

In the territory of Auchencrow: long continuity or late development in early Scottish field-systems?

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ABSTRACT

A distinctive common or open field (infield/outfield) was the foundation of economic activity in many Scottish settlements before 18th-century enclosure and improvement. It was assumed to be an ancient system, a point confirmed in 1962 by research into charters of the period 1100–1300. Notions of long continuity were challenged in 1973 using a geographical model, which suggested 'outfield' was actually a late-medieval development of an earlier 'infield' (-only) regime and argued that an early fiscal assessment was adapted to tax new 'out-of-field' lands. This paper examines the field system of the particularly well documented village of Auchencrow (Scottish Borders) and problems of interpretation posed by medieval 'extents'. Although one should not give any over-precise meaning to the Auchencrow 'acre', the medieval evidence suggests that the infield/outfield acreage of 1715 corresponds to structures documented for 1430 and 1298 and may preserve landholding units dating back to (at least) 1157 or 1146. The 'planned' village which existed in the 12th century was still discernible in 1715, but although the evidence points to long continuity of field-systems, documentary research has limited scope even for Auchencrow. An integrated approach, drawing on archaeology and environmental sciences as well as economic history, is needed to take matters further.

INTRODUCTION

The broad subject of early Scottish field systems is tackled here in a deliberately narrow focus, taking a viewpoint *in territorio de Aldengrawe*, in the field or territory of Auchencrow, near Eyemouth. Looking to the wider horizon, the significance of the average size of peasant holdings in any region and, indeed, the very 'model' of a pre-modern economy turn on the proportion of land left fallow. This has been an area where elaborate regional and national models have been generalized on very uncertain documentary footings. Keeping to a sequestered vale, circumscribed by documentary evidence, the only novelty of approach is to study medieval systems using medieval sources, hardly a revolutionary proposition but (with the notable exception of G W S Barrow's work) a feat seldom actually attempted.

The ground is disputed. The established view was that an infield/outfield (or *runrig*) system, known from mainly 18th-century sources, formed an element of long continuity with a distant past. The view was endorsed by historical research into charters and place-names of 1100–1300 (Barrow 1962; repr 1973). This settled position was disturbed by a geographer, researching Early

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Modern sources, who advanced the novel idea that infield/outfield was a new system, which emerged as late as 1400–1600/1700 (Dodgshon 1973, 16; 1996, 286).

Robert Dodgshon may not have grasped the full impact of his proposal. *Runrig* is something of a cultural icon in Scotland and knowledge of this distinctive system has reached the Vistula if not beyond (eg Zabieglik 2000, 268). Nevertheless Professor Dodgshon's challenge of a late development model has been made. In reply, the evidence of 'extents' can be added to the charter texts set out in support of long continuity by Barrow in 1962/73. Further research — the writer submits — can expect to do nothing but confirm Barrow's conclusions.

These conclusions are, incidentally, too seldom actually read, let alone grasped, by non-historians who, following Dodgshon's lead, have latched on to a passing remark about infield/outfield (Barrow 1973, 262) while ignoring the accompanying caveat. It is good practice to cite statements from the original source and sensible, also, to consider considered conclusions. The unqualified remark it is, however, which has passed into wider circulation (eg Dixon 1994, 30) and so an argument for (very) long continuity is made to appear to support late development. Barrow's (1973, 277–8) actual views were that the agrarian pattern in Scotland was 'of very long standing' by c 1100, while its associated fiscal system was [then] 'well established, probably fairly ancient'.

SOURCES AND CONVENTIONS

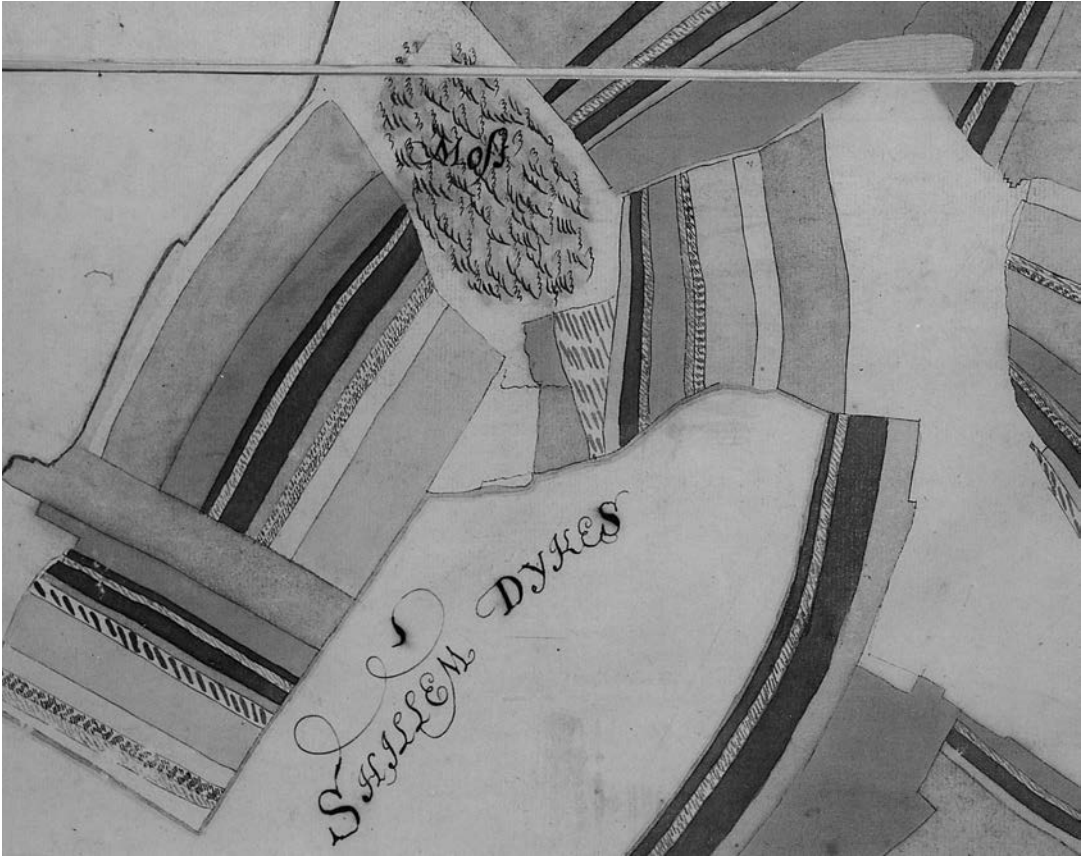
One type of source (the extent) and one convention (the medieval acre) deserve separate consideration but, otherwise, the main sources used are documents from a former Benedictine estate in the former county of Berwickshire (now largely in Scottish Borders). The estate was centred on a cell at Coldingham, the archives of which have been removed to England where (pending eventual repatriation) they form part of the muniments of the Dean and Chapter of Durham [DCD]. These, and other sources now in the Bodleian Library [BLO], National Archives of Scotland [NAS], National Library of Scotland [NLS], Public Record Office [PRO], Record Office for Leicestershire, Leicester and Rutland [ROLLR], and at Westminster Abbey [DCW] are cited by their call-numbers. Other primary citations follow the standard system for *Printed Sources* (1962): *BBC*, *CC*, and *ND*.

Medieval currency (the *penny*, *pfenig*, *denar* or *denarius*) went by different reckonings as between (say) the English and Scottish and the German and Polish 'units of account', such as marks and pounds. In Scotland, sterling penny (d) coins were counted at 12d to the shilling (s), 13s 4d (160d) to the Mark (M) and 20s (240d) to the pound (L or £) (McNeill & MacQueen 1996, 31; cf Zabieglik 2000, 381). Very roughly, a peasant's penny of 1301 translates as a UKL 20, DEM 100 or PLN 20 note in the hands of their successors of 2001 but references to the Lsd currency and the Mark have been left as they stand in the sources.

CONVENTIONAL ACRES

Medieval 'acres' are not to be translated into precise modern measures, such as the English 'statute acre' of 4840 square yards, the somewhat larger 'Scots acre' or the continental hectare. Precision, let alone conversion to foreign systems, becomes quite spurious if applied mechanically to early texts.

The best understanding of medieval conventions comes from an Anglo-French didactic literature, aimed at lords anxious to maximize income and avoid being defrauded by their land agents. It was all written in a language which looks distinctly peculiar but makes easier sense if



ILLUS 1 part of the territory of Auchincrow, c 1715 (from a map by David Dowie, NAS RHP14788/1)

read aloud. Feudal lords found it embarrassing to admit ignorance, so the literature was sometimes addressed (ostensibly) to their ladies. Lords and ladies were taught that the size of an acre depended on the pole (rod or perch) used for measuring. There was considerable local variation (Oschinsky 1971, 445) although the king's pole was $5\frac{1}{2}$ yards ($16\frac{1}{2}$ foot): '*la perche le rey est de xvi pez e demy*' (Oschinsky 1971, 315, chap 28).

Shape rather than size mattered in medieval eyes. Built up from units (more or less) '*sez pez e demy*', the medieval 'acre' was much more than anything else a distinct geometrical form rather than just a definition of area. Conventionally, the length:width ratio was 10:1. If, as occasionally happened, the sides were straight, the ideal acre was an oblong. The medieval acre is thus a thin strip, one (often-sinuuous) furrow long and as wide, approximately, as the distance between a pair of wickets in a village field. That might, typically, mean a 220 yard furlong and a width of 22 yards, making 4840 square yards: but any clerk familiar with manorial modes of speech knew always to add the stock phrase appropriate, more or less, to such circumstances: *plus uel minus* (DCW WAM20595). Illustration 1 shows a group of such strips as they appear in a plan of Auchincrow dating c 1715.

Our peasant ancestors had a weary familiarity with the exact meaning of any particular acre as they plodded up and down, furrow by furrow, chain by chain, or link by link, for 33 (complete) turns about the field: '*alez trente treis fez entur*'. An acre meant a day's ploughing,

league after league after league onwards to a stint of 16 miles, more or less, of furrow, more or less one foot broad. Gentle opinion differed as to how many furlongs made a league (Oschinsky 1971, 354), and another debate was over the appropriate width of furrow, greater for fallow than for seed ploughing, giving the ploughman 33, 36 or 40 complete turns *entur*. Lady and lord were schooled to expect a sturdy peasantry to manage a brisk three leagues before luncheon: '*mut sereit povre le chival ou le beof qe ne purreit aler de matin belement le pas treis lius de veye de sun recet e retourner a noute*' (chap 29). The grim medieval reality was that the 'acre' was a variable and any particular acre was an actual strip in a particular village's territory, a day's work (more rather than less), a weary plod till the vicar, the lord's timekeeper, tolled the knell of parting day.

USING 'EXTENTS'

Since their evidence is important in what follows, and because they go beyond the range of materials Barrow has discussed, something should be said about 'extents' as a source. They are little known in Scotland but so very common in England that the PRO *Calendars of Inquisitions* dismiss them as local texts containing nothing of 'general historical interest', giving, for instance, the long text PRO C133/95 only as the briefest of abstracts.

It is important to understand that extents are not statistical accounts giving full and systematic records of immutable social obligations. Still less are they any sort of geographical, sociological or anthropological survey of a whole district. The relevant budgetary caution to make an extent enjoined the young '*vivez sagement . . . vos terres et vos tenementz estendez*' (Oschinsky 1971, 308, 312, chap 1, chap 16). The mention of *your* lands and *your* tenements is important: extents see things very much from the lord's point of view. They generally exclude sub-tenants (cf Dodgshon 1972, 134, n 7) and so are by no means complete surveys of whole villages: an earl (PRO C133/95) and an abbot (DCW WAM12341) could take entirely different views in extents of the same Rutland settlement and, between them, still miss sub-tenants who show up by the score in an estate manager's memoranda (ROLLR DG7/1/12).

