 405.
\item \textsuperscript{31} Lindsay, “Social Work at the Krupp Foundries,” 105-106.
\item \textsuperscript{32} McCreary, “The Krupp Welfare Program,” 47.
\item \textsuperscript{33} Manchester, \textit{Arms of Krupp}, 227.
\end{itemize}
restore the company morale. She established a women’s hospital as well as a staff of visiting nurses. When Bertha Krupp assumed control of the Steelworks she stepped comfortably into the same role her mother had taken, while her husband took over the role of the company patriarch.

The Krupp worker on display at the exhibitions

At the 1862 Exhibition in London it was reported that “[t]he Zollverein is determined to make its mark in the mining and engineering classes; and it has, therefore, sent a remarkable steel casting from Krupp’s factory in Westphalia, a cannon of cast-steel from the same quarter, and a locomotive engine from one of the best workshops in Berlin.” The wording of this announcement is significant. While independent companies furnished the exhibits, they were taken all together to represent the country - or in this case the economic union. Krupp’s cannons effectively came to be a synonym for the Prussian military and for Prussian science and technology. Their social welfare program became a model of the Imperial social welfare program.

At the 1873 Vienna Weltausstellung the Steelworks began to publicize their charitable works for their employees. The company’s guide to their exhibit included full details of the conditions of their workers, the machinery of the plant, and their capacity for both raw and finished goods. The statistics were nothing less than a full description of the infrastructure of the company and its workers. Everything from the number of

34 Manchester, *Arms of Krupp*, 243-4, chronicles Marga Krupp’s activities, which were identical to the actions either of the previous two Krupp patriarchs would have taken. She authorized new workhouses, visited the sick and widowed, was available to workers who had concerns, and enforced order within the company homes.


kilometers of railroad tracks laid specifically for Krupp's factories and the number of hospitals and printing presses on the premises, to a complete report on the state of the worker at the Krupp facilities, including workers’ compensation and educational schemes, was on display at Vienna through this publication. In addition, the pamphlet described the chemical laboratory, photographic and lithographic facilities at the Krupp facilities in the Ruhr.

This display, and the ones which followed it, served two purposes. First, it promoted investment in the workers as the best solution to the problem of unions. Second, the exhibits promoted the ideal Krupp worker: loyal, hard-working, one who knew his place and worked to improve himself. The Krupp guidebook is carefully worded to reflect both of these messages. A surface reading of the Steelworks guide presents a picture of happy, well-compensated workers. A closer reading reveals that so far as Alfred Krupp was concerned the employees were as much his possessions as the railroad track laid around the facility or the buildings themselves. This was typical of the paternalist industrialist’s thinking. The investments the Steelworks made in their employees were sandwiched between a description of the machinery and production capabilities of the plant and a list of the speciality departments the company had expanded to include. This description reinforced for the workers that they were content and well-compensated and confirmed the paternalist approach to other industrialists.

The message of investing in the worker was also accomplished by establishing the Steelworks as a case study of a successful, non-unionized, productive workforce. The Steelworks promoted themselves as a pioneer of worker investment, focusing on their “cradle to grave” package of benefits. The Steelworks took advantage of social science
researchers, such as Samuel Lindsay, who wrote up scientific studies highlighting the success of the Steelworks’ program. Lindsay’s article was directed at industrialists in the United States, and for these men the Steelworks stressed that their program was not a charity, but was an investment in their factory. The reader will recall Lindsay’s explanation (see quote, page 64) that the Krupps understood their social welfare policy to be a powerful tool for controlling their workers. There was no doubt that they considered their employees to be a possession of the company. If anyone thought these investments would bankrupt an industrialist, a glance at the profit margins of the Steelworks were enough to silence them.

The message to workers - that they were satisfied with their conditions if they were moral workers - was encouraged by putting the worker himself on display. In 1893 the employee exhibit had expanded to include photographs of the various housing settlements built for the workers and images of the *Krupp'scher* at work. The images of the worker reinforced the values of hard work and loyalty. The employee housing reminded the worker of all of the benefits which the Steelworks provided the loyal and industrious worker. The settlements included housing for the worker and the manager, reminding the worker of his place within the hierarchy of the Steelworks. It is striking that this display also included images of the *Stammhaus*, the original home of Alfred Krupp within the Steelworks, Villa Hugel, the “castle” which was the Krupp’s new home within the Steelworks complex, as well as panoramic views of the entire steelworks. The patriarch was reinforcing his place in the system as the head of the family, ruler of his own industrial empire.
But this display was in Chicago, which meant that the bulk of the Steelworks employees were not able to see it. Perhaps this is why in 1902 the Steelworks created such an elaborate exhibition of their workers. In 1902 a national exhibition was held in Düsseldorf, a mere 35 kilometers from the Steelworks. At this exhibition, in addition to the portraits of the workers and their settlements, there were stands giving details about the worker libraries, industrial schools for girls, and commissary (see figure 6). The display included a model two-family worker home located behind Krupp’s pavilion (see figure 7). The entire bottom floor of the pavilion was given over to the worker exhibit. The company hierarchy is particularly visible in this exhibition. Clubs which were to the managers of the company were on display, as well as the new library for the blue collar workers. The inclusion of a model home outside of the pavilion also served to reinforce
the social order. The message was simple: every moral (loyal) worker could attain the housing and social welfare system provided by Krupp, but not every worker could aspire to joining the managerial social clubs or using the managerial libraries and facilities. These exalted positions were reserved for employees who proved their loyalty to the Steelworks.

Perhaps the best example of the loyalty of the Steelworks’ employees occurred after Alfred Krupp died. Upon his death, the workers, without prompting from the management, took up a voluntary collection among themselves to erect a statue in his honor. This monument is perhaps one of the best publicized successes of the Steelworks company loyalty program. The worker’s memorial to their former employer was
dedicated in Essen immediately before the start of the 1893 exhibition. A news correspondent covering the dedication wrote:

> The whole was a scene that might, perhaps, teach other employers that workmen can appreciate such acts of kindness as those given by the late Alfred Krupp for the benefit of his men and so generously followed by his son. Such a contrast is a tribute to humanity...and may be a lesson to other large employers of labour [in England and America], indicating as it does the amity and good feelings that can exist between employer and employed.\(^{37}\)

One cannot think of any action which would have pleased Alfred Krupp more.

