

Framework and form: burgage plots, street lines and domestic architecture in early urban Scotland

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ABSTRACT: This article explores some of the ways in which the closely regulated layouts and property boundaries within Scottish medieval towns may have influenced the form and character of domestic buildings during the late medieval and early modern periods. Drawing together strands of scattered evidence from archaeology, morphology, history and architecture, it re-examines how plot boundaries, main thoroughfares and subsidiary access passages acted as site constraints in relation to the design and configuration of individual structures or groups of buildings, focusing in particular on building frontages and so-called 'encroachments' such as booths, stairs, galleries and arcades.

Introduction

The typical medieval Scottish town was set within a framework that, with or without formal defences, consisted principally of land or burgage plot boundaries and of street or other public access lines. Here, as elsewhere, such frameworks are known to have contributed to overall patterns of urban development and planning over the centuries, but the possibility that such frameworks might also have had a bearing on the location, design and character of individual buildings or groups of buildings is an issue which, at least in Scotland, has tended to remain under-explored. In an attempt to close what appears to be a cross-disciplinary gap, this article thus examines certain key practices and features of layout which may have directly or indirectly influenced some of the forms of urban domestic architecture in late medieval and early modern Scotland.

Successive generations of buildings are known to have been configured within or across land plots, so key practices for examination here

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have included the setting out and maintenance (or otherwise) of plot boundaries. An appreciation of the physical context has also demanded further scrutiny of bodies of relatively dispersed evidence for the ways in which buildings impinged upon their neighbours or fronted upon main thoroughfares and subsidiary access passages.¹ This article thus provides an opportunity to bring together and to re-examine what is known or knowable about site constraints in relation to both the forelands and backlands of Scottish urban properties, and in particular about the nature and construction of building frontages and so-called 'encroachments' such as booths, stairs, galleries and arcades.

As well as taking account of documentary, archaeological and architectural evidence relating to changes in building frontages and frontage lines, the approach adopted here also makes use of a quantitative methodology developed in recent years to characterize plot patterns in eight towns in Scotland and the north of England. The results of these studies are available in three papers concerning respectively: Edinburgh, Canongate, St Andrews and Perth; Edinburgh and Elgin; and Alnwick, Berwick-upon-Tweed and Cockermouth.²

Cartography made an important contribution to these papers. Despite the considerable physical pressures on built urban environments in modern times, many Scottish burghs of medieval origin still exhibit much of their basic early layouts; even more of their detail, including features lost in modern times, may be studied in the large-scale Ordnance Survey Town Plans which were first produced in the 1850s and which, for Scottish towns, are accessible in digital format online (Figure 1).³ The maps were originally printed at scales of 1:500, 1:528 or 1:1,056 and have been digitized so that one pixel roughly represents six inches on the ground. Cross-checks against surviving features have shown that the maps may be used to determine dimensions to within about one foot or ± 0.3 metres, a range of accuracy that is perfectly acceptable for exercises of this kind.

Establishment and maintenance of plot boundaries

The earliest of the Scottish burghs, including Edinburgh, were formally founded and chartered just before or in the decades after 1124,⁴ generations and in some cases centuries later than their English counterparts, from which they borrowed and adapted many established customs and

¹ M. Wood, 'The neighbourhood book', *The Book of the Old Edinburgh Club*, 23 (1940), 82–100.

² R. Tait, 'Burgage plot patterns and dimensions in four Scottish burghs', *Proceedings of the Society of Antiquaries of Scotland*, 138 (2008), 223–38; *idem*, 'Urban morphology and the medieval development in Edinburgh and Elgin', *Proceedings of the Society of Antiquaries of Scotland*, 140 (2010), 129–44; and *idem*, 'Burgage patterns in Alnwick, Berwick-upon-Tweed and Cockermouth', *Archaeologia Aeliana*, 5th ser., 40 (2011), 183–97.

³ National Library of Scotland, map collections, available online at http://maps.nls.uk.

⁴ A.A.M. Duncan (ed.), *The Burghs of Scotland: A Critical List by George Smith Pryde* (London and Glasgow, 1965); R. Oram, *David I the King who Made Scotland* (Stroud, 2004), 81–2.



Figure 1: (Colour online) Lawnmarket and upper High Street, Edinburgh; a specimen map from the Ordnance Survey Town Plans, Edinburgh series, sheet 35, first edition, 1849–53. Reproduced by permission of the Trustees of the National Library of Scotland.

practices.⁵ The 'ancient' laws of the burghs of Scotland were subsequently developed to provide a clear legal framework for their orderly functioning. The first record of the laws dates from c.1270 at the earliest, but they are thought to be based on the mid-twelfth-century customs of Newcastle upon Tyne. One such law held that

the provost in the presence of and in consultation with the community of the burgh shall choose liners (lineatores), at least four wise and discrete men, such that no complaint is made to the King's Chamberlain for dereliction of lining ... The said liners shall ensure that they faithfully line in length and breadth, both foreland and backland, according to the original lawful divisions within the burgh.⁶

One later document describes the duties of the liners 'who define the boundaries of the tofts (plots) and ensure there is no encroachment' while another records the 'strobing' (staking) of a plot 3 rods in length and 24 feet (7.32 metres) in width. On and after burgh foundation, the Scottish burgess liners remained competent to undertake the continuing process of setting out the plots, but there is evidence that both in Scotland and in England

⁵ D.M. Palliser (ed.), *The Cambridge Urban History of Britain*, vol. I: 600–1540 (Cambridge, 2000), 3–270 passim.

⁶ C. Innes (ed.), *The Ancient Laws of the Burghs of Scotland*, vol. I: 1124–1424 (Scottish Burgh Record Society, Edinburgh, 1868), 51 (no. 105), cited by H.L. MacQueen and W.J. Windram, 'Laws and courts in the burghs', in M. Lynch, M. Spearman and G. Stell (eds.), *The Scottish Medieval Town* (Edinburgh, 1988), 208–27.

experienced persons were brought in at an early stage to administer the start-up.⁷

The Ordnance Survey Town Plans indicate that plots are of varying widths in each of the eight Scottish and northern English towns referred to above, a phenomenon first reported by M.R.G. Conzen over 50 years ago.⁸ These plots are now better understood, forming consistent patterns of quarter variations of a unit width, the unit width varying from location to location in each town. In Cockermouth, plot width appears to have been a critical determinant in the assessment of annual rents due to the burgh superior, being set there in 1270 at 4*d* per 'complete plot', which was clearly the same as a unit plot.⁹

Plots of three-quarters of a unit, one and a quarter, and up to two and a half units are encountered in all eight towns that formed the subject of study. Comparison of the cartographic and early documentary evidence suggests that plot boundaries as initially set out in Scotland remained unmodified in later times, although many of the broader plots were on occasion carefully divided into two narrower plots which also conformed to the quarter plot scheme. The effectiveness both of the initial layout procedures and of the tight control exercised over the plots and their boundaries down the centuries is impressive. In a sample of 49 Edinburgh plots subjected to analysis, approximately two-thirds were found to be within ± 0.5 metres of the precise quarter width.

