"It cannot be decernit quha are clean and quha are foulle." Responses to epidemic disease in sixteenth- and seventeenth-century Scotland.

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In comparison with the historiography of western Europe, a survey of Scottish late medieval and early modern historical research reveals that epidemic disease and its socio-economic consequences have made relatively little impact in academic consciousnesses over the last 30 years. While it is recognized that plague control measures were introduced in Scotland decades in advance of similar measures in England, that recognition has stimulated little focused research into the origins, development, application, and efficacy of those measures. Assessment of the impact of disease has barely moved in the conventional historical literature beyond the general views presented by Comrie in 1932, Mullett in 1950, and Shrewsbury in 1971, and the pioneering discussion by Flinn and his collaborators in 1977. It is nearly 60 years since Charles Mullett produced his essay on sixteenth- and seventeenth-century plague policy in Scotland, yet it remains the most accessible modern account of Scottish efforts to manage epidemic disease, while in the 37 years since Shrewsbury produced his study few researchers have addressed the numerous questions which he raised about the nature of the various "pests," the extent of their spread, and the social and economic impact of the outbreaks.²

In large part, this situation stems from the subdued contemporary accounts of Scotland's first experience of plague in 1349-1351, the rapidly diminishing attention

given to later fourteenth- and fifteenth-century recurrences, and the scarcity of significant literature that focuses specifically upon sixteenth- and seventeenth-century outbreaks. The main report of the Great Mortality, given in the chronicle attributed to John of Fordun, comments simply that "fully a third of the human race was killed" and offers an unembellished narrative.³ Subsequent Scottish outbreaks attracted even less attention from contemporaries, a sharp contrast to the extended continental and English accounts. This absence of detailed medieval records has led most modern scholars to treat the Scottish experience of plague in the fourteenth and fifteenth centuries somewhat circumspectly, with little development in the 40 years since Philip Zeigler first commented on the lack of Scottish academic interest in the subject.⁴ Alexander Grant's generalized 1984 observation that "plague still appears to have been the worst disaster suffered by the people of Scotland in recorded history," founded on qualitative economic data, remains the most influential statement of opinion on the subject.⁵ Such limited academic research stands in sharp contrast to the great expansion in plague studies elsewhere in Britain and Europe and the still unfolding debate over whether or not the medieval disease was bubonic plague; but the principal focus of those studies also remains the Great Mortality of 1346-1353, with a progressively diminishing level of research on subsequent epidemics.⁶

The understated discussion of later epidemics in medieval Scottish sources is matched by a limited corpus of literary works. The one significant pre-Reformation personal expression of plague-fear is a prayer-poem by Robert Henryson, written probably in the 1480s, which contains the same anguished appeals for release from the threat of such a sudden and foul manner of death as occur in, for example, John Lydgate's fifteenth-century English prayers. Henryson's major concern was the

suddenness of the end without a chance to confess and gain absolution for sins committed in life:

...that we sowld thus be haistely put doun,

And dye as beistis without confessioun

The horror provoked by the consequences of the "bad death," unconfessed and consigned to hell, is underscored by his plea to God to use famine, or some other sickness, which would allow victims time to prepare for their end. This fear of sudden and unrepentant death is a motif, however, that runs through much of Henryson's work and cannot be regarded solely as his response to the plague. 9 It does, nevertheless, represent an important dimension of popular perceptions of epidemic disease in the medieval and early modern periods; that of its character as a Divine visitation intended to chastise humanity for its sinful ways. This aspect will not be discussed in this present study beyond a single illustration to emphasize its currency through the Reformation and beyond, where it was still viewed as a scourge sent to chastise the people for their lapses from the path of "true" religion. In his Diary, the radical Presbyterian minister, James Melville, described the 1585 epidemic as "a guid wark" designed by God to "draw ws neirar and neirar vnto him" and intended to further "his awin glorie." He viewed the pestilence as a Biblical scourge sent by God to awaken the people of Scotland to the ungodly policies of the regime of the Regent Arran. 10 Plague as a manifestation of Divine wrath remained a powerful motif in explanations of epidemics, re-emerging with particular force during the heightened religious and political turmoil of the plague-ravaged 1640s.¹¹

Post-Reformation, there seems to have been as little by way of what could be described as "plague-literature." The first major product of a plague episode is the so-

called Bannatyne Manuscript, a collection of poems and song lyrics compiled by George Bannatyne "in tyme of pest" in the closing months of 1568. ¹² Early nineteenth-century commentators assumed that he gathered the collection during the epidemic, at no small risk of infection to himself, and that his motive was concern that the poetry of his homeland would be lost through the deaths of those few who possessed knowledge of it. ¹³ Its twentieth-century editor, W. Tod Ritchie, however, argued that Bannatyne had begun the collection some years earlier and merely assembled it into a single manuscript during the period of enforced inaction caused by the 1568 epidemic in Edinburgh. As Bannatyne put it at the conclusion of his work:

Heir endis this buik writtin in tyme of pest

Quhen we fra labour was compeld to rest¹⁴

Yet, apart from the inclusion within it of Henryson's prayer, this is not a collection obsessed with mortality and death. Nevertheless, while much of the collection celebrates life and love, the first of the three groupings into which Bannatyne himself divided the material is wholly moral and devotional in nature. Such a pious tone set at the opening of a work undertaken during a plague visitation is in keeping with the contemporary observation of personal moral restraint and social sobriety required of the populace at such times by the civil and ecclesiastical authorities.¹⁵

The first Scots vernacular treatise on the plague, Dr Gilbert Skene's "Ane breve description of the Pest etc," was also written and published in Edinburgh in 1568. Running to only some 10,000 words, Skene's treatise provided a summary of opinion on the causes, means of diagnosis, and forms of treatment current down to the mid sixteenth century. Offering advice on avoidance of contagion, cleansing of

infected property and possessions, diet, and treatment of buboes (the painful, infected swellings of the lymph nodes in the neck, armpits, and groin of victims), it remained the key handbook of procedure followed in Scotland for the next 80 years. It was not the first such treatise to circulate in Scotland, however, as surviving manuscripts from the libraries of Paisley and Kelso abbeys reveals that Sir John de Mandeville's fourteenth-century Latin text on the plague was circulating in Scotland by the early fifteenth century and had been translated into Scots as "A nobyl tretyse agayne ye Pestilens." Comparison between Mandeville's fourteenth-century state-of-knowledge and Skene's sixteenth-century work reveals how little understanding of epidemic disease and plague especially had advanced in two centuries, and perhaps offers some explanation for the apparent conservatism evident in the plague-control measures employed down to the 1640s which are discussed below.

The prominence of Skene's work has perhaps obscured the circulation of more "modern" medical works by the early seventeenth century. It has, for example, been observed that Aberdeen's response to the 1647 epidemic included the first provision in Scotland for the eradication of mice and rats as possible vectors of infection. The representation of the eradication of mice and rats as possible vectors of infection. The representation of the eradication of this measure in Scotland generally, let alone why it should appear first at Aberdeen. The killing of rats and mice had been among measures advocated in a 1631 report by Sir Theodore de Mayerne, physician to King Charles I. De Mayerne's report did not result in the adoption of any new policy in England, king and council having other pressing priorities, but its content was known to many London-based medics. It was possibly through professional connections that knowledge, or a copy, of De Mayerne's report reached Aberdeen, where King's College was the location of the oldest school of medicine at any British university, perhaps coming into the possession of Patrick Dun

or William Gordon, successive holders of the post of Mediciner there from 1619 to 1640. Although the post was vacant at the time of the 1644-1649 epidemic, Aberdeen was still home to several prominent practitioners, headed by Andrew Moore, Mediciner at King's College from 1649 but certainly resident in the burgh from *c*.1639. There is no record of the fact, but it was probably on his advice that De Mayerne's policy was adopted. Regardless of how the idea reached Aberdeen, however, the episode reveals evidence for the circulation of ideas relating to epidemics, plague prevention and cures within academic and other intellectual circles that is otherwise invisible in the literary record.