Literal-minded local historians, as well as social historians counting out explicit mention of peasant services, often balk at the idea that extents leave a good deal to be taken for granted. Nevertheless while extents generally list free peasants individually, unfree peasants are often lumped together to be 'taken as read' from a specimen sketch. A helpful parallel is given by medieval liturgical texts where a clerk needed only the prompting of an *incipit* to launch him into a long recitation: *Te igitur* and *vere dignum* were tiny cues to long (but long-familiar) screeds. Manorial clerks needed only the prompt of a standard entry for specimen categories of peasants in the *Melsonby Buk*, *Boldon Book*, *Black Book* or whatever other name the estate gave to its particular instrument of record. In the ordinary course of events, parchment rolls eventually outlived their usefulness in enabling stout upholders of the Gospel to keep the lower orders in their place, and old versions were often discarded (as with outmoded liturgical manuscripts) when updated texts were produced. Thus the *Black Book of Coldingham* is long gone, as is Durham's 13th-century *Melsonby Buk*. The original of the well-known Kelso roll is also lost, and its text survives only in a copy bound in with the fly-leaves of a cartulary (NLS Adv.35.4.1). Of the dozen or so Berwickshire extents known from the 15th and earlier centuries some were never completed and others survive damaged by damp or vermin, leaving one interesting account of Auchencrow in tatters.

Extents are not quite the wholly unusual, foreign-inspired productions portrayed in one ingenious but fundamentally wrong-headed re-interpretation of medieval landlordism (Duncan 1975, 431) but rather the routine product of large, long-established landlords, tenaciously

conservative and possessed of their own distinctive view of the world. They remain the best available documents to take us beyond charters but it is important to understand that extents have limitations as a class of evidence.

AUCHENCROW: CHOICEST AND BEST

Auchencrow may seem an obscure choice to test between long continuity and late development theories. Once the site of some 40 houses, an inn and a local livestock market, it had a population of 161 in 1841 and, later, a public school and a 'satisfactory' sewage system. By the beginning of the 20th century it lacked only the improving amenities of a resident landlord and a resident parson (Thompson 1908, 153). It escaped mention in the (allegedly) earliest surviving Scottish charters, which name so many of its neighbours (Duncan 1999, 18). The Great North Road passed it by, as did the North British Railway and, even, the Duns branch line from Reston Junction. What brings the village from obscurity to some sort of place in history is a chapter of archival accidents, from which a now little-known settlement emerges as the best choice for a study of continuity or development in early Scottish field systems.

H L Gray's starting point for his study of *English Field Systems* (1915) was a long series of volumes entitled a *General View of the Agriculture of the County of* [Berwick, Rutland or wherever], directed by Sir John Sinclair. These, as Gray soon discovered, could provide a quick description for the terminal, pre-improvement, phase of open field systems in any county of the series. North Britain produced a range of Early Modern legal and estate papers, a great many of which have been taken into the public record office in Edinburgh (NAS GD). West Register House is full of plans extracted from archive groups to form an artificial series (NAS RHP). Since Dodgshon's models were derived from studies of such sources for the historic counties of Roxburgh and Berwick, it is sensible to follow his lead and try to match up medieval and later evidence from one of these counties: a choice narrowed down to two shires. Medieval evidence ought to be a major constraint on choice. There are (so far as I know) only two extents (or 'rentals') for 13th-century Scotland and fragments of three others, all from the south-east, in Roxburgh (1) and Berwick (4).

As for which estate there is no real contest. As well as charters held at Durham, the daughter house at Coldingham produced surviving 14th-century account rolls, a 15th-century court roll, and extents carried into something approaching a series. Raine did not understate things: his texts and abstracts (*ND*, *CC*) draw on 'the choicest and best' of early Scottish muniments. Members of the Home family had prospered at Durham and Coldingham Priors' expense and their estate papers can therefore document monastic lands into later centuries (*Milne Home*, 1902). These are supplemented by a later revival of Durham's old game of periodically re-copying (and re-composing) rentals. This revival (recorded in still later antiquarian compilations, NLS Adv.35.3.8 & MS2949) was itself part of a venture in the 1560s to re-attempt general taxation of the church (Kirk 1995, 199–204; Donnelly 1999a, 18).

The final task is to select a village where a map and survey can be read alongside the documentary materials. Coldingham itself has a quite exceptional series of charters (listed BLO Carte 177) and a detailed 18th-century land survey but no map or plan to go with it. Auchencrow's medieval charters are no better than average but the village has both a good survey (NAS RHP14788/2, /3) and a plan (RHP14788/1). All this is undated but (since the landholdings correspond with those mentioned in the legal process) was all but certainly prepared following the Sheriff Depute's judgment which ordered measurement of the lands before their division



ILLUS 2 VILLAGE OF AUCHENCROW, 1715 (from a map by David Dowie, NAS RHP14788/1)

(registered copy, NAS SC60/7/17, 382–93, at 393, and original, NAS SC60/10/30, approximately the middle of the unlisted bundle marked 24 February 1715).

The Auchencrow map has been reproduced several times as a sketch plan in black-and-white (Dodgshon 1975a, 25; 1981, 219; 1996, 288). The original is very large (approx. 1.5 m by 0.9 m) and in consequence we are left to consult extracts for a representative section of the territory (illus 1) or for the village of Auchencrow itself (illus 2).

THE AUCHENCROW SETTLEMENT

The early history of a settlement can sometimes be charted from texts (often ‘copies’) available only from the beneficiaries’ own archives. Early bulls and diplomata can seldom be checked

against official copies in papal or royal registers or enrollments and are especially likely to be tampered with. It has been suggested that for monastic foundations in England generally, early documents are, as often as not, spurious (Clancy 1979, 248). For Rutland, the surviving bulls range from the inept (DCW WAM1508) to the merely erroneous (DCW Domesday, fol. 8r-v). For Poland, one scholar is convinced key early texts have been tampered with (Maleczynski 1971, 150–69, 170–88, 222–38) while others accept them as authentic (Plaza 1974, 42). Students have been disputing the authenticity of ‘the earliest Scottish charters’ since the early 1700s; handle with care remains the basic rule. Thus Auchencrow, although absent from the earliest lists of Durham’s estates may, just possibly, be represented by ‘Farndun’ which disappears from the lists between 1146 and 1154 (Holtzmann 1936, no 51; 1953, no 56). It appears in lists dating between 1154 and 1157 as ‘Aldengrawe’ or ‘Aldengrave’ (Holtzmann 1936, no 94; cf Holtzmann 1953, no 107; DCD, 3.1.Reg.1; cf 3.1.Reg.16; Donnelly 1989, 18).

The modern name, Auchencrow, tends to obscure the question of origins. A Celtic origin, although accepted by Watson (1926, 138) and Nicholaisen (1976, 138) is flatly contradicted by the 12th-century name-form ‘Alden-’, also preserved, for example, in four 13th-century Durham charters quoted below. Something like ‘Halden’s Grave’ or ‘Halden’s Grove’ would be nearer the original idea, but it is more natural to use the current name, and to speak of the village of Auchencrow. This is itself a form only recently derived by folk-etymology from the much longer-running ‘Edencraw’ or ‘Auchencrawe’: an evolution from Halden- to Alden- or Eden- to Auchen- and from -grove/ -grave to -crawe to -crow.

We are dealing, so far as early documents can guide us, with a settlement, more a small village than a hamlet, which was not, in name at least, Celtic in origin and which was already in existence no later than Adrian IV’s bull, dating 1154x1157. It is by no means the most favoured settlement site available within ‘Coldinghamshire’ and (although the point is beyond documentary proof) it seems likely that Auchencrow was settled in a secondary phase of colonization, after (say) the villages of Ayton or Reston. It was not, to judge from papal bulls, an ancient parochial centre; but few enough neighbouring parishes had been formed even by 1146 for that fact, of itself, to mean anything about origins, and Auchencrow was never, under Durham’s lordship, allowed to develop its own church or form a parish in its own right (Donnelly 1997, 51–2, 63–4). The only other possible indication that we are dealing with a relatively late settlement is that Auchencrow never formed a daughter village of its own, such as Quantoxhead, formed in higher ground from the original Quantoxhead by the time of the Somerset Domesday texts (1086), the modern West and East Quantoxhead. Contemporary Scottish examples are the two Aytons, later distinguished as Upper and Lower, split by 1107 (DCD MC555) and the two Restons (East and West) formed before 1157 (DCD 3.1.Reg.1).

A minor settlement, with its chief landlords resident elsewhere, Auchencrow was nevertheless home to at least 20 households according to an extent of c 1298 (*BBC*, E.118–31). The Ordnance Survey map shows the village at an elevation of some 100 m, running roughly parallel to the line of a minor watercourse, the ‘Auchencrow Burn’. The map prepared by David Dowie c 1715 shows a nucleated settlement, unchurched still, with its buildings strung out along the ribbon of a single street, roughly parallel to an unnamed watercourse (illus 2) (NAS RHP14788/1). There are long narrow strips of land running back from behind the small houses on the east side of the street. These strips could be seen as just another group of furlongs but could as easily have formed ‘crofts’ stretching back behind the ‘toft’ sites. A comment made in 1713–15 was that Auchencrow husbandlands ‘wher lands ly runrige have some rigs of Crofting lying for the most part at the backs of their houses and yards’ (NAS SC60/7/17, 388–9). The east may be the older side of the street (nearer the water supply), looking out on once open ground. Alternatively, the

formerly separate crofts on the west of the original, medieval scheme may have been consolidated out of (separate) existence before Dowie's plan was made.

The settlement is situated plumb in the middle of its single, undivided field, a scheme placing village farmsteads centrally to the surrounding arable. The arable land, which was interspersed with areas of waste, was subdivided into discernible blocks of more or less oblong strips, many of them 20 yards or more wide and more or less a furlong in length. (This observation is formulated in best manorial tradition, *plus uel minus*, rather than from any notion of elaborate statistical analysis of plans, fieldwork or satellite observations — all of which must be possible.) Auchencrow seems, however, a fair prospect of a deliberately planned village.

In basic plan, and (all would agree) for the core of its arable at least, medieval Auchencrow may be considered beyond reasonable doubt a Scottish equivalent of the French *villeneuve*. If one dare cite an avowedly racist tome, the layout is strikingly similar to one of Meitzen's (1895, iii, 249) examples. In the view of a generation which has managed to escape notions of racial origins or crude geographical determinism based on soil types, the settlement corresponds to Abel's (1967, 71–3) 'type 6', *Straßendorf*. In the writer's latest theatre of research, Polish lands colonized by German settlers throws up some striking parallels, where single individuals often played a critical role in the colonizing enterprise, as at Ujest (Ujazd) for the bishops of Breslau (Wrocław) (Appelt, 1963–71, no 225; cf Skodlarski 1998, 29). The original name for the new Berwickshire settlement is quite likely to enshrine the memory of the village's enterprising founder, Alden (or, aspirated, Haldan). How far the settlement changed along the line 1157 to 1298 to 1430 to 1715 is another matter.

