According to a popular nineteenth-century saying “meat is muscle.” By definition, meat is (animal) muscle; however, this saying refers less to the animals who render meat but to the consumers who eat it. Particularly in the nineteenth century when scientists like the German chemist Justus von Liebig identified meat as a rich source of protein, it became synonymous with physical strength and even rising life expectancy. Meat consumption was increasingly considered vital for the physical survival of populations, especially the working classes. As the economist Otto Hausburg, who would later become the first director of Berlin’s public slaughterhouse, argued: “healthy and inexpensive meat is a question of survival for these [lower] classes, especially for the large number of manual laborers.”¹ Their sufficient meat supply, according to Hausburg, was first and foremost a question of public welfare and hence the responsibility of municipal and state agencies, especially since this was not simply a matter of producing sufficient quantities of meat, but also ensuring its quality, i.e. healthfulness.² Meat since it originated from a living organism was a volatile food – very nutritious yet also potentially dangerous – not only because it could spoil, but because animal flesh could transmit diseases to unsuspecting human consumers. In order to minimize such dangers, meat production had to be closely supervised at its source, i.e. in the slaughterhouse.

Slaughterhouse reforms were a European wide phenomenon in the nineteenth century. Closely linked to other large-scale developments like the urbanization of cities and their inherent population growth, the emergence of new industries, the development of new technologies, and the expansion of scientific knowledge as well as the transformation of political agencies and public hygiene regimes, the reform of slaughterhouses underscored

Europe's gradual shift from an agrarian to an increasingly industrialized society. The precedent for this development was, in many ways, set by Paris where the first modern public slaughterhouses opened in 1818. In the course of the nineteenth-century, many other cities followed Paris' initiative, for example Rouen received a public abattoir in 1830, Marseille in 1848 and Lyon in 1858. The city of Brussels established such facilities in 1840, whereas Vienna did so in 1851, Milan in 1863 and Zurich in 1868. Meat production facilities in German cities also underwent major reforms. Frankfurt built a public abattoir in 1861, Munich in 1865, and Hamburg followed suit in 1872. The city of Berlin, however, did not establish public slaughterhouses until 1881. Why was that the case?

This paper investigates this question by looking at the history of nineteenth-century slaughterhouse reforms up to the establishment of Berlin's Central-Viehhof in 1881. It asks not only why were Berlin's slaughterhouse reforms so late, but also why did they eventually come about? As the paper will demonstrate, three factors in particular shaped the course of Berlin's slaughterhouse reforms: (1) municipal politics and debates about public welfare; (2) Berlin's urban growth including its newly acquired status as capital city; and (3) the growing knowledge about the transferability of diseases like trichinosis and hence the close interdependence of human and animal health. Whereas these reforms centered on the actual transformation of physical space, they also attested to changing notions about urban body culture. What makes the history of slaughterhouses particularly interesting in this regard is that they shed light on the continuous interdependence of human and animal bodies even as livestock was increasingly removed from the streets of cities. As my paper hopes to show this interdependence, which has been widely ignored in the scholarship on bodies, offers some crucial insights into the material, political, socio-economic, and medical history of corporeality and its role in the transformation of nineteenth-century cities.

Interestingly, whereas rich archival and other primary materials exist about the history of Berlin's slaughterhouses, the secondary literature on this topic is still very sparse. Among the only works are a collection of essays published to accompany an exhibition and a more general study about the architecture of Prussian abattoirs. Susanne SCHINDLER-REINISCH, ed. Berlin Central-Viehhof: Eine Stadt in der Stadt, Berlin, 1996 and Stefan THOLL, Preußens blutige Mauern: Der Schlachthof als öffentliche Bauaufgabe im 19. Jahrhundert, Walsheim, 1995.

Michel Foucault never mentioned animals in his elaborate studies on the history of bodies, their incarceration and increased physical restraint, which might not be surprising given his primary emphasis on the relation of body and self. See especially his Discipline and Punish: The Birth of the Prison, New York, 1979; and The History of Sexuality, 3 Volumes, New York, 1978. But even in histories that seek to offer more general accounts, animal bodies and their relation to human society are usually not mentioned at all, see, for example, Richard SENNETT, Flesh and Stone: The Body and the City in Western Civilization, New York, 1994; and Brian S. TURNER, The Body and Society: Explorations in Social Theory, London, 1996 (curiously, the cover of Turner's book features a slaughtered animal).
1. Communal Failures.

Berlin’s road to slaughterhouse reform was a very peculiar one, because the city actually already had three municipal slaughtering facilities in the eighteenth century. They were located directly at the Spree, two of them were even built on stilts right above the river. Each of them featured a couple of butchering stalls furnished with the bare necessities of the trade. That public hygiene had not been a priority in their establishment was readily apparent in the buildings themselves. None of them was equipped with adequate water supplies, washrooms, or cesspools so that all of the waste and debris had to be dumped directly into the river, often simply through a hole in the floor, which not only polluted the city’s main river but added to the stench surrounding the slaughterhouses. Moreover, the lack of sufficient water hindered the cleaning of the facilities, further perpetuating the spread of filth and the deterioration of the buildings, especially the wooden floors. Butchers repeatedly reported incidents where people and livestock had fallen through the rotten floor or off broken staircases. Neighbors, too, complained about the filth, stench, and inadequate provisions as well as the immoral behavior and general disarray in the vicinity of the abattoirs. Yet, despite such accidents and complaints, Berlin’s city magistrate who was responsible for their upkeep refused to pay for any repairs yet continued to assess the special slaughter taxes (Schlachtsteuer), for which the facilities had originally been built. These abattoirs continued to deteriorate until 1810 when the magistrate finally decided to “temporarily close the local slaughterhouses until the city treasury is in better condition to maintain more appropriate facilities that meet all of the necessary standards.” As a result, two of the three abattoirs were closed, incidentally just at the moment when Napoleon Bonaparte ordered the building of public abattoirs in Paris.

