'The greatest and most offensive nuisance that ever disgraced the capital of a kingdom': The slaughterhouses and shambles of modern Edinburgh

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The slaughter of domesticated animals and their butchering for food has been an important component of urban economic activity since the Neolithic revolution. But since the dawn of the modern period, butchery has been cast in a pejorative light, and the slaughterhouse has been gradually excluded from urban life either by forcing its relocation to the margins of settlement or concealing it from the public gaze. Livestock slaughter is among the earliest examples of a common nuisance and strictures on the location of animal slaughter are among the earliest examples of urban land use regulation in Britain. In medieval cities, the marketing and slaughter of livestock was often proscribed within the walls of the city, forcing livestock markets to locate outside the gates.

The enforced removal of slaughterhouses to the margins of the city became a recurring problem as cities grew out and around what had been the urban periphery. Yet meat was a perishable product and in the pre-industrial era, butchers needed to slaughter close to the marketplace to avoid decomposition. To avert enforced suburban banishment, the butchers of Edinburgh had only one option: to conceal their activities and minimise the nuisance caused by uncontrolled livestock slaughter which accounts for five distinct regimes in the location and spatial organisation of slaughterhouses in Edinburgh from the seventeenth to the nineteenth centuries. This paper describes the locational dynamics and material culture of Edinburgh's Fleshers and their urban livestock processing industry. By providing an empirical account of the national and municipal regulation of animal slaughter, this primary research may inspire further study into the place of the Fleshers in the development of the urban crafts and of health conditions in Scotland's capital city.

Until the mid-nineteenth century, Edinburgh's slaughterhouse problem was largely due to the conspicuous accumulation of manure, blood, hides and inedible offal in city streets. Rotting entrails and concomitant odours offended the sensibilities of a new urban middle-class; thus the slaughterhouse became stigmatic. There was a powerful sense of shame in acknowledging that such activities still went on in the modern city. For example, in 1784 a pamphlet complained of the 'abominable nuisance' created by private slaughterhouses which made a bad impression on visitors to Edinburgh, especially since growing volumes of travellers were staying in nearby hotels. 'The slaughter houses, in their present situation, are justly considered as the greatest and most offensive nuisance that ever disgraced the capital of a kingdom; situated in open view of the New Bridge and Prince's Street'.[1] The concentration of slaughterhouses and other offensive trades in growing cities created a sanitary nuisance. By the middle of the nineteenth

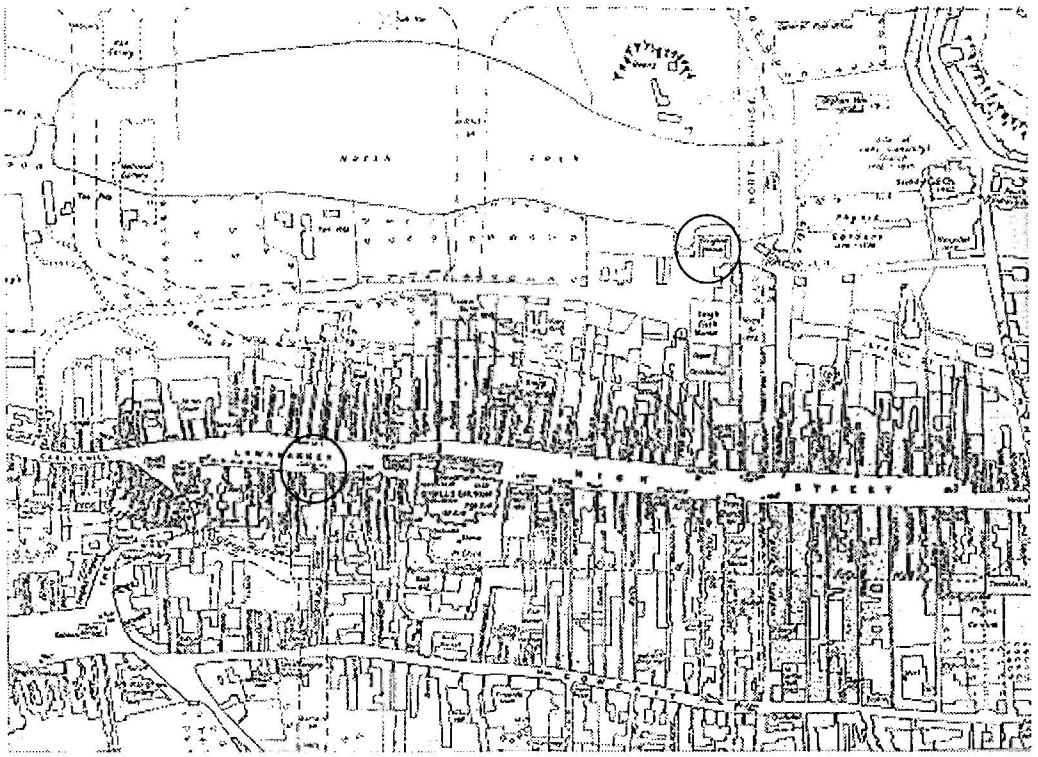


Fig. 1. Eighteenth-century Edinburgh showing location of Lawnmarket livestock slaughter site and the location of the original North Loch slaughterhouses, dating back to 1540 though more were added in 1622. Detail from Kerr, Henry F. Map of Edinburgh in the mid-eighteenth century, 1918. Courtesy of the City of Edinburgh Archives.

century sanitary nuisances such as unregulated animal slaughter became widely recognised as a health threat, marking the beginning of urban land use regulation and bringing public health to the fore as an urban problem to be resolved by urban government. Yet animal slaughter proved to be relatively innocuous if slaughterhouse wastes were removed promptly and the butcher's activities could be concealed.

Particularly important to understanding the historical dynamism of livestock slaughter in early modern Edinburgh was the powerful role played by the Incorporation of Fleshers, a craft guild of butchers that was chartered in 1490 and maintained its exclusive right to sell meat in Edinburgh's markets until the mid-nineteenth century.[2] From 1524, the Fleshers were granted the power to slaughter oxen and sheep on their own premises. By the sixteenth century, livestock slaughter in Edinburgh was concentrated at the head of Liberton's Wynd where it joined the Lawnmarket on the Royal Mile (fig. 1), a site better known as the location of the scaffold when public executions were held.[3] The principal livestock market was located close by in the King's Stables and Grassmarket, providing Fleshers with a ready source of slaughter cattle.

The nuisance created by slaughter activity so near the centre of the city was publicly acknowledged by an Act of Parliament under James VI of Scotland in 1621, which obliged the butchers to move their businesses outside the city. The large volume of slaughterhouse waste and carcase by-products in the narrow city streets, vennels and closes was considered to be unsightly and sometimes blocked traffic. Effective May 1, 1622,

Edinburgh's Fleshers were no longer permitted to operate their slaughterhouses within the burgh or to discharge blood or other slaughter by-products into the streets. Instead, they were directed to establish slaughterhouses along the sloping shore of the North Loch (now the railway right-of-way and lower Princes Street Gardens in the heart of the city) so that animal refuse could be washed away and drained into the loch.[4] The Fleshers would be better supplied with water and other conveniences necessary for their business while the principal parts of the city would be relieved from 'the great nuisance of the slaughter-houses'.[5]

The slaughterhouses at North Loch

The Fleshers accepted this Parliamentary direction and built a cluster of independent slaughterhouses at the east end of the North Loch, what is now the main concourse of Waverley Station, Edinburgh's principal rail terminus. Meat and offal were sold to consumers in market stalls flanking Fleshmarket Close, immediately south of the slaughterhouses and leading up to the High street.

