

Open fields

The need for an international perspective

Hans Renes

Ladies and gentlemen,

1 Introduction and terminology

Research into landscape history is still very much a done within national boundaries and research traditions. However, as I hope to make clear in the present paper, there are three good reasons for a stronger international perspective. The first is, that the development of landscapes and agrarian systems in different parts of Europe are connected. The second reason is, that many local explanations become problematic when a phenomenon is studied in a much more varied international context. The third reason is the existence of different national research traditions itself: the results can complement each other.

Definitions of open field, common field and midland system

(x = necessary component; 0 = possible component)

Aspect	(Irregular) Open field	Common field *	Midland system **
Main land use is arable	X	X	X
Individual parcels not surrounded by hedges or drystone walls	X	X	X
Strip field pattern	0	X	X
Used as pasture after harvest and in fallow periods	0	X	X
Existence of common pastures and waste lands	0	X	X
Management of the open field is regulated by an assembly of cultivators, possibly with enforced crop rotations (' <i>Flurzwang</i> ') on parts of the open field	0	X	X
Two or three field system on a village base, with enforced crop rotations (' <i>Flurzwang</i> ')	0	0	X

* German language: *Gewannflurssystem*

** German language: *Zelgensystem*

It is necessary to start with some terminology. Behind the simple term 'open fields' lies a number of different concepts that are often intermixed but in fact have to be investigated separately: openness, arable, subdivided fields, ridge-and-furrow. The simplest definition of open fields is: 'Open field agriculture was the means by which land was cultivated by the inhabitants of a township who worked their holdings in unenclosed parcels'.¹

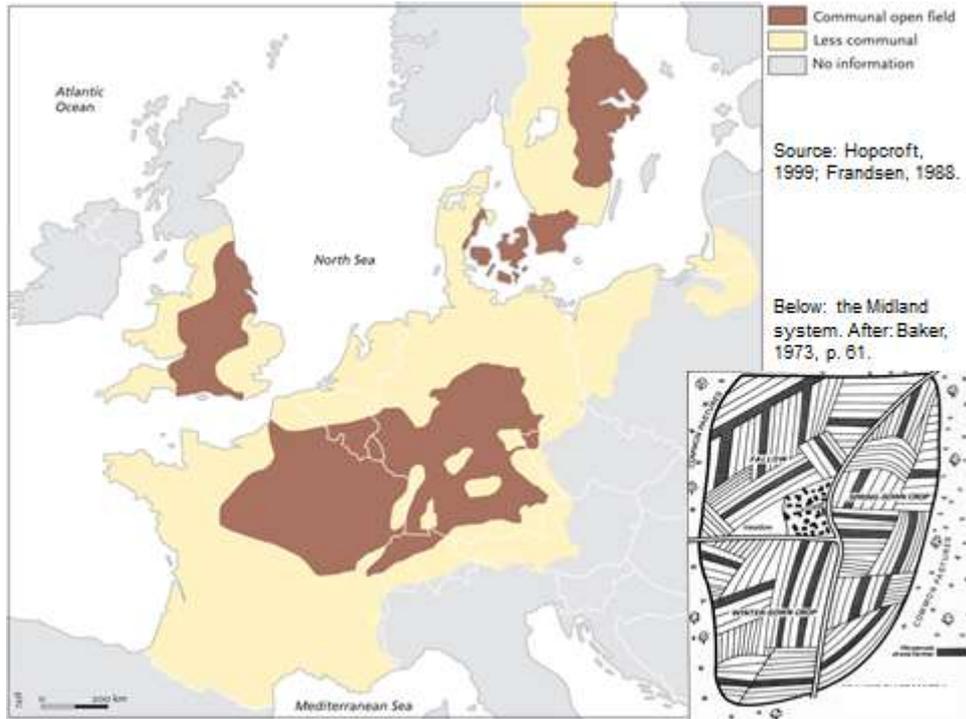
The most well-known subtype is the so-called *common field*. The common field system is known in German-language literature as the *Gewannflursystem*.² Often these systems are called 'regular' open field systems as against the 'irregular', more individual systems.³ The common field system was defined by Thirsk⁴ as having the following characteristics:

- [1] the arable and meadow is divided into strips among the cultivators, each of whom may occupy a number of strips scattered about the fields;
- [2] both arable and meadow are thrown open for common pasturing by the stock of all the commoners after harvest and in fallow seasons. During the fallow periods, the arable in fact becomes part of the common grazings;
- [3] there is common pasturage and waste, where the cultivators of strips enjoy the right to graze stock and gather timber, peat and other commodities;
- [4] the ordering of these activities is regulated by an assembly of cultivators (the manorial court or a village meeting).



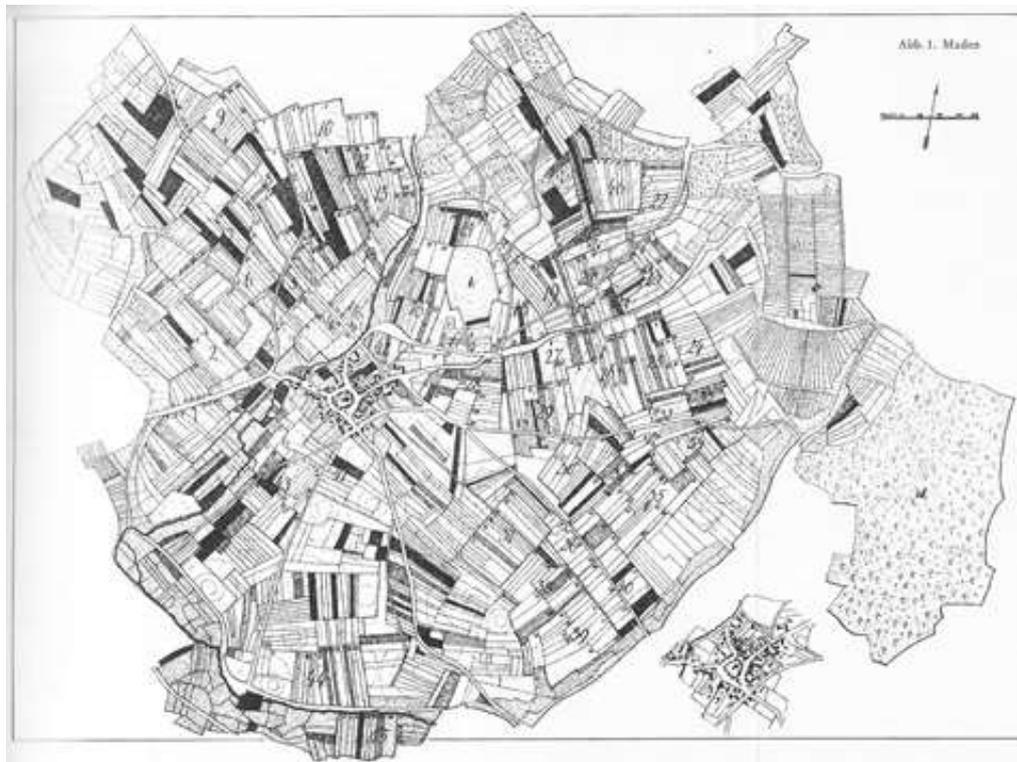
An 'irregular' open field: Vlijtingen (Belgium). The yellow fields belonged to the Chapter of St Servatius at Maastricht. On the lands of this estate, an enforced crop rotation was implemented (O, C and T), that did not extend to the other farmers of the village. Source: Hackeng, 2006, Map 8.

