Open fields, Environment, Peasants and Manors
Medieval and Early Modern Field-systems Between the Meuse and the Ardennes

In their recent book on villages and open fields in the English Midland, Tom Williamson, Robert Liddiard and Tracey Partida have stressed the importance of environmental factors to explain the origins and development of landscapes\(^1\). As they acknowledge in their conclusions, this raises the problem of human agency and environmental determinism\(^2\). To what extent was the shaping of medieval landscapes the ‘reaction’ of peasants – as individuals or communities – to environmental constraints or to socio-economic factors? How significant was the embodiment of class relations and domination in the spatial construction of landscapes? If Williamson, Liddiard and Partida consider that environmental factors were decisive, other scholars, as Stephen Rippon for example, are more reluctant\(^3\).

This paper tries to contribute to this debate through a regional survey of medieval and early modern field systems in the southern part of what is nowadays Belgium. Unfortunately, considering the time available, shortcuts are inevitable. More detailed studies could and should be undertaken in the region under focus.

This region is interesting for several reasons. Firstly, it combines lowlands and uplands, a situation that generates significant contrasts in soils and climate for example. Secondly, it was one of the heartlands of the Frankish Kingdom. From the ‘long eight century’ onwards, its peasants have been confronted with a demanding elite and its estates. These particular circumstances need to be taken into account to understand the development of medieval landscapes and open fields\(^4\).

The paper is divided into four sections discussing geography, landownership, crops and crop rotations, field systems and landscapes.

1. Geography

Geographers divide the area situated between the Meuse River and the central part of the Ardennes in three regions. The Condroz is a plateau comprising a succession of sandstone crests and limestone valleys, all roughly parallel to the Meuse River. The Famenne is twofold: on the north, schists and psammites mark out the end of the Condroz in a large depression, whereas a band of limestone runs in the southern part. From this band, the Ardennes rise in steep hills. This low mountain mainly consists of schists, sandstone, psammites and phyllite. It combines steep-sided valleys, rolling hills, plateaus and upland moors. Its height lays between 400 and 700 meters, whereas the Condroz and Famenne areas are between 250 and 400 meters.

---

In all three regions, the quality of soils is influenced by the relief and the nature of the rocks forming the substratum. The Condroz with its gentle valley sides and limestone subsoils is doubtlessly the region that suits best for agriculture. It is comparable to the southern limestone band of the Famenne. The northern part of the Condroz, the northern part of the Famenne and the Ardennes – with schists, sandstones, psammites and phyllite – are less fertile. The soils of the steep-sided valleys of the Ardennes are thin and poor. On the upland moors, they are acid and waterlogged. Better and deeper soils can be found on the central plateaus and on less steep valley sides, but they are rather rare.

The differences in altitude have a significant impact on climate and it is clear that the Ardennes have to face lower temperatures, more rain and snowfall than the two other regions.

This rough description shows significant environmental contrasts between the lowland and the upland situation. Soils, climate and relief are less suited for agriculture in the Ardennes than in the Condroz or on the limestone band of the Famenne.

2. Society and landownership: estates and leasehold

The first written evidence about landownership in the region dates from the 7th century. It is essentially constituted by gifts of aristocrats and kings to the Church. Because of its scarcity, we could hardly use this evidence to draw a precise picture of landownership between the Meuse River and the Ardennes in the early Middle Ages. What is sure, though, is that the Frankish – and then German – kings, the Church and local elites owned land in all of these regions.

Royal property was predominant in the 8th and 9th centuries. In that period, several villas and *fisci* belonging to the Frankish kings appear in our evidence, especially in the Ardennes. Most royal

---

5 Nowadays, on the north of the Ardennes, one counts 170 to 190 days of rain and 20 to 30 days of snow per year vs 190 to more than 200 days of rain and 30 to more than 35 days of snow per year in the Ardennes. In January, the average temperature balances between 1.5 and 0° C. on the north of the Ardennes, whereas in the Ardennes it is under 0° C. The region north of the Ardennes has between 70 to 100 days in a year where the temperature drops below freezing, whereas in the Ardennes, the number of days goes from 100 up to more than 120.