In 1767, the Royalty of the City of Edinburgh was extended over the North Loch and adjoining lands to accommodate the construction of New Town. At the stroke of a pen, the built-up area almost doubled in size and the city's northern margin suddenly became its centre. The Fleshers, who had been banished to an obscure location on the North Loch in 1622, suddenly found themselves at the geographic centre of a rapidly growing urban area. Between the 1750s and 1801 the city increased by over a third to reach a population of approximately 67,000.[6] By the late eighteenth century, the construction of the New Town, Edinburgh's bold experiment in Georgian suburban design, was well underway in the extended royalty. The valley of the North Loch had been spanned at its eastern end by the massive new North Bridge, a viaduct linking the New Town with the High Street. The North Loch itself was gradually drained, a process that would eventually make land available for the Edinburgh and Glasgow Railway and the Princes Street gardens. Thus the slaughterhouses became clearly visible from the North Bridge and with the drainage of the loch, were deprived of the surface water required to flush waste products away from the built-up area.

Against this backdrop of urban growth, the Fleshers apparently recognised that their existing livestock slaughter facilities were becoming obsolete. Long before the Report of the Poor Law Commissioners would put sanitary concerns on Britain's urban agenda, Edinburgh's Incorporation of Fleshers realised that their blighted lochside slaughterhouses were unsanitary and likely to cause offence. Yet they were also committed to the centrality of the North Loch site. The Fleshers believed that with a new facility and new regulations, they could pre-empt complaint and continue in their central city location. They maintained that experience elsewhere in Britain, and in the London Metropolis in particular, demonstrated that, 'the business of Slaughtering Cattle may in the most populous parts of a city be carried on without giving offence to the most delicate'.[7]

In 1780, the Fleshers proposed to erect a shambles, an integrated complex of slaughterhouse booths all built under one roof, and sought the City Council's approval for the development. They presented architectural drawings and suggested three distinct locations, all within two hundred metres of the existing North Loch slaughterhouses (fig. 2).[8] This undertaking was unique in several respects. First, it is an early indication that the Fleshers of Edinburgh were willing to share a common slaughtering facility to be owned and operated by their Incorporation. Second, it was an ambitious plan for a well appointed structure that in size and facilities appears to have been superior to any other slaughter facility in Britain at that time. It was proposed as a two-storey structure built into the rising ground leading up from the North Loch. The ground floor would have 12 booths (24 by 12 feet), for sheep while the second storey would have 12 larger booths (24 by 16 feet) for slaughtering cattle, accessible by a ramp on the up-hill (south side) of the building. The cattle slaughter booths were designed with 18 foot ceilings so that beef carcases could be hung at full length without touching the floor. The

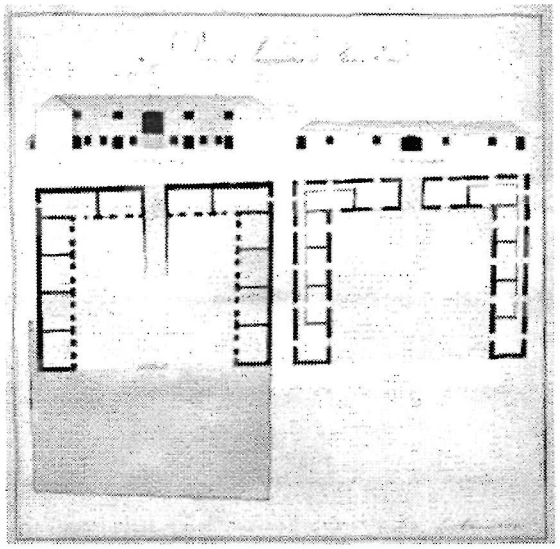


Fig. 2. Plan view of North Loch Shambles, proposed by the Incorporation of Fleshers in 1780. As is evident by its elevation, the second storey was for killing cattle while the lower level was for sheep and small stock. The large courtyard would have accommodated animals awaiting slaughter and slaughterhouse refuse. From McPherson, Lock. A Plan for the Incorporation of Fleshers, Edinburgh. Courtesy of the National Archives of Scotland, NAS GB 234 RHP 266/1.

slaughterhouse was to be equipped with several pump wells to wash down the facility each slaughter day and a cart and horse to remove manure and refuse three times per week.[9] These facilities were more spacious and took greater cognisance of sanitation than was typical of the independent private slaughter houses found in English cities at that time.

However well conceived the plan, the Fleshers were unable to secure consent from the Council for their initiative, due in part to opposition from a group of feuars[10] of the newly extended royalty, the gentry of suburban New Town. Complaining of the accumulations of slaughterhouse waste, the feuars united in an effort to drive slaughterhouses out of the city. The Fleshers' proposed new building did not appease the feuars who countered with a proposal of their own, that slaughter be banned anywhere within a distance of one mile from the city. A spirited debate between the Fleshers and the feuars found its way onto the pages of *The Scots Magazine* in 1781.[11]

The New Town feuars declared that Edinburgh was, 'in all probability, the only city, in any age or nation of the world, where the cattle necessary for the consumption of these inhabitants were slaughtered within its bounds, without either water to carry off the filth, or the use of any means whatever by carts or otherwise for removing the blood and dung accumulated, in the course of so great a slaughter, for many years'.[12] In their view, the fault lay with the slovenly practices of butchers who failed to dispose of accumulated refuse which caused Edinburgh to be, 'opprobriously held forth as one of the dirtiest cities in the world'.[13] They believed that the social progress manifest in the North Bridge, draining of the North Loch and extension of the royalty to include the New Town marked a change in urban conditions. The slaughterhouse nuisance could no longer be tolerated in the modern city of Edinburgh.

Physicians expressed concern about the deleterious health effects of urban slaughter and supported the movement to banish animal slaughter from the urban area. In response to an inquiry from the Lord Provost, the Royal College of Physicians of Edinburgh reported that in their opinion, continuing the slaughterhouses at the North Loch location, 'may prove prejudicial to the health of the inhabitants of [the] city'. The College of Surgeons declared, 'that all nuisances must be, in some measure, injurious to health; and that the slaughtering-houses in particular, from their tendency to corrupt the different kinds of meat hanging in them, are noxious, not only to those in the neighbourhood, but to all the other inhabitants'.[14]

The Fleshers for their part, betrayed a sense of exasperation: they could not continue to operate in the existing slaughterhouse location yet they could not leave; the feuars wanted to drive them away but each of the three alternate locations they had proposed for their shambles had been turned down by Council. The feuars' efforts to force the Fleshers to ply their trade outside the city was an affront and a challenge to their status as Freeman Fleshers, a craft-based élite with the ancient and

exclusive privilege to practise their trade within the city's royalty. The Fleshers portrayed the feuars as recently arrived property owners who chose to acquire property in the New Town, close to the North Loch, and in full knowledge that the slaughterhouses had existed at that location for 160 years.[15]

In settling the land use conflict, the interests of the New Town property owners appeared to prevail over those of the Fleshers. To relieve the city from 'the great nuisance of the slaughter-houses' which were 'greatly detrimental to the inhabitants of the city', an Act of Parliament (hereafter 22 George III c. 52) was passed in 1782 prohibiting the slaughter of any livestock,[16] scalding of swine, carcase dressing or cleaning of entrails within the City of Edinburgh and its Royalty, anywhere within ¾ of a mile of the Tron Church or anywhere within ¼ mile on either side of the River of Leith between the Bridge of Leith and Canonmills Bridge.[17] The earlier call for slaughter to be banished to a distance of one mile from the city had been mitigated to a ¾ mile buffer zone. This would keep offensive trades such as animal slaughter far enough away that they would be undetectable by urban residents yet leave the Fleshers tolerably close to city markets.