This last-mentioned aspect suggests common regulations on the field, but Thirsk is not completely clear about this. In fact, common fields can have functioned without enforced crop rotations (see the figure of the village of Vlijtingen).⁵ Therefore, an even more rigorous definition is possible, which has been formulated by Gray⁶ as the *Midland system* (in German literature sometimes referred to as *Zelgensystem*).⁷ In this definition, a two- or three-field system in which the furlongs were grouped into two or three 'fields', crop rotations were organised on a village basis and the individual farmers had to adapt themselves to an obligatory communal management of the fields, a system of enforced biennial or triennial crop rotations (German: *Flurzwang*). In fact the whole village was run like one big farm. This system implies not only that the two or three fields were more or less the same size, but also that the strips of an individual farmer were more or less evenly distributed over the fields.⁸



These highly organized systems could mainly be found in the core regions of medieval open field agriculture, as they were mapped by the American sociologist Rosemary Hopcroft.⁹

2 Research traditions



Research of agrarian historians and geographers into the landscapes of open fields has a long tradition, that goes back to the nineteenth century. A milestone was the publication of August Meitzen's monumental book on field systems in 1895.¹⁰ His central theme was the ethnic origin of agrarian and field systems. It seems that in that period, the scientific community was more internationally oriented than during most of the twentieth century, at least in this type of studies. Meitzen's work was soon reviewed in an English journal and in 1915 the American scholar Howard Levi Gray adapted Meitzen's theories for the English landscape.¹¹ The connection of the introduction of open fields with the arrival of the Anglo-Saxons in England was to have a long scientific life.



During most of the twentieth century, research traditions in the United Kingdom and on the Continent were largely separated and, notwithstanding long series of international conferences, few people connected both traditions. The differences between the research traditions were large, not to say fundamental. In the English tradition, the research started with field evidence, particularly based on landscape archaeological research in deserted medieval settlements. This brought a strong emphasis on the use of open-fields and particularly on agrarian techniques as they were reflected for example in ridge-and-furrow. On the Continent, the main research was done by geographers, who followed the footsteps of Meitzen by using maps of land ownership as their primary source. The emphasis was on field patterns, that reflected the fragmented ownership of land. In fact the German literature rarely used the term 'open field', but characterised the old arable fields by descriptions of field patterns, hence the notorious and endless discussions on *Gewannfluren* and *Langstreifenfluren*.

I will return to these different main research traditions at the end of my paper.

3 Origins and early development of open fields

Meitzen and, in his wake, Gray explained the differences in agrarian landscape structures by their different ethnic origins. This explanation had a long life, but disappeared during the 1960s when it became clear that the landscapes of villages and open fields did not date from the Dark Age migration period but had slowly developed centuries later.

Nowadays, the general opinion is, that the origin of the open fields was related to the growing importance of grain growing (*cerealisation* or, in German, *Vergetreidung*). In fact, when different land owners use their fields year after year for grain growing, it is highly probable that they will remove any hedges or wood banks between their fields, as these boundaries are unnecessary and have the disadvantages of using space and giving shadow, making harvests smaller. Therefore, the question of the origin of open fields is not very interesting: they can – and have been – invented separately in different regions and in different periods.

In some cases, the oldest open fields seem to have developed gradually from older land use systems. In recent years a growing number of surviving field boundaries from the Iron Age or from the Roman Period have been recognized in medieval open field landscapes.¹²

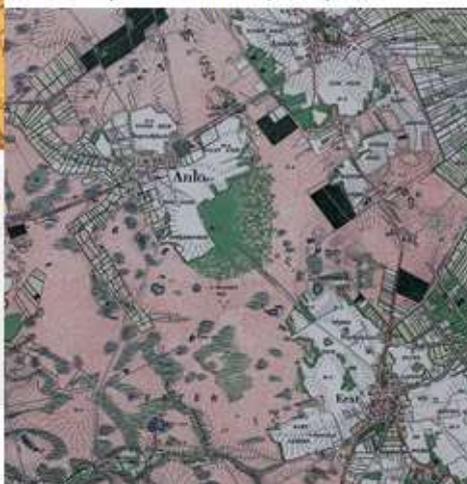
In general, open fields seem to have become an important feature in European landscapes during the 9th and 10th centuries. Most of the arable lands during that period must have been small and surrounded by extensive forests and rough pastures. Since that period, development went into different directions. Some regions developed into the grain-baskets of high-medieval Europe. In these regions, the open arable fields must have occupied complete village territories. In other regions, the arable was concentrated in small open fields or in individual enclosures, as part of systems of mixed farming, combining arable with animal husbandry.¹³



Two examples from the Netherlands.
Left: extensive open fields on the loess plateaus in South-Limburg (1840). These plateaus were reclaimed during the 12th and 13th centuries.
Below: small open fields in the sandy landscapes of Drenthe (1898).