6 Compare maps 6, 7 and 8 in Manfred Van Rey, *Die Lütticher Gaue Condroz und Ardennen im Frühmittelalter: Untersuchungen zur Pfarroorganisation*, Bonn, 1977.

villas were given to the Church and high aristocrats – such as counts or dukes – especially in the early 10\textsuperscript{th} and late 11\textsuperscript{th} centuries\textsuperscript{8}. After this period, royal land is less important.

Church property was very important: between the middle of the 7\textsuperscript{th} and the late 10\textsuperscript{th} centuries, land has been transferred to the Church in massive amounts. From the 9\textsuperscript{th} until the late 18\textsuperscript{th} century, monasteries such as Stavelot-Malmedy, Andage/Saint-Hubert or Waalsort, the bishop of Liège and canons were among the most prominent landowners in the region.

Unfortunately, land belonging to lay elites is less visible in written evidence. However, recent studies have made clear that already in the early Middle Ages local elites owned land in the Condroz, Famenne and Ardennes\textsuperscript{9}. Some important families made donations to the Church between the 7\textsuperscript{th} and the 11\textsuperscript{th} centuries and/or got land from the Frankish and German kings. Local elites are more visible from the 11\textsuperscript{th} and 12\textsuperscript{th} centuries onwards, as a result of better written evidence, but also of increasing power.

It remains unclear how the land of lay elites – including kings – was organised and managed\textsuperscript{10}. The situation is better for monastic land. Estate records show that in the 9\textsuperscript{th} century, monasteries had organised their land in estates with demesne-land (\textit{indominicatum, mansus (in)dominicatus}) and tenures (\textit{mansi})\textsuperscript{11}. This twofold structure appears as a common feature in the organisation of monastic estates, although the relationship between tenures and demesne-land were extremely diverse in time and space\textsuperscript{12}. Rents and labour services could vary significantly from one estate to the other, depending on the owner, the distance between the centre of consumption and the estate, environmental and socio-economic conditions. A good example of this situation are the monastic estates of Mabompré and Tavigny in the Ardennes. These estates, which belonged to the monastery of Prüm, consisted of manor-houses and tenures situated in Mabompré and Tavigny\textsuperscript{13}. Demesne-land was scattered over a wide area that could cover more than a village-territory. Peasants belonging to these estates had to pay rent and to do labour-services on the demesne-land.


\textsuperscript{9} Alexis Wilkin, \textit{Le patrimoine foncier des élites dans la région de la Meuse moyenne jusqu'au x\textsuperscript{er} siècle}, in: Régine Le Jan, Laurent Feller & Jean-Pierre Devroey (édits.), \textit{Les élites et la richesse au Moyen Âge}, Turnhout, 2010, p. 327-343; Devroey & Schroeder, \textit{op. cit.}

\textsuperscript{10} Wilkin, \textit{op. cit.}, p. 335-340; Devroey & Schroeder, \textit{op. cit.}


\textsuperscript{13} Devroey, \textit{La hiérarchisation}, \textit{op. cit.}. 
Prüm's estates of Mabompré and Tavigny (Ardennes) in 893.

In the high Middle Ages, estates remained an important frame for management of land. From the 12th century onwards, some demesne-land and estates were granted out, labour services became rarer, monetary rents increased and manorial officers such as advocates and *villici* were granted with parts of estates and/or manorial incomes. It has been assumed for a long time that these evolutions had a destructive effect on the manorial organisation, but recent research shows that they should rather be considered as an adaptation to a changing socio-economic context.

From the 13th century onwards, and decisively in the 14th century, estates and demesne-land were given out in leasehold. This movement away from direct management set new conditions in access to land that would prevail until the end of the 18th century. It is important to notice that the changes that occurred in the management of and access to land in the high and late medieval period did not lead to significant changes in landowning. As we will see in part 4, this stability in landowning resulted in a relative continuity in the layout of fields.

3. Medieval and Modern agriculture: crops and crop rotations

Medieval information about crops and crop rotations is scarce and essentially delivered by monastic estate records. Early modern evidence is richer and allows a better understanding, but it should not be projected backwards into the medieval period without caution.