### The success of the exhibitions

Tours through the Steelworks, and particularly through the worker housing settlements built by the Steelworks, became a mainstay of the Steelworks’ marketing program in the 1870s. After a tour of the Steelworks in 1902, a correspondent for the British Medical Journal reporting on the International Congress on Workmen’s Accidents and Assurance raved about the generosity of the Steelworks.

> Here at Essen the acerbity that exists so often between capital and labour has never shown itself... Fifty years ago Krupp established an insurance system of his own, and, had other large firms of Germany acted in a similarly liberal way, there would have been...little need for compulsory State insurance... Krupp’s action half a century ago formed to some extent the basis of the present law in Germany. The happy relation that existed between capital and labour at Essen did much to disarm socialism.\(^{38}\)

While William Berdrow, the Steelworks historian at the turn of the century, and Kaiser Wilhelm II both asserted that the Krupp family had a particular influence over Bismarck’s national industrial program, historian Eugene McCreary has pointed out that the evidence for this influence is tenuous at best.\(^ {39}\) Further, McCreary argues that Bismarck’s intentions in pushing forward industrial reforms were only partly to undermine the

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\(^{37}\) “The Late Alfred Krupp and His Workmen,” *The Times* (London), Sept 1, 1892, 11.

\(^{38}\) “International Congress on Workmen’s Accidents and Assurance” *British Medical Journal* (June 28, 1902), 1613-1614.

influence of the SPD. “The Reichstag accepted the chancellor’s proposals because they were not revolutionary. They simply took programs, formerly voluntary and private, with which all the greater industrialists had long been familiar, and, making them compulsory, extended them to the national sphere.”

Whether the Steelworks influenced national policy or not, its program was a symbol for the empire. Krupp’s presentation of their workers reinforced paternalist social order. The Steelworks denied having any strikes as late as 1902. Outwardly they gave the impression of an oasis of worker and employee harmony. Inwardly, socialist elements were ruthlessly crushed. Alfred Krupp demanded oaths of loyalty from workers, issued a company handbook detailing all aspects of employment specifically in order to identify and crush socialist leanings, and instituted a policy of photographing the workers so that anyone agitating for unions could not only be identified, but kept from being re-employed by any of the Steelworks holdings. Krupp used the same exclusivity which nationalists used to create a loyal workforce. In elevating his workers to a special position he effectively created an “other” out of the rest of the labor force in Germany. He also created a shared enemy, the socialists. Whether he intentionally mirrored these elements of nationalism within his labor force is unclear, but the effects of his measures are certain. The Krupp labor force remained loyal to the family throughout the nineteenth century.


41 “International Congress on Workmen’s Accidents and Assurance,” 1613. This is at best a gross omission of fact; Lindsay records a strike at the Steelworks as early at 1872, and Manchester also reports employee unrest in both 1848 and 1871. See Lindsay, “Social Work at the Krupp Foundries,” 79 and Manchester, *Arms of Krupp*, 59-61 and 150-158.
Chapter 3: Experiencing Austrian Nationalism? The Vienna *Weltausstellung*, 1873

The Austrian political and economic landscape changed radically after the Austro-Prussian war of 1866. In the build-up to the war, Austrian foreign policy was oriented toward limiting Prussian influence within the German states, but simultaneously supporting a strong Prussia to secure Austria’s own position within Europe.

They [the government] knew that, if Austria were to lose her position in Germany, it would significantly lessen her ability to play a stabilizing role in European affairs and would very likely bring about a major shift in the relations among the great powers. Nonetheless, Austria could not defend her position through an aggressive policy like Prussia’s because she would thereby lose her credibility as the defender of legality and tradition, which they considered to be Austria’s greatest asset.¹

In the aftermath of the Austro-Prussian war Austria was left in a faltering position within both Germany and Europe. Historian Hans Schmitt has argued that after 1866 Austria embarked on a policy of “peace at any price” and the efforts to avoid a clash with Prussia seem to have been a means of protecting what remained of the Austrian position within German affairs. Count Beust, the Austrian foreign minister, argued that “Austria must maintain an attitude which would not set in motion developments leading to a clash’ with Prussia, ‘for in such an eventuality the urge of the southern states to join the northern federation would only increase.’” Austria’s policy towards the other German states relied upon northern and southern Germany remaining divided, and after 1866 resolved to use “passive rather than active means” to accomplish this division. However, by the end of the Franco-Prussian war in 1871, Austria had effectively been pushed out of German politics through a combination of Prussian efforts to marginalize Austria and Austria’s own policies of peaceful neutrality. While Austria had, in the intervening years, managed to recover some of its pre-1866 position both internationally and within Germany, the empire was not in a strong enough position to maintain this position after the unification of the German nations under Prussia.

Complicating these relations were the internal nationalist uprisings of the Austrian empire. Austria was a polyglot empire and the defeat of 1866 left it destabilized, allowing the largest of the nationalist movements to achieve a semblance of political autonomy. In granting concessions to Hungary in the wake of the Austro-Prussian war, Austria was

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2 Hans A. Schmitt, “Count Beust and Germany, 1866-1870: Reconquest, Realignment, or Resignation?” Central European History 1, no. 1 (March 1968), 23.

3 Ibid, 23.
divided “...into two political entities, one a Hungarian-dominated unitary pseudo-state in the eastern half of the empire, the other a federation of provinces in the west.” Such concessions could not be allowed for all of the nationalist movements within Austria, or the empire would cease to exist. For this reason, “official” nationalist movements promoted by the liberals were undertaken to unite the entire empire. From about 1867 liberals gained the reluctant support of the emperor. Representing industry, professionals and the educated middle and upper classes, the liberals pushed forward an agenda of industrialization, social reform and nationalism. This nationalism was focused on creating a common cultural basis with which to unite the empire.

Emperor Franz Joseph dealt with these crises - national, Germanic and international - in his typical reactionary style. As Robert Tombs explained, where Germany negotiated the transition to a limited constitutional monarchy, Austria “blundered” its way into a modern political structure “through a series of disasters and changes of direction.” This did not mean that the changes of direction were inherently bad, hastily chosen, uncoordinated, or poorly implemented. Quite the opposite was the case when the emperor announced plans for an international exhibition in the wake of the Austro-Prussian war.

The Vienna *Weltausstellung* (International Exhibition) was timed to coincide with celebrations of Emperor Franz Joseph’s twenty-fifth anniversary as emperor of Austria. According to historian M. S. Anderson, Emperor Franz Joseph’s authority was based on

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the fact that he had been in the post long enough to have become an icon for all of Austria’s populations. While the nationalist movements in Austria were eroding the traditional figures of authority, including the government bureaucracy and the army, the emperor remained the symbol of the Austrian empire. His very existence helped to strengthen ties to the empire. There were two goals in organizing the Vienna Weltsausstellung: to reassert Austria’s position in European affairs by establishing Vienna as a capital city of the world, and to unite the empire by asserting a sense of “imperial” nationalism.