The burghs expanded at different rates as new plots and facilities were required. Edinburgh, for example, received its charter in about 1124 and a toft below the castle at the upper (west) end of the High Street is recorded in a document dated between 1143 and 1147.¹⁰ Here, plot layout proceeded eastwards to the site of the original church, and then extended in what appears to have been a further phase indicated by a change of unit width. By 1400, plots had been set out over the full length of the main street with single dwellings located on plot forelands, the area closest to the street. By 1490, there were also dwellings on about one third of the backlands. A century later, the plots were full, and new land was being appropriated for further expansion.¹¹

The liners' responsibility for maintaining plot boundaries 'in length and breadth' included maintenance of the integrity of property boundaries

¹¹ Tait, 'Edinburgh and Elgin', 136.

⁷ W.C. Dickinson (ed.), Early Records of the Burgh of Aberdeen 1317, 1398–1407 (Scottish History Society, Edinburgh, 1957), xli n. 3; J.D. Marwick (ed.), Extracts from the Records of the Burgh of Glasgow, vol. I: 1573–1642 (Scottish Burgh Records Society, Edinburgh, 1876 and 1914), 131 (14 Mar. 1588/89); E. Ewan, Townlife in Fourteenth-Century Scotland (Edinburgh, 1990), 40; D. Friedman, Florentine New Towns: Urban Design in the Late Middle Ages (New York, Cambridge, MA, and London, 1988), 149, 154.

⁸ M.R.G. Conzen, *Alnwick, Northumberland: A Study in Town-Plan Analysis* (The Institute of British Geographers, Publication no. 27, London, 1960), 33.

⁹ Tait, 'Alnwick, Berwick-upon-Tweed and Cockermouth', 193-4.

¹⁰ A.C. Lawrie, *Early Scottish Charters Prior to A.D. 1153* (Glasgow, 1905), 116–19, no. 153; see also Tait, 'Edinburgh and Elgin', 135.

at the street line. The penalty for intrusion into the king's street was reemphasized in the findings of a court case of 14 November 1497, which involved purpresture, that is, the illegal occupation of anything pertaining to the king, in this case, the king's street. The findings stated that 'If any person builds houses or tenements upon the common street within any of the king's burghs the same aught and should pertain to the king's highness ... and may be given and disponed by him to anyone.'¹² Control of the street line was firmly enforced, but special royal assent provided some flexibility. An early example of such assent in favour of a corporate body was David II's charter of 3 December 1365, granting to the burgesses of Edinburgh a piece of land next to the old tolbooth in order to build a new tolbooth.¹³ Assents in favour of individual burgesses in Perth, Edinburgh and Linlithgow are referred to below.

Building frontages and street lines

Archaeological evidence has shown that, initially, in the twelfth and thirteenth centuries, many foreland buildings were set back, typically by some four to six metres, from modern-day street lines. Examples have been found in Aberdeen, Arbroath, Dumbarton, Inverness, Montrose and Perth, often with the front areas surfaced with hard standing, occupied by light structures, such as booths, and displaying evidence of manufacturing activities.¹⁴

Especially in view of the care with which street encroachments were controlled, it seems likely that owners had not casually occupied the flanks of streets that had originally been significantly broader, but, rather, by their own choice, had deliberately set back their main foreland buildings from the street line in order to create working or commercial spaces on their own plot frontages.¹⁵ An early example of such a booth created on an owner's plot is found in Perth, where between 1153 and 1156 one Baldwin was granted a small plot of land, with the right to sell the plot and the dwelling if he so wished. A decade later, between 1165 and 1169, the property then also contained a booth.¹⁶

- ¹⁴ R. Coleman, 'The archaeology of burgage plots in Scottish medieval towns: a review', Proceedings of the Society of Antiquaries of Scotland, 134 (2004), 281–323; D.R. Perry, H. Murray, T.B. James and the late N.Q. Bogdan, Perth High Street Archaeological Excavations 1975–77, Fascicule 1 (Perth, 2010).
- ¹⁵ A topic discussed by both Coleman, 'The archaeology of burgage plots', and Perry, Murray, James and the late Bogdan, *Perth High Street*.
- ¹⁶ G.W.S. Barrow (ed.), Regesta Regum Scottorum, vol. I (Edinburgh, 1960), 186 (no. 121); G.W.S. Barrow and W.W. Scott (eds.), Regesta Regum Scottorum, vol. II (Edinburgh, 1971), 136–7 (no. 28). Booths, when they were permitted on the public street, attracted rent. In Elgin, for example, many booths, privately owned and rented out for profit, are known to have been

¹² P.G.B. McNeill (ed.), *The Practicks of Sir James Balfour of Pittendreich*, vol. I (The Stair Society, Glasgow, 1963), 442–3.

¹³ See below, nn. 18–20; J.B. Paul and J.M. Thomson (eds.), *Registrum Magni Sigilli Regum Scotorum*, vol. I (1306–1424), 64 (no. 207, 3 Dec. 1365); B. Webster (ed.), *Regesta Regum Scottorum*, vol. VI (Edinburgh, 1982), 381 (no. 350).

There may indeed be a correlation between the incidence of foreland dwellings set back from street lines with areas where market activities were concentrated. The converse certainly appears to hold good. At the west end of Main Street, Cockermouth, Cumbria, for example, well away from the main market area, the excavated frontages of two timber-framed foreland buildings of thirteenth- or fourteenth-century date were found to be located within a fraction of a metre of the present street line, and a similar pattern, involving three fourteenth-century buildings, has been observed in Castle Street, Inverness.¹⁷

Owners of 'set-back' properties would, in theory, always have been in a position to occupy the frontage space more permanently and to make alternative arrangements for their manufacturing and sales activities. Indeed, a high proportion in the larger towns eventually did so. At Gladstone's Land, Lawnmarket, Edinburgh, for example, the ground-floor frontage was brought forward 23 feet (7 metres) to its present position on the early street line following Thomas Gladstone's purchase of the building in 1617.¹⁸ Elsewhere, however, as in Linlithgow, there are clear indications that frontages, generally of no more than three storeys, continued to be brought forward until comparatively recently, and a small number still stand set back from the street line (Figure 2).¹⁹

On making moves to a street line, owners were subjected to close control, but in royal burghs it was possible to obtain royal grants to make small-scale intrusions into, under and even above the king's street. For example, in Perth in 1363 John de Petscottie was allowed to build a four-feet wide forestair on the street outside his dwelling in order to provide direct access to the upper floor ('una cum uno gradu lapideo de latitudine quatuor pedum construendo in via nostra communi in fronte dicti tenementi sui').²⁰ In the course of time, such applications became more frequent, some applicants seeking permission to install vaulted cellars, occasionally with an access stair, under the street in front of the building.²¹ Even

located permanently in the central area of the market place, one owner holding a total of 14.