The thinness of sources relating to plague in later medieval and early modern Scotland outlined above has been responsible in part for the near absence of substantial modern literature on the subject. ²¹ The dearth of research since publication of the ground-breaking Scottish Population History in 1977 has had the consequence of reducing the perceived significance of epidemic disease generally as a factor influencing social and economic conditions in, as well as the demography of, pre-1650 Scotland. Indeed, examination of the major historical surveys published in the last 25 years suggests that there has been little detailed consideration given to either short- or long-term socio-economic effects of disease in the early modern period. Alex Gibson and Christopher Smout's *Prices*, Food and Wages in Scotland 1550 to 1780, the principal economic survey of the period, is a study of price history and assessment of the standards of living of "ordinary people" and is not directly comparable with the results of Elizabeth Gemmill and Nicholas Mayhew's analysis of the fourteenth- and fifteenth-century data which exposed "the economic consequences of the fundamental alteration in the ratio between land and labour which was the lasting legacy of the Black Death."²² These two works are pioneering studies whose

significance—and the data they present—is still being digested. It is evident otherwise that most published Scottish narratives recycle the same data and generalized observations.²³ No recent Scottish work achieves the "world upside down" perspective of long-term change identified in fourteenth- and fifteenth-century England by Jim Bolton.²⁴

One of the most commonly cited "facts" is that plague was an urban phenomenon in the later sixteenth and early seventeenth centuries.²⁵ Although the "town disease" model was challenged by Audrey-Beth Fitch in 1987, 26 it retains the dominance in scholarly perceptions gained through Mullett's earlier article. However, Mullett only explored plague control policies, and not the incidence and impact of epidemics. Mullett, moreover, drew his evidence largely from published burgh and Privy Council records and either ignored or misunderstood references to non-urban outbreaks. For example, he presents an outbreak in Dunkeld in 1500 as an urban phenomenon, although his source sets it into an entirely rural context.²⁷ As the first substantial study of the subject in Scotland, Mullett's account was adopted by most subsequent general socio-economic studies and its regular rehearsal gave it a weight of authority which culminated in the ringing claim that after the 1430s plague became "an urban affair only." 28 Only Christopher Smout contradicted this view, but even he suggested that pre-1590s epidemics were primarily urban while subsequent outbreaks changed in character and affected town and country in equal measure. ²⁹ Evidence for the spread of plague in rural areas is certainly scarcer, but it cannot be assumed that this position signifies the decline of plague epidemics as a rural phenomenon. More realistically, it reflects the more abundant documentation of urban centres and the lack of comparable rural records from before c.1650. As the following examples demonstrate, however, data exists which suggests that epidemics, whether of bubonic

plague or typhus, were experiences common to urban and rural populations throughout the period to 1650.

At the start of the period under review here, Edinburgh council records for March 28, 1498 reveal that the epidemic first emerged in neighbouring rural districts before spreading into the urban area.³¹ When this same outbreak struck Strathtay in early 1500, Dunkeld and its neighbourhood was apparently spared.³² Alexander Myln, writing in c.1516, described measures instituted by Bishop George Brown to prevent the pest spreading through an influx of people to his cathedral "city" for funerals. His principal move was to divide the sprawling rural parish of Little Dunkeld into two, creating a second parish centred on Caputh. Prior to this division, Brown had recognized the risks of transporting corpses across the parish and of large gatherings at funerals, and, in a move which reflected contemporary European efforts to restrict the size of popular assemblies or funeral parties which were regarded as venues for contagion or infection, had established a separate burial ground at Caputh. As a cleric, however, Myln saw the miraculous cures effected by a relic of St Columba—the deaths of 30 individuals who refused to drink water in which the relic had been dipped, and their burial in a common grave in Caputh's new cemetery³³—as more significant than Brown's practical measures. What is important to recognize in this case is that plague was affecting not just nucleated Lowland fermtoun communities, but was also apparently killing significant numbers in areas of dispersed rural settlement like sub-Highland Perthshire. Such data is more anecdotal than the harder statistics constructed from seventeenth-century records but should caution us against placing too much weight on the possible mitigating effects of a diffused population.³⁴

Later sixteenth-century episodes reveal similar patterns. Most records of the 1545-1546 epidemic in the western lowlands, for example, relate to measures taken

by Ayr's council to contain infection within the burgh, ³⁵ but there is again evidence to show that it was widespread throughout the rural hinterlands of the region: in October 1545, the inquest into the succession to the earldom of Montgomery met in Irvine because the plague was raging on the family's rural estates. ³⁶ On the east coast, the same epidemic struck urban and rural communities alike. The Granitar of St Andrews' accounts record an award of two bolls of meal on 8 November 1545, to "certain poor dwellers in the town of Portincraig (modern Broughty Ferry)" suspected of infection and with no means of sustaining themselves. Nowadays a suburb of Dundee, in the sixteenth century Portincraig was a small fishing community and ferry-crossing point on the Tay, 5 kilometres east of the burgh, but its trade with the burgesses and the passengers crossing the river may have provided routes by which plague arrived in its midst.

Records for the period 1600-1650 reveal that epidemics continued to be widespread in rural districts. The 1600-1601 outbreak, for example, affected the north of Scotland, being recorded as spreading from the Buchan coast of Aberdeenshire to Glenelg in Wester Ross and as far north as Orkney and Shetland. ³⁸ A general report states that no one died, as folk "run to the hills, the purer aire," but refers contradictorily to subsequent plague deaths, survivors of infection, and plague-burial pits. ³⁹ More detailed accounts from Elgin note the impact in the surrounding rural parishes, confirming that the outbreak's effects were felt generally throughout the district's dispersed settlements. ⁴⁰ In 1603-1606, Edinburgh's rural hinterland was again ravaged, possibly through the flight of already infected people from the burgh or brought out by country-folk entering the town to trade. ⁴¹ Incidental references to the same epidemic in Ayr's burgh records reveal that it first affected rural districts around Mauchline and Ochiltree before spreading to the burgh. ⁴² In the Merse, close

to the Anglo-Scottish border in Berwickshire, an outbreak in 1625 likewise was first noted in small agricultural communities. ⁴³ Again, in 1635 the rural parishes and communities which supplied Edinburgh with agricultural produce and whose inhabitants were required to trade through its markets suffered along with the burgh. ⁴⁴

The course of the 1644-1649 epidemic has been set out in general detail in Flinn. 45 During this episode, plague spread from the eastern Borders through Lothian and into Fife, where Sir Thomas Hope recorded its presence by late summer 1645, 46 then through Angus, the Mearns, and Aberdeenshire, transmitted within agricultural communities as well as the trading burghs. Record sources for the course of the epidemic again suggest a primarily urban affair, but there is also evidence for a more general spread along lines of road communication through rural districts. This spread can be linked often but not exclusively to military operations, but belief in transmission via "blocked fleas" (fleas filled with undigested blood carrying the plague bacillus, which they regurgitated into fresh hosts) carried, along with their rat hosts, in the baggage or clothing of the marching armies—traditionally seen as the main mechanism for infection—has apparently been disproven.⁴⁷ Military units cannot be linked to outbreaks at Westwood and Myreside in Methven parish immediately west of Perth, where it was reported in 1650 that the plague had arrived in September 1645, "wherby all the tenants young and old wer removed, non left alive except only 6 persones or therabout, which contagion continued among them ane wholl year": 48 the plague struck a full year after both Royalist and Covenanter armies had left the district. A 1647 discharge of payment for cleansing of tenanted farms around Finlarig in Perthshire suggests that even remote rural locations could be affected. 49 The following year Finlarig's owner, Sir Robert Campbell of Glenorchy, listed the depopulation of his lands in western Perthshire through pestilence and other

sicknesses among reasons for making an appeal for reduction of tax and governmental demands for military manpower.⁵⁰ Western mainland districts were also badly hit; Kintyre was apparently seriously depopulated into the 1650s through the combined impact of plague and rapine by Royalist and Covenanter armies.⁵¹ Argyll estate rentals for southern Kintyre in 1651 record 29 out of 55 tenanted holdings in the parishes of Kilcolmkill and Kilblaan as "waste," with a further thirteen partly waste. While some of this situation was perhaps due to military actions, it is also likely to reflect the mortality inflicted by disease. Forty years ago, Professor Smout drew attention to the probable inter-relationship between the spread of this epidemic and the campaigns of Montrose and his Covenanting opponents: the connection remains unexplored in detail.

Fragmentary though these references to the effects of plague in rural districts are, they do reveal that epidemics were far from being urban affairs only. The impact on country districts, however, appears to have been widely variable—with mortality rates significantly lower than in towns. As pointed out in Flinn (ed.), the apparently rapid recovery of urban populations to pre-epidemic levels would not have been possible had similar falls in the rural population reduced the economic push-factor by creating opportunities to take up vacant tenancies. ⁵² Lack of detailed analysis of surviving late sixteenth- and earlier seventeenth-century estate papers, especially rentals, to stand alongside the burgh records may have led to under-estimation of rural mortalities in some districts, and there are places where the post-epidemic population recovery was slower; but the general picture appears to hold true. It is the local and regional variations, however, that beg closer scrutiny in future research.