Austrian Nationalism

In a polyglot empire it is difficult to generate feelings of nationalism without having them become divisive. The various Slavic nationalism movements within Austria prior to 1867 had established themselves based on ethnic differences. For the liberals, nationalism was “an ideology of public integration in Central and Eastern Europe, one that would eventually wipe away the backward and particularistic attitudes held by uneducated peasants and Slavs, joining them all in a great German Liberal nation.” The liberals envisioned a system in which culture would carry eastward and “transmit the propaganda of German intellection, German science, German humanism.” This was not an ethnic nationalism but a cultural one. In an empire of ethnic “others,” common ground had to be established. The emperor was one such point, but it was not a strong enough

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10 Johann Berger as cited in Brodbeck, “Dvořák’s Reception in Liberal Vienna,” 74.
rallying point. A common culture had to be established, and this is what the Vienna exhibition set out to do. Hobsbawm has identified this phenomenon as “inventing a tradition,” a process which relied on references to the past to create new rituals and new forms. Hobsbawm has identified this phenomenon as “inventing a tradition,” a process which relied on references to the past to create new rituals and new forms. The exhibition used the arts, particularly the decorative arts and music, to create this sense of shared tradition.

Austria is a fascinating case because it is an example of a nation utilizing imperialist tactics to unite itself rather than nationalist movements. Paul Greenhalgh explained in his study on imperialism at the exhibition how the empire was “tamed” within the space of the exhibition, using the British display at the 1851 London Exhibition as an example:

The grandeur of the material wealth of British possessions was to be made clear; and the necessarily alien nature of the empire was to be reduced and the whole melted into the average British consciousness. The exhibition was to simultaneously glorify and domesticate empire. These goals were potentially contradictory in terms of display... Consequently it was decided to separate out certain centre-pieces for lavish treatment... and then to largely blend the rest of the empire into the plethora of national exhibits making up the British (western) side of the Crystal Palace. [Further] the message to the average British person visiting Colonial Court was clear, ‘this is yours, see how naturally it fits into your own way of life.’

This approach which Britain used to “normalize” its empire was used by the organizers of the Vienna exhibition to “normalize” Austria into a cohesive empire.

It was noted in the introduction that contemporaries of these exhibitions saw art as an integral part of the modern world, a fundamental way of expressing truth about the human condition. Greenhalgh also points out that the fine arts were a reminder of “traditional aspects of civilization” and an important way to separate out high culture from popular culture. This made the fine arts an excellent medium through which to


create a sense of shared culture or shared nationalism at the exhibition. It was for this reason that the exhibition organizers called for large quantities of these objects to be on display. The organizers used the same tactic of the British in highlighting certain important displays and leaving the rest to blend into the overall Austrian exhibits. Examples of fully-furnished farm houses and private dwellings were built as “center pieces” to illustrate shared aspects of Austrian culture, while the bulk of the items submitted under the special category for “national domestic industry” were spread through the Austrian exhibits to reinforce the sense of a single shared culture.

Music also played an important part in inventing new cultural traditions at the Vienna Weltausstellung. Austrian critics saw a clear musical difference between northern and southern Germany. “They considered north German music too serious, devoid of rubato, and based on strict counterpoint and a certain…austerity of melody… In contrast, south German compositions emphasized a loosening of voice leading and sensual melody, harmony, and rhythm.”

Concerts were held daily at the exhibition. “We are charmed (as who could help being?) with the Austrian bands,” reported Emily Birchall, a British tourist at the Vienna Exhibition. Her observations, recorded in the journal she kept as part of her honeymoon tour through the continent give us a sense of what the atmosphere in Vienna was like. Birchall was particularly interested in the entertainments organized around the Weltausstellung. “One [band] playing in the Prater his afternoon, in the midst of an appreciative throng of all classes, was delightful, so delicate, so refined, so cultured.”

According to liberal nationalism, the ability to appreciate a musical

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14 Emily Birchall, *Wedding Tour: January - June 1873 and Visit to the Vienna Exhibition* edited by David Verey (Gloucester: Alan Sutton, 1985), 133.
performance, and to judge its merit, was as important as the ability to perform worthily.
The Birchalls were in Vienna for a month and attended various entertainments. One, a concert given by a quartet of Swedish ladies was, in Emily’s opinion, “…so especially refined and so different from ordinary concerts...The audience were intensely appreciative, listening in absolute silence, and then at the close of each song, bursting into a torrent of applause.”

15 The musical traditions the liberals invented were readily consumed by exhibition visitors.

The organizers situated Vienna at the crossroads of the world. This was a metaphor which was true for trade - Austria sat between the Western and Eastern trading worlds - and for art. “[Vienna’s] central position between east and west and north and south had led to a unique combination of Italian, north German, Slavonic, and French elements, which produced a cosmopolitan art. Not only did it allow the Austrians to understand foreign art, but it made Austrian art accessible to everybody.”

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Housing exhibitions and Austrian nationalism

The invitation to participate in the exhibition set the tone for the experience of the exhibition. This document, distributed to all of the nations invited to attend, outlined the practical information needed by exhibitors and provided the first look at the categories of the exhibition. The choices for inclusion or exclusion created the boundaries for what the organizers perceived as being relevant to the modern condition. These selections shaped the overall form of the exhibition, defining the Austrian “experience of modernity.”

Certain categories had become standard inclusions in the international exhibitions, such


as the major divisions of industry. But often exhibitions had special groups which served to highlight special areas of production or interest, and the invitation to exhibitors included a clarification section for these groups.