5 For accounts of these slaughterhouses, see Ferdinand MEYER, Die Knokenhauer Berlins, Berlin, 1876; A.C. FEIT, Bericht der zur Beratung der Trichinen-Frage niedergesetzten Commission der medicinischen Gesellschaft zu Berlin über öffentliche Schlachthäuser, Berlin, 1864, pp. 1-5; and Daniela GUHR, “Rundgang durch ein Jahrhundert,” in Berlin Central-Viehhof, pp. 12-3.

6 A. C. FEIT, Bericht zur Trichinen-Frage, op. cit., pp. 2-4.

7 This tax, which had to be paid for each slaughtered animal, remained in place until 1876.

8 Reprinted in A. C. FEIT, Bericht zur Trichinen-Frage, p. 3.

9 Berlin’s last public slaughterhouse, which was eventually remodeled in 1818, continued to operate until the mid 1820s when its structure had once again deteriorated to a point that butchers were forced to abandon it. According to later police reports, this abattoir served as a storage space for cholera relief equipment before it was finally demolished in 1842. The only larger facility that remained was Klägers Viehmarkt – a livestock market with a small adjacent abattoir that had been opened at the Landsberger Tor in 1825. See Geheimes Staatsarchiv Preußischer Kulturbesitz (GStA/PK), I.HA, Rep.120 Ministerium für Handel und Gewerbe, Tit. BBIIa3, Nr.1, Vol. 1, “Die Bestimmungen über den Gewerbebetrieb der Schlächter und die Anlegung von Schlachthäusern.”
Moreover, just as the practice of butchering became increasingly centralized in Paris, in Berlin it was once again dispersed throughout the city because following the failed experiment with communal slaughterhouses, butchers returned to slaughter on the premises of their own shops. Henceforth, the responsibility for meat production lay solely in the hands of butchers who had grown deeply suspicious of any kind of municipal intervention in their trade. Even though each butcher was supposed to obtain a concession from the police before opening a private slaughter facility, many simply did not. Hence, butchering took place mostly unchecked, especially since the traditional guild system had been officially abolished on November 2nd, 1810. Much as in Paris, the abolition of the guilds had given new freedom to the trade, but it also loosened quality controls. Unlike in Paris where municipal restrictions on the butchers’ trade were repeatedly imposed, in Berlin butchers could basically exercise their trade without municipal interventions, in large part because the city government had itself become highly skeptical about its own engagement in such costly endeavors.

Indeed, administrative difficulties posed one of the major obstacles to reforms, especially due to the continuous power struggles between the city council and the magistrate. Berlin, like most German cities, was governed by a system of self-administration (Selbstverwaltung), which had been implemented following the 1808 urban code (Städteordnung). Based on the premise that municipal and state politics should be independent enti-

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11 In Paris, traditional guilds had been abolished in 1791; however in 1802, Napoleon Bonaparte reestablished a butchers’ corporation under the auspices of the Prefect of Police. Hubert BOURGIN, *L’Industrie de la boucherie pendant la révolution*, Paris, 1911; and Michael David SIBALIS, “Corporatism after the Corporations: The Debate on Restoring the Guilds under Napoleon I and the Restoration,” *French Historical Studies* 15, Fall, 1988, p. 720. In Berlin, butchering remained a free trade until the early 1860s when growing concerns about meat safety raised new questions about the supervision of meat production.

ties and that citizens should have more rights to participate in their communities' politics and administration, this Städteordnung and its 1831, and 1853 successors determined, among other things, that Berlin was to be governed by a city council and an executive magistrate. In Berlin, this led to continuous power struggles between the city council and the magistrate. Moreover, the fact that Berlin was also the capital of Prussia meant that the Prussian state retained substantial influence over the governance of the city, especially with regard to policing and urban planning. As a result, Berlin's municipal affairs were often caught up in conflicts over authority and disagreements about responsibility as the example of public works projects amply demonstrated. One of the main areas of contention was financing, which was particularly consequential when it came to public works projects. Slaughterhouses were not the only facilities where city officials were reluctant to invest and take charge - gas, water, and canalization were other examples.

Nevertheless calls for reform did exist. Already in 1823, Berlin's Building Commissioner Cantian had appealed to the city council that new slaughterhouses should be built in order to improve the conditions surrounding butchering, but his proposal was turned down without much debate. Following this decision, the issue of slaughter reform remained off the political agenda until 1862, when a city councilman reintroduced the issue; however, this time, too, the reform proposal was rejected for reasons of cost and the city council's reluctance to get involved with the practice of meat production. However, things were about to change as Berlin increasingly came under pressure to reform its urban terrain in light of new political, social, and medical developments.

13 The city council consisted of 102 elected citizens, and the magistrate counted 25 members chosen by the city council. The magistrate could set up mixed deputations to investigate any communal affairs. While seemingly providing greater rights for political participation, this system, as many have argued, mainly helped to reinforce the old guard's status quo, and, moreover, it led to constant disputes over power and jurisdiction. See for instance Hans-Ulrich WEHLER, Deutsche Gesellschaftsgeschichte, Vol. 1, Munich, 1987; Reinhart KOSELLECK, Preußen zwischen Reform und Revolution: Allgemeines Landrecht, Verwaltung und soziale Bewegung von 1791 bis 1848, Munich, 1989, pp. 560-85.


15 Initially, all of them were provided by private companies because the municipality had refused to bear the cost, and instead had given concessions to private (mostly British) companies. For an introduction to these aspects of Berlin's development, see Jochen BOBERG, Tilman FICHTER, and Eckhart GILLEN, eds. Exerzierfeld der Moderne: Industriekultur in Berlin im 19. Jahrhundert, Munich, 1984.
2. The Fear of Contagious Disease.