- ¹⁷ R.H. Leech and R.A. Gregory, Cockermouth, Cumbria: Archaeological Investigation of Three Burgage Plots at Main Street (Cumbria Archaeological Research Reports, no. 3, 2012);
 J. Wordsworth, 'Excavations of the settlement at 13–21 Castle Street, Inverness, 1979', Proceedings of the Society of Antiquaries of Scotland, 112 (1982), 322–91.
- ¹⁸ Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), *Inventory of Edinburgh* (Edinburgh, 1951), 74–8 (no. 14), and other references cited at http://canmore.rcahms.gov.uk/en/site/52528/details/
 <sup>481+483+485+487+and+489+lawnmarket+gladstone+s+land/.
 </sup>
- ¹⁹ The authors are grateful to Laurie Alexander for sharing his unpublished research into Linlithgow properties and buildings as recorded in the earliest surviving town council minute books (National Archives of Scotland, B48/91–9, 1620–1739). Of the 250 recorded cases that he has found to have been the subject of council 'visits' in the period 1640–1728, 45 concerned advancing to (but evidently not beyond) the street line, and of these only one involved royal approval.

²¹ M. Livingstone (ed.), Registrum Secreti Sigilli Regum Scotorum, vol. I (1488–1529), 238 (no. 1627, 2 Mar. 1507/08); D.H. Fleming (ed.), Registrum Secreti Sigilli Regum Scotorum, vol. II

²⁰ Registrum Magni Sigilli Regum Scotorum, vol. I (1306–1424), 42–3 (no. 146, 8 Jul. 1363).



Figure 2: 63 High Street, Linlithgow, West Lothian; view of set-back street frontage from north-east, 2014.

turnpike (spiral or newel) stairs serving upper floors were allowed. By 1483, Robert Bell had already been granted royal permission to construct a stone stairway to his property in Blackfriars Wynd, Edinburgh, for 'entry to the said land just as [access] now extends along the side of the house'. Due to the sloping nature of the site alongside the wynd (a narrow minor public street or lane), the entry to the main floor at the forefront was up a few steps, and the document makes clear that the building had a gallery of unspecified character which extended across the entire frontage ('cum *le*

^{(1529–42), 659 (}no. 4353, 22 Dec. 1541). In Linlithgow, a case recorded in the town council minutes under 24 Feb. 1643, noted by Laurie Alexander, refers to a warrant granted by King James VI/I in the period 1603–25 for extending a tenement upon 'his hie way'; in 1665–66, royal assent was again sought and granted for the extension of a forework 'as farr upon the street as to be equall with the fronts of 'adjacent properties on each side', J.H. Burton and H.M. Paton (eds.), *The Register of the Privy Council of Scotland*, 3rd ser. (Edinburgh, 1908–33), vol. II, Jan. 1665 – Mar. 1669, 155, cited in E.P. Dennison and R. Coleman, *Historic Linlithgow* (Edinburgh, 2000), 33–4.

galry per totam spacium dicte principalis terre in longitudine extendente') and which would be reached by the new foreland turnpike.²²

Storeyed foreland and backland buildings

Documentary evidence from Perth that is relatively early by Scottish standards indicates the presence of solars, private rooms on upper floors of dwellings. One is recorded as having been used as a refuge during serious flooding in 1210, while in 1363 a Perth burgess was granted permission to erect a forestair to his dwelling to provide access to 'solaria', that is more than one solar, on an upper floor or floors.²³ Further direct or indirect evidence of multi-storeyed and probably timber-constructed dwellings is scant, patchy and inconclusive until the late fifteenth century when surviving notarial protocol records of urban property ownership begin to become available, some of which provide helpful descriptions of the properties involved.

For example, two related early sixteenth-century protocols concern a foreland property in Edinburgh, parts of which Archibald Preston and his spouse sold to Andrew Uddart in 1504: they 'resigned their dwellings, under and above, containing a hall, chamber and kitchen now occupied by Andrew Uddart, and another hall and chamber, with two cellars and a stable ... and the rest of the said tenement'.²⁴ Shortly afterwards, in 1509, the same pair 'resigned their booths in the fore tenement occupied by John Falcone, Andrew Uddart, John Schaw and Simon Young, and the hall, kitchen and chamber, with the stair, inhabited by themselves ... on the north side of the street'.²⁵ The word-picture created by this pair of documents is of a large building on at least three levels. On each of the top two floors there were separate dwellings, each consisting of a hall, a kitchen and a chamber. At ground or basement level, there were four booths, two cellars and a stable.

Roughly contemporary with these is a record of a transfer of ownership within the Hopper family in 1508, a transaction which related to both foreland and backland properties in Edinburgh: 'the foreland containing a hall, chamber, kitchen and lofts, with three cellars, ... and his land immediately behind ... containing a hall, chamber, kitchen with lofts and the stair towards the north, called the gallery, with a middle hall and three cellars'.²⁶ Here, the foreland building appears to have been on two floors

²² D. Laing (ed.), *Registrum Cartarum Ecclesie Sancti Egidii de Edinburgh* (Bannatyne Club, Edinburgh, 1859), 143–4 (no. 96).

²³ Perry, Murray, James and the late Bogdan, Perth High Street, 111; D.J. Corner, A.B. Scott, W.W. Scott and D.E.R. Watt (eds.), Scotichronicon of Walter Bower, vol. IV (Aberdeen, 1994), 457; Registrum Magni Sigilli Regum Scotorum, vol. I, 42–3 (no. 146, 8 Jul. 1363).

²⁴ M. Wood (ed.), Protocol Book of John Foular 1503–13, vol. I (Scottish Record Society, Edinburgh, 1940), 15 (no. 78, 8 May 1504).

²⁵ *Ibid.*, vol. CVI (no. 371, 26 Jul. 1509).

²⁶ Ibid., vol. LXXIX (no. 435, 31 Mar. 1508).

above a basement, while the backland building also had two floors above a cellared basement, together with lofts above, reached from an external stair. The fact that building was referred to as 'the gallery' strongly suggests the presence of a galleried upper floor.

Being on upper floors well above ground, such projecting timber galleries were permitted but their construction appears to have been subject to regulation. In Edinburgh, an Act of Common Council, evidently designed to encourage the use of timber from the Burgh Muir that had been granted to the burgh in 1508, allowed owners to support the upper storeys using timber pillars located 7 feet (2.13 metres) into the street, maintaining through pedestrian access at street level.²⁷ Canongate Tolbooth (Figure 3) appears to provide a subsequent masonry-built example of the application of this act. In 1477, the tolbooth occupied the forelands of two tenements on the north side of the Canongate, but by 1571 expenses were being allocated to modify the building and to extend it westward over the neighbouring plot, replacing a dwelling house there.²⁸ The frontage of the new section was advanced forward relative to the earlier one by a distance of 7 feet 3 inches (2.2 metres), and public access was maintained by the creation of a pend (a covered, tunnel-like passage, usually arched), which was almost as broad as the new building frontage, leading through into the newly created Tolbooth Wynd.²⁹ Evidence for similar arrangements in other Scottish burghs currently remains unknown to the authors.