Austria’s call for exhibitions included three special categories that are of particular interest to this analysis. Group 19, The Private Dwelling-House: Its Inner Arrangement and Decoration focused on housing for workers. The exhibition commissioners were particularly keen to see the decoration of the private home, as “…the comfort of a house consists not only in its being suitable for its purpose, but also in its being beautiful and generally harmonious…”17 The exhibit was partly aimed at the working classes and sought to educate them on the aesthetics of interior design, as well as on the maintenance of a healthy household. But the exhibits were also aimed at the industrialists building

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17 General Regulations for the Foreign Exhibitors and Commissions, 12.
worker housing as well as the professionals involved in the design and construction of this housing. The houses were to display the most economical use of floorspace, economic and healthy arrangements of heating, lighting and ventilation as well as tasteful and comfortable decoration. There was a particular emphasis on the most economical and cleanly arrangement of the kitchen, larder, cellar, washrooms, laundries and other domestic portions of the house.¹⁸

Group 20, The Farm-House: Its Arrangements, Furniture, and Utensils, was intended to extend this same sense of improvement to the non-urban regions of Austria (see figures 8, 9). “Not all the classes of society are equally reached by progress,” explained the organizers, and the lack of evolution in the dwellings of “small

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¹⁸ *General Regulations for the Foreign Exhibitors and Commissions*, 11-12.
cultivators...is due far less to their inferior intellectual capacity than to certain external circumstances...which [have] thwarted so many attempts to promote progress among the peasantry.”¹⁹ The organizers wanted to draw the peasants to the exhibition in order to educate them about more efficient building styles, materials, and interior arrangements. The peasantry were not the target audience for exhibitions which “always contained more objects of attraction for the other classes of society than for the peasantry,” and who were often “overpowered” by the large displays of products and machinery.²⁰ For these reasons the organizers felt it “necessary to confer on the exhibition of 1873 a charm especially intended to attract the peasantry and to arouse their special interest.”²¹ This group was intended to educate the farmers and agricultural workers on the best practices of house building for aesthetics, hygiene, proper closures for doors and windows.

¹⁹ General Regulations for the Foreign Exhibitors and Commissions, 13.
²⁰ Ibid, 13.
²¹ Ibid, 13.
(including the use of a door), and the most economical way of maintaining a household.\textsuperscript{22} Here the exhibit was aimed primarily at the “thoughtlessness and ignorance” of the peasants, who often designed and built their own (poorly designed and constructed) homes with the help of their neighbors.\textsuperscript{23} The message from the organizers was not just that there were more efficient designs for housing but that professional services were available to accomplish this task. These houses were on display next to the worker housing, enabling comparison between the two styles of housing.

Despite the desire to draw in the workers and the peasantry, at the opening of the Exhibition the entrance tickets were priced too high to allow them admission. For the first two months of the Exhibition the attendance at the exhibition - both of the general public and of the workmen in particular - remained far below the estimates of the organizers. The Minister of Commerce worked to correct the price of entrance tickets and the hours of operation:

[The Minister of Commerce] took care that the students’ and workmen’s tickets at reduced prices were distributed in a less niggardly way than was the case at the beginning... The hours when the Exhibition is open have likewise been prolonged. It opens now at 9 a.m., and the building is closed at 7 p.m., while the grounds remain open until 10 p.m....\textsuperscript{24}

This special emphasis on housing bears a bit more scrutiny. The issue of worker housing had first been raised by Prince Albert at the 1851 London Exhibition (see figure 10). The organizers argued that there was need to return to this issue because “in most nations the private dwelling-house has undergone no improvement.”\textsuperscript{25} The failure to solve the issue of worker housing led to overcrowding in worker dwellings and the decay

\textsuperscript{22} General Regulations for the Foreign Exhibitors and Commissions, 14.

\textsuperscript{23} Ibid, 13-14.


\textsuperscript{25} General Regulations for the Foreign Exhibitors and Commissions, 11.
or morals and health. There were several significant differences between the 1851 and 1873 displays. Prince Alberts model houses were included in the exhibition on Civil Engineering, Architecture and Building. The houses focused on new building materials and techniques and suggested that industrialization could solve the problem of worker housing shortages. Perhaps this memory of the exhibition is why British manufacturers were encouraged by their countrymen to send examples of workmen’s housing, and particularly iron houses. “...[M]anufacturers of iron houses should be drawn to the fact that such houses are almost unknown in Austria and that rents are enormously high, while there exists no suitable accommodation for the poorer classes...”

There was a sense in these models that industrialization would resolve the housing shortage. While the organizers at both the 1851 and 1873 exhibitions recognized that worker housing shortages created social problems, neither exhibition implicated industrialization as the cause of the housing shortages.

At Vienna, the housing exhibit focus was on decoration and the design of the home. The organizers were interested in the aesthetics of housing design and not on the building materials themselves. At Vienna, the two housing exhibits appeared as distinct displays associated with the Fine Arts department while Civil Engineering was its own distinct category and focused on national infrastructure. Showcasing the worker homes just outside of the fin arts building reflected their connection to artistic design and reinforced their connection to the liberal idea of nationalism. There was no promise held out that industrialization could solve the problem of the worker housing shortage, but there was a suggestion that, at least for the peasants, the lower classes could make

26 “Germany at Vienna Exhibition,” *Journal of the Society of Arts* 20 (November 1, 1872): 936.
changes to better their situation. These displays also differed in that they addressed both the urban and rural populations. By addressing both populations the organizers were pushing forward an agenda of nationalism, but this placed the issue of urban and rural housing on an equal footing. The urban workforce was just as important as the rural agricultural workforce, and both sections of the lower classes were challenged to accept a new design aesthetic.

Rapid industrialization often led to poor housing and sanitation conditions leading the workers to strike as a direct result of these conditions. In Austria housing was in particular demand among the working class.

As has been noted, the housing shortage was linked not only to poor sanitation and living conditions, but was equated with morality. But inefficient housing was equally scorned, as the explanation of the farm-house exhibit explained.

Items submitted for Group 21, National Domestic Industry, were used to “blend the rest of the empire into the...national exhibits.” This group was to create a comprehensive display of household items encompassing “...all kinds of pottery, glazed and unglazed, fabrics and lace-work, particularly those belonging to national costumes, but also carpets, table-cloths, counterpanes, and similar objects for home use, and moreover ornaments, and all sorts of utensils.” A similar program had been displayed in

27 Lindsay, “Social Work at the Krupp Foundries,” 77-79.
29 Greenhalgh, Ephemeral Vistas, 54.
30 General Regulations for the Foreign Exhibitors and Commissions, 7.
the Paris 1867 *Exposition*, but the scope for the Vienna Exhibition was to be much greater. The organizers argued that this special collection was needed because the 1867 *Exposition* approached the objects purely from an ethnographic standpoint, ignoring the historic and aesthetic potentials, while the 1862 London Exhibition, which also displayed a collection of these objects, was only able to display wool fabrics and pottery, and those incompletely.\(^{31}\) This exhibit was to be comprehensive, but at the same time it was not to be exhaustive. The organizers called for “connoisseurs” to put forward collections which would simultaneously display everything necessary for an exhibit of this kind, but also to establish “what is good, beautiful and useful in common things.”\(^{32}\) The organizers particularly singled out the Austrian and German museums of fine arts applied to industry as connoisseurs whose contributions would be valued, revealing the clear bias in this exhibit group.