Starting in the early 1860s, the public was increasingly alerted to incidents where people had fallen violently ill or even died after the consumption of pork. The two most prominent incidents occurred in Hettstädt and Hedersleben, two small villages where more than one hundred people had died and several hundred had gotten sick.\textsuperscript{16} As one newspaper report from Hedersleben stated:

not even the bullets of war can create such a dreadful scene. There is hardly a more pitiful condition. Tortured by severe pain, these poor people lay fully conscious but unable to move. They complain of shortness of breath because the breathing muscles refuse their duty and hurt badly. Even in the best cases, a new enemy appears, a torturous hunger but the chewing and swallowing muscles are paralyzed so that only liquid food in droplet amounts can be eaten with great pain.\textsuperscript{17}

A number of smaller outbreaks were also reported from Magdeburg, Quedlingburg, Leipzig, Weimar, Celle, Hannover, Konitz, and even as far away as Malmö, Sweden.\textsuperscript{18} Even though the reason for these deadly outbreaks were initially not known, medical examinations soon determined that they had been caused by the consumption of raw \textit{trichina}-infested pork. That spoiled meat could make people sick certainly was not a new discovery; however, the trichinosis scares of the early 1860s heightened the public’s awareness about the potential dangers emanating from meat and that even seemingly healthy animals could pass on deadly parasites to unassuming human consumers posed new questions about food safety and health.\textsuperscript{19}

\textsuperscript{16} In 1863, 156 people had fallen ill and 26 had died after consuming contaminated pork in the Saxon village of Hettstädt. B. RUPPRECHT, \textit{Die Trichinenkrankheit im Spiegel der Hettstädtier Endemie betrachtet}, Hettstädt, 1864, p. 6. In Hedersleben, a small village two hundred kilometers southwest of Berlin, more than three hundred of the two thousand villagers got sick and close to one hundred died. On the Hedersleben incident, see my essay “How Parasites Make History: Pork and People in the Nineteenth Century,” \textit{Bulletin of the German Historical Institute}, Washington D.C., 36, Spring 2005, pp. 69-79.

\textsuperscript{17} \textit{Volkszeitung}, Saturday, December 16, 1865.


\textsuperscript{19} Stefan THOLL, \textit{Preußens blutige Mauern}, op. cit.
Trichinosis had actually existed for centuries, but it could not be scientifically explained until microscopes made the tiny roundworm *Trichinella spiralis* visible.\(^{20}\) *Trichinella spiralis* was first discovered in the eighteenth century, but it did not gain medical significance until 1835 when James Paget, then a demonstrator of anatomy at London’s St. Bartholomew hospital, detected *trichinae* in the breast muscle of a seventy-year-old man who had supposedly died of cancer.\(^{21}\) Another twelve years passed before a Philadelphia veterinarian discovered *trichinella spiralis* in pigs and another decade went by until it sparked the interest of a wider scientific community. Starting in the early 1850s, a growing number of pathologists, veterinarians, and other medical practitioners began to investigate the prevalence and spread of *trichinae* in a number of organisms in an effort to generate scientific explanations about the origins and spread of this parasite.\(^{22}\) Feeding experiments with dogs, rabbits, pigs, horses, and birds, to name but a few, soon revealed that carnivorous animals were the only viable hosts for these parasites; however, since humans belonged to the category of meat consumers, they, too, were at risk to become hosts for the trichinosis worm, especially if they consumed raw pork, a widespread practice in many regions of Germany at the time. Starting in the late 1850s, pathologists began to record the occurrence of *trichinae* in human corpses. The prominent pathologist Rudolf Virchow, for example, reported that in 1859 alone, he had recorded six cases, which according to him marked only a fraction of the actual numbers because doctors rarely bothered to look for such parasites.\(^{23}\) His Dresden colleague F.A. Zenker even estimated

\(^{20}\) It has not been established with certainty if there had been any knowledge of this disease prior to the nineteenth century, but many interpreters of the Jewish and Muslim prohibition of pork have attributed this taboo to concerns about trichinosis.


that one in thirty-four corpses revealed *trichinae* infestations.\(^{24}\) Recording the occurrences of *trichinae* in human corpses was one thing, explaining how they got there was quite another. Numerous scientific publications – among them Rudolf Virchow’s *Die Lehre von den Trichinen (The Study of the Trichina)* and Friedrich Küchenmeister’s *Ueber die Nothwendigkeit und allgemeine Durchführung einer mikroskopischen Fleischbeschau (About the Need and General of Microscopic Meat Inspection)* – took up this question not only to explain the causes of trichinosis but also to make more practical suggestions with regard to its prevention.\(^{25}\) The causes of trichinosis in humans were explained by the early 1860s, but the question how to best counteract this disease was still a matter of debate.

3. From Medical Theories to Political Practice.

Most medical experts agreed that the responsibility for ensuring the quality of meat could not rest with individual consumers alone.\(^{26}\) Indeed, most publications of the 1860s called for the involvement of state agencies and the immediate implementation of meat inspections as the only viable means to ensure consumer safety.\(^{27}\) As Virchow noted, several cities, among them Braunschweig, Dessau, and Hannover, had already instituted such inspections with great success. Mentioning Braunschweig as an example, Virchow stated that of the 13,447 pigs that had been tested, two had been found to carry *trichinae*. Whereas these two cases did not seem to suggest a high occurrence rate, Virchow was quick to point out that Hedersleben had shown how just one pig could put a large number of human lives at risk. Underscoring that not a single case of human trichinosis had been reported from Braunschweig since such inspections had been implemented in 1863, Virchow demanded that such microscopic investigations be instituted everywhere, especially in larger cities like Berlin.\(^{28}\)


\(^{26}\) Consumers were urged to cook their meat properly (to at least 65 degrees Celsius) in order to destroy any parasites or other harmful organisms.

\(^{27}\) Küchenmeister, Rupprecht, Virchow, and Zenker were, of course, among the proponents.