With slaughter banished to the suburbs, the second component of the legislation dealt with sanitation procedures. Within city precincts, offensive accumulations of 'flesh dung', carrion, blood, offal, or any other waste products in the principal streets of the city or the liberty were considered to be a nuisance, and an offence under the act. What had formerly been a nuisance under common law became an offence under statutory law hence easier to police and enforce. Offenders could be ordered to remove slaughterhouse waste within three days.[18]

However, the 22 George III c. 52 legislation was allowed to lapse and its regulatory provisions were never enforced. The act included a clause to compensate the Incorporation of Freemen Fleshers, ostensibly because they would be prevented from carrying on their trade within the royalty of the city at the very location they had been directed to move by Parliament in 1621. To determine the appropriate level of compensation, the act appointed members to a committee headed by the Lord Provost to estimate the value of the damages and have all work completed by June 4, 1783, one year after it was appointed.[19] The Fleshers and City Commissioners were unable to reach agreement on the level of compensation to be paid and the issue was never resolved. Because the committee failed to come to an agreement by the specified deadline, the Fleshers argued that the act's regulatory provisions had no legal standing and the city itself conceded that the act had become a dead letter.[20] Thus the Incorporation of Fleshers prevailed over the middle class New Town feuars, reflecting the power and influence retained by the crafts in eighteenth-century Scotland.

The shambles at North Loch

While the Fleshers were resolute in their belief that the 22 George III c. 52 legislation had never taken effect, and the right to carry on business at the North Loch site was theirs until they chose to surrender it, they resurrected their 1780 plan to erect a new Flesher-owned slaughter facility to replace the cluster of aging independent slaughterhouses. The real motive of the Fleshers for this initiative is unclear but it could have been a means of pre-empting future exclusionary legislation with a less generous compensation mechanism than 22 George III c. 52. Second, since it was intended that the Fleshers would slaughter in the new shambles, and nowhere else in the city, a Flesher-owned shambles would centralise slaughter at a point location and so assist the guild in consolidating its grip on Edinburgh's meat trade. The declared motive was that the existing independent slaughterhouses were inconvenient and ill-adapted for promoting good sanitation. Without any regulations governing their business, the Fleshers conceded that slaughter operations might offend the public. To remedy these inconveniences and confine the business to one location, a proper building, designed and dedicated to the purpose of slaughter was required.[21]

In 1788, the Fleshers proposed to erect a shambles just west of the slaughterhouses in use since 1622 (fig.3). The building would be designed with separate booths 32 feet by 20 feet, each to

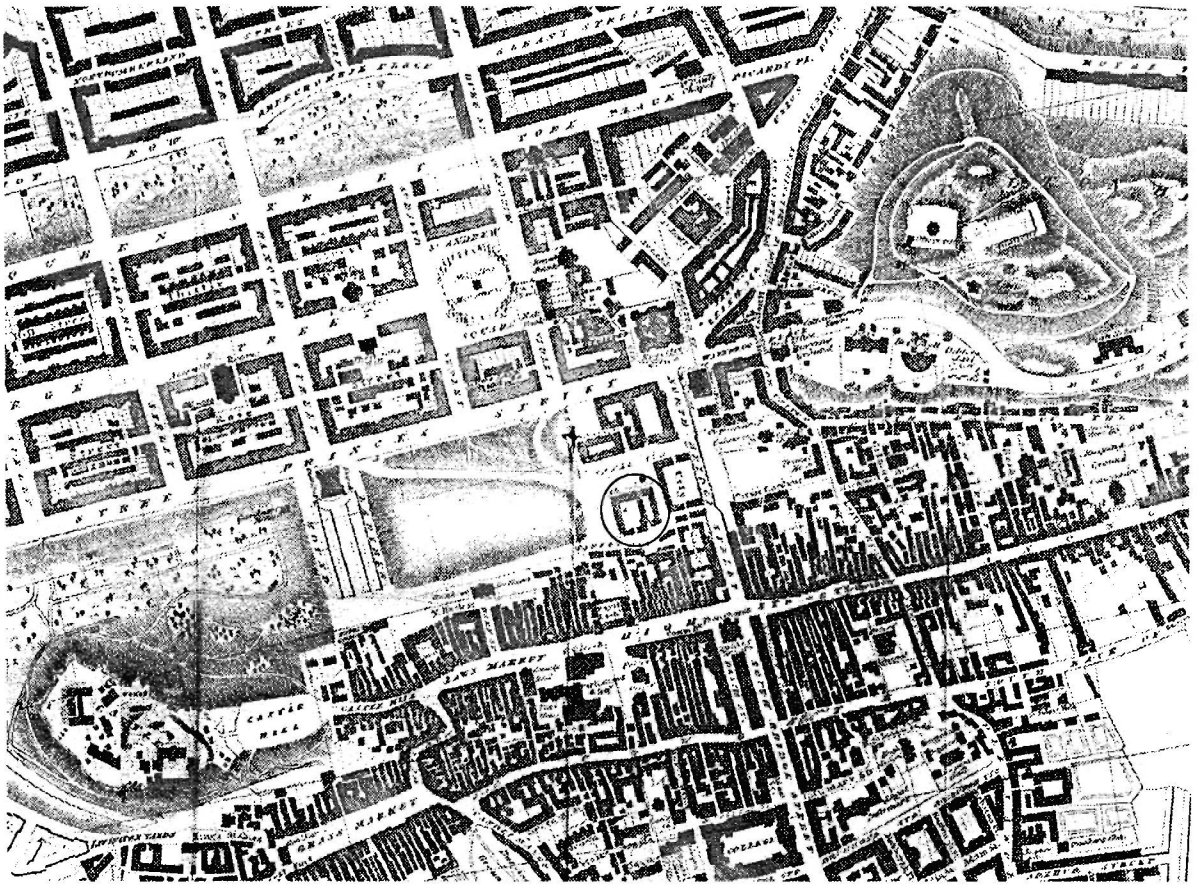


Fig. 3. Map of Edinburgh in 1830. The North Bridge, the new suburb of New Town, and the partial drainage of the North Loch are all evident in comparison with fig. 1. The new shambles which was approved in 1788 is shown in its new location (circled), just west of the original slaughterhouses. Courtesy of Peter Stubbs, Edinphoto, http://www.edinphoto.org.uk/0_MAPS/0_maps_thumbnails.htm

be occupied by a member of the incorporation. It would have a large open area 160 feet by 80 feet for livestock, which would be carefully graded and drained to control effluent. Manure was to be taken to the country regularly and the area would be kept clean and 'totally free from the least appearance of nastiness'.[22] The building would be surrounded with a strong wall 20 feet high, 'so the business of slaughtering may not give offence to persons going or coming along the bridge to or from New Town'. The booths would have slate roofs and the whole business of slaughtering would take place under cover so that 'it will occasion a considerable degree of trouble even to a curious person to be satisfied of what is going on within the walls'. Proper places were to be erected for dressing and boiling entrails of the slaughtered cattle and the practice of selling offal in the close leading down to the markets would henceforth be abolished. The existing independent slaughterhouse buildings would be converted to other uses. The proposal was accepted by Edinburgh City Council on 10 September 1788 and the new shambles was built to a design that appears remarkably similar to the plan first presented in 1780, but with larger slaughter booths.[23] (fig. 4)