The village of Ansen in 1642. The small open fields in Drenthe could have complex ownership structures, not unlike those in the core regions. From: Spek, 2004, p. 466

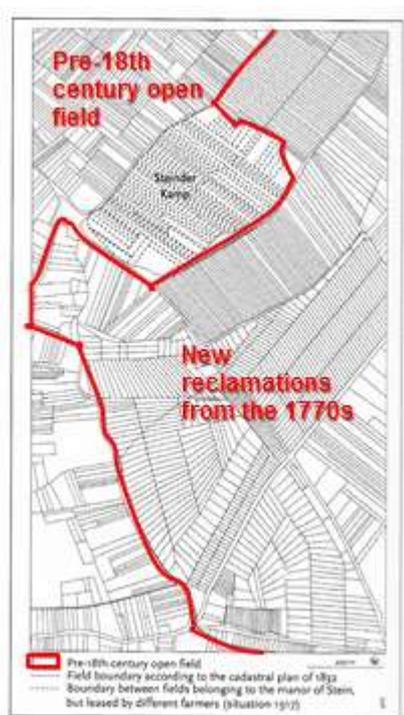


The differences between those regions can only partly be explained by differences in soil types. In the Netherlands, extensive open fields, that occupied almost the whole territories of villages, were limited to the plateau areas with loess-soils in the most southern part of the country. Elsewhere in the country, small open fields occurred on marine and riverine clay landscapes, where their extension was limited to the highest parts of the landscape, the many wetlands being useless for arable. In the sandy landscapes, the amount of arable was limited by the poorness of the soils, making large pastures and meadows necessary to supply animal manure.

In general, open fields occur on a large variety of soil types, making soil types a problematic factor in explaining the dispersal of open fields. Many other explanations suffer from the same problems.¹⁴ Open fields can be found in regions with very different medieval social structures, with for example a large variety in the degree of feudalization and the importance of manors and large landowners. As varied were the pre-medieval and medieval histories: regions with different degrees of continuity between Roman and medieval structures, or differences between old-established agricultural regions and newly reclaimed regions. Open fields can be found in each of these types, making their use as explaining factors extremely problematic.



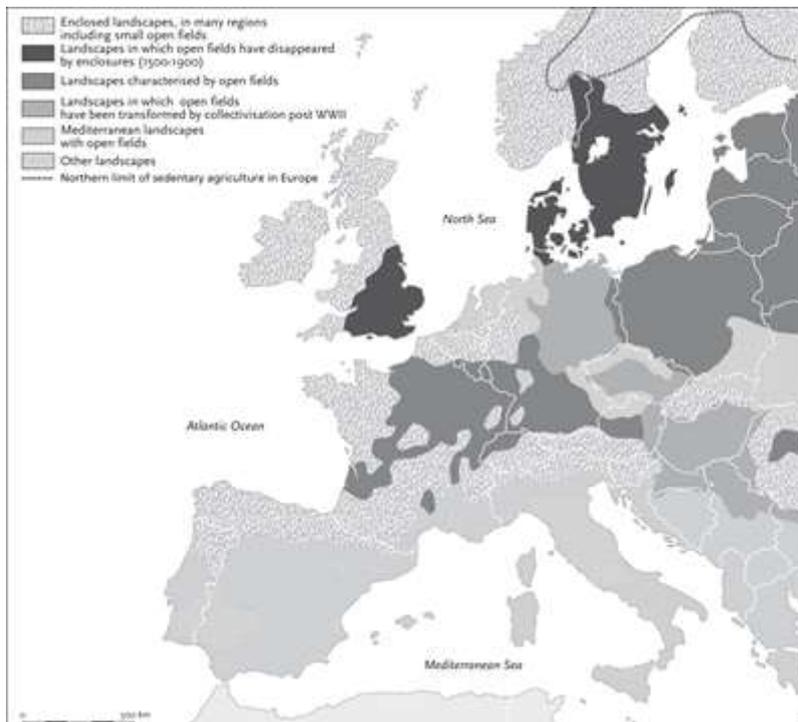
Above: the fragmented field pattern ('Gewannflur') at Altbessingen was developed from a pattern of large block fields, as reconstructed by Krenzlin (Krenzlin & Reusch, 1961). Right: an 18th century extension of the open fields in the southern part of the Netherlands, with a primary subdivision.