Berwickshire provided Dodgshon with many of the examples behind his model of 'infield only' first existing, then being replaced by a much-expanded infield/outfield system. Discussing the survey and map, Dodgshon (1975a, 23) commented that:

unlike other runrig plans . . . the [Auchencrow] plan depicts the intermixture not merely of each person's holding but of units given in the description of 'Lands'. These 'Lands' were probably at some point the basic shares in the toun [village]. Each land had a particular name (ie [eg] Hot Land, Cold Land, Priory Land, Paxton Land) . . . However by the time of the toun's [village's] division, the character of the shares had become confused by the fact that each 'Land' was shared between different landholders. Exactly which strip or parcel each landholder held is not given.

This last statement is incorrect, since exactly which strip or parcel each of 12 named landholders held is clearly indicated by colour-coding (or in the case of Ninian Home, the principal landholder, black). There is also a system of lettering, *a* to *l*, to help identify the 11 others. One guess is that an unintended 'not' may have crept into Dodgshon's text. The other is that Dodgshon failed to take account of the heavy archival attrition among estate plans (very apparent for 18th-century Rutland in DCW). He certainly ignored the fact that the now rather battered plan (NAS RHP14788/1) has its own key (top left), while the surveys (or 'descriptions') (RHP14788/2, /3), although related and using a similar colour coding are actually keyed in to a quite different plan. The plan was, incidentally, wrongly cited (Dodgshon 1975a, 32 n 30) as 'RHP 10017', a confusion with an enormous great plan from a quite different estate.

The impulse to reorganize and re-order materials is a besetting sin of the gentleman-amateur tradition of archive management. 'RHP' stands in this mischievous tradition of separating materials from their archive group and re-ordering them according to the archivist's own fancy. Series such as MC, WAM or RHP are thus liable to associate once separate

documents. It is unfortunate that the same basic call number was assigned to all three Auchencrow items, practically inviting the researcher (deprived of contextual clues from the original grouping) to assume that plan 14788 might match contents 14788. Faced with a key which did not match 'its' plan, the writer began to realize that RHP 14788/2, /3 need not be related to RHP 14788/1. The facts seem to be that one plan (now lost) was made, intended to show the organization of Auchencrow 'lands'. Another (the surviving example) set out information not by lands but by landholders, NAS RHP14788/1, Dowie's 'Exact Map of Edincraw'. The text accompanying the lost plan has also survived, and in duplicate versions at that (NAS RHP14788/2, /3, 'a table of the contents'). Dodgshon's comments are thus it seems an accurate analysis of a lost plan (the keys to which he has followed) but not of the plan he actually reproduces.

The determined pursuit of archival minutiae is one key to understanding historical documents, but is liable to seem myopic when compared to the Olympian sweep of Professor Dodgshon's (1998) *The European Past: social evolution and spatial organization*. All the same, if the foundation in evidence is insecure, model-making becomes worthless. Cross-disciplinary approaches are all very interesting but it remains the case that Early Modern archival materials need careful thought, not least by those whose primary training and expertise lie elsewhere — a comment true of all those of us who are not students of the 18th century, agrarian or otherwise.

In any event, the surveys show that the total acreage of the 18th-century village was 1309 (with some odd chains and links) which, in Dodgshon's view, gave an average of 73 (actual) acres per (fiscal) husbandland. Expanding from a notional 26 acres per husbandland to an eventual average of 73, Auchencrow provides a striking example (it would appear) of extensive 'out-of-existing-field' development of a village since, on Dodgshon's figures for the supposed assessment, fewer than 500 acres (18 by 26) could possibly be 'in' the original husbandland/field structure; the rest would be 'out' of this structure. Thus on an infield only model, Auchencrow ought to have had old infield of 468 acres. When infield/outfield was adopted, the model implies the village added new outfield of 841 acres, bringing the total to the survey's actual 1309.

Late evidence and the geographical side of historical geography have been allowed to predominate in this discussion of the Auchencrow settlement. It is time to attack some thickets of medieval sources.

MEDIEVAL AUCHENCROW: THE FIELD

Thirteenth-century charters are quite explicit that the land of the village of Auchencrow lay in a single field or territory: *in campo de Aldengrav*, *in campo de Aldenrawe*, *in territorio de Aldengawe* or *in territorio de Aldengrawe* (DCD, MC 881, 5926, 882 & 884). Despite the various spellings of the village name, clerks did agree on the use of a precise grammatical form: both nouns are given in the singular. Even if our Latin clerks nowhere use a numeral to say 'in the one field', and the observation is a matter of grammar rather than history, to medieval clerks' minds at least, the lands of Auchencrow clearly did lie in one field or territory.

It is odd that the field system vocabulary, acquired by most educated readers at school, is generally absent from the charters which detail lands in medieval fields. It is prominent, however, in some extents and in the didactic literature which explains three- and two-field operations: '*si vos terres sunt departies en treis . . . e si vos terres sunt departies en deus cum sunt en plusurs pais*' (Oschinsky 1971, 312, 314). Gray (1915) was somewhat cavalier in using isolated documents where two or three fields happened to be mentioned but he understood the *pays*. Clerks understood the matter no less well but were not in the least interested, in any official sense, in field systems. Thus in a very complete series for Rutland, very much three-field country, the same three

(and no other) fields are named (Donnelly 1985, 170) but there is no explicit mention of a three-field system. If charters suggest that Auchencrow had one field, a one-field or infield/outfield system, then it is the reader who chooses to think that; the scribes make no such comment.

MEDIEVAL AUCHENCROW: FISCAL CONCEPTS

The basic unit for fiscal purposes was the shire. This is what a king or an earl dealt with, or a thane and drengs presided over (Barrow 1973, 47). These shires were much smaller than the later counties: anomalous little Rutland comes near the original idea, as once also did the outlying portions of County Durham, 'Islandshire' and 'Norhamshire', which survived into early 19th-century Northumberland.

The most detailed medieval picture of Auchencrow in the context of early shires and fiscal obligations comes from a little volume containing a (Latin) extent, followed by abstracts of accounting records and other memoranda (*BBC*, text M). A long description of the 'services of the village' (M.245) records that the heirs of Auchencrow hold the village for a quarter part of one village and one carucate of land, pay two Marks [£1 6s 8d] over two terms to the farm, pay 10s 8d towards the king's corrody at Easter and do all 'forinsec service'. There are fiscal obligations here, perhaps fairly ancient ones at that. The farm was fixed in money (working in Marks) but there is no telling if it was due to the king or the landlord. The king's *corrody*, a food rent, looks early (Barrow 1999, xiii), and was certainly old enough to have been subsequently commuted for cash. The odd amount (10s 8d) is the sort of total produced by allowing so much for, say, grain, then adding a little something for each of a series of petty food renders, say, eggs or geese. *Forinsec service* is the very stuff of Scottish royal charters of the 12th century. Doing 'all' forinsec service may have the sense of stressing that this obligation now fell entirely on the tenants rather than the lord. The text does not say so explicitly but must envisage a situation where Haldan or his heirs had been replaced by (or subordinated to) monastic lordship. The monks' sense of things was probably that since they now held of the king in free alms (DCD MC555), they themselves were exempt from such service. Text M only hints at the underlying fiscal 'model' but it is likely that royal (or, perhaps, comital) dues had been imposed on the 'shire', then divided between the original 12 villages of Coldinghamshire, producing a rate 'for one village'. The final subdivision was between individual landholders in proportion to the number of ploughgates and oxgates they held. Auchencrow was expected (much as West Quantoxhead in the Exeter Domesday) to contribute a fraction (in this case one quarter) of the dues owed by its parent village (probably Reston), plus an odd ploughgate. This may be teasing a few lines from a medieval book as far as is reasonable for fiscal matters.

Dodgshon makes considerable use of fiscal structures to provide evidence for the development of infield/outfield. He sees an ancient assessment, couched in very various units, as prevalent throughout Scotland: 'ploughgates', or their sub-division 'oxgates', were the usual units in the Lothians. By the feudal period oxgates were very often taken in a pair to constitute the 'standard' holding: 26 acres was adequate to leave a residue sufficient to sustain a peasant family after the priority claims of supporting the church by tithes and the landlord by rents had been met. On the Durham estate this two-oxgate unit went by the name 'husbandland' or simply 'bondland'. It was also (in a bi-modal distribution) one of the typical holdings for free tenants on the estate. Anything much smaller became unviable for a family: the lot of cottagers and small freeholders (five in all for Auchencrow) who made shift, somehow, to get by.

An older fiscal assessment was, Dodgshon argues, related to the original field structure, infield. This fiscal 'assessment' can be seen as expanding with the field, the idea being that

additional ploughgates, husbandlands, oxgates or acres constituted an 'outfield', expanded 'out' beyond an original field. Dodgshon sees some evidence that the expansion might have been generally achieved by an increase of the oxgate from an older 8-acre entity to a newer 13-acre unit (the treacherous difference between 'viii' and 'xiii' in medieval handwriting). He sees some connection also with the two named assessments, often met in 15th-century charters (and very seldom in earlier ones), where lands were conveyed with reference to their 'old extent' or 'new extent' valuations. Supposed fiscal assessments thus play a crucial role in demarcating distinct phases of a model of field system development.

Values on a national scale were indeed set out, by counties and according to two extents, in the 1366 parliament, by which stage there is the beginnings of a record of a nation-wide system of taxation (Donnelly 1999a, 17). The questions are how far back an elaborate, and recorded, system can be projected and descending to what level of local detail? We have seen something of the sort for Auchencrow but from a local and landlord source rather than a national record.

Fully functioning national systems of direct and indirect taxation are taken for granted today, much as clerks took field systems for granted in the Middle Ages. Thunderbolts of excommunication against the recalcitrant flew about the place but it was a desperate struggle even at the end of the 13th century to extract modest sums from a narrow range of taxpayers: by the 1290s the papacy managed an assessment for both England and Scotland (Stevenson 1996, 300–1) which got within perhaps 50–67% of actual incomes (Donnelly 1985, 170). The Church had certainly inched some way towards general taxation by 1300 but it is a big step to go on to suppose that there existed (even before the earliest records of c 1100) an ancient, detailed, national assessment of the illiterate peasantry, recorded down to the level of village acres. There is no doubt that ancient fiscal notions were about in the 12th-century but it is hard (for an economic historian if not a model-making geographer) to imagine taxation being collected in any regular or systematic way, let alone being revised in the light of alteration in field systems.

THE AUCHENCROW PROCESS: HOME & BOIG AND OTHERS

Dodgshon (1975a, 21–2) gave an undated figure for the fiscal assessment of Auchencrow: the village, he thought, had 18 husbandlands. He took his Berwickshire and Roxburghshire data from sources in the Sheriff Court papers (now in NAS), drawing on the many *processes* for division of runrig lands. Other evidence suggested, however, that the village actually had 34 husbandlands in 1629, 'the threttiefour husbandlands of Auchencrow' (Thompson 1908, 161). These amount (if standard issue 26 acres) to 884 acres, very close to figures for arable about 1298. These acreages would put the medieval arable, on slightly different sets of assumptions, at 848, 898 or 911 acres, equivalent to 32½, 34½ or 35 husbandlands. Assuming some sort of continuity in the Auchencrow acre there were not far off 34 notional husbandlands in 1298, as there certainly were in 1629. A distinction which Dodgshon (1975c, 194; 1980, 146) has tried to draw between 'proprietary' runrig and 'tenant' runrig has never made a great deal of sense when considered as a fundamental feature of the early system, whatever its undoubted importance in the winding-up process. It seemed possible, nevertheless, that the figure of 18 husbandlands could have derived from a late medieval distinction between free land on the one hand and former demesne or bond land on the other. It seemed plausible to suppose that the mistaken figure for Auchencrow might be related to the 37 oxgates (18½ husbandlands) of free lands in the 15th century (*BBC*, H.143–51, M.233–41), or to the 18 husbandlands conveyed as a unit in 1598 (*Milne Home*, no 139).