In the absence of such work, the most accessible accounts do relate to urban outbreaks, where burgh council records preserve data concerning the course of events,

measures to mitigate the impact, and the consequences for the community. The most extensive records concern Edinburgh, which experienced recurrent epidemics from the late 1490s until the late 1640s, although Aberdeen's response to the 1644-1649 visitation is the most detailed in its documentation. Edinburgh's experience was perhaps somewhat abnormal, as it has been observed that despite recurrent epidemics in the period 1550-1650, its population tripled, indicating the high level of economic attraction for migrant workers of Scotland's chief commercial centre. 53 This influx of economic migrants was part of a cycle, for the high mortality among inhabitants of a squalid and overcrowded burgh which saw frequent and intense epidemics, created regular openings for aspirants seeking to benefit from its economic pre-eminence. It was also the kingdom's largest urban community, its population by c.1500 probably being already twice that of its nearest rival, Dundee, and three times greater by c.1600. As Bolton has observed for medieval England, however, "notions of general prosperity or decline should be abandoned in favour of much more subtle pictures of varying fortunes and changes that were to benefit some and disadvantage others."54 While Edinburgh recovered and prospered, other burghs experienced contraction and decline.⁵⁵ In this context, Perth's experience of plague may have been more typical.

One of the most important of medieval Scotland's trading burghs, Perth experienced protracted economic decline in the late sixteenth century as successive epidemics and localized famines struck its population. The first significant epidemic occurred in 1537, but the most devastating lasted from September 1584 to August 1585, and resulted in the deaths of over 1400 people. Tames Melville observed that this epidemic struck all the principal Scottish burghs, and "raget till almeist vtter vastation in the Townes of Edinbruche, St Andros, St Jhonstoun (Perth) and Dondie, Suggesting that the local estimate of mortality may not be exaggerated.

There were lesser outbreaks in 1599 and 1606, but the next significant visitation from August 1608 to May 1609 caused another 500 deaths. ⁵⁹ This level of mortality was similar to that experienced at Stirling in the same outbreak, where 600 deaths were reported to the council in February 1607. ⁶⁰ These heavy losses at Perth were followed in autumn 1622 by another epidemic in which "no familie in all the citie wes frie of this visitatioun." On average, it appears that Perth lost between ten and twenty per cent of its adult population in each outbreak, followed by a further unknown number of fatalities in subsequent famines. Unlike Edinburgh, however, despite Melville's observation that in 1586 when the epidemic abated "all the Townes most desolat befor, repeipled," Perth did not experience a significant influx of new population, and the seventeenth century saw it fall into protracted economic and demographic decline. Refugees and economic migrants seeking to capitalize on employment opportunities created by the urban mortalities clearly reckoned that Edinburgh offered better prospects than Perth.

The sting was in the tail of Scotland's experience of epidemic disease, for the last major outbreak, in 1644-1649, was the most devastating since the 1430s.

Contemporary accounts and modern assessments suggest that around one-fifth of the urban population perished. This was the epidemic which saw the oft-quoted statement that in the two burghs at Aberdeen "the grass was in the streets, and not a smoake in both townes" due to the scale of the mortality and exodus of population. So severe was the outbreak that studies at the university were suspended and staff and students moved to Fraserburgh and Peterhead. Dundee, the second burgh of the kingdom, lost over 1,000 victims, some twenty per cent of its population. Brechin was even more seriously affected, losing over 60 per cent of its people. Among the most graphic accounts of this epidemic, however, is from South Leith, where the Kirk

Session register states that 2,736 individuals, about half of its inhabitants, had perished by February 1646.⁶⁷ Some sense of the helplessness felt by many individuals in the face of death on such a scale pervades the account of the session clerk, David Aldinstoune, who said that the parish had been "visit with the plague of pestilence in such sort that the nomber of the dead exceeds the nomber of the leiving; and amongst them it cannot be decernit quha are clean and quha are foulle."

Although the mortality levels experienced during these later visitations underline the ultimate futility of disease control measures before the modern development of medical science, close epidemiological observation in northern Italian cities in the century after 1350 had led to basic rules which were promulgated as public orders for the control of the infected and regulation of communication with them.⁶⁹ These regulations were aimed at prevention, containment, and survival rather than cure, for although observation had given knowledge of the manner in which the plague spread, medicine had made no real advance towards providing a physical remedy. 70 In contrast to England, where the first steps towards such public orders commenced only in 1518, Scotland's regular contacts with Italy, France, and the Low Countries may have seen its adoption of similar measures by the mid 1400s. 71 The earliest surviving Scottish legislation dates from October 1456, and gives guidelines on quarantine, limitations on movement of people, and the burning of infected properties. 72 It has been suggested that subsequent legislation was produced in nonparliamentary contexts as a consequence of weak central government, with promulgation and implementation of such orders being actions by burgh councils rather than parliament or royal council. 73 That, however, misrepresents the nature of late medieval government in Scotland, where power was delegated to regional magnates and communities. Rather than parliament producing fresh legislation, it

appears that the crown directed instructions by proclamation to the localities, which were then issued as enactments by local jurisdictions. Certainly, the remarkable uniformity of subject coverage and of language employed speaks of central direction rather than piecemeal local responses, although it is clear that local administrators embellished or diluted the regulations, and applied them with greater or less rigour as circumstances dictated.⁷⁴

In his analysis of control measures in Early Modern England, Paul Slack saw evidence—in sixteenth- and seventeenth-century enactments—for social prejudices, social control, or management of the social order. ⁷⁵ English plague-control acts appear to have been passed as part of a broader raft of legislation directed against those on society's margins—the poor, vagrants, and beggars—while conversely it was these same individuals who were worst provided for and harshly treated under the terms of the plague orders. This dimension of the official responses in England had been recognized by historians as long ago as 1927, ⁷⁶ but it had a new resonance for Britain in the 1980s. While Slack's interpretation may have been coloured by the contemporary politico-economic context of Thatcherism or "Reaganomics," where the socially marginalized were often the laboratory guinea-pigs for the testing of radical social policies, comparison with public attitudes and civic policies in later sixteenth- and seventeenth-century Italy suggests that the link between disease, poverty, and wider issues of social control may indeed have lain behind English legislation. Contemporary late Tudor and early Stuart English writers frequently made the link between the poor and epidemic disease. Brian Pullan's discussion of the attitudes of both rulers and the economically-secure members of the wider public in Milan or Venice has emphasized the fear of the poor and their filth felt by those groups.⁷⁷ This fear, especially when heightened during episodes of plague, resulted in

the promulgation of repressive legislation which specifically targeted beggars and those on the economic margins, effectively marking them as scapegoats upon whom to pin blame for the spread of disease.

In Scotland, various burghs passed acts which could be construed in a similar light, but the measures appear concerned principally with removal of non-native vagrants rather than strict control of the existing urban poor. The primary emphasis was directed more at control of a highly mobile population segment whose propensity to move in pursuit of optimum economic conditions undermined official efforts to establish quarantines and systems of testimonials guaranteeing the "cleanness" of travellers. What reference there is to expulsion of these social under-classes, as at Stirling in 1545, often makes an explicit distinction between "our awin puir" and the "strangears" and "otheris." Stirling's bailies expelled all beggars who were not well known in the town, and gave a token to the burgh's resident beggars so that they might be recognized and given support during the crisis, a policy employed also at Glasgow in October 1579.⁷⁹ It was itinerant beggars, especially those drawn to the commercial and political centres of the kingdom, mainly in places where the royal court was resident and where opportunities to beg or secure some form of employment were greatest, who were the concern of later sixteenth-century control orders. One of the first measures announced in Edinburgh in May 1585 was for all "vagaboundis, strang and idill beggaris, and disorderit people" to be required by strict application of the terms of the 1579 Act against idle and masterful beggars to return to the parishes of their birth or most regular residence. 80 Likewise, when James VI withdrew to Falkland as the epidemic took hold in Edinburgh, Privy Council ordered individuals with no evident means of support and no particular reason to be near to the court to disperse to their own homes within six hours, under pain of death. 81 This

approach to management of such marginal groups continued down to the epidemic of 1644-1649.⁸²