\(^{28}\) Rudolf VIRCHOW, “Ueber das natürliche Vorkommen der Trichinen.” Kleine Mittheilungen in *Virchows Archiv*, 32, April 1865, p. 554. However, Virchow recognized that such inspections were more difficult to implement in Berlin because of the city’s large number of butchers and slaughterhouses. Hence, more far-reaching reforms would be necessary, and indeed Virchow would become one of the strongest supporters of such reforms.
Most scientific experts concurred that food safety was a matter of public welfare that had to be addressed by municipal and state agencies. Pleas for meat inspection centered on questions of food safety and as such they carried political connotations. They also demonstrated that scientific discourses were increasingly becoming entangled with issues of state authority, not only in the sense that the state appropriated scientific domains but also that scientific experts called for state intervention and public hygiene reforms. Specifying how science and the authority of the state should merge, one author wrote: “if microscopic meat inspection is to be truly safe, it must be legally enforced in small towns and in the country, and in large cities it must also be connected with public abattoirs.”

Most proponents of meat inspection insisted that proper inspections could not be implemented as long as butchers continued to slaughter in their own shops. Already in 1864, the Berlin Medical Society had expressed this sentiment when they wrote that: “a conscientious meat inspection can only be achieved through public slaughterhouses.” For reformers like Rudolf Virchow, the implementation of meat inspection went hand in hand with the idea of public abattoirs because “if there are public slaughterhouses, nothing is easier than to put microscopes into them.” Indeed, in January 1864, Virchow — himself an active member of the city council — put forth yet another reform proposal. Citing the usual complaints about filth and traffic congestion, Virchow also introduced an additional issue, namely that new slaughterhouses were needed in order to allow for proper meat inspection. Insisting that health must outweigh financial concerns, Virchow argued that the implementation of such inspections was necessary in order to protect the meat consuming public from trichinosis and other meat-related diseases.

Another 1864 report reiterated Virchow’s claims. Its author, A.C. Feit insisted that the existing slaughterhouses not only polluted the streets and waterways, but that they jeopardized the health and life of those living in the vicinity. Public slaughterhouses, on the other hand, would “eliminate the emanations and other nuisances of private abattoirs, remove livestock from the city, and ensure the control of meat safety and quality.”

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Faced with these two reports, both of which insisted on the necessity of new slaughter facilities in order to protect consumer health, the magistrate and city council finally agreed to take some action; however, before they would initiate any specific reforms, they wanted to investigate how other European cities were dealing with the problem of animal slaughter. Following standard practice, in June 1865, a special commission consisting of councilman Theodor Risch and city architect Julius Hennicke embarked on a rather unconventional six-months expedition that would take them to slaughterhouses all across Europe. Armed with an elaborate catalogue of questions, Risch and Hennicke visited thirty-three cities in Germany, Switzerland, Italy, France, Belgium, and Great Britain to compile an extensive 490-page study about the organization, administration, and productivity of existing slaughterhouses.\(^33\) Emphasizing that meat production should not be left to private speculation, Risch’s report reiterated, among other things, that no matter what decisions were made about the details of such facilities, their construction and operation should be overseen by the municipality because butchers and private investors could not be expected to see beyond their own self-interest to recognize the greater concerns of the community.\(^34\)

Risch’s 1866 report provided urban reformers with the much needed data to support their efforts with regard to slaughterhouse reform. As a result, several government ministries like the Ministry of Interior and the Ministry of Trade and Commerce received a flood of letters from communities throughout Prussia including Berlin, all of them asking for the Ministries’s support in the building of public slaughterhouses.\(^35\) In addition to political agencies, medical societies and other public hygiene organizations sent numerous pleas for reform to the Prussian ministries.\(^36\) Voicing the usual complaints about stench and pollution and emphasizing the need to better protect the public from diseases like trichinosis, some requests like the one from the


\(^{34}\) Indeed, an 1855 police report concluded that butchers would not be willing to use municipal slaughterhouses unless they were forced to do so. A. C. FEIT, *Bericht zur Trichinen-Frage*, *op. cit.*, p. 21.

\(^{35}\) These letters can be found in GStA/PK, I. HA, Rep.120 Ministerium für Handel und Gewerbe, Tit. BBIIa3, Nr. 1, Vol. 7, “Die Errichtung öffentlicher Schlachthöfe.”

\(^{36}\) For example, the Berlin Medical Society had forwarded its own special commission report, which elaborated on the history of public slaughterhouses, previous reform efforts, and the latest scientific discoveries about trichinosis to conclude that the establishment of public abattoirs was the logical solution to these problems. GStA/PK, I.HA, Rep.77 Ministerium des Innern, Tit. 241 Nr. 11, Vol. 1, “Das Schlächtergewerbe in Berlin.”
Berlin magistrate stated that: “the main obstacle that stands in the way of public slaughterhouses is the lack of legislation to force butchers to slaughter their livestock in a public abattoir.” The magistrate insisted that such legislation was necessary in order to provide municipalities with the legal authority to regulate the practice of butchering. Many reformers agreed that legislative measures were necessary not only to force butchers to comply, but also in order to add legitimacy to the cause of reform.

In response to this widespread interest in reforms, the Prussian Upper House took up the issue in the 1868 legislative period. Agreeing with the need for such reforms, less than a month later on March 18th, 1868, the Ministry of Interior introduced a new slaughterhouse law that entitled communities to establish public slaughterhouses. Explaining the motives behind this new law, the Ministry stated that:

> in built up, densely populated and poorly irrigated neighborhoods, residents living in the vicinity of slaughterhouses increasingly complain about unhealthy emanations, the spread of vermin, the pollution of the gutters through blood and other animal waste, the devaluation of their properties as well as the disturbance and endangerment of traffic by livestock transports.

According to the supplemental documents explaining the reasoning behind this law, such legal measures were needed in order to alleviate some of these problems and also to ensure the healthy provision of meat, which had become an important issue, especially following the recent outbreaks of trichinosis. In its first paragraph, the law, which became known as the Schlachtwanggesetz, declared that:

> in those communities where a public facility for the slaughter of livestock exists, it can be ordered through a city ordinance that within the community district or in part of it the slaughter of particular kinds of livestock as well as certain connected trades may only be performed in the public slaughterhouse.