Frontages and galleries of timber and stone

According to the most reliable estimates, at the Reformation in 1560 the population of central Edinburgh within its walls was about 12,500, while 'greater' Edinburgh, including Canongate, Leith and adjacent suburban baronies, was probably in the range of 15,000–18,000. By 1635, the central Edinburgh figure had doubled to around 25,000, and by the 1690s best demographic calculations indicate a range of 27,000–30,000 within an overall conurbation of some 40,000–47,000.³⁰ Given the pressures of such population growth on limited land space, it is not unreasonable to assume that plot width constraints and relatively fixed property boundaries would

 ²⁷ Registrum Magni Sigilli Regum Scotorum, vol. II (1424–1513), 697 (no. 3265, 6 Oct. 1508);
 W.M. Bryce, 'The Burgh Muir of Edinburgh from the records', *The Book of the Old Edinburgh Club*, 10 (1918), 2–263 at 67–70; and W. Maitland, A History of Edinburgh (Edinburgh, 1753), 183. See also J.C. Irons, *Manual of the Law and Practice of the Dean of Guild Court* (Edinburgh, 1895), 325–7, and W.M. Morison, *Dictionary of Decisions of the Court of Session*, vol. XVI (Edinburgh, 1811), 13185 (*Forbes v. Ronaldson*, 3 Mar. 1783).
 ²⁸ Registrum Magni Sigilli Regum Scotorum, vol. II (1424–1513), 271 (no. 1329, 3 Nov. 1477);

 ²⁸ Registrum Magni Sigilli Regum Scotorum, vol. II (1424–1513), 271 (no. 1329, 3 Nov. 1477); 'Expenses for the common good for 1574', in *Extracts from the Records of the Burgh of Canongate* 1551–88 (Miscellany of the Maitland Club, Edinburgh, 1840), 283–359 at 332–7.
 ²⁹ RCAHMS, *Tolbooths and Town-Houses: Civic Architecture in Scotland to* 1833 (Edinburgh,

²⁹ RCAHMS, Tolbooths and Town-Houses: Civic Architecture in Scotland to 1833 (Edinburgh, 1996), 51–3.

³⁰ M. Lynch, Edinburgh and the Reformation (Edinburgh, 1981), 3, 9–14; H.M. Dingwall, Late Seventeenth-Century Edinburgh: A Demographic Study (Aldershot, 1994), 13–21.



Figure 3: Canongate Tolbooth; engraving from James Grant, *Cassell's Old and New Edinburgh* (London, 3 vol. edn, n.d. [*c*. 1880]), vol. II, 1.

have contributed significantly to the general tendency towards building tall, long recognized as a distinctive characteristic of Scottish urban architecture, especially, but by no means only, in Edinburgh. Such factors are also likely to have had an indirect bearing on the creation of the internal subdivisions that accompanied multiple occupation and ownership, one of the most obvious outward visible manifestations of such flatting being the staircase, often in the form of an external forestair rising, with royal or council consent, from the street or contained within an extruded turret at the front, side or rear.³¹

Multi-storeyed dwellings reached ever-increasing heights throughout the sixteenth and seventeenth centuries, the majority of them remaining either timber-framed or timber-fronted, often incorporating masonry ground-floor walls supporting cantilevered balconies above.³² Such timber-fronted buildings might otherwise be almost completely encased in a masonry structural shell, while only rarely among recorded standing examples were both the front and rear walls completely or substantially of timber construction (Figure 4).³³ Recent dendrochronological evidence suggests that, on occasion, where extra floors and replacement roofs were built onto such complete timber structural assemblages, they were added on a platform-by-platform, ad hoc basis, presumably increasing the loads on the lowest beams and posts (Figure 5).³⁴

In Scotland as elsewhere, no evidence has been found to show that jettying of upper floors on street frontages was specifically regulated. By the fifteenth century, a projection of between 1 foot 9 inches and 2 feet (52–60 centimetres) at each level was the norm among English timber-framed town houses.³⁵ Such slight surviving or recorded evidence suggests that cantilevered projections were equally modest in Scotland; the corbelled and double jettied frontage of Huntly House, Canongate, for example,

- ³¹ See, e.g., G. Stell, 'Scottish burgh houses 1560–1707', in A.T. Simpson and S. Stevenson (eds.), *Town Houses and Structures in Medieval Scotland: A Seminar* (Glasgow, 1980), 1–31 at 12–15; P. Robinson, 'Tenements: a pre-industrial urban tradition', *Review of Scottish Culture* (*ROSC*), 1 (1984), 52–64; M. Glendinning, 'Tenements and flats', in G. Stell, J. Shaw and S. Storrier (eds.), *Scotland's Buildings* (East Linton, 2003), 108–26; and J.G. Harrison, 'Houses in early modern Stirling: some documentary evidence', *ROSC*, 25 (2013), 42–59.
- ³² Stell, 'Scottish burgh houses 1560–1707', 16–18; *idem*, 'Timber in Scottish historic buildings', in J. Kleboe (ed.), *Timber and the Built Environment Conference* (Historic Scotland, Edinburgh, 2004), 19–26 at 22–4; A. Crone and D. Sproat, 'Revealing the history behind the façade: a timber-framed building at No. 302 Lawnmarket, Edinburgh', *Architectural Heritage*, 22 (2011), 19–36, at 25–6; E. Henderson, *Annals of Dunfermline 1069–1878* (Glasgow, 1879), 282–90; E.P. Dennison and S. Stronach, *Historic Dunfermline* (Dunfermline, 2007), 54.
- ³³ J.M.D. Peddie, 'Description of an old timber building in the Lawnmarket, Edinburgh', Proceedings of the Society of Antiquaries of Scotland, 18 (1883–84), 465–76; Stell, 'Scottish burgh houses', 18.
- ³⁴ G. Stell, 'Urban buildings', in Lynch, Spearman and Stell (eds.), *The Scottish Medieval Town*, 60–80 at 72–3; Crone and Sproat, 'Revealing the history', 25–6; and for engraved examples in Gosford's Close and Lawnmarket, Edinburgh, see D. Wilson, *Memorials of Edinburgh in the Olden Time*, 2nd edn (Edinburgh and London, 1891), vol. I, 232, and vol. II, 156.
- ³⁵ R. Harris, Discovering Timber-Framed Buildings (Princes Risborough, 2004 edn), 56. For a summary of jettying, see also A. Quiney, Town Houses of Medieval Britain (New Haven and London, 2003), 118–19 and references cited.



Figure 4: Old Houses, Castlehill, Edinburgh; engraving from Daniel Wilson, *Memorials of Edinburgh in the Olden Time* (Edinburgh and London, 2nd edn in 2 vols., 1891), vol. I, frontispiece.

appears to be only slightly beyond the English standard with a total cumulative overhang beyond the inserted front wall of about 2 feet 6 inches (76 centimetres) (Figures 6A and 6B).³⁶

By the late sixteenth and early seventeenth centuries, stone-built colonnades of fashionable Italian and French Renaissance styles, which in turn harked back to the arcaded galleries of medieval market squares of continental Europe, were beginning to find their way into Scottish burghs, one of the first Scottish arcades of this type having been introduced into Crichton Castle by the 5th earl of Bothwell after 1581.³⁷ The style became widespread across urban Scotland with known examples occurring in Edinburgh, Leith, Linlithgow, Dunfermline, St Andrews,

³⁶ Peddie, 'Description', 465–76 at 469, Fig. 4; RCAHMS, *Inventory of Edinburgh*, 168–73 (no. 104) at 169, Fig. 333.

³⁷ A. Rowan, 'Crichton Castle, Midlothian', Country Life, 149 (7 Jan. 1971), 15–19; C. McWilliam, Lothian except Edinburgh (The Buildings of Scotland, Harmondsworth, 1978), 146–7; M. Glendinning, R. Macinnes and A. MacKechnie, A History of Scottish Architecture (Edinburgh, 1996), 62.