Such social control measures had emerged in Scottish plague legislation as early as 1502, but the earliest comprehensive plague-control regulations had been passed by the council in Edinburgh three years earlier. Their principal feature was prohibition of movement of people and goods, as had been introduced in Italy by the 1450s. This had the effect of simply shutting down the towns. To prevent the disease from entering Edinburgh its council halted all external trade and communication with towns believed to have been affected, suspending markets and open trade, closing down schools and ordering all children under the age of fifteen to be kept off the streets, along with all dogs and pigs. 83 The penalties for breaches were severe. Those who imported wool, skins, hides, or cloth—all commodities suspected of carrying the disease—and who had neither licence to do so from the council nor ability to prove that they had come from an unaffected area, faced the burning of their goods and personal banishment. English cloth in particular was singled out as a potential carrier, a recognition that the epidemic was spreading northwards from England rather than a manifestation of Anglophobia. Identification of fabrics as possible carriers of infection saw regular enactment of laws against trade in such commodities well into the seventeenth century.⁸⁴

One key aspect of the 1499 legislation in Edinburgh was a prohibition on communication with infected areas. Any Edinburgh resident harbouring refugees from infected places was threatened with execution, while visitors risked branding and banishment from the town. ⁸⁵ The exception to these draconian rules was where travellers could produce "sufficient testimonialls" that they had come from an uninfected place and that they and their goods were free of infection. ⁸⁶ This, too, was

a development from Italian mechanisms devised to allow traffic between towns during epidemics, which took the form of certified health passports issued by civic authorities. The Unlike Italy, however, where hospitals were established to receive the infected, in Scotland there was no such formal provision. Instead, the sick were expected to quarantine themselves at home, but the uninfected could still visit them, albeit in the company of an official. Such was the case in Glasgow in June 1504, where a notary and witnesses gathered at the door of the house where John Brakanrig, one of the vicars choral in the cathedral, lay dying of plague, to attest his will arrangements. When infection became more widespread, the sick were required to move to temporary shanty-towns on the burgh muirs, one of the earliest recorded instances of this precaution occurring at Aberdeen in 1514. By the early seventeenth century at Ayr, the ground used regularly for these temporary lodgings was known as "the foull mur."

Earlier *ad hoc* quarantine arrangements were formalized in an ordinance by the Regent Morton in December 1574 which acknowledged the problems of stemming the spread of plague caused by "seik and fowl personis" fleeing to the countryside. 92 Morton ordered that no one should conceal either their own infection or that of others in their household; that infected people should immediately enter voluntary quarantine, but in their homes rather than on the burgh muir. Individuals who concealed their illness or left their quarantines were to be executed, as were infected persons found attempting to pass into the countryside from an infected area. Such measures were enforced into the 1600s. When the plague reached Edinburgh in early winter 1603, for example, the house belonging to the first suspected case was sealed off for 30 days. Unfortunately, by the end of this period the disease had spread among its other inhabitants, who were then sent to the burgh muir. 93 At Stirling in

1645, the provost and bailies were authorized to compel victims to move to temporary lodges, a course followed also at Peebles, where infected families were removed to a location across the River Tweed from the burgh. 94 During the major outbreak in Edinburgh in the 1580s, materials for the lodges were paid for from the common funds of the community, and when the epidemic abated in March 1585-1586 one of the bailies was ordered to dismantle them and store the timber for future use rather than allow private individuals to appropriate it. 95 Presumably the timbers and the area occupied by the lodges were "cleansed" before the wood was recovered. Although this is not stated explicitly in the Edinburgh council records, at Ayr in 1545-1546 payment was made for cleansing the muir after the epidemic. 96

Similar isolation measures were employed in rural areas. On the Countess of Eglinton's lands near Paisley in 1645-1646, an infected family was housed in one of her barns, which the magistrates of the burgh later requested be "cleansed." Lingering fear of contagion from material and property associated with plague victims usually meant that the infected were housed in flimsy shelters rather than permanent structures. Temporary lodges, for example, were provided in 1606 by the portioners of Over Gogar west of Edinburgh on the common muir of Gogar "for the ease and relief of certane thair tennentis infectit with the pest." The muir, however, was shared with nearby Ratho, whose inhabitants objected to the presence of the lodges and plague-victims on what was a common resource. This resulted in an attack on the encampment and destruction of the shelters. Fear, both of infection and of impairment of a valuable economic right, outweighed charity and compassion.

Fear can be seen behind the increasing severity with which disease-control legislation was enforced in the sixteenth century. In 1505 the quarantine rule was reinforced with the stipulation that the infected could only leave their houses with the

permission of the plague officer for their district, and it was also required that all suspected cases be reported within 24 hours. ⁹⁹ Concealment of infection was a capital crime, the most commonly cited incidence being in Edinburgh in August 1530 where a tailor concealed his wife's death and attended mass while her corpse lay at home. For what was deemed a criminal act which threatened the safety of the whole burgh, he was condemned to be hanged before his own door. The rope, however, broke and, seeing this as a sign of Divine will, the council commuted his sentence to banishment without remission. ¹⁰⁰ It was not the only case of execution for wilful endangerment of the safety of the community, two women being drowned at Edinburgh in October 1530 for actions which could have led to the spread of plague. ¹⁰¹ More common, however, was branding and banishment for life, with the proviso that for the better-off punishment should include forfeiture of their goods to the burgh's common fund. ¹⁰²

Similar legislation was enacted with each fresh outbreak and in common forms prescribed by Privy Council. The small northern burgh of Banff's act of 1549 was almost identical in form to statutes first ordained in Edinburgh in 1498-1499. Another 40 years later, Elgin re-issued earlier acts, while at Stirling in 1601 similar legislation was employed but with additional clauses inserted identifying infected areas with which there was to be no communication rather than simply imposing a blanket ban on movement. Such systems required a high degree of openness and trust between communities who might normally be commercial and political rivals, but also required a sophisticated administrative regime to cope with the issuing, inspection, and verification of documents. Possession of a testimonial purportedly from a trustworthy authority, however, was not always deemed sufficient where a neighbouring burgh was suspected of concealing the fact of infection. In 1601,

gate-keepers not to accept testimonials presented by travellers from Glasgow until such time as their agent reported back. ¹⁰⁵ In general, however, it appears that most councils took their responsibilities seriously, and as late as its 1636 epidemic Peebles enacted that no burgess should attempt to leave without securing a testimonial, a measure designed to ensure that the infected in the town remained contained. ¹⁰⁶ Indeed, a system of testimonials remained the only effective measure for regulating movement of people as late as 1644-1649.

In most cases, councils relied on self-regulation and the establishment of watches to guard against strangers entering the burghs via the obvious routes and their own townspeople trading with infected places or fleeing surreptitiously. ¹⁰⁷ In some places, more radical isolation measures were adopted, as in October 1603 when Sir Walter Dundas granted the bailies of South Queensferry permission to build up the east, south, and west ports of the burgh, which were on his property, effectively sealing the seaport off from landward communication. ¹⁰⁸ But such measures were not always successful, and as early as the 1540s instances are recorded of burgesses fleeing infection by breaking out through walls at the rear of their properties. ¹⁰⁹ Such refugees were identified specifically as bringers of infection. At Peebles in 1645 and Aberdeen in 1647, refugees from Edinburgh and Brechin respectively were identified as plague-carriers. ¹¹⁰

A possible correlation has been observed between the expansion of Scottish overseas trade through its east coast ports and the greater frequency of occurrences of epidemic disease. Certainly, the perception of the seventeenth-century Perth chronicler was that the outbreak of plague in Edinburgh in November 1624 was the result of the arrival of an infected individual from Gdansk, while in December 1625 a Privy Council order identified a ship from the Baltic as carrying plague. ¹¹¹ Popular

belief in northern Scotland identified the source of the 1600-1601 epidemic as a "Dutch Cask with onyons and hops cast ashoare" in Buchan, and that the 1645-1648 epidemic arose from "a packman carrying a box chest of flax from Stonehive (Stonehaven) harbour that came from Holland; this being opened and loused (released), the pest spread." There is abundant evidence of heightened awareness in both Privy Council and burgh councils of the risk of infection from crews, passengers, and goods carried on trading vessels. Strict arrangements were established in the Forth ports for quarantining and cleansing suspect vessels, with Inchcolm designated as a holding place from the 1570s onwards. In September 1571 an infected vessel was moved there from Burntisland for unladening prior to cleansing. ¹¹³ In August 1593 the Privy Council received intelligence that a vessel from Prestonpans had returned to the Forth from England with infected passengers and goods aboard. The ship was ordered to Inchcolm until it could be determined "gif thay be foule or cleane of this disease," while instructions were sent to the burghs around the estuary and other local officials for watches to ensure that neither personnel nor goods were unloaded from the vessel during the quarantine. 114