The anonymous referee who read a draft of this paper for the Society strongly urged, however, that I should look at the original documents Dodgshon had used. From this exercise an

altogether simpler explanation of the anomalous 18 husbandlands emerged: Dodgshon had not merely mistaken a figure, but had misunderstood the document he cited (Dodgshon 1975a, n 50).

The *process* in question, Home & Boig and others, was protracted and, in it, the leading landholder (one of the ubiquitous Berwickshire Homes) ran into unexpected opposition. The Sheriff Depute was constrained therefore to write a long judgment, setting out a closely reasoned decision (Ninian Home's kinsman was, after all, the local sheriff) in a 'sentence' a dozen pages long (NAS SC60/7/17, 382–93) — a massive construction which narrates the various stages in the process (1713–15), summarizes the content of many of the documents produced in earlier litigation (some dating back to 1686), and incorporates the substance of Home's lengthy petition which itself rehearses much of the self-same information and has his lawyer fulminating in common form against 'how unreasonably stubborn and contumacious the aforesaid [defenders] are without any shadow of equity or so much as a reasoune alleadged' (ibid, 392). My guess is that Dodgshon took the largest figure he could find from an early page of the learned Sheriff Depute's interminable sentence (ibid, 382). What he came up with was indeed land 'extending in haill [whole] to eighteen husbandlands' but, unfortunately, one cannot cherry-pick densely crafted prose and must look to the surrounding clauses as well.

The pursuer (ie plaintiff) actually claimed, among much else, 'all and haill' four and one half husbandlands called Broade Aiker, 'all and haill' five *Kirke* husbandlands of old belonging to the presbytery and lying within the 'toun and terratary of Auchincraw', a 'peace' of land called Broudaiker, good and undoubted right to several other husbandlands lying in the town and territory 'extending in haill to Eighteen husbandlands', and some rigs of land in the outfield called common land. This comes from the original, preserved amid filthy, crumbling bundles but is, for all that, rather more legible than the registered copy (NAS SC60/10/30; the registered copy is not always a verbatim transcript, eg reading 'year'd' for 'peace', SC60/7/17, 382–3).

What Dodgshon failed to grasp is that far from extending the *haill* of Auchencrow, his text merely presents 18 husbandlands as one (admittedly the largest) of many parts of the whole village, claimed by one (admittedly the largest) of its landholders. Included in the process was a schedule, entirely overlooked by Dodgshon, which listed the other Auchencrow landholdings (NAS, SC60/10/30, bundle for 24 February 1715, unnumbered paper, 'Note of Lands'): the defenders (ie defendants) claimed 11 separate holdings (some jointly held by kinsmen) totalling just over 21 [lands] between them. It would be rash simply to 'total up' Ninian Home's various claims, add them to the other landholdings and then draw any sort of conclusion from the total so arrived at. Since Home was professionally represented 'his' pleadings are almost certain to be less than wholly true. The total claim is of the order of 31 husbandlands and may either be the result of double-counting earlier component titles with a later deed for the whole estate or, alternatively, may reflect some 'feudal superiority' over practically the whole village, freeholdings as well as former bondholdings and demesnes. Legal archives contain treacherous stuff and, if one must wrench the odd phrase out of context, the best place to go looking is always the conclusion: the learned judge ordered Home be given 19 parts of 39 ('Decree', note endorsed on Home's 'Petition', both NAS SC60/10/30 and 'registered Decree' SC60/7/17, 393, all dated 24 February 1715).

The quick reading of it all is that it was held that Home actually had a valid claim to rather more than 18 lands, while those he forced to defend an action had title to just over 20. Our Berwickshire Solomon split the whole 19:20, implying a total (in 1715) of 39 husbandlands in Auchencrow. This was pretty well in line with what the wealthier litigant required of the court, his petition claiming Home as 'being propietor of near halfe the Lands of Auchincraw which ly runrig with the lands of severall small heretors poertioners of the said toun' (NAS SC60/17/7, 392).

A couple of hours in NAS is enough to establish that in 1715, the end of the road for Auchencrow's open and common field, there were the equivalent of some 39 husbandlands. The figure of 18 husbandlands is not some mere slip of the pen but the product of a basic misunderstanding of the evidence. The figure produced an aberrant result in the data constructed (Dodgshon 1975a, 22) and might, on merely statistical grounds, have been checked. One hesitates to offer general comment on the work of a distinguished historical geographer on the basis of one obscure village. Since wide regional and national theories have, however, been built up on conclusions established, essentially, from 18th-century legal papers, it has to be said that the interpretation of the Auchencrow process (and indeed the estate plan) has been rather less than sound.

MEDIEVAL AUCHENCROW: FISCAL SYSTEMS

Exactly what significance should be attached to such figures (not to say 'assessments') is another matter. If, as is entirely likely, a village community managed to carve out acres here and an additional holding there (and so moved from 31 to 34 to 39 husbandlands), it would be the landlords and their courts, not a government, who were concerned. A government might (just conceivably) act through the sheriff and descend to deal with whole village communities, or the Exchequer enter into account with individual towns over the details of customs and the like, but even this is still at a far more generalized level than oxgates and acres.

Pre-1100 Scottish government had very limited scope. The sturdiest defenders of Duncan II's administration would admit that the (lost) original of the 'earliest Scottish charter' was a primitive product of an embryonic chapel or writing office. Some seal matrices clearly existed but scribes largely worked for the (generally monastic) beneficiaries. If a Scottish ruler could barely produce a short diploma proof against elementary forgery, maintaining a sophisticated, written extent must have been impossible. A contemporary analogy with southern England's great *Winchester Book* may come to mind but even these volumes were a failed enterprise, leaving the north untouched and never properly completed for a large 'circuit' in the south. It was demeaning, some thought, for a king to count cattle, something so over-ambitious as to deserve the half-derisive name *Domesday Book*.

Assumptions as to the fiscal sophistication of medieval governments, and early medieval governments especially, need to be kept within the bounds of reasonable possibility. Dodgshon's exercises in model-making have to move briskly through time if they are to fit in the proposed evolutionary phases, forcing the earliest stages of a kingdom-wide 8-acre 'fiscal' system before 1200 if not 1100. Goodare (1989, 26) explicitly rejects the notion of a system expanding from 8- to 13-acre bovates and Dodgshon has never adduced any actual evidence to support his proposition that there was some baseline framework, or nation-wide fiscal 'assessment' to be subsequently amended. Conveyancers who mention oxgates and the like may have had nothing more in mind than a 'unit of account' for acres (akin to *stones*, *dickers*, or *shillings* in commercial dealings). The Middle Ages moved slowly 'from memory to written record'. Oral and local traditions are about the limit for the 11th century, accurate in their way, but hardly a systematic national record.

Perhaps the best sense that can be made of 'old' and 'new' extents is that they are surveys for individual tenants-in-chief of the Crown. The English Chancery would send out writs for an inquisition *post mortem* to be held under the appropriate escheator. The response would be a detailed extent of the lands, one copy retained by Chancery (eg PRO C153/99), the other filed in the Exchequer (eg PRO E158/8). Scottish practice was much more rudimentary, the original writ

being simply returned ('retoured') by a jury with a brief note of the value of the lands. Rather more formal procedures are evident in the 14th and later centuries but are an uncertain guide to earlier arrangements. 'Retours' could be filed (by sheriffdom presumably) and so the most recently returned writ could be checked against an 'old' extent. This could build up to quite a mass of extents but it is by no means the sort of nation-wide survey, drawn up at one point of time, implied by Dodgshon's model. It is not impossible that Scotland got down to the same level of detail as the sophisticated English system, listing individual peasant holdings, but such a text could only ever be used to administer an aristocratic estate. Manorial records simply would not work as a means of tax-collecting on a village-by-village basis: the English government got itself into fearful difficulties when it attempted to impose such taxation by another route in the 14th century. It is stretching things to tie what very little is known of lay assessments to a geographical model of field system development. The attempt does, at least, stimulate a response, essentially that we do best to be guided by farming realities rather than fiscal abstractions.

MEDIEVAL AUCHENCROW: FARMING RESOURCES

The odd ploughgate mentioned for Auchencrow (*BBC M.245*) brings us down to an agricultural unit much more than a fiscal entity. The text works in terms of *bouata*, a unit which translates as the bovate (Latin English), oxgate (plain English) or oxgang (Scottish Antiquarian). It is used in the description (M.232) of the 4 oxgates of the lord's demesne, and the 35 oxgates of free lands where the standard rent was 11½d per oxgate (M.233–41). A nunnery's pepper-rent holding (M.242) was, exceptionally, expressed in acres: 5 arable, 9 meadow. After the extent was complete and the compiler had moved on to other memoranda, he returned at the very end of the volume (the last leaves of which are now fragmentary) to Auchencrow. There is a list of 'free farms of Auchencrow' consisting of, so far as it can be read, 18 miscellaneous holdings (M.397–414), a mixture of lands and husbandlands. This is followed immediately by a rather more coherent list, headed simply 'Auchencrow' and consisting of, certainly, 35, and possibly up to 38 or 39 oxgates (M.415–29), although it is quite likely that one or two of the now very fragmentary entries refer to odd 'lands' or acres rather than full oxgates.

There is no mention, even after three drafts, of an unfree class of peasants. An obvious thought is that perhaps there were none, but instead a new village populated by free pioneers whose own labour services (not insignificant but far less onerous than the standard bondman's) were directed to Reston. One extent, produced in very unusual circumstances in 1298, makes it clear, however, that either the (subordinate) lay lords had unfree tenants of their own or that the monks (the chief lords) had unfree peasants but chose to commute predial services for cash.

This extent, distinctive in its own way (and working very much in ploughgates as well as oxgates), was drafted in about 1298 out of other materials, which survive only as fragments (*BBC, B & D*). The compiler rather gingerly refers to that unfortunate business at Falkirk (*post desconfecturam apud le Faukirk*). This episode created a delicate situation for English lords. Edward I granted them the forfeiture of their 'rebel' tenants (DCD MC992) but in accepting his scheme of things, Durham took the first step towards breaking the link with a daughter priory at Coldingham. The peculiar situation faced by alien monks in 1298 brought some sub-tenancies (of 'forfeited' tenants) within the view of the lords' extent. The resulting text (*BBC E*) does not always make it clear who exactly was the lord of which particular Auchencrow holding but takes us way beyond what an extent would normally show. The clerk himself was not a bit interested in counting land but did count money (with unerring accuracy). He specifically excluded two items from his calculation and his arithmetic shows he decided to exclude no others. Following his lead,

it is assumed that there is no problem of double-counting Auchencrow sub-tenancies with their associated sub-sub-tenancies.