Concerning crops, all evidence suggests that from the 9th century onwards, in the Famenne and Condroz areas, spelt and oats were predominant on demesne-land and in rents. Wheat and rye are attested to, but to a lesser extent, whereas in the Ardennes, essentially rye and oats were given for rent and cultivated on demesne-land. Although differences in social and economic contexts should not be excluded, the choices in cereal species are mainly related to the environmental contrasts described in part 1. Two arguments support this interpretation. A clear line, marked by differences in soils and altitude, separates the Ardennes from the Famenne.

14 Schroeder & Wilkin, op. cit.
18 Schroeder, *Remarques... op. cit.*
Peasant communities which had their village-territory stretched over both regions would grow rye and oats on the south of this line and spelt and oats on its north. Moreover, several lords had estates and incomes on both sides of the limit, but none of them collected significant quantities of spelt in the Ardennes or rye in the Condroz and Famenne. This evidence suggests that the preferences of peasants or lords were less significant than environmental factors in crop choices. Of course, as Stephen Rippon has recently argued, this should not be considered as a general rule. The Ardennes appear as an area where the physical character of the landscape has placed significant constraints on how human communities could manage them but not all environments are like that.

Concerning crop rotations, post-medieval evidence shows that in the Condroz and the Famenne a three-course rotation combined spelt as winter crop and oats as spring crop. Vetches were sometimes cultivated on the fallow. In the Ardennes, no trace of three-crop rotation: fields were organised in a system of convertible husbandry. The land was ploughed and manured. Rye was cultivated for one year, oats for three or four years and then the land lay fallow for five to seven years. During this period, herds grazed the fields. Again, the main factor that explains this difference is environmental: the poor soils that predominate in the Ardennes could not be submitted to a more demanding rotation without an increase in manure that was out of reach until the 19th century. In all three regions, shifting cultivation of rye and oats was practised in woodlands and wastelands.

When these systems of rotation appeared is still dividing opinions. Using polyptychs from the region between the Seine and the Rhine rivers, Yoshiki Morimoto and Adriaan Verhulst have argued that the three-course rotation of crop cultivation developed on monastic demesne-land during the 9th century through diffusion of spring crops. Other scholars, such as Joachim Henning,

19 Rippon, *Making sense... op. cit.*; Idem, *Beyond the Medieval... op. cit.*
22 Schroeder, *Les cultures temporaires... op. cit.*
23 Yoshiki Morimoto, *L’assolement triennal au haut Moyen Âge. Une analyse des données des polyptyques
use mainly archaeological data to argue that the three-course rotation is already clearly visible at the latest in Merovingian times\textsuperscript{24}. Unfortunately, there is not much evidence to address this issue for the regions studied here. As Jean-Pierre Devroey has recently demonstrated, in the Ardennes, on Prüm's large fields of demesne-land of Mabompré, Tavigny or Villance, oats were predominantly sown in the late 9\textsuperscript{th} century, and rye was cultivated as a winter cereal with the addition of manure\textsuperscript{25}. However, it remains uncertain if these crops were already organised in a regular rotation. An estate record from the monastery of Malmedy in the 13\textsuperscript{th} century gives similar information: oats and rye were cultivated on manured demesne-land but this piece of evidence does not allow to say anything about crop-rotation\textsuperscript{26}.

In the Condroz, the first evidence attesting three-course rotation dates from the 13\textsuperscript{th} century and actually implies more than three-course rotation: it is an example of organised three-field system. In Seny, in 1262, the incomes of the monastery of Sint-Truiden on demesne-land and tithe — meaning peasant-land — were counted in spelt, oats and vetches\textsuperscript{27}. The ratio between spelt and oats for both types of incomes is 1,26 and 1,25, which suggests that peasant-land and demesne-land were submitted to a same field-system\textsuperscript{28}.

4. Medieval and Modern agriculture: field systems and landscapes

Two major factors should be considered to analyse field-systems and landscapes in the Condroz, the Famenne and the Ardennes: environment and landowning.