Quarantine was not the only defence, and from the 1490s burghs were employing "clengeris." These men were charged with enforcement of burgh statutes concerning plague; to burn, cleanse, or fumigate property where infection had occurred; to keep streets and closes free of middens; and to bury the dead. They were required to hold themselves apart from the rest of the community for the duration of outbreaks. In 1645 at Stirling the cleansers were given a house located between the town and the *haugh* to the north of it where the infected were lodged in temporary shelters. By the later sixteenth century a class of professional cleansers had emerged whose services were sought by smaller burghs which did not otherwise

retain a permanent resident specialist. Most were based in the larger east coast burghs where epidemics were more common. In 1600, for example, Elgin's councillors sent south "to bring Bell the cleinger out of Dundey," at the same time passing an act to allow the levying of a tax on the burgh to pay Bell's substantial fees. 117 During the 1605-1607 outbreak in Stirling, the council retained the services of cleansers from Edinburgh, Leith, and Linlithgow, and from Linlithgow and Bo'ness in 1645. 118

Peebles during its 1605 visitation retained a team from Edinburgh. 119 In 1647 Sir Robert Campbell of Glenorchy employed John Taylor, a Perth surgeon, and three other Perth men, to cleanse infected parts of his property. 120 Ships, too, were subject to a rigorous cleansing regime, as an example from December 1625 reveals. After quarantine at Leith, the infected vessel went for cleansing to Inverkeithing, where the town lay inland from the anchorage and was thus deemed safe from infection. 121

There, the ship was bored and sunk in shallow water, with the saline being regarded as a sure disinfectant. At low tide the bore-holes were filled and the vessel re-floated.

Townsfolk, particularly the infected, were also responsible for the cleansing of their own possessions. There was, however, a fear that uncontrolled washing of property would lead to contamination of the water-supply. Accordingly, at Edinburgh in 1499 and 1500, the council enacted that no potentially contaminated goods were to be washed in wells or the lochs that bounded the town, but only in "rynnand" water, where any infection washed off the materials would be carried away. Similar measures were re-enacted as late as December 1647 at Aberdeen, where "all the inhabitantis ... who had any wncleane, foull or suspect guds, geir, insicht, and plenishing, within thair houssis," were instructed to "daylie be themselues and thair servants wash, cleange, purge, expose, and put the same furth to the frost air, and vse all ordinar meanes for that effect." At Ayr during the 1606 epidemic, however, it

was the town that provided a "kettle for cleaning the pest clothes on the foull mur" and furnished coal to heat "the cleaning cauldron on the muir." ¹²⁴ In all these cases, the emphasis was on the purging of contamination from fabrics, principally clothing and bed-linen, underscoring the popular contemporary belief that cloth was a common carrier of infection.

The effectiveness of orders halting traffic between the major burghs should not be understated. In September 1584 the English agent Sir John Forster advised his masters in London that all shipping across the Firth of Forth had been stopped to prevent the spread of plague through regions bounding the estuary. 125 The following May and June, Sir John Selby's flow of intelligence from the Scottish court, which had moved to Fife, dried up, "none being suffred to come thence into these partes." ¹²⁶ Nevertheless, as correspondence between individuals in plague-stricken communities and unaffected areas demonstrates, stringent containment was not always enforced. In c.1624, for example, the Laird of Fordell could write from Edinburgh to a Fife neighbour, commenting that the house beside his chamber was infected. 127 Similarly, measures to prevent flight of people from the burghs into their rural hinterlands were regularly flouted, as demonstrated in December 1624 when the lawyer David Primrose wrote that there was little news as Edinburgh was very quiet on account of outbreaks of pestilence and, accordingly, he had sent his family landward and would soon join them himself. 128 When the burgh's elite flouted official legislation, it is no surprise to find that other members of the community followed suit.

Were there any wider economic ramifications of the measures to control epidemic disease? Study of commodity prices over the long term from c.1550 to c.1650 has shown general stability in the seventeenth century after the rapid inflation of the sixteenth-century "price revolution" which followed successive debasements of

the Scottish currency. ¹²⁹ Epidemics do not appear to have made any long-lasting contribution to this inflationary movement, but travel bans affected trade at all levels, resulting in some loss of revenue in the short term and short-lived price surges for bulk food commodities like wheat. To what extent such local shortages and price rises were exacerbated by restrictions on movement of goods during outbreaks or as a result of increased speculative forestalling, however, are issues which have not yet been researched. These are areas where detailed examination of burgh, barony and regality court books, and Privy Council records may yield results.

Some contemporaries believed that measures employed as early as 1500 to stem contagion had a damaging impact on local economies, but their views are highly subjective. For example, on 25 June 1500, described as in the time of plague, Adam Multrar, a burgess of Irvine, compeared at its market cross and formally declared that, since the council was taking measures injurious to his livelihood as a travelling merchant, he was quitting the town. 130 His actions were in response to prohibition of carriage of certain commodities and restrictions on the free movement of people, issues of vital importance to "a poor traveller," as he described himself. ¹³¹ Multrar, however, appears to have been using the extraordinary conditions created by the temporary restrictions as leverage against personal rivals within the burgh, but it is clear that for men who made their living through carriage of goods to landward, or who were financially committed to trade in certain proscribed commodities, inability to undertake their business freely certainly spelled economic hardship. Their financial distress, however short-term, also threatened the general financial stability of the burgh, for it was such men who in normal times contributed most to meeting extraordinary expenditure. As some burgh records reveal, official responses to epidemics made significant inroads into comparatively slender common funds and

any reduction in the ability to meet such additional outgoings through the local stenting of the merchant community had long-lasting consequences. 132

A brief survey of the records of the Convention of the Royal Burghs of Scotland shows many burghs seeking reductions in their financial obligations to the crown in this period, citing poverty and hardship occasioned by decline in trade or the illegal mercantile activities of unlicensed communities, opportunist noblemen, or neighbouring predatory rival burghs. The regularity and formulaic nature of such claims raises doubts over their veracity, but the linking of claims for financial assistance to losses occasioned by epidemics appears to have been more genuine. In 1593 St Andrews made an appeal for financial assistance, citing the "miserable estait and povertie quhairunto the said burgh is presentlie redactit, pairtlie be occasioun of the lait pestilence and plague" and partly as a consequence of recent high and regular taxation. 133 In 1598 Perth was awarded over £200 Scots from the Lords of Council and members of the College of Justice as relief for its extraordinary outgoings during the recent epidemic. 134 Again, analysis of burgh records to determine the long term trends in local economic health are necessary to identify whether such claims were opportunistic acts aimed at shoring up the financial state of already declining communities or genuine indications of local hardship produced by the abnormal trading conditions imposed by epidemic control measures. 135 Stents imposed in the immediately post-epidemic period and levels of burgh indebtedness may provide a clearer picture of a burgh's economic health than the *fiars* upon which most recent analysis has been based.

Studies of European plague control mechanisms have emphasized the financial implications for the communities affected. Costs were not simply in terms of expenditure on cleansers and the testimonial system but also included provision of

temporary lodges for the infected and provisions for the sustenance of the infected or quarantined who could not otherwise obtain them. In the Scottish burghs, these burdens fell on meagre financial reserves derived annually from common rights and properties, or were met through increased taxation. But with in some cases up to and over 50 per cent of the adult population incapable of working to support itself or generating the means to contribute to such taxation, the erosion of the common funds plunged some communities into prolonged financial difficulties where facilities vital for the commercial life of the burgh, like piers and bridges, could not be maintained, or support offered to the economically vulnerable members of society. This problem was compounded by lack of cash with which to buy what foodstuffs were available, as movement of specie was arrested along with movement of people. The exhaustion of locally-held common funds meant that not even burgh authorities could purchase victuals for distribution to the needy. A decline in payment of alms and provision of poor relief added to the tally of mortality. Every means of curtailing expenses was resorted to, including retrospective charges for burial being levied on the estates of the dead. 137 Such mechanisms, however, could not secure full cost recovery.