What it adds up to is that the monastic overlords had 5 oxgates 5 acres of demesne, a total recently augmented by purchase. The forfeited (mesne) lords had another ploughgate. The briefest of notes totals the unfree lands ('customary' holdings in English manorial jargon): four bondmen held 10 oxgates and two cottagers 8 acres (*BBC E.118*). The clerk noted that the oxgate consisted of 13 acres and commented on what a ploughgate was worth (cf McKerral 1944, 48–9). Our clerk did not (as for some other villages) go on to make the explicit statement that there were 8 oxgates to the ploughgate, something to be taken as read. The whole structure, demesne, free lands, and unfree lands, was expressed in ploughgates and oxgates, with odd acres, especially for the cottagers (Scots: *cottars*) or meadows. But for the accident of war, an extent would have given a wholly misleading picture of Auchencrow, excluding the extensive networks of subholdings. It is likely that the 1298 extent still excluded the subholdings of the one major tenant who was not forfeited.

The flexibility apparent in all of this is a useful warning against reading these extents as if they were set in tablets of stone. Thus what appears in 1298 as simply a major landholding had once belonged to a Robert Lauerd, a Reston lordling whose estate had slowly collapsed, leaving him with *lord* or *laird* as a rather unkind nickname (*BBC E.121*; cf King 1973, 33–4).

In one static 'snap-shot' of a dynamic system, captured in 1298, Auchencrow's medieval 'structure' stood (translating from ploughgates and oxgates to acres) at demesnes of 174 acres, unfree lands of 138 acres and free lands of 536 acres. The lay-held demesne was noted 'with meadow' but no actual figure was given; meadows were of course critical to the whole farming enterprise but it is likely that they were usually considered as distinct entities from the main arable structure. The total amounts to 848 acres so far as the extent extends. Allowing an additional 50 or 63 acres of subholdings (calculated from corresponding entries for the village of Paxton) takes us to 898 or 911 acres. These figures are as near as we are ever likely to get to a complete extent of the medieval village of Auchencrow.

There is a strong sense of communal obligation running through the medieval evidence, and as well as the farm, the king's corrody at Easter and all forensic service, the 'heirs of Auchencrow' were required to do 60 works [labour services] to the hall of West Reston. Other tenants had to plough and harrow one acre for each plough, make the mill pond at Reston, and keep in repair the pond and mill house at Auchencrow. Much of this might become redundant if the lord did not actually farm the demesnes or exploit the mill, but still offered chances for demanding cash payments in lieu of redundant services. Ploughing an acre may have been a mere token of subservience, or rather more of a burden if it extended to both fallow and seed ploughing. These obligations were significant to the lords (both symbolically and when taken in aggregate over the whole barony) and always a potential basis for expansion. The burdens are described generally as 'services of the village' (M.245) and convey an obvious sense of communal obligation, sometimes directed to tasks most sensibly tackled by numbers of people working together rather than dragged on endlessly by individuals. The mill and notes on suit owed to all courts (M.243) or the three chief sessions (M.244) are further reminders of the sway of lordship over the village community.

With common obligations went common rights. Charters show that land held in Auchencrow had rights in proportion *ad tantam terram*, a concept sometimes more fully expressed as rights inside the village and outside it (DCD MC 881; 1210, Reg. I, fols 13r and 3r; MC 882). One such right, that of taking timber from a neighbouring wood for house-building or for making ploughs, was a sufficiently entrenched part of the system by the mid 13th century for it to be

successfully defended by Auchencrow tenants in litigation in the sheriff's court (DCD MC845, 848 & 1263), an instance perhaps of royal courts being used by free tenants to restrict their lords' initiative.

At the back of all this is the fact that medieval arable farming depended for its success on a degree of collective enterprise, in clearing the way for a settlement and then working the land. The eight oxen conventionally needed for a plough were generally beyond the resources of any one peasant family, making some degree of co-operation essential, with a ploughgate of 104 acres being seen as the building blocks for fields. It is here that speculation about 'three embryonic fields' (Duncan 1975, 316) in a Berwickshire village comes unstuck. They were nothing more than groups of furlongs, but the very metaphor of slow biological growth is misleading since the minimum efficient scale for fields — and so the minimum unit of increment — was large. So far as the didactic literature was concerned, English systems worked in incremental units of 160 or 180 acres, needed to keep a team ploughing for about 240 days a year (Oschinsky 1971, 265, 315). Once fields were laid out, these were matters of no great interest to the landlords or their clerks, provided only demesnes were farmed and tithes and rents paid, as per roll (cf PRO SC6/964/1; ROLLR DG7/1/2; DCW WAM20218).

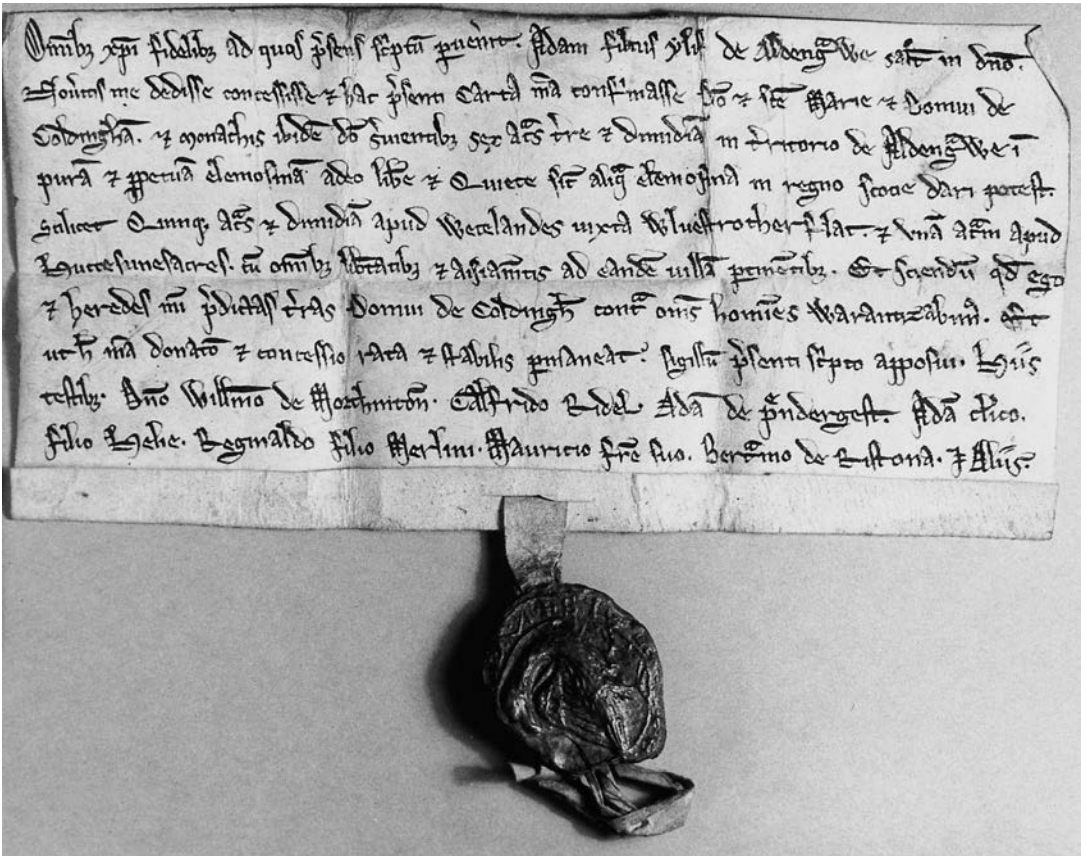
MEDIEVAL AUCHENCROW: FIELD NAMES

Medieval clerks spent whole days toiling over just such long parchment rolls of extents, accounts and court proceedings, but by far the best known of their productions for medieval Scotland are the much shorter but more elaborately composed charters (Barrow 1973, 265). Charters at the beginning and also at the end of the Auchencrow series are laconic productions (eg DCD MC1109, 877). Two 13th-century (Latin) charters give descriptions (a term of art to the manorial clerk) which do, however, offer an idea of the layout of holdings in the field of Auchencrow and are worth setting out in (English) abstract.

The first detailed charter (DCD MC884, undated but early or mid 13th century) lists $6\frac{1}{2}$ acres of land in the territory of Auchencrow, namely ' $5\frac{1}{2}$ acres in Wetelandes beside Wluestrotherflat and 1 acre in Huttesunesacres' with all liberties and easements belonging to the village.

This charter (illus 3) is a perfectly routine product of a medieval conveyancing clerk: such documents exist by the hundred in the Coldingham Priory archive. The second charter (DCD MC882, also undated but late 13th century) is more detailed (but inconveniently sized for reproduction) conveying seven acres of land in the territory of Auchencrow, lying by boundaries, namely:

a croft containing $\frac{1}{3}$ acre lying between the land once Richard of Chesholm's on the east and the land of [Richard son of Robert son of Matthew of Auchencrow] on the west
 $\frac{1}{2}$ acre in driford
 $1\frac{1}{2}$ acres in wyndiflat in two places
 3 roods in Alexandermedu on the west part
 $1\frac{1}{2}$ roods at Bradestrother
 $\frac{1}{2}$ acre under harechester in two places
 2 acres 3 roods at Westerwardelaweside in three places
 and 3 roods at Wyndibuhtes
 . . . with all liberties and easements, inside the village of Auchencrow and outside it, belonging to the land.



ILLUS 3 Auchencrow charter, undated (DCD MC884)

On one view this is all utterly obscure and petty detail. On another, these acres, roods and half-roods were instantly familiar, a matter of everyday reality. The fact that it seemed useful to give detailed descriptions is, of itself, a strong indication that strips were not subject to frequent reorganisation. On the other hand, there is no absolutely exact correspondence of either of these holdings with any of those listed in the 1298 extent (although some are close).

The names in these charters preserve something of the processes of colonization at Auchencrow. Thus 'Birkenside' could be an assart made into a birch wood and was certainly adjacent to the wood of Restonside (DCD MC881). 'Alexandermedu' obviously enough names its owner or creator. 'Wluestrotherflat' and 'Bradestrother' suggest extension of arable into former marsh. Wetelandes (beside Wluestrotherflat) probably means 'wet' rather than 'wheat lands' and it is as 'Wetland Road' that the name survived in a copy of a plan of 1759 (NAS RHP178). The village's original name, '-grawe' or '-grave', suggests either that Haldan directed an extension of arable by clearing a woodland grove or that arable was created out of marshland, drained by the ditch Haldan had arranged to be dug. Considerable areas of 'moss' and 'mire' existed still in 1759.

‘Hot’ and ‘Cold’ lands may indicate the practice (Scandinavian in origin) of ‘solskifte’ (Dodgshon 1975b, 5–6). So too ‘Huttesunesacres’ could (at a pinch) be read as ‘hot sun’s acres’ rather than ‘Hutte’s son’s acres’. A Berwickshire charter, no later than 1233, casually mentioned one acre ‘remotius a sole’ (DCD MC 904: Raine printed this in *ND* 225 with a long ‘s’ in *sole*, correct but liable to be misread as an ‘f’). The reference, although missed by Dodgshon, is particularly good and early evidence to establish his idea of solskifte in 13th-century Berwickshire. Centuries after any direct Scandinavian influence on the North Sea coast of Scotland, the evidence betokens an aspect of Berwickshire field systems very much older than 1233, and not unfamiliar to Haldan’s pioneering generation.

The Auchencrow name elements are obviously English so it may be that in the search for the origins of the field system the starting point must be later than Anglo-Saxon or English-speaking settlement in Berwickshire. In any particular case the survival of a medieval field-name into the Early Modern period may be nothing more than the preservation of a name despite a radical rearrangement of a system. When, however, coherent units of agricultural land survive, as well as names, over long periods, there must be a presumption in favour of long continuity of systems. Here, of course, late evidence has to be brought into play.