Art was without doubt given special attention at the Vienna *Weltausstellung*. But, as Whewell noted at the 1851 London Great Exhibition, “science [was] the natural complement of art, the fulfillment of the thoughts and hopes which art exercises...the fully developed blossom, of which art is the wonderfully involved bud.”\(^{33}\) Science, as the partner of art, was also incorporated into the displays of national culture. While the fine arts were given a special and separate display space, science was presented throughout the exhibition. A special lecture-hall was built in which demonstrations and lectures could be presented, and various exhibitions of animals, food and drink were planned.

\(^{31}\) *General Regulations for the Foreign Exhibitors and Commissions*, 7-8.

\(^{32}\) Ibid, 8.

A special exhibit program was included which focused on the recycling of industrial by-products.\textsuperscript{34} The organizers neatly linked science, efficiency, industrialization, civilization and morality together in their claim that the consumption of soap and paper, the quantity of letters exchanged, the extension of public libraries, and the use made of them, etc, are often taken as a measure of the actual degree of civilization of a nation. An extensive and refined use made of the waste materials of the industry and house-keeping might be considered with equal right as the measure of the degree of industrial development and capability.

Apart from this particular exhibits, there was no cohesive set of scientific exhibits, prompting the British commissioner to complain:

These scientific exhibits were not grouped together in the same department, but were scattered throughout courts and pavilions, which were not often in close proximity to one another. It was therefore not without a large expenditure of time, and a considerable amount of locomotion, that one could get a general idea of this speciality...\textsuperscript{35}

Again we see the approach of scattering objects throughout the exhibition in order to make them blend in better. Science did not need a special display area, science was simply incorporated into the everyday. The British commissioner’s report continued that although there was very little in the way of novelty among the science exhibits, “the actual state of science was well represented at the Vienna Exhibition.”\textsuperscript{36}

Spectacle was an important means of drawing crowds to the exhibitions. Often this spectacle took the form of recreational opportunities. As Fyfe and Lightman pointed out, science was part of mass culture and “the organizers of [the exhibitions] were always playing with the balance between instruction and entertainment in their efforts to produce a form of rational recreation which would be appetizing to the consumer.”\textsuperscript{37}

\textsuperscript{34} \textit{General Regulations for the Foreign Exhibitors and Commissions}, 3.


\textsuperscript{36} Ibid, 634-635.

At Vienna, the organizers built exhibits which would illustrate the “history of inventions,” “the history of industry,” “the history of prices,” and to give a “representation of the commerce and trade of the world” in the exhibits, which served to create a deeper meaning for the exhibits overall.\(^{38}\) The organizers delivered a host of activities to appeal to locals and tourists, including a series of temporary exhibits of animals, plants and produce. Emily Birchall, our British tourist who was so taken by the musical spectacles staged around the \textit{Weltausstellung}, visited the flower exhibit “and found there a really \textit{very fine} show of azaleas, calceolarias, cinnerarias, and rhododendrons…”\(^{39}\) as well as the fruit and vegetable exhibit. “The German ladies congregate around the vegetables and exclaim in ecstasy [sic] ‘Was für Kartoffeln!’ ‘Ah! der wunderschöne Blümenkohl!’”\(^{40}\)

The instruction and education of the visitor included trials of machinery and processes, such as winemaking; lectures; international prize problems; temporary exhibitions of animals, foods and plants; “dynamometric experiments...on the tractive force of animals”\(^{41}\); horse races; food and drink tastings; and congresses and conferences, especially for “men of science, teachers and artists, physicians, directors of museums of fine art applied to industry, teachers of drawing, architects, engineers, representatives of chambers of commerce, economists”\(^{42}\) and so on, in order that they might discuss the

\(^{38}\) Robert Henry Thurston, ed., \textit{Reports of the Commissioners of the United States to the International Exhibition held at Vienna, 1873} (Washington: Government Printing Office, 1876), 70.

\(^{39}\) Birchall, \textit{Wedding Tour}, 133.

\(^{40}\) Ibid, 133. “Look at the potatoes!” “Ah! The excellent cauliflower!”

\(^{41}\) \textit{General Regulations for the Foreign Exhibitors and Commissions}, 72.

\(^{42}\) Ibid, 72.
critical questions of the day. Sporting events, regattas, national games, plays, operas and concerts were also arranged.

All of this served to reinforce Vienna’s claim to being a world city, but perhaps the clearest claim to equality with France and Britain came during the judging of the exhibits. The awards juries were made up of international judges. At Vienna they were required to speak in German to both the other international jury members and the individual exhibitors.

Bashful attempts which were made to introduce the use of the language of diplomacy, French, as the international language of the juries, were speedily repressed by the Austrians, who pointed out that at Paris the language had been French; in England English... The language of Vienna is German, and the transactions are carried on in the principal language of the country. The French and English probably find this not very convenient, but quite in order, more so, in fact, than the Magyars, Czechs and other pretentious nations in the polyglot empire. 43

The language requirement - and the suppression of the Slavic languages - was another way of transmitting “the propaganda of German intellation, German science, German humanism” to the eastern parts of the empire, but it simultaneously elevated Austria to an equal position with Britain and France. This language requirement also appeared at the international conference on patents hosted in Vienna. The aim of this conference was to recommend an international patent system “…based on some intelligible and defensible [sic] principle...”44 In that case, because of the international nature of patent regulations, the conference authorities bowed to international pressure and announced that French, German and English would all be acceptable languages.

43 “The Juries at the Vienna Exhibition,” Daily Evening Bulletin (San Francisco, CA), July 23, 1873. This last comment deserves a moment of additional consideration. The author argues that while the French and English are inconvenienced by speaking German, they accept that this concession is in order due to the location of the exhibition. The marginalized populations of the Austrian Empire, however, were not only inconvenienced but marginalized by this move. These populations had been participating in nationalist movements throughout the nineteenth century which challenged the authority of the German emperor. The suppression of their language within Vienna, and quite pointedly within the discussion space of the exhibition, sent a strong message to these populations about their place within the Empire.

The success of the endeavor

There were two reasons for Britain’s interest in the Vienna Exhibition. First, as John Davis has written, Britain had been fascinated by Germany throughout the nineteenth century.