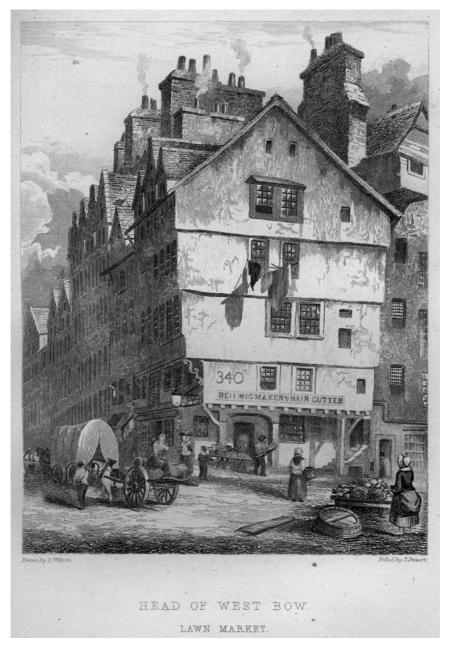


Figure 5: Bowhead, West Bow and Lawnmarket, Edinburgh; engraving from Daniel Wilson, *Memorials of Edinburgh in the Olden Time* (Edinburgh and London, 2nd edn in 2 vols., 1891), vol. II, opposite 156.



Figure 6A: Huntly House, 142–6 Canongate; engraving from Bruce J. Home, *Old Houses in Edinburgh* (Edinburgh and London, folio edition in 17 parts, 1907), part 5.

Glasgow, Dumbarton and Elgin, but to what extent such stone arcades were direct replacements of timber-pillared and trabeated, that is, postand-lintel, galleries is difficult to say (Figure 7).³⁸ Certainly, by continuing to limit the ground-floor frontage to the street line common access was still being maintained behind the colonnades as part of the public street. Archaeological excavations within the Tron Kirk in Edinburgh, for example, have revealed a section of a seventeenth-century road surface bordered by the base of an arcade column, perfectly aligned with the present street frontage.³⁹

Such developments reflect growing contemporary preferences for urban architectural harmony and uniformity, then being taken to considerable lengths in the Paris of Henri IV (1553–1610) and long presaged

³⁸ Stell, 'Scottish burgh houses', 15 and n. 63; and see also E.P. Dennison and R. Coleman, *Historic Dumbarton* (Edinburgh, 1999), 28–9; Henderson, *Annals of Dunfermline*, 54; Dennison and Stronach, *Historic Dunfermline*, 27; H.B. Mackintosh, *Elgin Past and Present* (Elgin, 1914), 9; C. McKean, *The District of Moray: An Illustrated Architectural Guide* (Edinburgh, 1987), 22–4; J. Tweed, *The History of Glasgow* (Glasgow, 1872), 670–1; C. McKean, D. Walker and F. Walker, *Central Glasgow: An Illustrated Architectural Guide* (Edinburgh, 1993), 24.

³⁹ M. Cook, M. Cross and J. A. Lawson, 'Marlin's Wynd: new archaeological and documentary research on post-medieval settlement below the Tron Kirk, Edinburgh', *Scottish Archaeological Internet Report(SAIR)*, 55 (2013), 12.



Figure 6B: Huntly House, 142–6 Canongate; oblique view of jettied frontage from east, 2014.



Figure 7: (Colour online) 101 High Street, Elgin, Moray; engraving of 1680 building with arcaded stone frontage (demolished in the late nineteenth century) from Robert W. Billings, *The Baronial and Ecclesiastical Antiquities of Scotland* (1845–52 edn republished in 4 vols., Edinburgh, 1901), vol. II.

by fourteenth-century Florentine new towns such as San Giovanni.⁴⁰ Meanwhile, on the other side of the stylistic coin, timber galleries were beginning to go out of favour. As early as 1598 Fynes Moryson, visiting Edinburgh from England, noted that 'the houses are built of unpolished stone ... which ... in the broad street would make a faire show but that the outsides of them are faced with wooden galleries built upon the second storey of the houses ...'. Shortly afterwards, in 1636, Sir William Brereton, also from England, expressed similar sentiments: 'if the houses which are very high and substantially built of stone (some five, some six storeys high) were not lined to the outside and faced with boards, it were the most stately and graceful street I ever saw in my life'.⁴¹

⁴⁰ H. Ballon, *The Paris of Henri IV: Architecture and Urbanism* (New York, Cambridge, MA, and London, 1991); Friedman, *Florentine New Towns*.

⁴¹ P.H. Brown (ed.), Early Travellers in Scotland (Edinburgh, 1891), 83, 139–40.

In Scotland as elsewhere, however, the greatest impetus to convert to all- or even part-stone construction came from the fire hazard that closely juxtaposed timber buildings presented, with serious fires in, for example, Dunfermline in 1624 (and 1809), Edinburgh in 1674 (and 1824) and Glasgow in 1632 and 1677.⁴² Responding to the 1674 fire, Edinburgh Town Council ruled that that all ruinous or burnt tenements should be rebuilt in stone, and owners of other timber-fronted buildings were offered a period of 17 years free of taxation if they rebuilt them in stone. Because of the flammability of thatched roofs, all replacements were to be slated or tiled, subject to a fine of 500 merks and demolition, and in Glasgow, an ordinance of 1652 concerning the rebuilding of fire-damaged properties in the Saltmarket further required that 'all houssis on both sydes of the gait be buildit conform to ane straicht lyne and none to come farder out then [than] another'.⁴³

Other burghs took similar measures, but matters improved only slowly. As late as 1784, for example, it was reported that 'at this day there are people alive in Edinburgh who remember a continued range of wooden piazzas from the Weigh House [at the junction of the West Bow and Castle Hill] through the whole of the Lawnmarket and along the greatest part of the High Street' and from an actual survey of that date 'it was found no fewer than 44 were still in existence between the Weigh House and the head of Advocate's Close [opposite St Giles' Church]', a distance of about one third of the overall length of Edinburgh High Street.⁴⁴

Arcade infilling and public access

During the seventeenth century, the Dean of Guild Court in Edinburgh had been granting permission, evidently without royal authority, for the erection of forestairs and cellars which extruded beyond the street line, a position which was legally regularized in 1688 by a royal charter transferring control of the public streets to the council.⁴⁵ By the eighteenth century the Dean of Guild Court was using such powers to permit owners of foreland buildings to replace or infill colonnades with walls, thus

⁴² Dennison and Stronach, Historic Dunfermline, 35, 53–4; M. Wood (ed.), Extracts from the Records of the Burgh of Edinburgh, A.D. 1665 to 1680 (Edinburgh, 1950), 315 (12 Sep. 1677); J. Grant, Old and New Edinburgh, vol. I (London, 1880), 188–91; A. Gibb, Glasgow: The Making of a City (London, 1983), 25–9, 46–51 and references cited; and T.A. Marcus, P. Robinson and F.A. Walker, 'The shape of the city in space and stone', in T.M. Devine and G. Jackson (eds.), Glasgow, vol. I: Beginnings to 1830 (Manchester, 1995), 112–13.