‘Wetlands’ is a case in point. It appears in the 13th century as five and a half acres, and then in three acres of outfield known as ‘Weetlands’ (NAS RHP14788/2 & 3). ‘Coldlands’ of c 1715 can be traced as the ‘Cald Lands’, a six-husbandland unit in 1596 (*Milne Home*, no 371). These 6 husbandlands (156 acres in theory) are very nearly identical with the 157 measured acres of the survey. ‘Kilnland’ or ‘Killand’ also preserved continuity of a sort. ‘Le Kynneland namely one oxgate’ was an oddity (former woodland of some sort) in the early 15th century (*BBC M.423*) and ‘Killand’ was an oddity in the 18th century, 19 acres, no fewer than 17 of them outfield, and described as merely as ‘Kill Lands’, rather than specified in terms of husbandlands in 1715 (NAS SC60/7/17, 385). An 18th-century ‘Park Land’ was a husbandland in 1632 and a mark (‘merk’) of land in 1576 (Thompson 1908, 158 and no 37). The acreages seemed not to match, at 55 measured acres, but the link between the husbandland and the mark of land is clear, and it turns out there was not merely ‘ane parke land’ in 1715 (NAS SC60/7/17, p 386): $2 \times 26 = 52$. ‘Priory Land’, 21 acres in the 18th century, is a very obvious link with the old order, a ‘land’ which must have been organized before the secularization of monastic estates, in 1606 for Coldingham Priory (McNeill 1996, 221).

The size of the lands confirms the impression of continuity given by their names. ‘Cold Land’ has been mentioned as a surviving six-husbandland unit. Equally, ‘Hot Land’ in the 18th-century survey, which had exactly the same ratio of infield to outfield, is near enough at 236 measured acres to make a nine-husbandland unit (234 acres in theory). ‘Craw Land’, 104 acres c 1715 is exactly equivalent to a ‘ploughgate’, eight of the 13-acre oxgates recorded at Auchencrow in the extent of c 1298. The likely candidate is the lay-held demesne (‘Craw’ land), the only one-ploughgate unit listed in 1298.

It all may not be as improbable as it sounds. If the original fields were laid out in a deliberate process of colonization there must have been a survey. Inertia is ‘far from being a dysfunction . . . a process fundamental to the ongoingness of any society’ (Dodgshon 1998, 200). Once staked out and established, acres would maintain their existence by mere inertia or because of what, in the economists’ language, go by the name of ‘transaction costs’ (Dahlman 1980, 79–81). Once larger landholding units were drawn together out of these acres, lawyers had an interest in routinely preserving continuity of form, while periodically feasting at any reorganization, of such as the field or territory of Auchencrow.

MIEVEAL AUCHENCROW: ANTIQUARIAN CORRUPTION?

It is easy to get lost in a thicket of medieval complications and the oddest feature of the Auchencrow evidence has been held over until now. Earlier discussion of the roll (text E) specified a date, 1298, but nothing was ever said about the book (text M). It is a fair assumption that any historian reading the material would have taken it for granted that it must be a 12th-century product. Indeed it is redolent of *Boldon Book* which serves as second-best to the never-written folios of *Domesday* for the English north-east.

The manuscript is a quire of 18 folios. It has never been completed but seems with another gathering, a catalogue (DCD MC1026), to have been intended as a fascicle towards the making of a volume on Durham's estates in Scotland (Donnelly 1989, 17). It develops into something of a rag-bag of materials towards the end and the compiler may have been struggling to fill the nine bifolia of available space: *Domesday* found it difficult to 'size' its component fascicles even on the second draft. Our text is (from the handwriting) quite clearly a 15th-century production but cannot possibly (from the antiquated content) represent then contemporary conditions. The value of its potentially important evidence depends on an assessment of the man behind it, John Wessington, Prior of Durham.

Wessington was a lawyer. His quietly determined, legalistic and antiquarian cast of mind is a marked feature of the Durham archive and can still be sensed in some of the many documents endorsed in his handwriting or compiled under his direction (Dobson 1973, 91, 363). The difficulty is to distinguish between what Prior Wessington dug up and what he might have made up: some of his tenants can be shown by other documents to have been at least 150 years old.

A small but busy minority of monks were authors of many a pious fraud: *invenire* was the deliciously ambiguous verb used to describe the process of 'finding' or 'inventing' happy discoveries, developments and duplications of the relics of the past. The wilder flights of out-and-out dishonesty were not his way and, where the originals have survived and can be collated, John Wessington can be shown to be scrupulously accurate when it came to arranging for the transcription of early texts. A pre-Wessington catalogue (BLO Carte 177) reveals, when compared to modern survivals, how much had been missed before his time. The prior investigated (and so helped preserve) whole categories of neglected documents where he could see potential legal value. Thus receipts, then easily 150 years old, were preserved. They now serve to document the early wool trade (Donnelly 1980, nos 1–9) or papal taxation (Donnelly 1999a, 3), but illustrated, for Wessington's purposes, Durham's former financial interests north of the border. He gathered together whole files of early 'chirographs' because he saw they demonstrated Durham's spiritual lordship over Scottish churches (Donnelly 1997, 61–2). Similar texts showed English monks controlling temporal estates in Scotland and Wessington had an appropriate selection written up into his great register (Donnelly 1989, 13).

The best line of approach is that late medieval Benedictine monks were — from a sympathetic viewpoint (Harvey 1977) — 'reluctant travellers' along the stony paths of contemporary realism. Wessington's long dead tenants were probably more due to his inability to contemplate the world as it was rather than it once had been than any deliberate deception. It also made sense, of a sort, to take more of an interest in the underlying structure of tenures than the actual names of the transitory tenantry. In any case, the medieval habit of abbreviating common Latin words often helpfully obscured the actual tense intended: the enigmatic *ten'* might as well mean *tenuit* as *tenet* and Prior Wessington himself saw little enough distinction between writing in a past or present tense. In so far as one can, at this distance, enter into his mind, John Wessington was (as befitted his religious vocation if not his secular interests) an intrinsically

honest man. He often had a strong sense that something of a present or future legal case might be made out of past evidence: not exactly a hard-nosed realist, but no forger. He did have access to *Boldon Book* and had it copied into his great register (DCD Reg. I). While it is always possible, therefore, that he might simply invent, or at least embroider, early Scottish tenures by analogy from other early sources known to him, other Durham writers also refer to the *Black Book* and, on balance, Wessington's Scottish volume is more than just some 15th-century fantasy conjured up out of *Boldon*. The three successive recensions for Auchencrow may actually show a process of fitting up-to-date names into an out-of-date structure. Why it was this obscure village which, alone, was given such elaborate treatment is beyond knowing. Perhaps the following quire held the answer. It is lost.

Wessington's fragmentary volume (illus 4) poses unusual problems. Dismiss text M as a worthless monkish fantasy and with it goes most of our knowledge of early Auchencrow's fiscal and social obligations. The bare structures are well enough known from other (more strictly contemporary) extents not to need confirmation from text M (two versions of which are in any case near-enough contemporary compilations for Auchencrow). Accept that John Wessington had unearthed an old *Black Book* and there are glimmers from the 12th century or even earlier. In any event, Wessington was nothing if not an enthusiast for long continuity, an Oxford man a little sad perhaps to have lived to witness the many and unhappy discontinuities manifest in his own day, and uneasy with what he could sense of the likely future for the surviving relics of English power in Scotland.

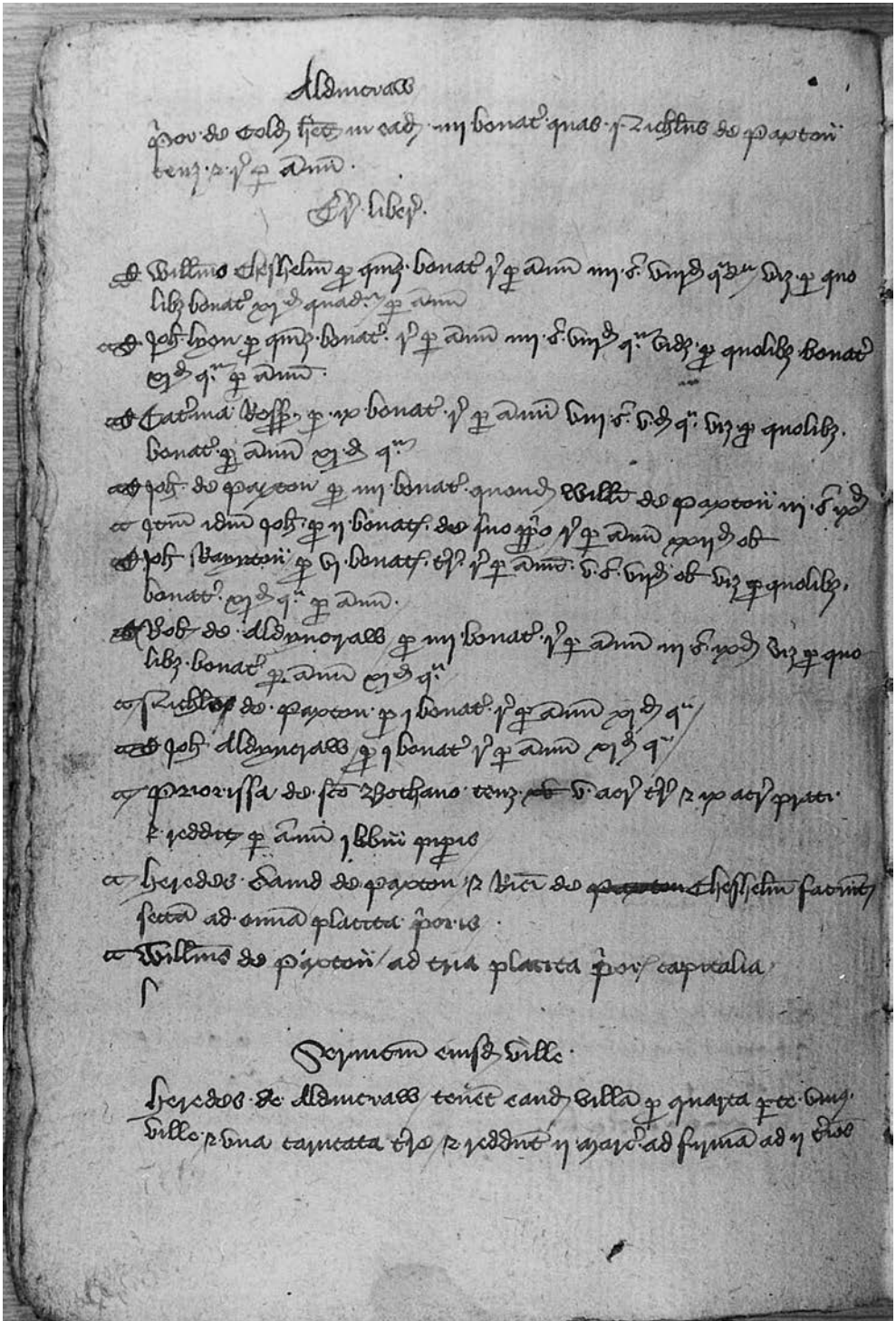
CONTINUITY OF FIELD SYSTEMS

Assuming that one can use the medieval evidence, the acid test for the new model view of the development of infield/outfield is that, if the model is correct, the total infield recorded by the 18th-century survey of Auchencrow should be approximately equal to the total acreage of the husbandland 'assessment'. The rest must be later, out-of-field-structure, land. Dodgshon's model predicts that any medieval acreage (ie the whole of the supposed infield only system) should be approximately equal to the infield part of the post-1400 infield/outfield system.