In accepting a central, and from the vantage point of the North Bridge, prominent location for

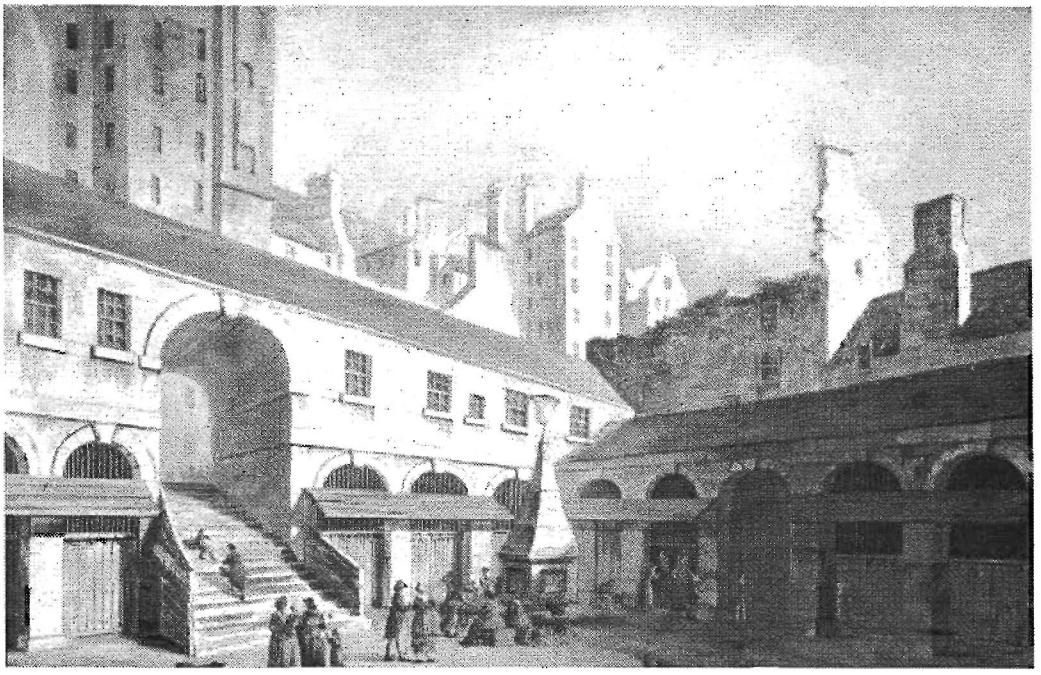


Fig. 4.The Shambles by the North Loch about 1800, looking south. Like the 1780 plan, it has stone construction, a slate roof and second story slaughter booths in the centre section. However, the high-ceilinged cattle slaughter booths were shifted to the lower level and the lower ceilinged sheep slaughter booths were on the second storey. An open archway with steps has been added to replace the ramp in the 1780 plan, perhaps because subsidence in the dry lake bed provided sufficient relief to provide ground level entrance for both storeys. The pump well was used to water cattle kept overnight and for washing out slaughter booths. It is late in the day and only one slaughter booth is still open with a side of beef cooling in the doorway. Curiously the subject is described in the catalogue as 'The Old Edinburgh Meat Market' perhaps because an allusion to a shambles or animal slaughter was considered indelicate. Skene, James. *Edinburgh Market Street, Old Meat Market.* Crown Copyright: Royal Commission on the Ancient and Historical Monuments of Scotland, RCAHMS EDD 611/1; NMRS NT27SE 1290.

the shambles, the Council seemed to be reversing previous efforts to exclude animal slaughter from the city. But the Fleshers were willing to make a substantial investment in a purpose-built shambles with 20-foot walls of dressed stone which would conceal their activities, muffle the cries of livestock and contain any odours. The Fleshers also declared a commitment to police themselves as a guild, to accept a relatively stringent and self-imposed regulatory regime to undertake regular disposal of manure and slaughterhouse by-products. The centralised shambles remained in place for some 55 years before it was finally displaced. In contrast to the rising tide of public disapprobation towards private slaughterhouses in British cities, there is no evidence that the North Loch shambles was ever considered to be a nuisance.

With the coming of the railway age, the Edinburgh and Glasgow Railway Company had built its mainline tracks through the dry bed of the former North Loch and was encroaching on the north entrance to the North Loch shambles. The Fleshers claimed damages of £2,500 in 1845 but they were also prepared to sell their slaughter facility if the price was right. In 1846 the claim was tried before the Sheriff and a jury under the

Railway Act, and on 23 February 1846 the jury brought in a verdict in favour of the Fleshers for loss and damages of £11,300 as full value of the premises belonging to them. By June 1846, the shambles were removed to make way for railway operations and each of the Fleshers received £199 19s. 6d. as their share of the proceeds.[24] With the removal of the North Loch shambles, Edinburgh's livestock processing facilities reverted to a dispersed pattern of slaughterhouses as was the case in most other cities in Britain and it suffered from all of their abuses. It seems paradoxical that this backward step in sanitation was taken in Edinburgh just as the need for enhanced sanitation and public health conditions were becoming an urgent priority.

Dispersion of the slaughterhouses

While the North Loch shambles was intended to be the primary centre of the Flesher trade, the promised exclusion of slaughter from all other locations in Edinburgh never materialised. Three slaughterhouse clusters developed during the early part of the nineteenth century: Paul's Work,[25] King's Stables Lane,[26] and Causewayside.[27] After the sale and closure of the North Loch shambles in 1846, the number of cattle being killed in small neighbourhood slaughterhouses greatly increased, most notably in the three existing slaughterhouse clusters. By 1847, some 150 Fleshers were operating out of 78 separate killing booths spread throughout the city. The killing of smaller livestock was not confined to the slaughterhouses. Since most Fleshers slaughtered calves, sheep and lambs at the back of their retail butcher shops or in adjoining cellars, food animal slaughter was spreading across the city.

These developments raised the profile of slaughterhouse reform in Edinburgh just as similar concerns were being advocated in other British centres by a public that was becoming 'actively alive to the importance of the institution of sanitary measures'.[28] In 1838, public health concerns about the impact of private slaughterhouses were registered in the 4th Report of the Poor Law Commissioners which pointed to the prevalence of typhoid in slaughterhouse districts such as London's Aldgate. Animal slaughter was not perceived as an intrinsically hazardous land use but accumulations of animal waste in poorly drained areas were implicated in fever outbreaks, underscoring the need for the regulation and enforcement of sanitary refuse disposal and planning for drainage in slaughterhouse districts.[29] By 1840, the Select Committee on the Health of Towns advocated the relocation of animal slaughter to outlying suburban areas. Physicians recommended the construction of large scale abattoirs outside the urban area to promote good health and remove 'putrefying exhalations' from densely built-up areas.[30] Slaughterhouses were among the earliest public health hazards to be identified in Britain's nineteenth-century cities and the establishment of suburban public abattoirs was the most commonly proposed solution to the problem.