⁴³ M. Wood (ed.), Extracts from the Records of the Burgh of Edinburgh, A.D. 1665 to 1680, 177–8 (1 May 1674) and 315 (12 Sep. 1677); M. Wood, 'Survey of the development of Edinburgh', The Book of the Old Edinburgh Club, 34 (1974), 23–56; and J.D. Marwick (ed.), Extracts from the Records of the Burgh of Glasgow, vol. II (Scottish Burgh Records Society, Edinburgh, 1881), 1630–62, 233 (3 Jul. 1652).

⁴⁴ RCAHMS, Inventory of Edinburgh, Ixxi, citing Session Papers, Signet Library Collection, vol. 351, no. 2, 1784.

⁴⁵ M. Wood and H. Armet (eds.), *Extracts from the Records of the Burgh of Edinburgh*, A.D. 1681 to 1689 (Edinburgh, 1954), 69–70 (11 May 1683), 277–9 (25 Sep. 1688), 261 (18 Jan. 1689).

giving them additional ground-floor private space at the expense of public access, a clear contravention of the early sixteenth-century Act of Common Council that was evidently still in force.⁴⁶

It was not until 1783, however, that a major and successful legal challenge to such practices was mounted in Edinburgh.⁴⁷ In that year, a number of prominent citizens, including the wealthy banker Sir William Forbes, appealed to the Court of Session against a Dean of Guild Court decision in favour of one John Ronaldson. Ronaldson owned a shop behind a colonnade on the south side of the High Street to the west of Gray's Close (a close being an alleyway to private property that was usually gated or 'closed'). He used the space within the arcade on what he described as 'an occasional basis' to display his merchandise, and he had a stair there which gave access to a storage basement. The Dean of Guild Court agreed to and authorized his request to bring his shop front forward to enclose this area, but Forbes and the others objected on the grounds that this enclosure amounted to an intrusion into public space. A second such appeal took place in the following year.

Despite the Court of Session's finding in favour of the objectors, the process of infill continued. Similar changes took place in Elgin, and in Glasgow the council took matters even further by selling off the extra frontage space at \pounds 5 per yard.⁴⁸ In Stirling, the record of a Court of Session case of a dispute between next-door neighbours in 1750 indicated that both dwellings had already been brought forward at ground-floor level, one by 7 feet 6 inches (2.29 metres), the other by 8 feet 5 inches (2.57 metres), while in Dunfermline, a council meeting on 15 July 1741, declared that 'there can no instance be given of any heretor [heritor] being restricted from building out as far as their stone pillars'.⁴⁹

In Edinburgh, physical evidence of extended ground-floor frontages still survives here and there, especially in the access pends which were brought forward to new street lines. Set well back from modern street frontages, the walls of such pends or closes still retain vestigial jambs and occasionally the iron crooks of crook-and-band hinges on which gates were once hung, possibly demarcating the street line and pend entry in earlier times (Figure 8).

Within the buildings themselves, other related evidence may be encountered, as appears to be the case with the two-part structure at

⁴⁶ See above, n. 27; and for an account of the general development of Dean of Guild Courts, R.G. Rodger, 'The evolution of Scottish town planning', in G. Gordon and B. Dicks (eds.), *Scottish Urban History* (Aberdeen, 1983), 71–91.

⁴⁷ Morison, *Dictionary of Decisions*; Signet Library, Court of Session papers, vol. 531, no. 2.1 (*Guthrie v. Brown*, 17 Jan. 1784), 1–14.

⁴⁸ McKean, District of Moray, 23–4; McKean, Walker and Walker, Central Glasgow, 24.

⁴⁹ J.G. Harrison, 'Wooden fronted houses and forestairs in early modern Scotland', *Architectural Heritage*, 9 (1998), 71–83 at 72–5; Henderson, *Annals of Dunfermline*, 439. Harrison ('Wooden fronted houses', 75–80) also shows how positions of dormer windows correspond with earlier set-back frontage lines and how external forestairs were often incorporated within advanced ground-floor frontages.



Figure 8: Bakehouse Close, Canongate, Edinburgh; view of jamb and crook hinge of former gate within pend, 2014.

302–4 Lawnmarket, Edinburgh (Figure 9).⁵⁰ Beneath the paired buildings there are vaulted cellars which terminate at an earlier frontage line, but

⁵⁰ For changes in the pend and in the building itself, see, e.g., S. Lilley, '302–4 Lawnmarket, Edinburgh, Historic Building and Archaeological Watching Brief' (AOC Archaeology Report 20009, Dec. 2008), Figs. 27–8; see also Crone and Sproat, 'Revealing the history'.

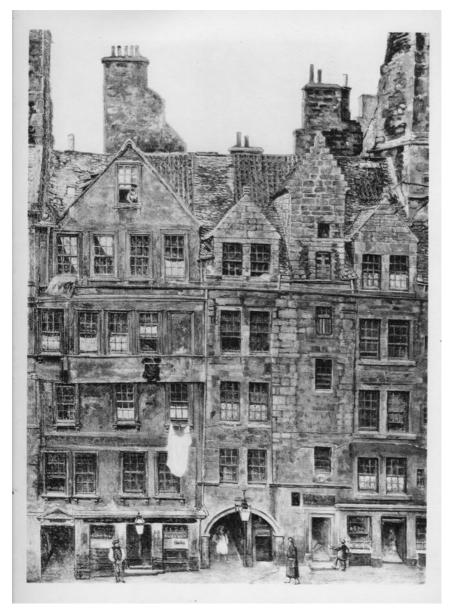


Figure 9: Brodie's Close, 302–4 Lawnmarket, Edinburgh; engraving from Bruce J. Home, *Old Houses in Edinburgh* (Edinburgh and London, folio edition in 17 parts, 1907), part 12.

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Close/building	Position	Extension	n Hinge	
Bailie Fyfe's Close	Pend	7 feet 2 inches (2.2 metres)		
Trunk's Close	Pend	6 feet 9 inches (2.1 metres)		
Hope's Close	Pend	5 feet 9 inches (1.8 metres)	Н	
Lady Stair's Close	Pend	5 feet 5 inches (1.6 metres)	Н	
Brodie's (East)	Building	6 feet 8 inches (2.0 metres)		
Brodie's Close	Pend	6 feet 8 inches (2.0 metres)	Н	
Brodie's (West)	Building	6 feet 8 inches (2.0 metres)		
Gladstone's Land	Building	6 feet 0 inches (1.8 metres)		
Huntly House (East)	Building	9 feet 6 inches (2.9 metres)		
Bakehouse Close	Pend	8 feet 2 inches (2.5 metres)	Н	
Huntly House (West)	Building	9 feet 6 inches (2.9 metres)		
Canongate Tolbooth	Building	6 feet 11 inches (2.1 metres)		
Tolbooth Wynd	Pend	7 feet 2 inches (2.2 metres)	Н	

 Table 1: Measurable frontage extensions in Edinburgh and Canongate;

 surveyed measurements in the third column are given in feet/inches (metres)

have subsequently been extended beneath the present pavement. Above a pend into Buchanan Court and a later street-level shop-front, the eastern building (302) retains evidence of timber-built and jettied upper levels which have long since been modified to form a frontage in a single plane. The masonry-fronted western building (304) is made up of three distinct sections: an eastern section, which has a recessed masonry frontage, contains a single surviving arch of a colonnade which serves as a pend to Brodie's Close and with steps down into the cellar beneath; a central section, behind which is a turnpike stair to the upper floors that had been brought forward from an earlier frontage line with royal consent; and a western section whose uniform masonry frontage bears no evidence of a colonnade.