The 18th-century Auchencrow survey recorded 345 measured acres of infield. In 1298 the village had an arable area of some 848, 898 or 911 acres: no match there. Even accepting (for the sake of argument) a fiscal figure of 18 husbandlands, this would give a structure of a notional 468 acres of 'old' infield, which still does not fit with an actual 345 acres in the surveyed infield.

The $32\frac{1}{2}$, $34\frac{1}{2}$ or 35 husbandland equivalents of 1298 are, however, very nearly matched with 34 husbandlands in 1629, and with the 31 or 35 husbandland equivalents, more or less, of infield and outfield in the carefully measured survey of c 1715 and related, in some way, to the Sheriff Depute's division of the whole into 39 parts.

It is possible that whereas Dowie's map was framed in terms of the 'Scots acres', medieval sources were couched in terms of a local measure, nearer to the smaller English acre (itself, of course, variable as between different localities and estates). The argument is that a local 'acre' might survive on the ground throughout the period 1157–1713: a now-obscure tag still tucked away in liturgies of the Anglican rite (the *Commination*, eg Zabieglík 2000, 159) runs 'cursed is he that removeth away the mark of his neighbour's land' and is a reminder of the sort of forces acting to preserve the status quo. Long continuity might, however, very suddenly break down if local measurements were disregarded in an exact, professional survey. It is by no means impossible that there was a change in 1715, but it makes little difference to the argument and does not alter the relative proportions of measured infield, outfield and the rest. If 'smaller'



ILLUS 4 A copy of, or fragment related to, the lost Black Book of Coldingham (DCD MC6817)

Auchencrow acres are implied by the historical sources, a 25% margin of error is still insufficient to bring the medieval acreage within the measured acreage of the 1715 infield, although it would make Dodgshon's view (somewhat) less improbable. Eight hundred (possibly smaller) medieval acres cannot easily be made to fit within the 345 (probably Scots) acres of the infield measured in 1715: long continuity is much more likely than late development.

No medieval source distinguishes infield from outfield but it is beyond belief that the 20 households of 1298 farmed 850 acres entirely as annually cultivated infield or that they and their cattle (68 adult oxen are implied by the fiscal assessment, quite apart from cows and their calves) could produce enough manure to sustain such an area in intensive, unfallowed cultivation year after year. Something nearer 345 acres of infield would make better sense, the intensive core of some 34 husbandlands, with some 510 acres of outfield and, then, some 350 acres of meadow, pasture and rough ground beyond.

Auchencrow's apparently strong support, at 73 actual acres to the notional husbandland, for the new geographical model of development, derives from a mistaken figure, itself then divided into a gross acreage which included not merely infield and outfield but all sorts of pasture and rough ground besides. David Dowie was perfectly correct to include all of this in his total, since his whole purpose was to prepare for a 'division' which would extinguish all common rights and divide every last corner of a former open field into discrete units. This does not mean that the whole of Dowie's 1309 acres ever formed part of the arable and Dodgshon was mistaken to take this figure as comprising the potential husbandlands, quite apart from mistaking the number of husbandlands.

THE PRACTICALITIES OF SINGLE FIELDS

A vital consideration in field systems was the pattern of arable crops cultivated (Miller 1976, 9). Situations where there was no separation of winter- and spring-sown crops into distinct fields — '*la ou les chaymps ne sunt mye partiz en deus, mes qe le hyvernayl e le trames sunt semes en un champ*' — were by no means unknown in theory (Oschinsky 1971, 442). Sowing (as did the English two-field system) both winter- and spring-sown grains within the same open and common field required both communal agreement and careful grazing (Miller 1988, 406; Campbell, 1990, 83). Medieval reapers generally used sickles and cut grain high on the stalk, left to ripen, rather than scything it down. Ideally, following the didactic literature, this would then be turned over by a fallow ploughing. If grazing was badly needed, temporary hurdles would allow this heavy stubble to be grazed over. In either event, folding livestock there for as long as the weather held would concentrate urine and dung on land intended for the Lent ploughing. To have a winter crop germinate and grow in the same field required endless vigilance and careful planning.

Although subject to the exigencies of rhyme and scansion, literary evidence suggests that to the mouse of medieval Scots fable, a tempting field of corn consisted of 'ryip attis, off barlie, peis and quheit' (Elliot 1974, 84): oats, barley, peas and wheat, for readers unfamiliar with the Doric. A monoculture of oats, or a combination of oats with barley, simplified matters considerably in some parts of Scotland but the pattern cannot be generalized to the whole kingdom (*pace* Whittington 1973, 541). Wheat was certainly cultivated on the demesne lands of Coldingham Priory, where the ratio of spring-sown to winter-sown crops averaged 66:34 in account rolls between 1358 and 1361. This may have been pushing things somewhat, with a view to putting as much of the best and purest wheat-bread that might conveniently be gotten on to the priory's high table, but figures from non-demesne lands of Auchencrow show a spring:winter ratio of 81:19 in 1559 (*Milne Home*, no 502).

The mere practicalities behind all this dictate a degree of sophistication and subdivision in Auchencrow's one-field, open-field field system. Although the south-eastern corner of Berwickshire was an area far removed from a monoculture of oats, the proportion of land under winter grains was at best one-third and probably nearer one-fifth. No very complex field system can have been required but the survey of c 1715 does show a rather higher ratio of infield to outfield (approximately 2:3) than was usual in 18th-century Scotland (Whittington 1973, 541). Without a full-blown two- or three-field system, which would in any case have proved too intensive in an environment so far north and west of home, Auchencrow would have found the moderately intensive infield/outfield system appropriate to its needs and resources, adapting it to the Merse by allowing a larger than usual infield.

Writers on field systems who find themselves talking about 'structural rigidities in spatial organization' have an over-bred sow by the ear. Medieval field systems mean, at bottom, a ploughman 'beslombered all in fen' and a wife leading steaming oxen to the end of another weary furrow. (William Langland added a chorus of wailing infants, off, to complete the picture of *Piers the Ploughman*.) It is little more than common sense to suppose that the village of Auchencrow in, and before, 1298 must have had a field system of sorts to keep livestock away from growing corn, to set times for sowing and harvesting and to regulate the use of arable and common grazing (Dodgshon 1981, 168). The Auchencrow charters show that holdings were scattered and intermixed, making some sort of communal regulation of land use inescapable, whether by informal agreement or the formal by-laws of the (later) Auchencrow *Birlaw Book* (Thomson 1908, app 28). Once established, such a system was likely to remain unaltered except for some strong and widely acceptable incentive to change, if only to avoid the transaction costs involved in setting aside dense networks of long established landlord, tenant and common rights.

ABSENCE OF EVIDENCE AND EVIDENCE OF ABSENCE

Ultimately, it is beyond the power of reason to deduce any type of field system at Auchencrow simply from the available medieval evidence. There is no absolute shortage of material but neither the clerks who wrote documents nor the lords who engaged them had any interest in recording field systems. That enterprise was left to an extensive didactic literature (Oschinsky 1971) and the arcane business of by-laws (Ault 1972). Local laws sometimes creep into court rolls (DCD MC1222, DCW WAM20411) or get tucked away in paper schedules once attached to grand parchment rolls (DCW RCO56/1/29). The bare fragments of early Berwickshire by-laws are, however, for Ayton, not Auchencrow. No surviving manuscript of the didactic literature has a definite Scottish provenance (Duncan 1975, 431–2, makes rather much of this) and none was specifically adapted to Scottish conditions: texts were available at Tynemouth, St Albans' northern outpost, and at Durham (Oschinsky 1971, 51–5). This imperfect pattern of survival is, however, much the same for a vast estate in the Midlands and Home Counties of England, since none of the didactic treatises on farming has a Westminster Abbey provenance (Oschinsky 1971, 52–5). It is worth recalling how very few of the liturgical manuscripts, needed by the hundred to adapt the *Sarum* Use to Scotland, have survived — often only as fragments used as book-binders' waste (McRoberts 1952, esp nos 5–16a). *Sarum* needed only local additions, not radical textual changes, to become the pre-eminent Scottish liturgical use, but the English agricultural literature would have required substantial re-writing to adapt to Scottish practice. Having regard to the total number of surviving manuscripts, one cannot base comments on agricultural ignorance or any lack of enterprise on the part of lords, such as the monks of Westminster or Coldingham, on the survival patterns of particular didactic texts.

It is much the same when it comes to using documents to examine early field systems. Attempting (by way of an experiment in comparative history) to deduce field systems for Barleythorpe in Rutland from medieval sources alone, an account roll (DCW WAM20218), an extent (PRO C133/95), and a dozen charters (DCW WAM Domesday, ff 596r-602v) quickly reveal three (and only three) fields. Although these texts quickly disclosed field names and land units, further reading yields absolutely nothing further in yard after yard of parchment. The only Rutland evidence which takes matters further are numerous by-laws (gloriously detailed), land books which survey holdings, and maps which plot them on the ground: the problem is that these sources are none of them medieval in date (DCW RCO56/1/170; WAM20727; 20758C, 57747). Search the surviving documentation for medieval Rutland and we draw another blank.

One possible approach (which not all will consider acceptable) is to make a virtue of necessity and argue from the silence of charters. Barrow ranged widely over central and eastern Scotland but avoided drawing conclusions (either way) from what documents did not say. Given a good enough run of charters for one area (be it Rutland or the Merse) it may, however, be reasonable to draw some inferences. Thus Coldingham Priory has charters by the hundred and the manuscripts are abundant enough to suggest that, had there been more than one large field in the territory of Auchencrow, it would have shown up in the documents.

Historical notions of field systems (notably Gray's 'Celtic System') have never actually been deduced *ab initio* from careful reading of medieval evidence. Gray's procedure was to discover the system from late evidence, then trawl medieval sources to produce earlier supporting references. Dodgshon is the first scholar ever to look at a large number of medieval documents and attempt to follow their (faint) lead. The risk is, however, that diligent search may make too much of much too little. The vast *Registrum Magni Sigilli*, a source ideal for the land market but ill adapted to the workings of field systems, yielded a bare 22 references to support a massive edifice of re-interpretation (Dodgshon 1973, 16). Modern physical survivals are there but are scarcely considered: archaeologists, although adept at settlements and artefacts, are not at their best digging fields and Maitland discovered long ago how far a historian can get without ever leaving the University Library or the Map Room. Exploiting present physical survivals does not (as a matter of fact) seem much to interest the archaeologists and environmental scientists: one exception is Dixon (1994) who offers both an overview and aerial photographs. These *Proceedings* were, I suspected, the best place to signal the rich documentation of the 'Durham' villages of the Merse to those who may know something of the potential physical evidence. Fiona Chrystall's (pers comm) initial response was that only the development of a multi-disciplinary approach will secure our understanding of historical landscapes (not to mention the basic 'model' of the medieval economy). No one individual is likely to possess the range of competencies required (without falling into egregious error) and no one potential site is likely to be ideally suited: the 'best' archaeological sites tend to be in remote, often Highland areas, the 'best' historical documentation is for areas more within the lowland pale and, hence, destructive development. A quite outstanding recent example of what can be achieved by properly funded research, bringing archaeologists, dendrochronologists and numismatists together in co-operation with sociologists, anthropologists and historians, is the recent volume on early Polish settlements (Samsonowica 2000). This massive study is a good example of just how much can be made of even unyielding early periods, given the political will to explore a nation's history — to say nothing of having a medievalist prominent in political life.