Scant years after the closure of the shambles, slaughterhouse wastes became increasingly problematic in Edinburgh, posing a sanitary nuisance that prompted renewed calls for tighter land use controls. Petitions from residents and those carrying on business in Paul's Work, King's Stables, and Newington all complained of slaughterhouse conditions and argued for the enforcement of provisions in the long-since lapsed 1782 legislation of 22 George III c. 52 which would have proscribed livestock slaughter within the ¾ mile circle.[31]

In 1847, a pamphlet by Alexander Murray, Inspector of Lighting and Cleaning for the City of Edinburgh, gave a vivid impression of the appalling accumulations of slaughterhouse waste that had appeared in Edinburgh.[32] The slaughterhouses of Edinburgh were 'offensive manufactories' due to the feeding and breeding of pigs, poor drainage, lack of public facilities, the disgusting practice of 'throwing nuisance from windows into closes and back courts,' and the unsanitary state of causeways and pavements.[33]

Murray argued that Edinburgh's affliction with offensive and unsanitary nuisances was a direct result of the inability to enforce the common law of nuisance. The local Police Acts were ineffective, in large measure because they did not incorporate the provisions of 22 George III c. 52 to prevent slaughtering cattle within the

city and its sanitary provisions. The Police Act required that slaughterhouses should be kept clean and manure accumulations should be removed every four days in summer and every seven days in winter, but there was no effective penalty for infractions. Inspectors could not seize and remove slaughterhouse refuse without first proving their allegations to the Judge of Police. By then the butcher would have removed the waste only to start accumulating a new midden, knowing that it could not be seized until new charges were brought before a magistrate.[34]

Anticipating the famous claim that Chicago packers used 'everything about the hog except the squeal',[35] Edinburgh's Fleshers were motivated to make the most efficient use of carcase by-products (bones, blood, and offal). By-products provided a valuable source of additional revenue to offset slaughter costs. But the need to accumulate and store inedibles led to putrefaction and created a health hazard. For example, according to George Glover, Edinburgh Police Surgeon, 'The greatest evil connected with these [King's Stables] slaughter-houses seems to be the interest parties have in retaining the animal substances for the manufacture of manure, and the various contrivances and ingenious devices which are fallen upon to increase and retain animal matter and putrid substances'.[36]

In the case of the King's Stables cluster of slaughterhouses, inedible carcase refuse was let to a dealer in manure and combined with waste from cess-pools which collected night-soil from the drains of the West Port. The blending of cattle excrement with inedible offal and rotting meat contributed significantly to slaughterhouse income. In King's Stables, the 'tax-man [tacksman] of the dung' collected 4–5 tons of dung every week which was valued at between 3s.6d and 4s. per ton and transported to users by canal-boat or by rail.[37] The slaughterhouses at Causewayside were considered to be among the worst in Edinburgh.[38] Further from the city centre, they were not connected to any drainage system and the 'fulzie' was let to local farmers who removed it periodically.[39]

A further irritant related to the by-products of livestock slaughter was the accumulation of skins, hides and wastes from the tanning process and the fermentation of horse carcases at the knackers. After a lengthy period of decomposition, putrefaction and fermentation, these materials were neither 'the refuse of slaughter-houses' nor were they 'dung' and on that technicality Police authorities could not take action. There was no general nuisance catch-all clause in the Police Act and slaughterhouses were not specified as a nuisance.[40]

The slaughterhouse nuisance assumed greater importance due to the health implications of the unsanitary accumulations of putrefying animal matter and chronically poor drainage problems. Nowhere was the health problem more apparent than in King's Stables, a poor district inhabited largely by Irish immigrants where multi-family dwellings were often located within 20–30 yards of a slaughterhouse and in some cases were immediately overhead. According to William Alison, Professor of Medicine at the University of Edinburgh, proximity to large slaughterhouses would aggravate the tendency of people to contract epidemic fever.[41] This was corroborated by George Glover, Surgeon to the Edinburgh City Police. Some of the earliest cases of cholera in Edinburgh during the epidemics of 1832 and 1848 appeared on the West Port, scant yards from the King's Stables area. Thus the surgeon asserted that the slaughterhouses of King's Stables were nuisances in the legal sense of the word, being injurious to both health and life.[42]

Murray's vivid description of Edinburgh's sanitary embarrassments and medical assessments that linked disease to the public nuisance concept raised the profile of slaughterhouses among nineteenth-century urban problems and led to the establishment of a public abattoir which would consolidate slaughter in one location on the opposite side of the city from the New Town and the old North Loch shambles.

Fountainbridge public abattoir

After six years of uncontrolled urban slaughter following the sale and demolition of the North Loch shambles, the slaughter of livestock in Edinburgh converged at a single location at the

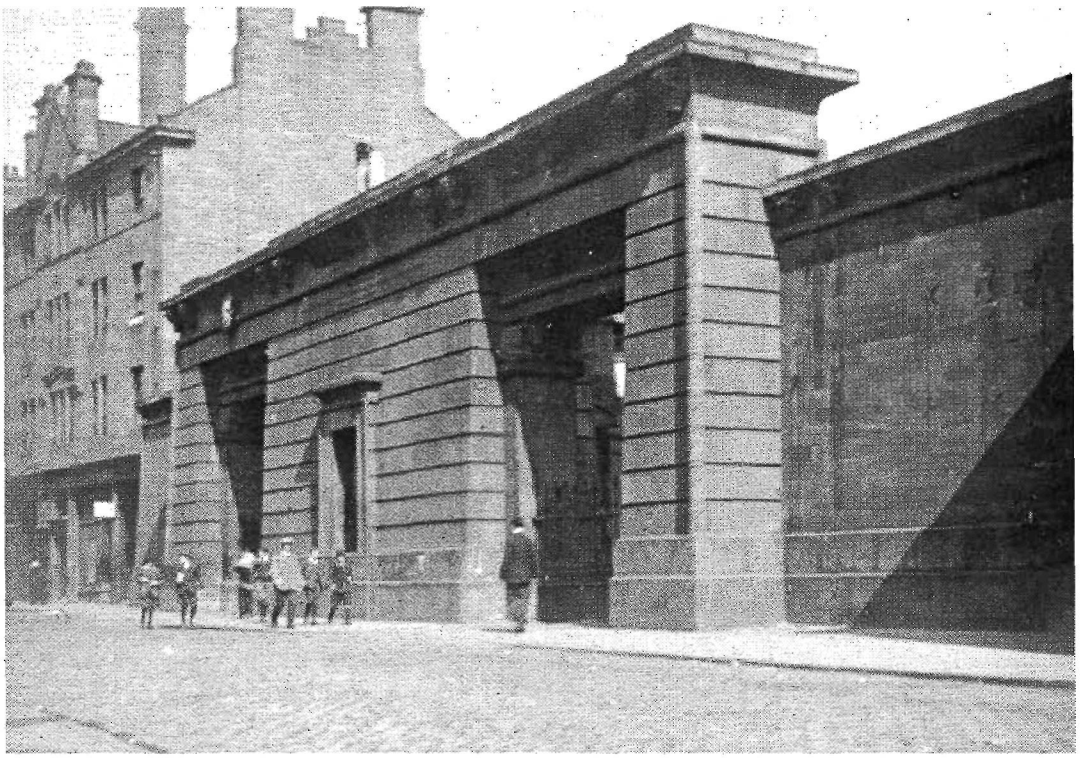
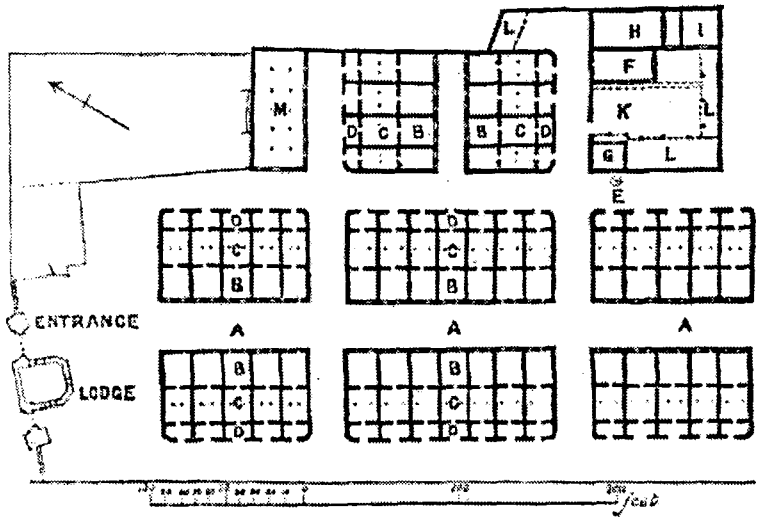