37 Letter from the Berlin magistrate to the Minister of Commerce and Trade Itzenplitz from December 27th, 1865, located in GStA/PK, I. HA, Rep. 120 Ministerium für Handel und Gewerbe, Tit. BBIIa3, Nr. 1, Vol. 7, “Die Errichtung öffentlicher Schlachthöfe.”

38 “Motive zu dem Gesetz-Entwurfe, betreffend die Errichtung öffentlicher, ausschließlich zu benutzender Schlachthäuser” in Gesetz-Sammlung für die königlichen Preußischen Staaten, Nr. 51, Berlin, 1868, pp. 7-9.

39 In 1867 alone, seventy cases of trichinosis had been recorded in Berlin’s Charité hospital. BLHA, Rep. 30 Königliches Polizeipräsidii Berlin C, Nr. 6981, “Die sogenannte Trichinen-Krankheit.”

Henceforth, municipalities had the legal authority to establish public abattoirs. Equally important was the second paragraph of this law, which stated that “[F]ollowing the establishment of a public slaughterhouse, a further ordinance can be passed to enforce the inspection of all livestock to determine the animals’ health before and after slaughtering.”41 Clearly, the establishment of public slaughterhouses was closely linked to the implementation of veterinary and meat inspections, which were to be carried out by veterinarians or other qualified personnel.

The ratification of this law, however, did not yet amount to actual changes because even though it enabled communities to build public slaughterhouses, it did not require them to do so. Hence, while this law provided an important first step towards reforms in Berlin, it remained meaningless as long as the city administration did not agree to act upon it. The debates of the 1860s had shown that it was not lack of initiative, but rather the failure to reach consensus, that prevented reforms.42 Already in 1867 — shortly after the publication of Risch’s report — the Berlin magistrate had resubmitted its reform proposal to the city council with the added emphasis that the building projects undertaken in Paris, Milan, and Vienna had proven the advantages of municipal facilities. The magistrate argued that despite police supervision, Berlin’s private slaughterhouses were highly deficient and that only a centralized public abattoir and market would bring an end to the existing grievances. Only if the city agreed to bear the cost and responsibility of opening such abattoirs, could adequate police supervision, better price regulations, and quality controls be ensured.43 However, despite the magistrate’s renewed effort at reform, the city council once again rejected the proposal because of the cost and responsibility involved.44 Thus, once again, reform efforts were stalled by the municipality’s inability to reach consensus.

In the meantime, the number of private slaughterhouses rose notably. According to Berlin’s chief veterinarian Dr. Pauli, in 1873 there were 1,113 independent butchers in the city, who operated 780 private slaughterhouses.45 A particularly high concentration of them could be found in the direct

41 Gesetz-Sammlung für die königlichen Preußischen Staaten, No. 23, Berlin, 1868, pp. 277-81.
42 Indeed, the law showed no effect until the law was revised in 1881.
43 Communalblatt der Haupt- und Residenzstadt Berlin, Berlin, 1867, p. 774.
44 The proposal to purchase land was rejected on January 2, 1868, and the rest of the magistrate’s reform bill was rejected on June 25, 1868.
45 Letter from the president of the German Society of Public Hygiene about Dr. Pauli’s speech to the society. GStA/PK I.HA, Rep. 77 Ministerium des Innern, Tit. 241, Nr. 11, Vol. 1, “Schlächtergewerbe in Berlin.”
vicinity of the Viehmarkt AG – a private livestock trading facility with a small adjacent slaughterhouse, which had been established in the wake of the 1868 slaughterhouse law. Residents repeatedly complained about the constant presence of livestock, blood, and most of all of the stench that emanated from the facility. Echoing the public’s sentiments, an article in the Tageblatt, provocatively entitled “A Cry for Help,” exclaimed that:

The pestilent stench that spreads through the houses every night is unbearable. . . . Rotten smells are constantly present and they cause disgust and frequent nausea. No window or door can keep this miasma out of the apartments. Many families cannot use the rooms facing the courtyard because no one is able to breathe this stench.46

Lamenting the unsanitary conditions of private slaughterhouses, the article went on to criticize the municipality for its lack of concern for the public’s welfare and health. Charging that “our bureaucrats seem to care about the health conditions of the people only in as far as they involve statistical evaluations,” the article stated that: “especially during the hot summer days the question of public slaughterhouses moves to the fore,” and it urged the city to “follow the positive example of other European capitals and many provincial towns in Germany who have built public slaughterhouses.”47

Articles like this one testified to the ongoing problems with butchering and to the growing dissatisfaction with the city’s continued reluctance to take charge. Apart from residents and the press, health officials criticized the state of affairs. The Berlin Medical Association and the Berlin Society for Public Health sent a growing number of petitions calling for immediate action in order to avert the dangers related to meat production.48 Similarly, the National Society for Public Health, following its 1875 annual meeting, once again called upon the chancellor and several other ministries to order the building of public slaughterhouses in cities with more than 10,000 inhabitants.49 In addition to these repeated calls for action, other developments as well heightened the pressure for reform.

46 Berliner Tageblatt, July 20, 1875.
47 Ibid.
49 Letter from the Nationale Gesellschaft für Öffentliche Gesundheitspflege to the chancellor’s office from December 10th, 1875 in GStA/PK, LHA, Rep.120 Ministerium für Handel und Gewerbe, Tit.BBHa3, Nr. 1, Vol. 8, “Errichtung öffentlicher Schlachthöfe.”
First and foremost among them was Berlin’s population growth. In 1820, Berlin counted 162,971 inhabitants. By 1860, this figure had more than tripled and in the decade from 1860 to 1870, it again rose significantly, this time from 528,876 to 824,484. In part this substantial increase was due to the expansion of Berlin’s city limits in connection with the Hobrecht plan. Modeled after Haussmann’s plans for Paris, even if on a much smaller scale, the Hobrecht Plan laid out a grand scheme for the development of Berlin’s buildings and infrastructure including the annexation of several formerly independent villages. However, much of this population growth was also due to the migration of rural populations to the city. As a result, by the mid 1870s, Berlin was experiencing what many have called a second founding epoch (zweite Gründungsepochen). According to some contemporaries, Berlin even aspired to become a world city, which was especially true since in 1871, it had become the capital of the newly unified German nation.