This survey began by commenting on the limited amount of detailed research undertaken in Scotland in the last 30 years into the consequences of epidemic disease for the country's society and economy. In the interim, a vast amount of data has been gathered and published which has permitted assessment of general movements in population, wages, and commodity prices, especially for foodstuffs. The picture presented is one where epidemics had no appreciable impact on rural populations and brought only temporary checks to urban growth, a view supported by economic data which indicates inflation driven partly by increased demand from rising population and partly by currency devaluation. There is no clear correlation between epidemics

and famine episodes, and interruptions to trade caused by disease control measures had apparently no lasting impact. For the seventeenth century in particular the message is one of remarkable economic stability despite recurrent shocks. The groundwork has been laid in this pioneering data-gathering and analysis, but research outside Scotland is looking beyond such overviews to achieve more nuanced interpretations. In England there has been a reaction against the "one size fits all" view of the socio-economic impact of epidemic disease and recognition instead of variations in change experienced not just locality to locality but also within and between social groups. While the far greater volume and range of record material surviving in England permits closer observation of these subtle variations than in Scotland, there are materials which might enable research here to move from the general to particular views achieved in England.

One such area which demands more consideration is the question of rural population levels and the impact on them of the major epidemics recorded in the later sixteenth and mid seventeenth centuries. There are insufficient surviving parish records before the later seventeenth century to permit meaningful quantitative assessment of this to be made, but estate archives contain material which allows some often more qualitative evaluation. Few estate rentals and related records exist in long runs from before the late 1500s, but significant series exist which extend from the 1580s onwards. Few, however, have been analyzed in detail over long spans.

Importantly, some of the most significant rental series cover regions where other forms of record are lacking for the pre-1650 period, in particular the Central and North-East Highlands, north-eastern Lowlands and Southern Uplands, most notably in the Breadalbane and Gordon archives. Such records contain quantitative data on economic trends within dispersed rural communities and, where supported by baron

or regality court books, also expose episodes of marked changes in tenant profiles or periods of pronounced social dislocation. The burghs have generally been better studied, principally on account of the greater survival of record material for large urban centres. Aberdeen, Edinburgh, and, to a lesser extent, Glasgow and Stirling have been targets of past research. The focus, however, must shift to smaller provincial centres where significant amounts of unpublished council records survive. Kirkcudbright and Wigtown, for example, have sixteenth- and seventeenth-century council minute books from which only small extracts have been published, while in addition to council and court records 91 document-boxes of unsorted and uncatalogued material relating to Cromarty, Dornoch, and Tain await analysis in Edinburgh. ¹³⁹ For the burghs generally, more analysis is needed of the qualitative evidence to be obtained from burgh court records. In particular, frequency of enactments against forestalling and regrating of basic commodities, and prosecutions and convictions for those offences, permit observation of episodes of socio-economic dislocation and crisis. We can probably never retrieve the hard quantitative data desired by population historians, but the material is there to allow a more subtly textured record to be constructed. It is only through such local studies, viewed firmly in the context of the wider national scene, that the more nuanced picture of social, economic, and cultural responses to epidemic disease in later medieval and early modern Scotland can be achieved.

Notes

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¹ J. Comrie, *A History of Scottish Medicine*, 2 vols. (London: Baillière, Tindall and Cox, 1932); C. F. Mullett, "Plague policy in Scotland, 16th-17th centuries," *Osiris* 9 (1950), pp. 435-56; J. F. D. Shrewsbury, *A History of the Bubonic Plague in the British Isles* (Cambridge: Cambridge University Press, 1971); M. Flinn (ed.), *Scottish*

Population History from the 17th Century to the 1930s (Cambridge: Cambridge University Press, 1977).

² A-B. Fitch, "Assumptions about plague in late medieval Scotland," *Scotia* 11 (1987), pp. 30-40, opposed Shrewsbury's views and argued that the fourteenth- and fifteenth-century epidemics were primarily of pneumonic plague. She also challenged the entirely urban emphasis given by most previous scholars. T.C. Smout in Flinn (ed.), pp. 117, 123, 135, postulated that the incidences of epidemic in winter months in the early seventeenth-century episodes were perhaps typhus rather than bubonic plague—a view which he developed subsequently in "Coping with plague in sixteenth and seventeenth century Scotland," *Scotia* 2:1 (1978), pp. 19-33.

³ W.F. Skene, ed. and trans., *John of Fordun's Chronicle of the Scottish Nation*, 2 vols. (Edinburgh, 1872), vol. 2, p. 358.

⁴ P. Zeigler, *The Black Death* (3rd edition, Stroud: Sutton, 2003), p. 169. For discussion of the fourteenth- and fifteenth-century position, see, for example, R. Nicholson, *Scotland: the Later Middle Ages* (Edinburgh, 1974), p.149; A. Grant, *Independence and Nationhood: Scotland 1306-1469* (London, 1984), p.74; E. Gemmill and N. Mayhew, *Changing Values in Medieval Scotland: A Study of Prices, Money and Weights and Measures* (Cambridge: Cambridge University Press, 1995), p. 370.

⁵ Grant, p. 75.

⁶ The most recent academic publication in English to offer a pan-European history of the Great Mortality is O. Benedictow, *The Black Death 1346-1353: A Complete History* (Woodbridge: Boydell and Brewer, 2004). Discussion of Scotland's experience stretches to two sentences (p.145) on the mainland based on Zeigler's 1969 overview, and a single sentence annal reference to the epidemic's effects in the Hebrides and Northern Isles (p.154). It is unfortunate that it went to press too soon after the publication of S. K. Cohn jnr, *The Black Death Transformed: Disease and Culture in Early Renaissance Europe* (London: Arnold, 2002 and 2003), to take on board the implications of Professor Cohn's assault on the traditional identification of the Black Death with bubonic plague.

⁷ G. Gregory Smith, ed., *The Poems of Robert Henryson*, 3 vols. (Edinburgh and London: Scottish Text Society, 1908), vol. 3, pp. 162-68.

⁸ R. Horrox, ed., *The Black Death* (Manchester: Manchester University Press, 1994), pp. 124-25.

⁹ R. Watson, *The Literature of Scotland* (London: MacMillan, 1984), pp. 35-38.

¹⁰ Anon., ed., *The Diary of Mr James Melvill*. 1556-1601 (Edinburgh: Bannatyne Club, 1829), p. 148.

¹¹ Discussed in Smout, "Coping with plague," pp.21-22.

¹² W. Tod Ritchie, ed., 1928-34, *The Bannatyne Manuscript, Written in Tyme of Pest* 1568, 4 vols. (Edinburgh and London: Scottish Text Society 1928-34).

¹³ Tod Ritchie, vol. 1, p. cxxix.

¹⁴ Tod Ritchie, vol. 4, p. 332.

¹⁵ For example, W. Cramond, ed., *The Records of Elgin 1234-1800*, 2 vols. (Aberdeen: Spalding Club, 1903), vol. 2, p. 85.

¹⁶ Tod Ritchie, vol. 1, p. xxxiii; Comrie, vol. 1, pp. 372-75.

¹⁷ Comrie, vol. 1, p. 147; Anon., ed., *Liber S Marie de Calchou*, 2 vols. (Edinburgh: Bannatyne Club, 1846), vol. 2, pp. 448-51.

¹⁸ Comrie, vol. 1, p. 221; Shrewsbury, p. 431; Anon., ed., *Extracts from the Council Register of the Burgh of Aberdeen 1643-1747* (Edinburgh: Scottish Burgh Record Society, 1872), pp. 81-83.

¹⁹ P. Slack, *The Impact of Plague in Tudor and Stuart England* (Oxford: Oxford University Press, 1985), pp. 218-19, 238-39.

²⁰ Comrie, vol.1, pp. 380-81.

²¹ The only recent monograph to examine the impact of the Great Mortality is K. Jillings, *Scotland's Black Death. The Foule Death of the English* (Stroud: Tempus Publishing Ltd., 2003). Karen Jillings has also produced the first substantial analysis of the experience of an urban community in the late sixteenth and early seventeenth centuries: K. Jillings, "Preventing plague in post-Reformation Aberdeen," *International Review of Scottish Studies* 30 (2005), pp.108-134.

²² A. J. S. Gibson and T. C. Smout, *Prices, Food and Wages in Scotland 1550-1780* (Cambridge: Cambridge University Press, 1995); Gemmill and Mayhew, p. 370.

²³ See, for example, J. Wormald, *Court, Kirk and Community: Scotland 1470-1625* (London: Edward Arnold, 1981); R. Mitchison, *Lordship to Patronage: Scotland 1603-1745* (London: Edward Arnold, 1983); M. Lynch, *Scotland: a New History* (London: Pimlico, 1992); I. D. Whyte, *Scotland Before the Industrial Revolution: an Economic and Social History c.1050-c.1750* (London: Longman, 1995). It is particularly striking that Mitchison, one of the principal social and economic historians of the later twentieth century in Scotland, makes no mention at all of plague in her survey of seventeenth-century Scotland. Most of these accounts draw heavily on Mullett, and on T. C. Smout, *A History of the Scottish People 1560-1830* (London, 1969).