Fig. 5. The Fountainbridge Slaughterhouse from Fountainbridge looking due east. Pedestrians are dwarfed by the 28-foot high Egyptian-style screen wall to conceal slaughterhouse activity from the streets. The absence of vehicular traffic seems odd on this late afternoon about the turn of the century. The dark corbels supporting the parapet are just distinguishable as the stone-carved heads of bull cattle. Courtesy of Edinburgh Photographic Society.

Fountainbridge Slaughterhouse in 1852. Among the earliest public abattoirs in Scotland,[43] the facility was built 15 years before Scotland had a public health act and ten years before the Burgh Police Act of 1862. It was the product of a unique piece of legislation, The Edinburgh Slaughterhouses Act 1850, which became the model for the slaughterhouse provisions of the Burgh Police Act.[44] The act established a publicly owned and operated abattoir and prohibited the slaughter of cattle, carcase dressing and cleaning of offal anywhere in the boundaries of police of the city and within a distance of one mile beyond such bounds except in the public abattoir to be provided.[45] In preventing private livestock slaughter where a public slaughter facility was provided, Edinburgh eliminated the source of a conspicuous nuisance. Yet Edinburgh took this action with the full cooperation and approval of the butcher trade. In most English cities, by contrast, local butchers guarded their independence fiercely and viewed their right to operate individual private slaughterhouses as sacrosanct and fundamental to the integrity of their craft.

Municipalisation of livestock slaughter and the construction of a public abattoir was motivated to resolve the public nuisance problem so ably identified by Alexander Murray and Edinburgh's public health advocates. However the Fleshers also played a leading role in the initiative. According to the preamble of the legislation, the primary motive for the erection of a new public slaughterhouse was that the Fleshers were subjected to great inconvenience from want of suitable



2. Edinburgh Slaughter-Houses.

A. Central Roadway.
B. Slaughtering Booths.
C. Cattle Sheds.
D. Enclosed Yards.
E. Well.
F. Steam-Engine.
G. Raised Water Tank.
H. Tripery.
I. Pig-slaughtering House.
K. Court for Cattle.
L. Sheds.
M. Blood House, now Albumen Factory.

Fig. 6. Site plan of Fountainbridge Slaughterhouses (1853) showing that each flesher had an enclosed yard, cattle shed, and slaughter booth arranged in parallel ranges of buildings interconnected by roadways. From *Encyclopedia Britannica* 9th edition.

public slaughterhouse facilities. Their tenure within the ¾ mile circle was made uncertain by the 22 George III c. 52 legislation and the existing slaughterhouse clusters were cramped and unsuitable locations for slaughter. The unsanitary nuisance and public health hazards appeared as secondary concerns, underscoring the influence of the Association of Fleshers whose interests took precedence over the public health. In implementing the legislation, Magistrates and Council were required to secure the advice and consent of some of Edinburgh's leading Fleshers and once again, the act provided for compensation to be paid to slaughterhouse owners if they were prejudiced under the legislation.

To prevent evasion of the use of the public slaughterhouses, anyone bringing fresh meat into the city that had been slaughtered more than one mile outside the city (or in the Burgh of Leith), was liable to the payment of the same dues that would have been leviable on cattle slaughtered by a Flesher renting a booth in the slaughterhouse.[46] This provision would remove the incentive for livestock to be diverted to nearby village slaughterhouses to avoid payment of the Edinburgh slaughterhouse duties, reinforcing the premier position of the city's public abattoir. It could also be interpreted as a means of securing the exclusive trading rights of the Fleshers within Edinburgh and expanding their sphere of influence to include the larger livestock and meat trading area. In these respects, the interests of the Fleshers were in accordance with those of the city.

The outcome of the legislation was a large, new public abattoir compound that was officially opened in 1853 and became known as the Fountainbridge Slaughterhouse. It was located just west of Tollcross, within the city limits but just

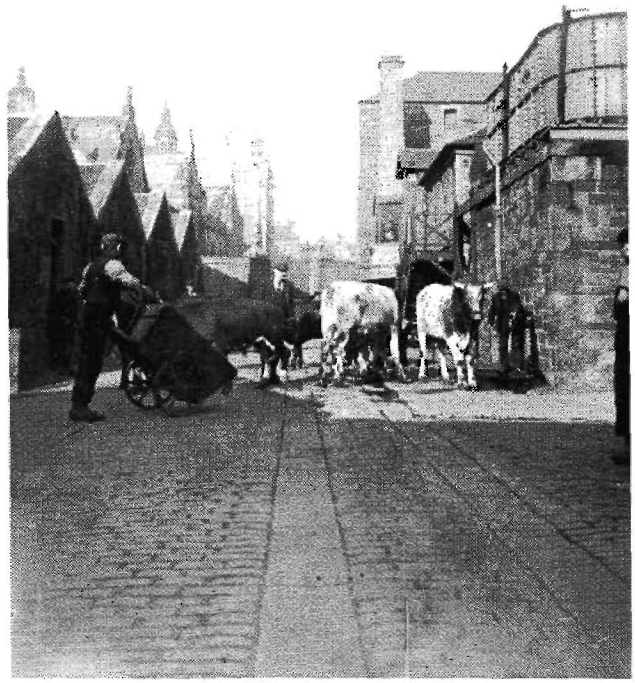


Fig. 7. Cattle are being sorted in this internal view of the Fountainbridge Slaughterhouse complex. The roadways were laid with concrete and causewayed with dressed whinstone pavement. The barrowman is likely one of the licensed jobbers employed by the slaughterhouse to work for the butchers on a casual basis. The absence of a shovel and the overhanging piece of tissue suggests that the barrow contains viscera on its way to the tripery for washing and cleaning. Courtesy of Edinburgh Photographic Society.

outside the symbolic 3/4 mile buffer zone centred on the Tron Church. On the western side of the city, it was distant from the prestigious New Town development yet close to both the Lauriston cattle market (its principal source of raw material) and to the Union Canal terminus so that canal barges could remove slaughterhouse wastes, a longstanding disposal problem and source of public irritation.

When it was opened, the Fountainbridge Slaughterhouse was considered to be the finest public abattoir in the country in terms of construction and management and a model for other cities to emulate.[47] It was a state-of-the-art facility, near the edge of the city, with 28 foot walls to conceal any evidence of slaughter from the street (fig. 5). Far in excess of what was necessary to contain livestock or to block the view from the street, the massive walls demonstrate the lengths to which Victorians would go to conceal the act of slaughter and prevent nearby residents from exposure to the sight of fresh-dressed carcases. The abattoir occupied a five acre site with three long rows of buildings, each composed of individual slaughter booths (fig. 6). Fleshers rented individual slaughter booths for all livestock except swine which were killed in the pig-slaughter house, equipped with a scalding tank. Feet and offal were cleaned and prepared in the tripery whose tenants charged Fleshers on a carcase piece-rate basis. The abattoir employed cleaners for the cattle sheds, collection and processing of blood and contracted out for the collection of inedible offal, blood, manure and other refuse. Licensed jobbers were available in

the abattoir to provide the Fleshers with casual labour when it was required (fig. 7).[48] The model abattoir at Fountainbridge was a conspicuous feature of Victorian Edinburgh from 1852 until 1903 when it was replaced by an even larger slaughter plant at Gorgie with more buildings, more specialised equipment, and located even further west of the city centre.