In order to live up to its new status as capital city, Berlin’s urban environment needed to be cleaned up. Well into the 1860s, most of Berlin’s household debris continued to be thrown right into the gutters along the streets. House entrances could often only be reached via a wooden plank thrown over the gutter stream. Still in 1872, the English urban reformer Edwin Chadwick remarked that Berlin was “the dirtiest and most pestilent city in the world.” Besides building adequate canalization networks, polluting industries including slaughterhouses had to be reformed. Thus, in addition to growing fears about the transferability of diseases from animals to humans, concerns about the hygiene conditions of the city intensified the need to act. In other words, becoming a world city entailed developing a new body culture both with regard to personal and public hygiene as well as human and animal health. The responsibility for cleaning up the city rested, first and foremost, with those municipal agencies that were in charge of the upkeep of urban space and the provisioning of populations.

50 By 1890, the city’s population had crossed the one million mark. Statistisches Jahrbuch der Stadt Berlin, Berlin, 1915/1919, pp. 4-5.

51 Whereas in 1822, Berlin’s area had measured a mere 1,200 hectares, by 1861 its size had more than quadrupled to 5,923 hectares, primarily through the annexation of the formerly independent townships of Moabit, Wedding, Schöneberg and Tempelhof.


4. Political Bodies and Physical Constructions.

In January 1876, the city council finally “agree[d] with the magistrate that the building of a municipal slaughterhouse and livestock market in addition to an obligatory meat inspection is a public interest.”55 Amidst objections from butchers, who favored centralized municipal markets, but vehemently opposed the centralization of slaughterhouses, the municipality agreed to push ahead, and this time it actually acted without delay.56

A tract of land in the northeastern community of Lichtenberg was purchased within a couple of months and construction began in December 1877 when the first stone of the Berlin Central-Viehhof was laid “in a simple but ceremonial manner.”57 This location proved to be ideal not only because it was mostly uninhabited land, but also because Lichtenberg was connected to Berlin’s newly established Ringbahn—the railway that surrounded the city. A year after the building had started, the magistrate reported that everything was proceeding according to plan and that the Central-Viehhof would be ready to open by October 1st, 1880.58 Apart from stables, the cattle and sheep trading halls were already under construction. As projected, the livestock market was ready in time for the 1880 livestock show, but the facility as a whole was still far from complete. The construction of the abattoir commenced in July 1880, and it would take only eight months to complete.

Apart from the buildings for the trade and slaughter of animals, several support facilities for by-product manufactures, including a small plant for the cleaning of intestines, an albumin factory, and a tallow smelter were installed north of the pig abattoirs. These facilities were not finished when the Central-Viehhof opened, but they were in operation by the fall of 1882. All in all, the facility featured fifty-three buildings that took up 12.5 hectares of the terrain. The facility was also equipped with about nine thousand meters of paved streets, 3,400 gas flames, 2,050 water faucets,

55 Vorlage für die Stadtverordnetenversammlung zu Berlin, No. 15, Berlin, 1882, p. 130.
56 A December 1877 letter repeated their complaints from the Denkschrift. GStA/PK, I. HA, Rep.120 Ministerium für Handel und Gewerbe, Tit.BBIIa3, Nr. 9, Vol. 1, “Errichtung und Betrieb der öffentlichen Schlachthäuser der Stadt Berlin.”
58 GStA/PK, I. HA, Rep.120 Ministerium für Handel und Gewerbe, Tit.BBIIa3, Nr. 1, Vol. 8, “Errichtung öffentlicher Schlachthöfe.”
and 1,700 gutters. The facility was divided into four sectors (Figure 1) – to the north was the train station (a); the middle section housed the livestock trading market (b); the west the slaughterhouse (c); and in the easternmost corner was a special abattoir for diseased animals (Seuchenhof) (d). The livestock trading market provided space for up to 4,200 cattle, 3,300 calves, 12,000 sheep, and 9,500 pigs.

On March 1st, 1881 the National-Zeitung reported that even though "the official opening ceremonies of the Central-Viehhof had to be postponed for a little while," operations had commenced.\(^59\) The building of the Central-Viehhof had taken more than three years and it had cost about twelve million Marks, only one million more than Blankenstein had projected. The National-Zeitung marveled that "the first sight of the monumental construction is simply astonishing." Describing the individual buildings, the article concluded that: "the Central-Viehhof in every way belongs to the most impressive and amazing buildings in our city." The Baugewerk-Zeitung even hailed that: "the expanse and buildings of the new facility oustshine even the great works in Paris and London."\(^60\)

The facility itself was quite impressive both with regard to its size and equipment; however, its future was still rather uncertain because there were no assurances that butchers would actually use the facility. Some butchers, especially those who did not own slaughter facilities, chose to work at the Central-Viehhof, but a considerable number of them, particularly wealthy and powerful butchers, objected to this new arrangement. Hence, the city's first challenge was to ensure that butchers would actually use the facility. As the developments in Paris and other European cities had shown, establishing control over the butchers' trade was a crucial step in the successful reform of slaughterhouses. Berlin's butchers had already proven that they were willing to literally go out of their way in order to avoid municipal interventions into their trade. Following the 1868 Schlachtzwang law that had entitled municipalities to built public slaughterhouses and or implement mandatory meat inspections, butchers had circumvented the law by simply moving their slaughter facilities right outside the city limits.\(^61\) Interestingly, this move by butchers had

\(^{59}\) National-Zeitung, March 1, 1881.

\(^{60}\) n.a., "Der Neubau des städtischen Central-Vieh und Schlachthofes in Berlin" Baugewerks-Zeitung 12, 1880, p. 677.