²⁴ J. Bolton, "'The world upside down': Plague as an agent of economic and social change," in M. Ormrod and P. Lindley (eds), *The Black Death in England* (Donington: ShaunTyas, 1996), pp. 17-78.

²⁵ Whyte, pp. 112, 122; Wormald, p. 44.

²⁶ Fitch, pp.33-5.

²⁷ Mullett, p. 438; W. Myln, *Vitae Dunkeldensis Ecclesiae Episcoporum* (Edinburgh: Bannatyne Club, 1831), pp. 42-43.

²⁸ R. Mitchison, *A History of Scotland* (London: Methuen, 1970), p. 56. [See also 2nd edition, 1982].

²⁹ Smout, *History of the Scottish People*, pp. 151-3; Smout, "Coping with plague." He was one of the first to suggest that the later sixteenth- and seventeenth-century epidemics may have been a disease other than bubonic plague. Typhus is most commonly cited as an alternative.

³⁰ For discussion of problems of documentary survival, see Flinn (ed.), Part 2.1 and Parts 3.1-3.4.

³¹ Anon., ed., *Extracts from the Records of the Burgh of Edinburgh. AD 1403-1528* (Edinburgh: Scottish Burgh Record Society, 1869), p. 72.

³² Myln, p. 40.

³³ Myln, p. 43.

- ³⁵ G. S. Pryde, ed., *Ayr Burgh Accounts*, *1534-1624* (Edinburgh: Scottish History Society, 1937), pp. 98, 100, 103, 104, 106, 109.
- ³⁶ National Archives of Scotland [hereafter NAS] GD3/2/4/5, Papers of the Montgomery Family, Earls of Eglinton. Commission dated 3/10/1545.
- ³⁷ R. K. Hannay, *Rentale Sancti Andree* (Edinburgh: Scottish History Society, 1913), p. 221.
- ³⁸ W. Mackay, ed., *Chronicles of the Frasers* (Edinburgh: Scottish History Society, 1905), p. 236.
- ³⁹ Mackay (ed.), p. 236. The report illustrates the widespread opinion that the disease was miasmic in origin, *i.e.* that it was spread by "corruption of the air" and foul vapours.
- ⁴⁰ Cramond, ed., *Records of Elgin*, vol. 2, p. 86.
- ⁴¹ See, for example, D. Masson, ed., *The Register of the Privy Council of Scotland*, vol. 7, *1604-1607* (Edinburgh: HMSO, 1885), p. 250.
- ⁴² Pryde (ed.), p. 219, where payment of 9/- was made to two boys who brought news of the infection from those small communities.
- ⁴³ D. Masson, ed., *The Register of the Privy Council of Scotland*, 2nd series vol. 1, *1625-1627* (Edinburgh: HMSO, 1899), pp. 133-34.
- ⁴⁴ NAS GD112/39/56/26, Papers of the Campbell Family, Earls of Breadlbane (Breadalbane Muniments), letter from Archibald Campbell of Glencarradale to the Laird of Glenorchy, dated 30/9/1635, reporting suspicions of plague in Nether Cramond.

⁴⁶ R. Paul, ed., "Twenty-four letters of Sir Thomas Hope, Bart., of Craighall, Lord Advocate of Scotland 1626-1646. 1627-1646," in *Miscellany of the Scottish History Society*, vol. 1, (Edinburgh: Scottish History Society, 1893), pp. 129-30.

³⁴ Flinn (ed.), p. 127.

⁴⁵ Flinn (ed.), pp.133-49.

⁴⁷ Cohn, pp. 28-29, 57 and n.2. For such a tradition in Scottish historiography see Flinn (ed.), pp.6-7, 137.

⁴⁸ NAS GD190/3/149 (2), Papers of the Smythe Family of Methven, Perthshire 1300-1935, declaration of Mr John Murray, dated 23 January 1650.

⁴⁹ NAS GD112/1/561, discharge by John Taylor, chirurgian, and three other burgesses of Perth, to Sir Robert Campbell of Glenorchy and his tenants in Breadalbane, for cleansing of several "rooms," dated 18/12/1647.

⁵⁰ NAS GD112/39/93/7, complaint from Sir Robert Campbell of Glenorchy, to the Laird of Inchmartin, praeses to the Committee of Estates at Perth, dated 22/5/1648.

Smout, *History of the Scottish People*, p. 153. McKerral refers to local tradition which dated the epidemic to 1666, clearly referring to the 1665-1666 London outbreak. He, however, points to evidence submitted during the trial of the Marquis of Argyll in 1661 (p.77) which links the arrival of the plague with Leslie's march from the epidemic ravaged district around Dunblane into Argyll, and its first appearance in the neighbourhood of the castle at Dunaverty, where Leslie's army besieged the Royalist garrison.

⁵² Flinn (ed.), pp.147-49, 183-84.

⁵³ M. Lynch, *Edinburgh and the Reformation* (Edinburgh, 1981), pp. 9-14; Flinn (ed.), pp. 120-1, 147-9.

⁵⁴ Bolton, p. 77.

⁵⁵ See, for example, R. D. Oram, C. A. McKean, P. Martin, A. Cathcart and T. Neighbour, *Fraserburgh: the Archaeological Implications of Development* (Edinburgh: Council for British Archaeology, forthcoming 2008).

⁵⁶ Flinn (ed.), pp.123, 142, 147; Lynch, *Scotland: a New History*, p. 175.

⁵⁷ Anon., ed., *The Chronicle of Perth; A Register of the Remarkable Occurrences Chiefly Connected with that City from the Year 1210 to 1668* (Edinburgh: Maitland Club, 1831), pp. 2, 4.

⁵⁸ Diary of James Melville, p. 148.

⁶⁷ D. H. Robertson, "Notes of the 'Visitation of the Pestilence' from the parish records of South Leith, AD 1645, in connexion with the excavation of large masses of human bone during drainage operations at Wellington Place, Leith Links, AD 1861-2," *Proceedings of the Society of Antiquaries of Scotland* 4 (1860-2), pp. 392-5 at p. 394.

⁵⁹ *Chronicle of Perth*, pp. 7, 11, 12.

⁶⁰ Anon. ed.,. Extracts from the Records of the Royal Burgh of Stirling AD 1519-1666 (Glasgow: Society of Friends of the Rock, 1888), p. 115.

⁶¹ Chronicle of Perth, pp. 23-4.

⁶² *Diary of James Melville*, p. 162.

⁶³ Flinn (ed.), p. 147.

⁶⁴ Mackay (ed.), p. 350.

⁶⁵ Lynch, Scotland: a New History, p. 174.

^{66.}Flinn (ed.), p.144.

⁶⁸ Robertson, p. 393.

⁶⁹ W. Naphy and A. Spicer, *The Black Death: A History of Plagues 1345-1730* (Stroud: Tempus Publishing Ltd., 2001), pp. 75-80

⁷⁰ Cohn, pp. 224-238.

⁷¹ P. Slack, "The response to plague in early modern England: public policies and their consequences," in J. Walter and R. Schofield, eds., *Famine, disease and the social order* (Cambridge: Cambridge University Press, 1989), p. 168; H. M. Dingwall, *A History of Scottish Medicine* (Edinburgh: Edinburgh University Press, 2003), p. 55.

⁷² T. Thomson, ed., *The Acts of the Parliaments of Scotland* (London, 1814), vol. 2, p. 46.

⁷³ Naphy and Spicer, p. 98.

⁷⁴ Jillings, "Preventing plague."

⁷⁵ Slack, *Impact of Plague*, pp. 17-21, 192-96, 303-10.

⁷⁶ F. P. Wilson, *The Plague in Shakespeare's London* (Oxford: Oxford University Press, 1927) [reprinted Oxford1963]. See pp. 22-31, 81-82, 172. Wilson was influenced heavily by the work of the British Imperial Medical Service in India in the 1890s and the wider Victorian linkage of poverty and disease. He was struck in particular by the incidence of plague in the congested and unsanitary districts of late sixteenth-century London, which are described in the same terms as occurred in Owen Chadwick's reports on the sanitary conditions of the labouring classes.

⁷⁷ B. Pullan, "Plague and perceptions of the poor in early modern Italy," in T. Ranger and P. Slack eds., *Epidemics and Ideas. Essays on the Historical Perception of Pestilence* (Cambridge: Cambridge University Press, 1992), especially pp. 109-111.