Conclusions

The urban location of livestock slaughter and the seat of the Fleshers' trade in Georgian and Victorian Edinburgh was dynamic and may be traced through a series of five distinct regimes: unregulated slaughterhouses at Liberton Wynd and the Lawnmarket until 1622; private slaughterhouses at the North Loch (1622–1788); a shambles owned by the Incorporation of Fleshers at the North Loch (1788–1846); unregulated slaughterhouses (1846–1853); and a municipally owned abattoir after 1853. Excluding the brief unregulated phase in the mid-nineteenth century, the locational trend was centrifugal yet for most of its history it was located within the municipal bounds of the city where the Fleshers protected their ancient craft privilege.

The slaughterhouse was often viewed as a pariah land use to be excluded from the city centre. But the Incorporation of Fleshers was a powerful force in the city's political economy which protected its craft interests by insisting on a consultative role in land use planning and in receiving compensation when Fleshers' property rights were infringed. They prevailed in spite of parliamentary legislation and the enormous influence of the feuars of the New Town. The Fleshers were able to prosecute their urban trade in the heart of the city with little intervention provided that they concealed their carcase processing activities, contained the slaughterhouse nuisance, and kept the slaughter of food animals out of sight and out of mind behind high stone walls. The slaughterhouses were only characterised as the 'greatest and most offensive nuisance that ever disgraced the capital of a kingdom' when their activities were exposed to the public gaze.

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Notes and References

1 Removal of the Slaughterhouses, National Library of Scotland, Edinburgh, 1783, 5.

2 Colston, James. The Incorporation of 'Fleschouris'. In *The Incorporated Trades of Edinburgh*, Edinburgh, 1891, 54, 59. Other sources indicate that the ancient Incorporation of Fleshers gradually disappeared in the 1750s to be replaced by a new Association of Fleshers, see 'Minutes and Evidence taken by the Surveying Officer' for Edinburgh Slaughter-Houses Removal Bill (1850), Edinburgh City Archives 00 01 21, evidence of John Plummer, 24; evidence of George Wight, 26.

3 Colston, 1891, 60; Freeman-Fleshers in Edinburgh. Memorial and Representation, *The Scots Magazine*, 43 Appendix (1781), 674; Cosh, Mary. *Edinburgh: The Golden Age*, Edinburgh, 2003, 872, 890.

4 The North Loch had been the site of the landward Fleshers' slaughterhouses since 1540. Colston, 1891, 61.

5 Ratificatione of the Act of Secreit Counsell [Privy Council] aganis Baxteris [bakers], Brewstaris [brewers], Flescheors [fleshers] and Candle Makers off Edinburt, *Acts of the Parliaments of Scotland*, Act 29, AD 1621, Jacobi VI, 627–8.

6 In his Enumeration of 1755, Alexander Webster calculated Edinburgh's population to be 48,815. The Census of 1801, which included the city and its extended royalty, recorded a population of 67,288. For figures, see Rodger, R. *The Transformation of Edinburgh. Land, Property and Trust in the Nineteenth Century*, Edinburgh, 2001, 23; Youngson, A J. *The Making of Classical Edinburgh*, Edinburgh, rep. 1988, 40, 299, n41, 42, 43;

for further discussion on Edinburgh's population rise, see Dingwall, H. *Late-Seventeenth Century Edinburgh. A demographic study*, Aldershot, 1994; Flinn, M, *et al. Scottish Population History from the 17th Century to the 1930s*, Cambridge, 1977.

7 Incorporation of Fleshers memorial to the Right Honorable Lord Provost, Magistrates and Town Council of the City of Edinburgh regarding cattle slaughter procedures, Copy of Minutes of Council (10 September 1788), Edinburgh City Archives Papers Relating to Edinburgh Slaughterhouse Removal Bill 1849–50 Shelf 282A, 7.

8 The Fleshers proposed three locations for their new slaughter facility: the old Physic Garden, a plot of land lying south of the North Loch between the bridge and the passage through the Loch into Canal Street, and at the lowest part of the west side of the south abutment of the North Bridge, see correspondence dated 8 August 1780 from Fleshers to Edinburgh Town Council, 'Fleshers' Plan', National Archives of Scotland [NAS] RHP 266/4.

9 'Plan for the Incorporation of Fleshers Edinburgh' 1780, NAS GB 234 RHP266/1; Part of a letter entitled, Explination [sic] of the Plan for building Slaughterhouses [Edinburgh], NAS 234 RHP 266/3A.

10 Feu is the Scots word for the exclusive right to the use of land. In holding these property rights, the New Town feuars were at the vanguard of a landed suburban middle class.

11 Freeman-Fleshers in Edinburgh, 1781, 671.

12 A citizen. Observations on the Memorial and Representation, drawn up by a member of the Committee of the inhabitants of the New Town, *The Scots Magazine*, 43 Appendix (1781), 677–8. This was, to say the least, an exaggeration. In the eighteenth century, many British cities had a city centre shambles and few had access to a constant supply of running water. Thus the nuisance and public health problems experienced in Edinburgh were not at all unique. See for example, Grady, K. The cattle and meat trades in Leeds, *Northern History*, 37 (2000), 146.

13 A citizen, 1781, 678.

14 Scotland, Historical Affairs in England and Scotland, *The Scots Magazine*, 43 Appendix (1781), 712.

15 Freeman-Fleshers in Edinburgh, 1781, 677.

16 In the 22 George III c. 52 legislation, the term 'cattle' referred to any beast (bovine), swine, calf, sheep lamb or other livestock but excluding poultry. 'An Act for preventing the slaughtering of Cattle within the City of Edinburgh, and for removing Nuisances and Annoyances therefrom', *Public Acts* 22 George III (1782), Chapter 52.

17 The distance from the river, in English statute miles, was to be computed by lines drawn parallel to the passages of the two bridges, 'An Act for preventing the slaughtering of cattle within the City of Edinburgh and for removing the nuisances and annoyances therefrom', *Public Acts* 22 George III (1782), Chapter 52, 844–5.

18 'An Act for preventing the slaughtering of cattle within the City of Edinburgh and for removing the nuisances and annoyances therefrom', *Public Acts* 22 George III (1782), Chapter 52, 846.

19 'An Act for preventing the slaughtering of cattle within the City of Edinburgh and for removing the nuisances and annoyances therefrom', *Public Acts* 22 George III (1782), Chapter 52, Section IV.

20 Incorporation of Fleshers memorial to the Right Honorable Lord Provost, Magistrates and Town Council of the City of Edinburgh regarding cattle slaughter procedures, Copy of Minutes of Council (10 September 1788), Edinburgh City Archives Papers Relating to Edinburgh Slaughterhouse Removal Bill 1849–50, Shelf 282A; 'Edinburgh Slaughterhouses Removal Petition from the Lord Provost, Magistrates and Council for the City of Edinburgh to the Honourable the Commons of the United Kingdom of Great Britain and Northern Ireland in Parliament assembled' (1 December 1849), Edinburgh City Archives, Papers Relating to Edinburgh Slaughterhouse Removal Bill 1849–50, Shelf 282A. A different interpretation of these events argues that the Commissioners had fixed the 'quantum of compensation payable to the fleshers', but that neither the feuars in the extended royalty nor the city Corporation itself were able or willing to provide the funds required. See Edinburgh Town Council. *Edinburgh 1329–1929*, Edinburgh, 1929, 192.