No direct historical record of the application of the Edinburgh 'seven foot' Act has been found, but physical examination of 13 sites in the burghs of Edinburgh and Canongate has shown a remarkably close approximation to it in the form of frontage extensions varying between 5 feet 5 inches (1.6 metres) and 9 feet 6 inches (2.9 metres), at an average of 7 feet 2 inches (2.2 metres). The spread in these numbers may result at least in part from adjustments made to provide a uniform final frontage line. Table 1 summarizes the evidence of frontage extensions on these 13 Edinburgh sites.

The cumulative effects of these foreland changes have been to project street lines inwards on both sides. In Edinburgh, a reduction in width at street level from about 23 to 19 metres would not have created a great visual impact, especially as the jettied upper floors would have become more closely aligned with the new street line, but in the narrower, more canyon-like Canongate and elsewhere a reduction from about 15 to 11 metres would have been noticeable.

Lateral backland buildings

The relative stability of plots, and especially of plot widths, placed strict limits on the breadths of the frontages of foreland buildings, given that there had also to be lateral space for an access path or 'close'. Enclosing the path within a pend allowed the upper floors to span the full width of a plot, but for builders of greater ambition the forelands proved too physically constricted; the backlands, on the other hand, offered scope for aligning much larger dwellings linearly along the long axes of the plots and for their main frontages to face the closes, not the streets.

A prime example is the still-surviving and substantial Bertram-Cor tower-and-hall residence, built towards the end of the fifteenth century on the backland of what became Advocate's Close, High Street, Edinburgh. Facing the close, it has a lateral frontage of 17 metres, which is more than double that which would have been available facing the street. Further down Edinburgh High Street, a large dwelling of the Lockhart family is similarly transversely aligned in the backlands of Trunk's Close. The Bertrams, the Cors and the Lockharts were all wealthy burgess families who, constrained by plot widths, appeared willing to forgo the trading advantages of a foreland property in order to build on a scale and to designs which reflected their means and their self-esteem.⁵¹

Undivided broad plots of one and a half or more units width provided even more freedom to extend. Good surviving examples of large backland buildings are to be found in Riddle's Court Lawnmarket, Edinburgh, where the late sixteenth-century MacMorran residence fits comfortably into a 2.5-unit plot, as does Acheson House, Canongate, begun in 1633.⁵² In its last phase prior to demolition in 1885, the former town house of the Knights Hospitaller in Linlithgow⁵³ presented a two-unit, 11.6-metres wide frontage to the street and incorporated an entry pend and courtyard, which extended back some 26 metres, thus occupying both foreland and backland spaces (Figure 10). Table 2 sets out the plots and unit widths of these few specimen broad plot buildings. Surveyed measurements in the second and third columns are given in metres, and the unit widths are average numbers so do not have full accuracy. This accounts for the plot widths in the table not being at the ideal quarter sizes.

⁵¹ J. Marwick (ed.), Extracts of the Records of the Burgh of Edinburgh AD 1403–1528 (Scottish Burgh Record Society, Edinburgh, 1869), 39 (10 Nov. 1480), 69 (24 Feb. 1495) and 141 (19 Aug. 1513); C.B.B. Watson (ed.), Roll of the Burgesses and Guild Brethren of Edinburgh 1406– 1700 (Scottish Record Society, Edinburgh, 1929), 55 (14 Mar. 1516/17), 119 (11 Nov. 1566) and 316 (19 Sep. 1487); and W.A. Pantin, 'Medieval English town-house plans', Medieval Archaeology, 6–7 (1962–3), at 205, 233–9, for English examples of what has been typologically classified as the right-angled and broad plan category of town dwelling. ⁵² RCAHMS, *Inventory of Edinburgh*, 81–4 (no. 18) and 166–8 (no. 103).

⁵³ D. MacGibbon and T. Ross, The Castellated and Domestic Architecture of Scotland, vol. I (Edinburgh, 1887), 508-14; see also unpublished drawings in RCAHMS listed under http://canmore.rcahms.gov.uk/en/site/49179/details/linlithgow+high+street+ town+house+of+the+knights+of+st+john/. See also Pantin, 'Medieval English townhouse plans'.

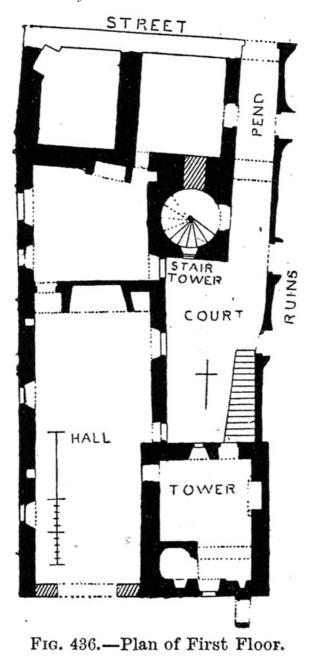


Figure 10: Town house of the Knights Hospitaller, Linlithgow; site plan at first-floor level from David MacGibbon and Thomas Ross, *The Castellated and Domestic Architecture of Scotland*, vol. I (Edinburgh, 1887), 508, Fig. 436.

Building	Measured plot	Local unit	Plot width
	width	width	in units
Riddle's Court, Edinburgh	14.2 metres	5.5 metres	2.58 units
Acheson House, Canongate	19.3 metres	7.7 metres	2.51 units
Knights Hospitallers, Linlithgow	11.6 metres	5.9 metres	1.97 units

Table 2: Plots and unit widths of specimen broad plot buildings

As outlined above, the local Dean of Guild Courts had gradually been assuming greater powers to authorize changes, some of which included the crossing of the old plot boundaries that had been set out and safeguarded by the medieval liners. In Edinburgh from the 1670s onwards, they permitted a succession of large-scale redevelopments, such as the erstwhile Robertson's Land (1674) and Milne's Square (1684), together with the still-surviving Milne's Court (1690) and James Court (1723–27), all of which extended across several plots.⁵⁴ Among many later and smaller-scale lateral developments were the two eastward extensions of Gladstone's Land which were built by 1755 following the demolition of earlier properties.⁵⁵ In Stirling, on the other hand, annexation of adjacent plots appears to have had a longer history; there, exceptionally perhaps, several contiguous property units which had first been amalgamated around 1580 were eventually consolidated with others to form the site of the expansive Argyll's Lodging of the 1670s.⁵⁶

Conclusions and comparisons

Relying on the survival of much evidence of Scottish medieval town layouts, particularly among the first Ordnance Survey Town Plans of the 1850s, this article has shown that, despite all the pressures on urban centres, especially Edinburgh's, long-lasting plot patterns persisted with little change until the last quarter of the seventeenth century and that in the same period street frontage extensions were generally limited to just 7 feet (2.13 metres). Even today, as archaeological and documentary evidence has shown, a high proportion of plot boundaries and street frontage lines remain very close to their original positions on plan.