The association of Germany with scholarship and learning was a thread passing through literature, theology, history, science, reform and so on into national rivalry and the fear of German strengths and British deficiencies in terms of technical expertise. The interest in German art and music, while emerging more autonomously, perhaps, still revolved around Romantic themes and issues, and was certainly not disconnected from the other discussions of Germany going on. It is particularly important to emphasise[ sic], however, that even interest in Germany generated in educational reform, in science, in commercial circles, and particularly, in politics in the latter half of the century, rather than being spontaneous outgrowths of national rivalry, drew on themes exercised much earlier in the cultural realms of literature and philosophy.45

Although this interest waxed and waned through the nineteenth century, but Davis noted that interest was resurgent after German unification. The unification of Germany in 1871, a scant two years before the exhibition, considerably simplified the political situation, as far as the British were concerned, and the British (among others) were eager to see how Austria would develop after adopting liberalism.

A year before the opening of the exhibition, newspaper accounts of the fair had begun in the United States and England. These early accounts detailed the progress of construction, diplomatic squabbles, and lists of participants. Prospects for new trade relations with Eastern markets - particularly those of China and Japan - elicited interest in both the British and the American press. Vienna was situated both physically and metaphorically at the crossroads of trade, making it an ideal exhibition location:

45 Davis, The Victorians and Germany, 384.
...this Exhibition differs from all that have preceded it in the peculiar circumstances arising from the locality of the city in which it is held; Vienna being the centre of a network of railways and the last commercial town of Europe, whence the products of the West are sent to the East. It will be visited by many Russians, Poles, Wallachians, and others, who would never reach an Exhibition at London or at Paris.46

The added draw of the cultural displays planned by the organizers promised large crowds from around the world, and large crowds translated into a successful exhibition.

The newspapers used the term “the East” to refer interchangeably to the markets of China and Japan and in the broadest possible sense to mean “everything East of Vienna,” including Russia and the middle east. Trade opportunities with “the East” prompted a flood of editorials and letters (hence the confused use of the term “the East”) encouraging large national displays. As one letter encouraged:

The East, by all accounts, is going to flock into Vienna next year, and appears fully conscious of the good it will gain by so doing; hence the material reward which English exhibitors will gain in the East by contributing largely to the Vienna show of 1873 is not one to be spoken lightly of or despised.47

The Vienna Exhibition promised to be an excellent venue for securing new markets for industrialized nations. It was not just trade opportunities in the East, but Eastern competition for Western markets, which made the Vienna exhibition significant. Another editorial warned of this threat to trade:

The East, more particularly, is desirous of sending its productions lavishly, and will make every exertion to compete successfully with the West. It is therefore highly desirable, and the wish of Her Majesty [Queen Victoria]...that England and the Colonies should be well represented in art, science, and manufactures.48

In addition to these commercial and cultural interests, European nations were interested in evaluating Austria’s liberal changes. Britain was particularly concerned with this aspect of the Vienna Weltausstellung and evaluated Austria’s “progress” through a

direct comparison with British liberalization measures. As with all things related to the exhibitions, this was carried out through newspapers. For example, the Times compared Austria to Britain politically, economically and socially:

“Progress” was a word which it seemed absurd to use in connexion [sic] with the Empire on which Prince Felix Schwarzenberg had stamped his policy, and which was linked in unholy alliance with the worst elements of spiritual and temporal repression in Europe. And yet if we search through the Continental States we shall not find one which now offers a more conspicuous example of progress.49

Not only had Austria performed a complete social, political and economic revolution, it had advanced to a state which allowed Austria to join the ranks of the modern nations of Europe. The British commissioners seconded this assessment of Austria’s progress (and of British superiority) in their review of the condition of Austria at the time of the Exhibition.50 The history their official report gave of Austria’s political and financial situation between 1848 and 1873 indicates that rather than a smooth transition from a protectionist economic policy to one of free trade, the process had been filled with starts, stops and reversals. Ultimately, the report claims, Austria achieved the aims of revising its economy and encouraging both industry and liberalism. Although the authors of both the report and editorial were clearly aware of the political, social and economic situation leading up to the exhibition, there was not a hint that Austria could become anything other than the liberal, industrial nation that was promised at the exhibition.

If these two reports were unable to acknowledge any failures in Austrian liberalism, there were many others who were ready to do so. It was in these exhibits that other nations perceived cracks in Austria’s facade of modernity. Malcolm Macleod


focused particularly on the living conditions of the Austrian workers in his report to the
Societies for the Promotion of Scientific Industry in Manchester and Birmingham. He
decried the status of worker housing in Vienna, citing the same flaws the exhibition
organizers saw in communal housing: the decline of health and morality. Austrian
workers lived in communal housing, which entailed a lack of running water,
overcrowding and outbreaks of cholera and other diseases. Austria could not be counted
as a modern nation if Austrian workers were so exposed to immorality and disease.
Macleod seems not to have conducted interviews with the workers on this issue, so our
view is lensed through any bias he had. That this model had been established in the first
place may indicate a rapid industrialization which resulted in a poor housing solution.
But the reader will recall that in 1851 Tallis worried about communal living among
German workers. Perhaps the housing model which Macleod and the liberals decried
reflected a traditional style of living among Austrians, and it may have even been the
workers’ preferred living arrangement. Whatever the truth of the matter, liberal ideals
demanded a solution to the housing problem.

The American press was also critical of the liberal changes. A Boston newspaper
reported that Austria’s educational department was of “great interest,” but that this exhibit
was clearly a show for the benefit of Europe. The reporter had toured one of the largest
public schools in Vienna before visiting the education department at the Exhibition. Not
only were none of the educational apparatus present in the school he had visited, but the
schools were:
in the hands of the priests. It is not yet the policy of the church to liberally educate the people and although the government is awakening to the necessity of a wider system of popular education, it has not yet had the courage to take the matter out of the hands of the church.\(^{51}\)

Austria was charged with yet another failure of liberal ideals.