\(^{61}\) Mandatory inspections only applied to meat produced within the city limits. Meat that was imported was exempt from inspections. See "Gesetz betreffend die Errichtung öffentlicher, ausschließlich zu benützender Schlachthäuser," March 18, 1868 in Gesetz-Sammlung für die königlichen Preußischen Staaten Vol. 23, Berlin, 1868, pp. 277-81. Most of them went to Friedberg, a suburban community in the northeast of the city.
Figure 1. Layout of the Central-Viehhof. Source: Hermann BLANKENSTEIN, and August LINDEMANN, Der Zentral-Vieh- und Schlachthof zu Berlin: Seine baulichen Anlagen und Betriebs-Einrichtungen, Berlin, 1885.
actually helped to somewhat remove slaughter from public view, but not in the way it was intended. Since the 1868 law included no provisions for meat that was brought to the city from the outside, comprehensive inspections were basically impossible. In order to close these existing loopholes, the 1868 law was amended in 1881.\footnote{Going into effect March 9th, 1881, this law like its 1868 predecessor functioned as an entitlement for municipalities such as Berlin. It not only gave communities the right to establish public slaughterhouses, but to enforce mandatory inspections for all meat sold within the city limits. This new law marked a breakthrough for public abattoirs in Prussia and Germany more generally. Whereas only three public abattoirs had been established in Prussia following the 1868 law, the amended law led to the creation of 115 new abattoirs by 1890 and an even more astonishing 373 by 1900. “Gesetz zur Abänderung und Ergänzung des Gesetzes vom 18. März 1868 betreffend die Errichtung öffentlicher, ausschließlich zu benutzender Schlachthäuser,” (March 9th, 1881) in Gesetz-Sammlung für die königlichen Preußischen Staaten Vol. 14, Berlin, 1881, pp. 273-5. See also, Heinrich SILBERGELEIT, Die Lage der Preußischen Schlachthöfe und die Freizügigkeit des frischen Fleisches, Magdeburg, 1903, p. 6.}

In a last attempt to prevent the implementation of this law in Berlin, the butchers syndicate sent an open letter to the city council urging it not to ratify the measure.\footnote{Vorstand der Berliner Schlächter-Innung, “An die Stadtverordnetenversammlung zu Berlin” (February 28th, 1882) in LAB/STA Magistrat Berlin 13-02/2 Städtischer Viehhof Nr. 1482, “Einführung des Schlachtzwangs.”} Just a couple of weeks later, however, the city council and magistrate voted in favor of implementing the 1881 law in Berlin. In its five paragraphs, the final ordinance stated that (1) livestock that was to be sold commercially in Berlin had to be slaughtered at the public abattoir; (2) all livestock had to be inspected before and after slaughter; (3) any meat that did not come from the Central-Viehhof had to be clearly marked and sold separately; (4) butchers who were registered in Berlin could not sell any meat in the city that had not been slaughtered at the public abattoir. The final paragraph announced that the ordinance would go into effect in the eastern districts of Berlin on October 1, 1882 and in the rest of the city on January 1, 1883.\footnote{“Gemeindebeschluß des Magistrats betreffend die Einführung des Schlachtzwangs in Berlin,” (May 20th, 1882) in BLHA, Pr.Br. Rep. 1 Registratur des Ober-Präsidii der Provinz Berlin Nr. 1736, “Die öffentlichen Schlachthäuser in Berlin.”} This ordinance indicated that the municipality finally meant business when it came to public abattoirs. Not only had the city decided to build a centralized slaughterhouse, it was also prepared to take charge of its operation, especially the inspection of animals and meat. When the Central-Viehhof commenced operations in 1881, only sixty-seven butchers worked at the facility.\footnote{See “Bericht über den städtischen Central-Viehhof,” in Verwaltungsbericht des Magistrates zu Berlin pro 1881 filed in LAB/STA Magistrat Berlin Rep. 05-03/1 Finanzbüro Nr. 11736, “Verwaltungsberichte,” Vol. 1.} Two decades later, there would be over a thousand.
5. Inspecting the Production of Meat.

Animals arrived at the Central-Viehhof from all over Europe including Denmark, Holland, Belgium, France, Austria-Hungary, and Russia, but the majority of the animals came from agricultural regions across Germany. Veterinary and meat inspections took up a large part of the daily operations in the slaughterhouses. Before any livestock could be herded into the stables, every animal had to be inspected by one of the Central-Viehhof's veterinarians. During their initial inspections at the ramp, veterinary inspectors determined the general health of the animals by looking for any signs of illness or injury. And inspections did not end there because all animal herds continued to be monitored by veterinary inspectors until they were sold and sent to the slaughterhouse attesting to the fact that livestock trading was increasingly becoming an arena for medical inspections and the authority of the scientific experts, the municipality and state. After the animals had been killed and flayed, all of the carcasses had to be microscopically inspected for parasites and other signs of disease. While veterinary inspections focused on the outer appearance of living animals, meat inspections centered on the examination of the insides of their dead bodies. Such meat inspections had been mandatory since 1879, but only after the opening of the Central-Viehhof could they really be enforced.

Meat has been inspected since ancient times. In ancient Egypt and Rome, meat inspection had been carried out mostly by priests and other religious officials, whose expertise was grounded in their experience and knowledge of the scriptures related to food production. In the early modern period, such inspections increasingly became the responsibility of market overseers and later the police. These inspections were conducted at food markets. Suspect and spoiled cuts were confiscated and thrown away, often simply into the next river.

The rise of scientific meat inspections was related to the discovery of trichinosis in the early 1860s. Calls for the closer inspection of meat had been one of the primary motivations behind the reform of slaughterhouses in Berlin. The 1868 slaughterhouse law had made provisions for the establishment of mandatory meat inspections, but they were not officially implemented in Berlin until 1879 when ten different trichinosis offices were established across the city.

After 1883, all meat that was slaughtered in Berlin or imported from elsewhere had to be inspected at the Central-Viehhof. The meat inspection office at the Central-Viehhof was headed by the chief veterinarian. To carry out these inspections, the Central-Viehhof initially employed ten veterinarians, eighty-seven meat inspectors, thirty-four sample takers, one book keeper, and four stampers (Stempler). By 1890, the number of meat inspectors had risen to 252 and the number of sample takers to sixty-seven. Two decades later, close to 750 individuals were employed in the meat inspection laboratories, 370 of them were trichinosis inspectors. Meat inspection was a strenuous task that required a high degree of concentration. Consequently, meat inspectors were not supposed to work more than six hours at a time.