Many, but not all, of the open fields were characterized by fragmented land ownership and by strip fields. This fragmentation may have been useful as a way of risk management¹⁵, but historical research in Germany made clear that these fragmentation was in most cases the result of a long process of division within systems of partible inheritance.¹⁶ This fragmentation process seems to have been fastest in periods of population pressure, during the 13th and 16th centuries. In Early-Modern reclamations, the fragmentation was sometimes an original element, as all farmers from the village participated in the reclamation process. In a number (but not in all) of the regions with extensive open fields.

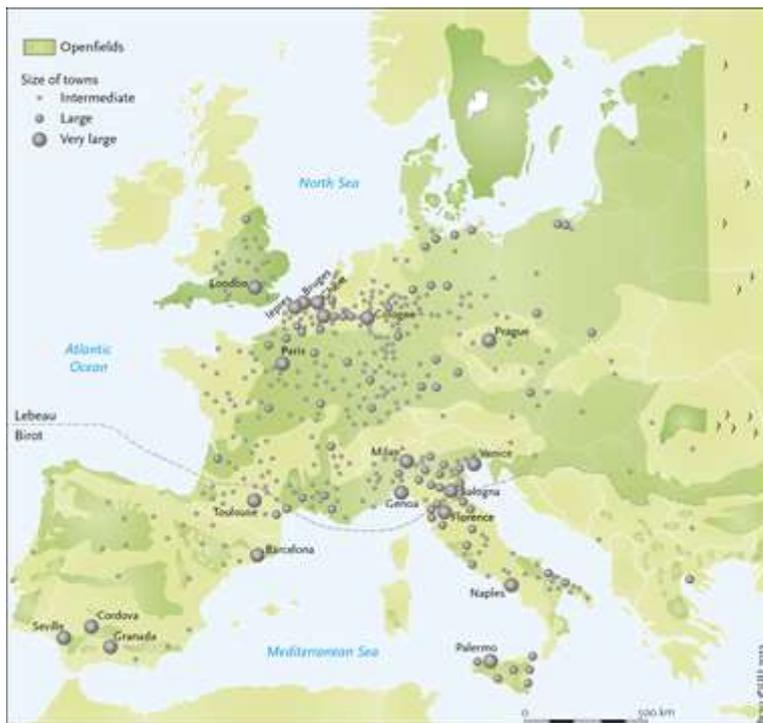


We may assume that the open fields as grain-producing regions reached their heyday in the early fourteenth century. Extensive grain fields must have been characteristic for Central England, a large zone from Central France into Eastern Europe, large parts of South Scandinavia and substantial regions in the Mediterranean zone. The high prices for grain during that period translated itself in the building of the huge gothic cathedrals in Central France, for example.