⁵⁴ RCAHMS, *Inventory of Edinburgh*, 73 (no. 12) and 73–4 (no. 13); see also M. Wood, 'All the statelie buildings of ... Thomas Robertson', *The Book of the Old Edinburgh Club*, 24 (1942), 126–51, and *idem*, 'Mylne Square', *ibid.*, 14 (1924), 45–8.

⁵⁵ RCAHMS, *Inventory of Edinburgh*, 74–8 (no. 14), and title deed of 3 Jul. 1755, held by The National Trust for Scotland.

⁵⁶ Harrison, 'Houses in early modern Stirling', 50; G. Ewart, D. Gallagher and J. Harrison, 'Argyll's Lodging, Stirling: recent archaeological excavations and historical analysis', *Proceedings of the Society of Antiquaries of Scotland*, 140 (2010), 179–206 at 179–87.

One inference to be drawn from this conclusion is that the preservation of these urban layouts may in large measure be a reflection of the regulatory effectiveness of the Scottish medieval liners and their successors, the Dean of Guild Courts. Another is that the relative stability of the plot pattern appears to have had an influence on Scottish 'streetscapes' and their architectural character that has, to date, been either unacknowledged or at best understated. Land plots are only one of a number of features that have conditioned the urban physical environment, and, while it would be a mistake to regard them as precise or even primary determinants of all urban built forms, building historians and architectural investigators should share the same awareness of their potential significance that archaeologists and historical geographers have long demonstrated.⁵⁷

Focused on the evidence from Scotland and adjacent parts of northern England, this article does not pretend to be an exhaustive and geographically widespread exploration of themes that are potentially as international as urban civilization itself. How far Scottish practices and patterns were unusual or commonplace elsewhere are questions about which, at this stage, the authors can offer only impressionistic comments rather than detailed comparisons and contrasts.

A relatively cursory review of the European urban scene, for example, suggests that a similar, though not necessarily identical, role to that of the Scottish liner appears to have been provided by early land surveyors such as the Flemish *landmeter*.⁵⁸ Identification and possibly demarcation of plot boundaries appears also to have been an occasional part of the function of the 'viewers' of late medieval London and Bristol, who usually served in groups as certificate-issuing witnesses in support of the assize courts.⁵⁹

The authors are not in a position to summarize decades of research into land plots and plot patterns in English and Welsh towns and cities, but from the available secondary literature they gain the impression that medieval and early modern urban layouts there, both formal and informal,

 ⁵⁷ See, e.g., J.W.R. Whitehand and K. Alauddin, 'The town plans of Scotland: some preliminary considerations', *Scottish Geographical Magazine*, 85 (1969), 109–21; N.P. Brooks and G. Whittington, 'Planning and growth in the medieval Scottish burgh', *Transactions of the British Geographers*, 2 (1977), 278–95; and I.H. Adams, *The Making of Urban Scotland* (London and Montreal, 1978), 31–47.
 ⁵⁸ G.L'E. Turner, 'Some notes on the development of surveying and the instruments used',

⁵⁸ G.L'E. Turner, 'Some notes on the development of surveying and the instruments used', *Annals of Science*, 48 (1991), 313–17, at 313. In general, however, there appears to be a paucity of evidence for the identities and activities of specialist surveyors in laying out streets and plots: see, e.g., M. Beresford, *New Towns of the Middle Ages* (Cambridge, 1967; Gloucester, 1988), 3–5, 14–28, 142–53; K.D. Lilley, *Urban Life in the Middle Ages*, 1000–1450 (Basingstoke and New York, 2002), 159–60 and references cited; and K. Lilley, C. Lloyd, S. Trick and C. Graham, 'Mapping and analysing medieval built form using GPS and GIS', *Urban Morphology*, 9/1 (2005), 5–15.

⁵⁹ For English 'viewers', see especially H.M. Chew and W. Kellaway (eds.), London Assize of Nuisance 1301–1431: A Calendar (London, 1973), passim; J.S. Loengard, London Viewers and their Certificates 1508–1558 (London, 1989); and F.B. Bickley (ed.), The Little Red Book of Bristol, vol. II (London, 1900), 65. For the staking out of the old street lines and land parcels and the viewing of the rebuilding of the burnt-out city of London in 1667, see M.A.R. Cooper, Robert Hooke and the Rebuilding of London (Stroud, 2003), 134–5 and 150–63.

tended to be regulated with a greater degree of flexibility than their Scottish counterparts.⁶⁰ These trends appear to be evidenced, for example, by the subdivisions of plots and by the outward extension of building frontages causing congestion within the correspondingly narrower streets and market places upon which they encroached.⁶¹ It would be a mistake, however, to draw too sharp a contrast with the Scottish morphological evidence.

Individually or in groups, a number of surviving English urban buildings are of special comparative interest in helping to understand how private premises and public spaces may have interacted in Scotland along medieval street fronts. A medieval merchant's house in French Street, Southampton, is a noteworthy surviving example of a timbercolonnaded frontage with a forecourt, while the remarkable Rows of Chester demonstrate unequivocally that raised and covered walkways set on stone-vaulted cellars have a long history in these islands going back to the thirteenth century. Like The Pentice, High Street, Winchester, they help us to visualize Scotland's later and now-vanished 'wooden piazzas' and other forms of frontage which served as an interface between private property and public access.⁶²

⁶⁰ See, in particular, A.J. Scrase, 'Development and change in burgage plots: the example of Wells', *Journal of Historical Geography*, 15 (1989), 349–65, and Quiney, *Town Houses*, 86–90. See also, more generally, T.R. Slater, *The Analysis of Burgages in Mediaeval Towns* (Working Paper Series, Department of Geography, University of Birmingham, Dec. 1980); *idem*, 'The analysis of burgage patterns in medieval towns', *Area*, 13 (1981), 211–16 at 215; and D.M. Palliser, T.R. Slater and E.P. Dennison, 'The topography of towns 600–1300', in Palliser (ed.), *The Cambridge Urban History of Britain*, vol. I, 153–86 at 169–72.

⁶¹ For the effects of the subdivision of burgage (haimald) plots, see, e.g., S.R. Jones, *York: The Making of a City 1068–1350* (Oxford, 2013), 210–14, and for the effects of encroachment, see, e.g., D.J. Keene, *A Survey of Medieval Winchester* (Oxford, 1985), vol. I, 49–50, and vol. II, 548–9.

⁶² For the Merchant's House, 58 French Street, Southampton, see G. Coppack, Merchant's House, Southampton (English Heritage, London 1991), and [L. Goddard], Medieval Merchant's House, Information for Teachers (English Heritage, London, 2002); for The Rows, Chester, see A. Brown (ed.), The Rows of Chester (English Heritage, London, 1999); R.K. Morriss and K. Hoverd, The Buildings of Chester (Stroud, 1993), 13–18; and N.W. Alcock, 'The origins of the Chester Rows: a suggested model', Medieval Archaeology, 45 (2001), 226–8; and for Winchester and erstwhile features in Stricklandgate, Kendal, see Brown, Rows of Chester, 59 and references cited.