According to the regulations, these meat inspectors were supposed to be trained veterinarians. Interestingly, meat inspection was one of the few jobs in the slaughterhouse where women were employed. In 1887, the first twenty-four female trichinosis inspectors were hired by the Central-Viehhof. “A new era has come for the city administration,” reported one author at the time, “two dozen young ladies were hired as meat inspectors. From the critical eye and judicious care of these ladies – and who would want to doubt the presence of these attributes in gentle widows and blossoming maidens – we can confidently expect that they will stop the insidious attacks of the terrible hair worm that has caused so much damage in Berlin.”

The results of these inspections were meticulously documented in the Central-Viehhof’s records. They were published in the annual reports of the Central-Viehhof and sometimes in special quarterly reports as well. To give just one example, in 1883, a total of 587,027 animals were inspected. Of those 2,195 were rejected in full, and an additional 33,522 animals were rejected in part. The main reasons for rejection were trichinosis, fins, and anthrax. Partial rejections included mostly tuberculosis-infected lungs and yellow-
fever-infected livers. But if nothing objectionable was found, a carcass was stamped to certify that the animal was healthy and ready for sale.

Meat that was certified as healthy was transported to the individual shops or the city’s markets, particularly the wholesale market at Alexanderplatz. Pigs, sheep, and calves were usually transported as whole carcasses to be dismantled in the butchers’ private shops. Most of the meat was sold fresh, but a substantial part of it was also turned into sausages, hams, and all sorts of other cold cuts, which marked the final step in the physical transformation of animal bodies into human food.

According to the German food historians Hans-Jürgen Teuteberg and Günter Wiegelmann, Berlin’s and Prussian meat consumption more generally underwent notable changes in the course of the nineteenth century. For example, whereas the average annual pork consumption per capita in Prussia in 1816 was about 3.7 kg (26.2% of the total meat consumption), but by 1861, it had risen to 8.6 kg (and a remarkable 41.1% of the total). Regarding Berlin’s meat consumption in particular, Teuteberg and Wiegelmann calculated that the average annual meat consumption rose from 45 kg in 1845 to 52 kg in 1870, and 73 kg in 1894.

This growing amount of meat also entailed that an increasing number of animals had to be brought to the slaughterhouse. Indeed in most cities at the time, the number of livestock rose alongside the population. By the early 1880s, Berlin’s population had crossed the one million mark, so did the number of livestock moving through the Central-Viehhof. In 1881, 1,246,484 animals were processed at the Central-Viehhof, by 1910, this figure had risen to 2,458,736. Livestock had become part of a highly


74 Each carcass had to have two stamps, one from the veterinary office and one from the meat inspection laboratory. “Verordnung betreffend die Stempelung der auf Trichinen untersuchten Schweine” (March 30th, 1882) in LAB/STA Magistrat Berlin 00 Stadtverordneten-Versammlung Nr. 2265, “Die Verhandlungen mit Bezug auf Fleischbeschau und Trichinenschau Aemter,” Vol. 1.

75 On the history of small-scale retail, see Uwe SPIECKERMAN, Basis der Konsumgesellschaft: Entstehung und Entwicklung des modernen Kleinhandels in Deutschland, 1850-1914, Munich, 1999.


77 In contrast, beef consumption dropped from 45.3% of the total consumption (or 6.3 kg per person per year) to 37.3% (7.8 kg per person). Ibid. p. 106.

78 Ibid, p. 118.

regulated system of transforming (animal) bodies into food for (human) consumption, a regulatory system that involved an increasing number of medical experts, municipal and state agencies.

6. Conclusion.

By 1890, ninety-four public slaughterhouses existed in Germany, and the capital Berlin housed one of them. When it opened in 1881, almost twenty years had passed since Virchow’s proposal and Risch’s report about European slaughterhouses. Whereas the main reasons for slaughterhouse reform in early nineteenth-century Paris had been environmental concerns about the presence of livestock and slaughter in the city, in mid-nineteenth-century Berlin concerns about the transferability of diseases like trichinosis and the perceived need for meat inspections had moved center stage. Indeed, the implementation of such inspections became the primary incentive for reform, and medical doctors were among its strongest proponents. Attesting to shifting notions about public hygiene, the visible quality of meat and cleanliness of the environment were no longer the only factors motivating reforms; fear of invisible parasites hidden inside animal bodies had also become a decisive factor. To be sure, the discovery of trichinosis had not replaced environmental concerns about noise, stench, and traffic congestion; rather it had added another more corporeal dimension to the debates.

The French historian François Delaporte once declared that: “‘disease’ does not exist. ...What does exist is not disease but practices.” Trichinosis was a case in point. The condition itself had existed for centuries, but it was not until the mid-nineteenth century that it was ‘discovered,’ problematized, and defined in conjunction with demands for slaughterhouse reform. Urban reformers like Rudolf Virchow used the threat of trichinosis to insist on the responsibility of the state to protect its citizens, but also to emphasize the need for scientific experts — in this case veterinarians — to ensure the healthy production of meat. Thus, the discovery of trichinosis not only served as a justification for the building of public abattoirs, it was also meant to legitimate the social and political authority of medicine over


the physical health of bodies. The reform of slaughterhouses in Berlin exposed the growing amalgamation of scientific discourses and state power in the name of public welfare.

The discovery of trichinosis served as a starting point in the structural transformation of slaughter, and it underscored how political debates were evermore tightly interwoven with medical discourses about the interconnectedness of human and animal health. The growing knowledge and concern about the transferability of diseases led, among other things, to the increased official scrutiny of the butchers’ trade not just with regard to its spatial centralization in one municipal slaughterhouses but also with regard to the daily inspection of animals and their bodies.