Landscapes in Europe after Lebeau (1969) and Clout (1998)

A good impression of the spread of open fields can be derived from the map by Ren'è Lebeau.¹⁷ However, maps such as this one provide a jigsaw-puzzle view of the world, suggesting sharply bounded units¹⁸ that stand on the same level beside each other. Thereby there is a strong tendency to view arable landscapes, and particularly the grain-producing open field landscapes, as the core-regions and most other regions, particularly regions specialising in animal husbandry, as less developed, not to say marginal.¹⁹ In my opinion, much more realistic is a vision in which regions with different land use specialisations are complementary to each other. There are, for example, indications that in periods of growing grain production also the enclosed landscapes went through a period of growth.²⁰



We should see different agrarian regions as parts of a system, in which specialised regions together supplied regional markets. High medieval Europe can be seen as a being organized in a number of regional market regions around the main urban centres (urbanised regions such as Flanders and Northern Italy, but also around individual large towns such as London, Paris and Constantinople). Although many agrarian historians think otherwise, I still see Von Thünen-like configurations around these urban centres.²¹

4 The changing geography of open fields

In the course of the fourteenth century, the late medieval demographic and economic crisis brought a restructuring of European agriculture. The demand for grain diminished, bringing an end to the heydays of the open field system in a number of regions. As always in such circumstances, different regions reacted in different ways. In many regions, the open field systems kept functioning. The most fundamental change took place in the British Isles and particularly in the old core region of open field agriculture in Central England. Here, a

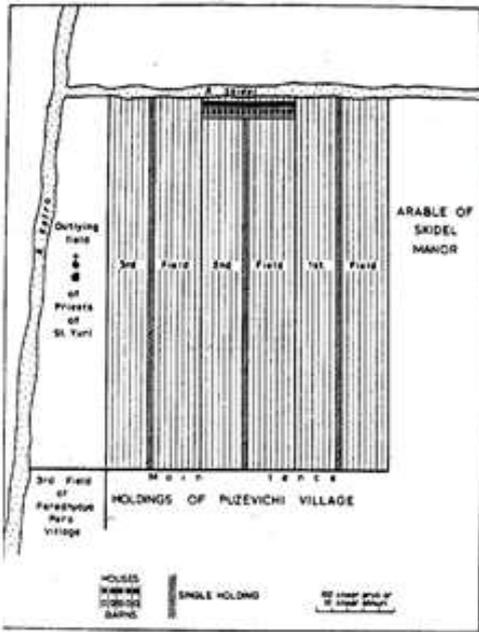
centuries long process started of conversion of open fields to sheep pastures, leading to the gradual disappearance of open fields in the British Isles.²²

The revival of the Early-modern Period brought interesting changes in the geography of the open fields. Regional markets gave way to a European market for grain, bringing another reorganisation of the European agrarian landscapes. We might summarise this as an eastward shift of the open fields. On the one hand, their slow disappearance from the British Isles continued, by a number of processes: [1] the further move towards sheep farming in the so-called Central Province, [2] a second stage of the Enclosure movement when also arable lands were consolidated and enclosed and [3] the disappearance of peasant-arable from the hills and, from the end of the 18th century onwards, from the Scottish Highlands and Islands.



Former open fields southwest of Cherbourg (Normandy) after piecemeal enclosure

On the Continent, large parts of Western France continued a process towards specialisation in animal husbandry, connected to the growth of Paris, in particular. Also in some other urban regions, open fields gave way to enclosed pasture, as for example in the present border region of Belgium, Germany and the Netherlands, around the cities of Liège and Aix-la-Chapelle.



Left: The village of Nekrashevichi (district of Grodno, Belorussia) in 1558, shortly after the *Voloka-Reform*. Source: French, 1983, p. 75. Right: present situation, after collectivisation. Location: 53°30'00" N/26°13'29" E

At the same time, new open field landscapes with regular three-field systems were laid out in parts of Eastern Europe, particularly in the present border regions of Poland, Belorussia and Lithuania.



In Moosbrunn (Germany) the open fields were reconstructed in 1874-1880, but kept their fragmented land ownership (*Wegbereinigung*). From: Nitz, 1992, pp. 148-149.