A few days after its glowing review of Austria at the exhibition, the Times offered up its own criticism, and perhaps this was the most damning. Austria had symbolically included a miner, “a shepherd and a husbandman” on their ten-florin notes, representing “the three great classes whose labour enriches the country,” in reality the economy was still heavily dependent upon agriculture rather than industrialization. Worse still, agricultural production methods did not make efficient use of the land resources available in Austria. “If her resources are ever to rival in their elasticity those of the manufacturing nations, it must be mainly be reclaiming the wastes that might easily be made arable, and by improving her primitive system of cultivation.”\(^{52}\)

The London \textit{Times} judged and condemned the exhibition and the aspirations of the liberals in Austria. “No one had said that the Exhibition, as such, was a failure....” the \textit{Times} argued, softening the blow of its decree by labeling it a “\textit{succès d’estime},” a success which implies that if there was a failing it was on the part of the audience, and not the performer. But the performer had yet to prove that the promised political, economic and social changes were anything more than a show, as ephemeral as the exhibition itself. At the end of the spectacle, the observer was left anticipating the results of the General Election, the first election in which Austrians voted directly for their Parliamentary representatives. Britain had judged Austria, and had declared its transformation incomplete.

\(^{51}\) Paul Vevay, “Austria,” \textit{Boston Daily Advertiser} (Boston, MA), Aug 23, 1873.

\(^{52}\) Special Correspondent, “The Vienna Exhibition,” \textit{Times} (London, England), May 19, 1873.
Before the exhibition had closed the Emperor and Empress retreated from the city, leaving the commissioners to resolve how best to close the exhibition without an imperial presence. Their intention had been for the royalty of Europe to return to Vienna one last time to celebrate the awarding of the medals and the close of the exhibition with a court fête. Instead the closing ceremony was the ringing of the foghorn signaling the end of the exhibition hours, followed by two military bands playing the Austrian national hymn “...at the conclusion of which a cheer arose from the crowd like the volley at the end of a military funeral....”

In a description of the closing ceremonies from the London Times there is a sense that the Austrians, at least, appreciated the experience of modernity the organizers had presented at the Exhibition.

If the world at large had long turned away from [the 1873 Exhibition] and had almost forgotten its very existence, the Viennese clung to it only the more fondly as their first though rather unsuccessful effort to give their cherished town, at least for the time, the importance of what they call a “weltstadt” - one of the world’s capitals - a centre of universal interest and attraction.

This suggests that so far as the people of Austria were concerned the exhibition had succeeded in its goals. Vienna was established as a world city and the exhibits had created a sense of nationalism for Austrians. That nationalism was simultaneously traditional and modern; it allowed the workers to live as they had been in overcrowded former mansions and pastoral farmhouses; it allowed for church schools, but it also encouraged modifications to homes and the incorporation of science and rationalism into the curriculum. That nationalism was rooted in a sense of shared artistic, and particularly


54 This was properly eulogized by the Times; see Austrian Correspondent, “The Vienna Exhibition,” Times (London, England), Nov 7, 1873.

musical culture. As late as the end of the World War I, “...the Viennese proudly described their city as the one that attracted and formed composers such as Haydn, Mozart, Beethoven, Schubert, Bruckner and Mahler.”

Conclusion

For a few brief months, international exhibitions brought the entire world to the heart of a city. The exhibitions provided a unique opportunity to tour through the entire world in just a few acres. They enabled the masses to tour industries, nations, empires and colonies. In doing so, the exhibits defined how the masses interpreted and understood the modern world. The exhibitions were crafted from a particular point of view which included specific perspectives on nationalism, imperialism and industrialization. This study used these lenses to examine the experience of modernity presented at various exhibitions during the nineteenth century in order to explore how these events created ideas about nationalism, how modernity was defined by the
participants in the exhibitions and how these ideas about nationalism and modernity were transferred into the populations of the German and Austrian empires.

Anderson argued that nations were “imagined communities.” The exhibitions facilitated theseimaginings. As we saw in chapter one, there were many ideas about nationalism circulating in Germany during the nineteenth century. The exhibitions provided a focal point at which to explore these ideas. Through these displays a cohesive national identity was negotiated. The national press used industry as a unification point for the nationalist movement. The exhibitions, as celebrations of industry, came to represent celebrations of the nation. After unification the exhibitions helped to define a national aesthetic even as industrialization came to be synonymous with rot.

Industrialists such as Alfred Krupp utilized elements of nationalism in order to create a loyal workforce. The Steelworks linked industrialism, nationalism and a loyal workforce in their displays at the international exhibitions, at national exhibitions and during tours of the factory and worker housing settlements. But creating a temporary display meant that messages could be forgotten or modified. The Steelworks created permanent displays for the workers as well. The best example of this was the Steelworks’ “cradle to the grave” employee benefit package. This package included non-tangible elements - health care, retirement pensions, promotion and education schemes, etc - as well as physical monuments, including hospitals, retirement and invalid homes, leisure centers, bathing halls and housing settlements. These exhibits and monuments were extremely effective in creating a loyal and stable workforce.

Imperialism worked in conjunction with nationalism to normalize the strange or foreign at the exhibitions. In the case of Austria the “strange or foreign” aspects of the
empire were the Slavic populations. Austrian liberals were colonized the Slavic populations through a combination of displays of progress and by inventing shared cultural traditions. The Slavic populations were cast in the role of uneducated peasants who showed no sense of progress or modernity. By comparing these populations side-by-side with the industrialized working classes the exhibition organizers created a sense of progress in the western half of the empire and a distinct sense of lack of progress in the eastern (Slavic) half of the empire. The combination of creating a hierarchy for the empire and a sense of shared culture through music and the fine arts was what characterized Austrian nationalism.

**Evolving views of exhibitions and modernity**

The role of the observer in all of these accounts is significant. As Modris Eksteins pointed out in his work *The Rites of Spring* “…the audience for the arts... is for the historian an even more important source of evidence for cultural identity than the literary documents, artistic artifacts, or heroes themselves.”¹ The observer is the one who experiences the exhibitions, either directly as an eyewitness or indirectly as a contemporary observing the exhibition through the lens of accounts or the historian observing from the present. Millions of people like Emily Birchall visited the exhibitions to tour through them personally. Millions more experienced the exhibitions through the national press. The press accounts included letters from experts and reviews from critics. There was a critical relationship between the critics and their readers. As Brodbeck has pointed out, often the readers withheld their opinion on a performance until after the performance.

¹ Modris Eksteins, *Rites of Spring: The Great War and the Birth of the Modern Age* (Boston: Houghton Mifflin, 1989), xiv. Eksteins has not written about the exhibitions directly, but his definition of the arts - as both low and high culture - would certainly have included these spectacles.
critics had published their official reviews. In his study, the readership in Vienna found that their opinions always aligned with that of the critic. This relationship helped to foster a sense of high culture and low culture, but it also defined what the readers could experience at the exhibitions. What the reviewer saw, what they reported and how they interpreted the exhibitions shaped how entire readerships responded to nationalism, industrialization and empire; in effect, how they understood the modern world.