It is by no means difficult to see the inadequacies of medieval Berwickshire sources, when customs rolls tell endlessly where ships' home ports were but never where they were sailing to (PRO E122/193/8). Women hardly figure in Coldingham documents except occasionally as

spinsters or widows, and it took Edward I's wars to make heiresses and widows enough for sources to name women in any great number (*BBC* text D), before falling almost silent again. Berwick exported hundreds of thousands of sheep's worth of wool (Donnelly 1999b, 154) but we have not an inkling of the size of the average peasant flock for Berwickshire, only values for tithe lambs in appropriated tithes (Duncan 1975, 424).

Continental scholarship is perfectly happy to extrapolate medieval conditions from much later, almost modern, sources (eg Duby 1962, 328–9; Meitzen 1895, iii, 246 (*Atlas*, 74), or Davies 1999, 273). Insular students are reluctant to venture beyond their personal, preferred period of history and geographers trespass on specialist territory at their peril. Nothing can make charters and extents add up to medieval evidence for a medieval field system and so, although it does beg the question of continuity, we must often choose between using Early Modern evidence or, simply, giving up and concluding that nothing can be decided on the basis of the available medieval evidence.

There is a particular insular reluctance to accept 18th-century testimony at face value, perhaps because the evident distaste 'enlightened' commentators display makes them seem unreliable witnesses as to an 'unimproved' system of agriculture which had, nevertheless, sustained life down the generations. We know the end phase, that infield/outfield (Gray's 'Celtic system', so-called), was widespread and had worked, within the existing limits of technology, land, labour, and (as Adam Smith noted) livestock. Rather than simply use this material some commentators make heavy weather of it: the end-phase can be seen either as a late development from something even worse (infield only) or the embryo of something English and better (two- or three-field regimes).

The loss of political independence tends to downgrade perceptions of pre-1707 Scottish economic history in much the same way as German-speakers, heirs to expansionist powers which (for a time) helped extinguish Polish independence, can still find it difficult not to smile at the very words *polnische Wirtschaft*. Although still overwhelmed by an expansionist neighbour, Scotland was not necessarily backward or fated to be stuck with primitive and inadequate systems, while ignorant of better and English ones. It was not so much ignorance of these systems so much as the knowledge that they would not work which kept them out of Scotland (and indeed parts of England: Saltmarsh & Darby 1935). The often dire condition of the Scottish economy throughout the period 1296–1707 says more about the impact of long-sustained, if generally low-intensity, aggression by London governments than any inherent capacity of the Scottish economy and agricultural regime. This potential, documented in the taxations of English and Scottish dioceses just before Edward's Wars began (Stevenson 1996, 300–1), may well have witnessed levels of agricultural output in the long-remembered 'golden age' of Alexander III which were unequalled before William II's reign. The logic of subsequent events, if not explicit evidence, suggests a field system would need to be securely established before 1296 to survive the turbulence of the 14th and later centuries. A similar line of argument makes it difficult to see how, exactly, there could have been a late medieval expansion of field (and fiscal) systems from an 8- to a 13-acre oxgate and from an infield only to an infield/outfield system at a time when the currency, certainly, and the (taxed) economy, all but certainly, were in free-fall. But these points (an economic background discussed in Donnelly forthcoming) stray from a narrow path in the territory of Auchencrow.

CONTINUITY AT AUCHENCROW

Reviewing the Auchencrow evidence for field systems, medieval documents yield up fiscal units (if not perhaps 'systems' as we understand these matters) which equated to the larger units of

agricultural holdings made up of actual roods and acres. The texts very strongly suggest there was only a single territory or field. They give names to hint at processes of settlement, colonization or sun-wise division. They name clearly identified physical entities of roods and acres, which, to all appearances, lay scattered in distinct parcels or furlongs. The extents chart the full extent of a lord's interest and, in one exceptional instance, cover subholdings as well. If we are very keen, we can start counting fields, oxgates and acres, while through all of this John Wessington trails his coat of a tantalizing but perhaps rather spurious antiquarianism.

The fragments of medieval evidence can only be interpreted in the light of the very much more abundant Early Modern evidence. This suggests the Auchencrow infield/outfield, swept away c 1715, corresponded to the land held c 1298 by 20 or so tenants with the 60-odd 'fiscal' oxen of the oxgate assessment. Some system enabled the 13th-century tenants to get a living from 850-900 acres, and to make their contribution in rents, tithes and labour services to their various lords. Infield/outfield was the cultivators' answer to problems in their environment — different, of course, from southern solutions. Runrig was established as the new village community surveyed and colonized their field or territory of Auchencrow. In this they were following the patterns already familiar elsewhere in Coldinghamshire, much as Lincolnshire or Hampshire farmers laid out common fields in their New England along lines familiar from home. As a general rule peasant farmers have a pretty shrewd idea of what will work. To follow Barrow, Gray, Sinclair, Wessington or indeed Haldan, is perhaps a little unexciting, but taking evidence in its plain and grammatical sense may be better than straining after novelty of interpretation.

Perhaps the best one can do (and it is worth something) is to say that an infield/outfield model is congruent with everything that is known about medieval Auchencrow. An infield only model fits less well but (of course) it needs evidence from the (supposed) later phase to deliver the *coup de grâce* to the theory. One village does not make a system, even if it goes some considerable way towards un-making a model. The present writer finds it difficult to imagine any conclusion other than continuity of field systems and, at the end of the day, an economic historian can take things no further than provisional conclusions established as long ago as 1962. Barrow had the measure of early charters and one can only observe (as in Barrow 1973, 262) that there is no (explicit) indication in early documents of any system of 'infield' and 'outfield' cultivation although (and again the qualification clause is important) the texts are not incompatible with the existence of such a system. Broad continuity of acres in the field or territory of Auchencrow is established retrospectively from 1715 to 1298, likely to at least 1157, and possible before 1146. So far as documentary history is concerned the earliest limit, for Scotland, of any continuous medieval series lies (depending on one's view of the monastic propensity to forge) somewhere between 1094 and 1097. Insist on explicit documentary evidence and we would be ignorant indeed of almost every aspect of medieval life apart from conveyancing and/or forgery. Read medieval evidence in the light of later sources and then one can only conclude (as does Barrow 1973, 278-9) that the agrarian pattern in Scotland was already of very long standing by c 1100, while the associated fiscal system was, even then, well established and probably fairly ancient.

Barrow's entirely proper respect for the limitations of medieval evidence inclined him to state his conclusions rather allusively. The 'Arts' side has not the slightest doubt about what he meant but the field system audience may contain geographers, environmentalists and Natural Science-based archaeologists who want things spelled out in something nearer their own style: 'compatible' rather than 'not incompatible' and dating more precise than 'fairly ancient'.

Approaching the question from first principles, transaction costs mean that it takes a deliberate effort to change any established economic system. Cultural and social traditions (not to mention legal interests) may also add to the inertia of existing systems. Taken together with

limitations in motive power (cattle), fertilizers, yield-per-seed and technology, these factors mean that any expansion or substantial reorganization of medieval field systems can be expected only in periods of general economic prosperity. Limitations of soil and climate make it unlikely that at any given time Scotland would be able to sustain quite as intensive agrarian regimes as contemporary southern and midland England.

Approaching the discussion from the documents, there is a sufficient body of primary evidence available for one part of Scotland to enable a student to formulate some conclusions as to field systems. In particular, it is reasonable to suppose that a system documented at the point where the predicted benefits of change had come to outweigh the anticipated transaction costs of its removal, would pre-date (by some years) any proposed change. In the case of Auchencrow the infield/outfield system was abolished under a procedure first established in 1695. Given a substantial body of documentary evidence (and Berwickshire is as good as it gets for Scotland) it becomes reasonable to assume that any major change would be reflected in medieval documents. It is not, and in the absence of contra-indications, one can only assume that the system removed in 1715 had long existed and pre-dates the earliest records of 1094–7. Detailed estate records for Auchencrow suggest that the system documented in 1715 corresponds with structures documented in 1634, 1430 and 1298 for a settlement known by 1157 or 1146. The presumption must be in favour of long continuity of systems, preserved because of structural rigidities in spatial organization (so to speak).

There was no sort of sophisticated, detailed, nation-wide fiscal system for either Church or State before 1300 and it is, frankly, untenable that even late medieval secular government had either the motivation or the administrative capacity to adapt a fiscal system in close detail to a new emerging field system as and when new lands were added to countless settlements. The treatment of the Auchencrow estate plan and legal documentation was, as it happened, mistaken in earlier research but even when an accurate figure is substituted, the resulting data disprove the late emergence model. Tested against the best-documented site available, the territory of Auchencrow, the model fails. So far as the present state of knowledge goes, one should assume long continuity in field systems so that, in any given medieval year, Scotland would have been able to exploit barely 40% of its arable land, as distinct from 50% to 67% under the most common English models.

The medieval Scottish economic system had, in other words, to work within the environmental constraints of lands less happier than England's blessed plot. And so, reverting to an 'Arts' approach, the origins of the infield/outfield pattern of landuse are, so far as the documentary evidence goes, lost in the mists of time. The pattern existed, in a phrase from an Auchencrow charter of 1352 (DCD, Reg II, fol 142v), past memory of man.

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SOURCES: NOTE ON MANUSCRIPTS CITED

- BLO: Bodleian Library, Oxford, Carte 177, a 'stray' Durham repertorium, cataloguing the whole archive, including Scottish materials; a few items mentioned (including some royal charters) are now lost.
- DCD: Dean and Chapter of Durham, Muniments, 5 The College, Durham. I have used the manuscripts but many documents are given in abstract in the appendix to *ND* and in *CC*. MC is 'Miscellaneous Charters' a large, artificial, modern class containing minor, informal and Scottish materials. The main ('Repertorium') series includes 3.1.Reg and Reg I (John Wessington's formal register, as distinct from his smaller personal register) and Reg. II.
- DCW: Dean and Chapter of Westminster, Muniment Room, Dean's Yard, Westminster. WAM is Westminster Abbey Muniments, a vast, artificial, modern class to which documents were being transferred from unlisted archive groups till lately. RCO is Recent Chapter Office; 'recent' means post-1540.
- NAS: National Archives of Scotland (formerly, Scottish Record Office); GD, gifts and deposits; 'RHP' is an artificial class, Register House Plans; SC are Sheriff Court papers formerly in local custody.
- NLS: National Library of Scotland: Adv.35.3.8 and MS2949.
- PRO: Public Record Office, Kew. 'C' denotes Chancery; 'E', Exchequer; 'SC', Special Collections (in this case 'ministers' accounts').
- ROLLR: Record Office for Leicestershire, Leicester and Rutland (formerly, Leicestershire Record Office), deposit of Finch papers. Although the point escaped its editors, the roll (as indeed *BBC D, E & F*) is not a continuous text but a collection of (in this case five) distinct items, compiled for rather different purposes within Earl Edmund's estate, 1297–1300, and a stray document of 1305. A translation (*The Oakham Survey, 1305*, ed A Chinnery *et al*, Rutland Record Society, 1988) construes *dominus comes* as 'lady countess' and moves on from there to translate a single text dated 1305.

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