At the same time, many of the older open field landscapes of Continental Europe survived. To face increasing competition, most of these landscapes were modernized during the Early-Modern and Modern periods. For example the open fields in Denmark and South-Sweden

were enclosed in the decades around 1800 to make them more compatible in the international competition for arable products. In parts of Germany during the 19th century, a number of open fields were reconstructed in a way that the road system was improved but the fragmentation of land remained and was seemingly still not seen as a large problem.²³

5 Conclusion/discussion

In my paper I hope to have shown that an international perspective is highly necessary. I have also shown that there are problems caused by different research traditions. The different development of the open fields in the British Isles and on most of the Continent is, in my opinion, one of the main causes of the existence of very distinct research traditions.²⁴ In most of Continental Europe, the open fields more or less continued functioning until the present day. Historical research started with 19th century cadastral maps that showed the fragmented ownership patterns. Later, archival sources made it possible for historical geographers to trace the development of these patterns of land ownership back in time. On the British Isles, on the other hand, the open fields were known mainly in fossil form. However, centuries of use of the former arable lands as sheep pasture preserved many old landscape features, such as ridge-and-furrow and headlands. Here, air photographs combined with the field survey methods developed by landscape archaeologists were the starting point. The evidence was not on land ownership but on land use and agrarian techniques. Characteristic are the differences in vocabulary, whereas the British literature focuses on 'open-field agriculture', the continental literature, with the work of generations of German geographers as the most important, does not even use the term 'open field', but developed complex classifications of field types.

So, different disciplines approach the subject from different angles, each from their own scientific traditions and with their own terminological framework. This makes comparative research difficult. However, notwithstanding these differences in approach, there are also similarities. In both regions there is interest in the organization of land use (the discussions on two- and three-field systems or on the use of the open-fields as pasture after the harvest), English authors show a new – or, should I say revived – interest in ownership patterns and in the relation between the links between the developments in fields and settlements. Moreover, we are working on a Europe-wide phenomenon and many of the questions can only be cracked by international cooperation.

I thank you for your attention.

References

¹ Taylor, C.C. (1981). Archaeology and the origins of open-field agriculture. In: T. Rowley (ed.). The origins of open-field agriculture. London/Totawa, pp. 13-21, particularly p. 13.

² Egli, H.-R. (1985). Die Rückschreibung zur Rekonstruktion der Gewinnflurgeneese im bernischen Seeland. *Geographica Helvetica* 40, pp. 19-24.

³ This distinction was already used by Bloch: Bloch, M. (1966). French rural history; an essay on its basic characteristics. University of California Press, Berkeley / Los Angeles (original ed. 1931), p. 49.

⁴ Thirsk, Joan (1964). The common fields. *Past and Present* 29, pp. 3-25.