In a similar way, the modern historian looking at the exhibitions shapes these experiences for their readers. How the historian allows the observer to experience the exhibition defines how the observer is allowed to experience modernity. Greenhalgh discusses several aspects of the exhibitions including colonialism and the role of women, but he allows only for the experience of a single collective exhibition visitor - a contemporary everyman whose experience at the exhibition (and modernity at the exhibition) is the same regardless of country of origin, political and social agenda or class affiliation. Davis acknowledges that “many interests connected with the Exhibition,” but while his analysis allows for multiple experiences of the exhibition, modern experiences of the exhibition are entirely predicated on the contemporary experience. That is, the meaning of the exhibitions (and the experience of modernity) does not evolve over time; rather the Victorians charted the course of modernity and we remain on that course. While Greenhalgh constrains the contemporary observer to the same experience he does allow the contemporary observer the freedom to experience a variety of modernities. Auerbach’s argument (that the observers of the exhibitions experienced different things

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2 Brodbeck, “Dvořák’s Reception in Liberal Vienna,” 73.

and that the meaning of the exhibitions evolved over time) allows the greatest freedom for the various observers of the exhibitions to experience modernity.
Chronology

1790  Hamburg hosts *Kunst- und Handwerksausstellung* (first art and handcrafts exhibition in Germany)

1804  Lübeck hosts *Gewerbeausstellung* (first industrial exposition in Germany)

1815  Congress of Vienna completes restructuring of Europe

1824  Munich, *Bayerische Gewerbeausstellung*  
      Stuttgart, *Württemberge Gewerbeausstellung*  
      Berlin, *Preußische Gewerbeausstellung*  
      Dresden, *Sächsische Gewerbeausstellung*

1826  Alfred Krupp takes over Krupp Steelworks after his father dies  
      Crucible steel process is fully developed by the Krupp family

1827  Stuttgart, *Kunst- und Industrieausstellung* (Art and Industrial Exhibition)  
      Augsburg, *Bayerische Gewerbeausstellung*  
      Dresden, *Sächsische Gewerbeausstellung*  
      Berlin, *Preußische Gewerbeausstellung*

1834  *Zollverein* founded  
      Munich, *Bayerische Industrieausstellung*
1835 Hannover, *I. Allgemeine Gewerbeausstellung* (First General Industrial Exhibition)

1836-42 Alfred Krupp begins experimenting with hollow forged muskets

1837 Victoria ascends the British throne
Hannover, *II. Allgemeine Gewerbeausstellung* (Second General Industrial Exhibition); Krupp’s spoon rolling machine debuted

1838 Alfred Krupp tours France and England, securing orders and gathering intelligence on the crucible steel process and the various advances England and France have made in metalworking

1844 Berlin *Allgemeine Deutsche Gewerbeausstellung* (General German Industrial Exhibition)
Krupp attempts to sell cast steel muskets to Prussian and British militaries at Berlin General Exhibition of Industry

1847 Krupp completes first cannon, a three-pounder presented to Fredrick William IV

1849 Trade Exhibitions in Paris and Gent
Krupp perfects cast steel springs and axles; contract signed with *Eisbahn*

1850 Leipzig, *Allgemeine Deutsche Industrieausstellung* (General German Industrial Exhibition)

1851 London, The Great Exhibition of the Works of Industry of All Nations; Krupp’s cast-steel cannon debuted

1852 Krupp gifts the six-pound cannon displayed at the 1851 London Exhibition to Fredrick William IV in time for the Tsar Nicholas I’s visit to Prussia

1853 Krupp invents weldless railroad tire
Berlin grants Krupp an eight year patent on his invention
Employee healthcare program begun as a voluntary fund in 1836 is institutionalized

1855 Paris, *Exposition Universelle*
Crown Prince Wilhelm I invited to tour the Krupp Steelworks
Krupp’s twelve-pound cannon tested at Vincennes
Krupp sells twenty-six cannons to the Khedive of Egypt

1859 May France declares war on Austria
Kaiser Fredrick William IV orders 312 cannon from Krupp

1861  Fredrick William IV dies; William I ascends Prussian throne

1862  London, International Exhibition of 1862

1863  Krupp builds Westend settlement (for managers, not workers)

1864  Prussia and Austria at war with Denmark over Schleswig-Hollstein; Denmark cedes Schleswig-Hollstein to Austria and Prussia at Peace of Vienna

1866  Austro-Prussian War
Peace of Prague abolishes German Confederation, expands Prussia’s territory and forms North German Confederation

Cholera outbreak in Essen; Krupp builds hospital for affected workers

1867  Paris, Exposition Universelle

1870-1  Franco-Prussian War (Krupp’s cannon and guns used extensively)
Krupp builds first worker housing settlement

1871-8  German Kulturkampf

1872  In response to worker unrest of 1871, Krupp draws up General Regulations

1873  Vienna, Weltaustellung 1873 Wien (Vienna World Exhibition)
Financial crisis in Europe, beginning in Vienna; Great Depression begins, lasting until 1896
Krupp builds non-denominational schools for children of Steelworks employees

1875  German Social Democratic Party (SPD) founded

1876  Protective tariffs introduced in Germany
Philadelphia, Centennial International Exhibition

1878  Paris, Exposition Universelle

1879  Berliner Gewerbeausstellung

1879-80  Sydney International Exhibition

1880-1  Melbourne, Melbourne International Exhibition
1884  Germany begins to expand into Africa
1887  Alfred Krupp dies; Fritz Krupp takes over the Steelworks
1888  Mar  Emperor William I dies; Fredrick III becomes German Emperor
       Jun  Fredrick III dies; Wilhelm II (William II) becomes German Emperor
1889  Paris, *Exposition Universelle* (Eiffel Tower opened)
1890  Bismarck dismissed
       Fritz Krupp and Kaiser Wilhelm II meet for the first time
1890-92 Krupp Steelworks begins nickel alloy armor plate fabrication
1891  Pan-German League founded
1892  Krupp has *Altenhof*, a retirement home, built
1893  Chicago, World’s Columbian Exposition
1895  Kaiser Wilhelm II begins to agitate for a Navy
1896  Krupp purchases the Kiel shipyard
1900  Paris, *Exposition Universelle*
1902  Fritz Krupp dies; Marga Krupp takes over the Steelworks as regent
       Düsseldorf, National Industrial Exhibition
1904  St. Louis, Louisiana Purchase International Exposition
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