⁷⁸ E.g., *Stirling Records*, p. 40.

⁷⁹ Anon., ed., *Extracts from the Records of the Burgh of Glasgow*, *AD 1573-1642* (Glasgow: Glasgow Corporation [Re-print of the Scottish Burgh Record Society volume, 1875], 1914), pp. 27-30.

⁸⁰ D. Masson, ed., *The Register of the Privy Council of Scotland*, vol. 3, *1578-85* (Edinburgh: HMSO, 1880), pp. 746-8.

⁸¹ Masson (ed.), vol. 3, pp. 752-53.

⁸² Anon., ed., *Dumbarton Burgh Records 1627-1746* (Dumbarton, 1860), p. 48; *Aberdeen Records*, p. 83.

⁸³ Anon., ed., *Extracts from the Records of the Burgh of Edinburgh. AD 1403-1528* (Edinburgh: Scottish Burgh Record Society, 1869), pp. 72, 74-76.

⁸⁴ *Dumbarton Records*, p. 48. See also above note 47.

⁸⁵ Edinburgh Records 1403-1528, p. 74.

⁸⁶ Edinburgh Records 1403-1528, p. 72.

⁸⁷ Naphy and Spicer, p. 76.

⁸⁸ Shrewsbury, p. 164.

⁸⁹ J. Bain and C. Rogers, eds., *Liber Protocollorum M Cuthberti Simonis AD 1499-1513 and Rental Book of the Diocese of Glasgow*, 2 vols. (London: Grampian Club, 1875), vol. 2, pp. 68-69.

90 Smout, "Coping with plague," pp. 25-26.

⁹¹ Pryde (ed.), pp. 98, 100, 232.

⁹² J.H. Burton, ed., *The Register of the Privy Council of Scotland*, vol. 2, *1569-1578* (Edinburgh: HMSO, 1878), p. 415.

⁹³ NAS GD220/6/2007 (8).

⁹⁴ Stirling Council Archive Services B66/25/317, warrant by Committee of Estates, dated 20/9/1645; Anon., ed., *Charters and Documents Relating to the Burgh of Peebles, with Extracts from the Records of the Burgh. AD 1165-1710* (Edinburgh: Scottish Burgh Records Society, 1872), p. 380.

⁹⁵ Anon., ed., *Extracts from the Records of the Burgh of Edinburgh. AD 1573-1589* (Edinburgh: Scottish Burgh Record Society, 1882), p. 452.

⁹⁶ Pryde (ed.), p. 100.

⁹⁷ NAS GD3/5/383, letter of Sir William Ross of Muriston to Margaret, countess of Eglinton, dated 10/3/1646.

⁹⁸ D. Masson, ed., *The Register of the Privy Council of Scotland*, vol. 8, *1604-1607* (Edinburgh: HMSO, 1885), p. 250.

⁹⁹ Edinburgh Records 1403-1528, p. 105.

¹⁰⁰ Anon., ed., *Extracts from the Records of the Burgh of Edinburgh. AD 1528-1557* (Edinburgh: Scottish Burgh Record Society, 1871), pp. 35-7.

¹⁰¹ Edinburgh Records 1528-1557, pp. 42, 43.

 $^{^{102}\} Edinburgh\ Records\ 1528\text{-}1557,\ pp.\ 19,\ 30,\ 35\text{-}7,$

¹⁰³ W. Cramond, ed., *The Annals of Banff*, 2 vols. (Aberdeen: Spalding Club, 1891), vol. 1, p. 25.

¹⁰⁴ Records of Elgin, vol.1, pp. 176, 177; Stirling Records, p. 100.

¹⁰⁵ Stirling Records, p. 100.

¹⁰⁶ Peebles Records, pp. 373-74.

For example, *Stirling Records*, pp. 100, 110, 113; *Annals of Banff*, vol. 1, p. 25;
 Records of Elgin, vol. 1, pp. 176, 177; vol. 2, pp. 84-85

- ¹¹¹ Chronicle of Perth, p. 26; D. Masson, ed., The Register of the Privy Council of Scotland, 2nd series vol. 1, 1625-1627 (Edinburgh, HMSO, 1899), p. 215.
- ¹¹² Chronicle of the Frasers, pp. 236, 350. [is this the Mackay ed.?] YES, Mackay ed.
- ¹¹³ C. T. McInnes, ed., *Accounts of the Treasurer of Scotland*, vol. 12, *1566-1574*, (Edinburgh: HMSO, 1970), p. 282.

¹⁰⁸ NAS GD75/407, Papers of the Dundas Family of Dundas, West Lothian 1437-1830, instrument dated 18 October 1603.

¹⁰⁹ Stirling Records, p. 41.

¹¹⁰ Peebles Records, p. 379; Aberdeen Records, pp. 81-3.

¹¹⁴ *RPC*, vol. 5, p. 94.

¹¹⁵ Edinburgh Records 1403-1528, pp. 77-78; Smout, "Coping with plague," 26-27.

¹¹⁶ Stirling Records, p. 187.

¹¹⁷ Records of Elgin, vol. 2, p. 85.

¹¹⁸ Stirling Records, pp. 117-18, 187.

¹¹⁹ Peebles Records, p. 357.

¹²⁰ NAS GD112/1/561.

¹²¹ *RPC*, 2nd series vol. 1, p. 215.

¹²² Edinburgh Records 1403-1528, pp. 76-77.

¹²³ Aberdeen Records, p. 85.

¹²⁴ Pryde, p. 232.

¹²⁵ J. Bain, ed., *Calendar of Letters and Papers Relating to the Affairs of the Borders of England and Scotland*, 2 vols. (Edinburgh: HMSO, 1894), no.258. For Privy Council acts prohibiting cross-Forth traffic, see D. Masson, ed., vol. 3, pp. 690, 696-97, 713-14.

¹²⁶ Bain, Calendar of Border Papers, nos 318, 324.

¹²⁷ NAS GD172/1620, letter to the laird of Leuchat, dated c.1620.

¹²⁸ NAS GD112/39/34/23, Papers of the Campbell Family, Earls of Breadalbane (Breadalbane Muniments), letter from Mr David Primrose to Sir Duncan Campbell of Glenorchy, dated 15/10/1604.

¹²⁹ Gibson and Smout, pp. 5-7.

¹³⁰ Bain and Rogers, eds., vol. 2, pp. 6-7.

Multrar appears to have been one of the more prominent of Irvine's merchants, records of his activities suggesting that he was no mere "poor traveller."

The Ayr burgh accounts for 1545-6, for example, record that £111 8s 2d from a total of £211 9s 6d spent in the year related to moneys disbursed by William Nesbit, "kepar of the town and furnissar of the seik folkis upoun the mure in tyme of the pest." A further £64 1s was spent in connection with plague control and relief in 1546-7, representing over 25 per cent of that year's expenditure. See Pryde, pp. 98, 100.

¹³³ *RPC*, vol. 5, 56.

¹³⁴ NAS GD79/6/39, Records of King James VI Hospital, Perth, 1322-20th Century, dated 30 December 1598.

¹³⁵ There has only been limited work on this area. See, for example, D. Stevenson, "The burghs and the Scottish revolution," in M. Lynch, ed., *The Early Modern Town in Scotland* (London, 1989), pp. 167-91, who makes some acute observations about the impact of the 1644-1649 epidemic on the Scottish burghs. In the same collection, Verschuur simply comments that plague in Perth in the first half of the sixteenth century "probably made worse" the burgh's long-term economic decline (M. Verschuur, "Merchants and craftsmen in sixteenth-century Perth," in Lynch, ed., *Early Modern Town*, pp. 36-54 at 37). Professor Lynch himself poses an interesting question concerning the impact of the 1644-1649 epidemic on Edinburgh in terms of its potential consequences for the structure of investment and credit, and its effect on the business activities of the burgh's merchant elite, but neither he nor any of the contributors to the collection offer an answer (Lynch, ed., *Early Modern Town*, p. 18). Lynch, *Scotland: a New History*, made some general observations on the economic issue and highlighted the lack of detailed research into it. Gibson and Smout, *Prices*,

Food and Wages, does much to fill the void, but detailed local and regional studies are needed to be set alongside its national observations.

¹³⁶ Pullan, pp. 119-20; Naphy and Spicer, pp. 79, 85-90, 94-97.

¹³⁷ Stirling Records, p. 192.

¹³⁸ Bolton, p. 77.

 $^{^{139}}$ NAS SC34/28 and SC34/28/1-91.