- ⁵ Hackeng, R. (2006). Het middeleeuwse grondbezit van het Sint-Servaaskapittel te Maastricht in de regio Maas-Rijn. Regionaal Historisch Centrum, Maastricht.
- ⁶ Gray, Howard Levi (1915). *English Field Systems*. London.
- ⁷ See the picture of a 'common field system' (according to my definition a Midland system) in Baker, Alan R.H. (1973). *Field systems in medieval England*. In: Alan R.H. Baker & J.B. Harley. *Man made the land; essays in English historical geography*. David & Charles, Newton Abbot, pp. 59-68.
- ⁸ Fox, H.S.A. (1981). Approaches to the adoption of the Midland system. In: T. Rowley (ed.). *The origins of open-field agriculture*. London/Totawa, pp. 64-111, particularly p. 66.
- ⁹ Hopcroft, Rosemary L. (1999). *Regions, institutions, and agrarian change in European history*. University of Michigan Press, Ann Arbor.
- ¹⁰ Meitzen, August (1895). *Siedelung und Agrarwesen der Westgermanen und Ostgermanen, der Kelten, Römer, Finnen und Slawen*. Berlin (3 Volumes and Atlas).
- ¹¹ Ashley, W.J. (1898): Meitzen's *Siedelung und Agrarwesen der Germanen*. *Political Science Quarterly* 13 (1), S. 143-155; Gray, Howard Levi (1915). *English Field Systems*. London.
- ¹² Oosthuizen, S. (2006). *Landscapes decoded; the origins and Development of Cambridgeshire's medieval fields*. University of Hertfordshire Press, Hatfield (Explorations in Local and Regional History 1). Rippon, S., C. Smart, B. Pears & F. Fleming (2013). *The fields of Britannia: continuity and discontinuity in the pays and regions of Roman Britain*. *Landscapes* 14 (1), pp. 33-53 (particularly fig. 5).
- ¹³ Spek, Theo (2004). *Het Drentse esdorpenlandschap; een historisch-geografische studie*. Matrijs, Utrecht.
- ¹⁴ Stephen Rippon lists the following factors behind the origins of villages and common fields: [1] ethnicity (this argument is no longer seriously considered); [2] the fragmentation of 'federative' estates; [3] land use, in particular the balance of arable, pasture, and woodland; [4] the process of emulation; [5] antecedent landscapes; [6] lordship versus community and the process of change; and [7] soils and the practice of agriculture.
- Rippon, Stephen. (2008). *Beyond the medieval village; the diversification of landscape character in Southern Britain*. Oxford UP, Oxford (Medieval History and Archaeology), pp. 13-22.
- ¹⁵ Already mentioned by Vinogradoff in the 1890s and later revived by McCloskey (1976). Williamson, T. (2003). *Shaping medieval landscapes; settlement, society, environment*. Windgather Press, Macclesfield: McCloskey, D. (1976). *English open fields as behaviour towards risk*. In: P. Uselding (ed.). *Research in economic history* 1. JAI, Greenwich (Conn.), pp. 124-170.
- ¹⁶ Krenzlin, A. (1961). *Zur Genese der Gewinnflur in Deutschland, nach Untersuchungen im nördlichen Unterfranken*. *Geografiska Annaler* 43, pp. 190-202; Krenzlin, A. & L. Reusch (1961). *Die Entstehung der Gewinnflur nach Untersuchungen im nördlichen Unterfranken*. Kramer, Frankfurt/Main (Frankfurter Geographische Hefte 35-1).
- ¹⁷ Lebeau, R. (1969). *Les grands types de structures agraires dans le monde*. Masson, Paris.
- ¹⁸ Lewis, Martin W. & Kären E. Wigen (1997). *The myth of continents; a critique of metageography*. University of California Press, Berkeley, pp. 10-11.
- ¹⁹ See for example Mark Bailey (1989). *A marginal economy? East Anglian Breckland in the Later Middle Ages*. Cambridge UP, Cambridge (Cambridge Studies in Medieval Life & Thought).
- ²⁰ Rippon, S. (2010). *Landscape change during the 'long eighth century' in Southern England*. In: N.J. Higham & M.J. Ryan (eds). *The landscape archaeology of Anglo-Saxon England*. Boydell Press, Woodbridge (Publications of the Manchester Centre for Anglo-Saxon Studies), pp. 39-64.
- ²¹ For London: Campbell, B.M.S., J.A. Galloway, D. Keene & M. Murphy (1993). *A medieval capital and its grain supply: agrarian production and distribution in the London region c. 1300*. Institute of British Geographers (Historical Geography Research Series 30).
- ²² Hooke, Della (2010). *The past in the present; remnant open field patterns in England*. *Hungarian Journal of Landscape Ecology* (Special issue), pp. 43-51.
- ²³ Nitz, H.-J. (1992). *The temporal and spatial pattern of field reorganization in Europe (18th and 19th centuries); a comparative overview*. In: A. Verhoeve & J.A.J. Vervloet (eds.). *The transition of the European rural landscape: methodological issues and agrarian change 1770-1914*. NFWO-FNRS, Brussels, pp. 146-158.
- ²⁴ Renes, J. (2010). *Grainlands; the landscape of open fields in a European perspective*. *Landscape History* 31 (2), pp. 37-70.