21 Incorporation of Fleshers memorial to the Right Honorable Lord Provost, Magistrates and Town Council of the City of Edinburgh regarding cattle slaughter procedures, Copy of Minutes of Council (10 September 1788), Edinburgh City Archives Papers Relating to Edinburgh Slaughterhouse Removal Bill 1849–50 Shelf 282A, 7.

22 Incorporation of Fleshers memorial to the Right Honorable Lord Provost, Magistrates and Town Council of the City of Edinburgh regarding cattle slaughter procedures, Copy of Minutes of Council (10 September 1788), Edinburgh City Archives Papers Relating to Edinburgh Slaughterhouse Removal Bill 1849–50 Shelf 282A, 11.

23 Incorporation of Fleshers memorial to the Right Honorable Lord Provost, Magistrates and Town Council of the City of Edinburgh regarding cattle slaughter procedures, Copy of Minutes of Council (10 September 1788), Edinburgh City Archives Papers Relating to Edinburgh Slaughterhouse Removal Bill 1849–50 Shelf 282A, 13–14.

24 Minutes of Incorporation of Fleshers – Edinburgh, 21 October 1844, 24 October 1845, 2 March 1846, 1 June 1846, 16 November 1846, Edinburgh City Archives, uncatalogued minutes book; 'An Act to provide for the Erection of Public Slaughter-houses for the City of Edinburgh and for the Regulation of the same', 13

and 14 Victoria c. 70 (15 July 1850) Section 1.

25 Paul's Work was located under present-day Waterloo Place.

26 King's Stables Lane is immediately south of Edinburgh Castle. Named for the location of the King's Stables just below Edinburgh Castle and notorious as a tilting ground where disputes were settled with duels, the area became Edinburgh's chief cattle market in 1477 and continued in this role until the Lauriston Cattle Market was opened in 1843. The cluster of slaughterhouses, sometimes known as Livingston Yard, date back to at least 1816. 'Minutes and Evidence taken by the Surveying Officer' for Edinburgh Slaughter-Houses Removal Bill (1850) Edinburgh City Archives 00 01 21, evidence of William Mather, 23; evidence of Peter Dewar, 56; Edinburgh Town Council, 1929, 188–9.

27 The Causewayside slaughterhouses were located at Grange Road, west of the residential district of Newington, then known for its southern aspect, balmy climate, and the high socioeconomic status of its residents. Murray, Alexander. *Nuisances in Edinburgh with Suggestions for the removal Thereof Addressed to the General Commissioners of Police*, Edinburgh, 1847, 5; Edinburgh City Archives Papers Relating to Edinburgh Slaughterhouse Removal Bill 1849–50, Shelf 282A.

28 Grantham, Richard B. *A treatise on Public Slaughter-Houses Considered in Connection with the Sanitary Question*, London, 1848, p. vi.

29 BPP 1838 xxviii Fourth Annual Report of the Poor Law Commissioners for England and Wales Supplement No. 2, Appendix A, 85–86.

30 BPP 1840 xi Select Committee on The Health of Towns, 165; evidence of George S Jenks, qq. 2792–3.

31 Petition from undersigned proprietors and occupiers of property situated at Paul's Work, Edinburgh and neighbourhood thereof, Petition from King's Stables (undersigned inhabitants of Edinburgh, residing or carrying on business in the vicinity of the slaughterhouses situated at King's Stables and Cow-Feeder Row), and Petition from Newington (undersigned residents of Edinburgh, residing or carrying on business in the vicinity of the slaughterhouses situated at Causewayside), Edinburgh City Archives Papers Relating to Edinburgh Slaughterhouse Removal Bill 1849–50, Shelf 282A.

32 In addition to accumulations of animal manure from livestock and slaughterhouses, Edinburgh's infamous custom of '*gardez-l'eau*', the disposal of night soil by broadcasting it in city streets, contributed to the morass. 'It rains dung from the heavens every night, and, especially on Saturday Night, and Sabbath Morning, so that the people make their way through a very nasty and offensive passage to the Church, on the Sabbath-days'. Murray, 1847, 15–16.

33 Murray, 1847, 4.

34 Murray, 1847, 6–7.

35 The traditional source for this claim is in fact a work of fiction: Sinclair, Upton. *The Jungle*, New York 1906, Bantam Classic Edition, 1981, Chapter 3, 22; however, it is well supported by contemporary evidence, see Cronon, William. *Nature's Metropolis: Chicago and the Great West*, New York, 1991, 250–1.

36 'Minutes and Evidence taken by the Surveying Officer' for Edinburgh Slaughter-Houses Removal Bill (1850) Edinburgh City Archives 00 01 21, evidence of George Glover, 16.

37 'Minutes and Evidence taken by the Surveying Officer' for Edinburgh Slaughter-Houses Removal Bill (1850) Edinburgh City Archives 00 01 21, evidence of Alexander Murray, 14 and evidence of Peter Ferguson, 60.

38 Murray, 1847, 9.

39 Murray, 1847, 5.

40 Murray, 1847, 10; see also 'Minutes and Evidence taken by the Surveying Officer' for Edinburgh Slaughter-Houses Removal Bill (1850) Edinburgh City Archives 00 01 21, evidence of Alexander Murray, 14.

41 'Minutes and Evidence taken by the Surveying Officer' for Edinburgh Slaughter-Houses Removal Bill (1850) Edinburgh City Archives 00 01 21, evidence of William Alison, 22.

42 'Minutes and Evidence taken by the Surveying Officer' for Edinburgh Slaughter-Houses Removal Bill (1850) Edinburgh City Archives 00 01 21, evidence of George Glover, 14–15.

43 Glasgow's first municipally owned slaughterhouse dates from 1744, likely the first in Scotland. Corporation of Glasgow. *Markets and Slaughter-Houses*, Glasgow, 1911, 13.

44 'An Act to provide for the Erection of Public Slaughter-houses for the City of Edinburgh and for the Regulation of the same' 13 and 14 Victoria c. 70 (15 July 1850).

45 The act's one-mile buffer zone did not apply to public slaughterhouses within the Burgh of Leith, that is to slaughterhouses provided and established by the Commissioners of Police of Leith. 'An Act to provide for the Erection of Public Slaughter-houses for the City of Edinburgh and for the Regulation of the same' 13 and 14 Victoria c. 70 (15 July 1850), Section 26.

46 'An Act to provide for the Erection of Public Slaughter-houses for the City of Edinburgh and for the Regulation of the same' 13 and 14 Victoria c. 70 (15 July 1850), Section 26.

47 Littlejohn, Henry D. *Report on the Sanitary Condition of the City of Edinburgh*, Edinburgh 1865, 57; Littlejohn, Henry D. *Report on the Public Slaughterhouses (Fountainbridge) and Cattlemarket (Lauriston Place)*, Edinburgh, 1903, 2.

48 'Edinburgh Slaughter Houses, Rules, Regulations, orders Bye-Laws etc' Made and confirmed in terms of 'The Edinburgh Slaughter Houses Act, 1850', Edinburgh, nd.