I have argued in point 3 that differences in choices of crops and crop-rotations on a regional level were deeply influenced by geography. In the studied area, the most common type of settlement in the late medieval period were villages and hamlets surrounded by an open field. In the Ardennes and the less fertile parts of the Condroz and the Famenne, open fields were separated by woodland and wasteland. In the more fertile areas, the field systems were contiguous. In the 18\textsuperscript{th} century, in the Condroz and the Famenne the ratio would roughly be about 2/3 of arable for 1/3 of wood and wasteland, whereas these proportions would be inverted in the Ardennes. On a local level, the situation and the layout of fields were doubtlessly adjusted on topography, quality of soils and other


\textsuperscript{25} Devroey, Mise en valeur... op. cit.

\textsuperscript{26} Singuli mansionarii etiam debent corveis in marcio in cultura domini abbatis : qui boves habent, cum aratris, qui non habent, cum lignonibus sicut sibi ipsis possunt operari. […] In autumno omnes mansionarii debent ducere fimum ad culturam sicut sibi ipsis possunt […] In augusto quilibet mansionarius debet messorem una die in cultura […] Debent etiam singuli messorem unum in augusto ad metandam siliginem domini abbatis et non ad avenam metandam (Jacques Stiennon, Le scriptorium et le domaine de l’abbaye de Malmedy du X\textsuperscript{e} siècle au début du XIII\textsuperscript{e} siècle, d’après les manuscrits de la Bibliothèque Vaticane, in: Bulletin de l’Institut historique belge de Rome (26), 1950/51, p. 40-41).

\textsuperscript{27} Anno Domini M° CC° LXII° mense junio, in generali synodo, feria III\textsuperscript{a} post octavas Pentecostes, convenimus cum Henrica, colono nostro de Senni, quod ipse colet terram nostram et serviet nobis ibidem quandiu nobis placuerit […] Anno eodem in augusto, habuimus ibidem 800, sed Reynerus dicit plus 150, garbas spelte de cultura nostra, et 450 garbas spelte de decima ibidem, sed Reynerus dicit plus 50. Item 600 garbas avene, sed Reynerus, dicit plus 150 garbas de cultura. Item 400 garbas avene de decima. Item 250 garbas de crocken, de cultura et de decima (Henri Pirenne, Le livre de l’abbé Guillaume de Ryckel (1249-1272). Polyptyque et comptes de l’abbaye de Saint-Trond au milieu du XII\textsuperscript{e} siècle, Brussels, 1896, p. 52). LINCK, op. cit.

\textsuperscript{28} Cultura: 950/750 = 1,26. Decima: 500/400 = 1,25.
environmental factors\textsuperscript{29}.

Example of settlement and landscape patterns in the Condroz and the Ardennes in the late 18\textsuperscript{th} century (Ferraris map)

Landowning is another important aspect to analyse field systems. The geographer Paul Raucq has studied modern field systems in a commune called Comblain-au-Pont, situated in the Condroz\textsuperscript{30}.

Field systems in the commune of Comblain-au-Pont, Condroz-Famenne (Raucq, 1951)


\textsuperscript{30} Paul Raucq, \textit{À propos de pratiques agraires anciennes et actuelles dans le Condroz oriental}, in: \textit{Bulletin de la société royale belge de géographie} (74/I-IV), 1951, p. 35-43.
In the 17th century, nine distinct field systems existed in this territory. Eight of them can be studied in detail. Six were organised as open fields: every field system belonged to a single village or a hamlet and consisted of less or more regular parcels submitted to a common three-course rotation. It is very likely that such situations of intermingled parcels were not something new. Several charters from the 9th and the 10th century show that in the Condroz, parcels of land belonging to local landowners were joining parcels owned by monasteries, lay elites or peasants. From when they were organised in open fields remains unclear.

It is important to notice that two field systems are very different from this model: they were large blocks of land, belonging to an isolated manor-house. These manor-houses and their field system belonged respectively to a monastery (Stavelot) and a lay lord. In both cases, the three-field rotation was probably organised within the field, by placing and removing wooden fences. Monastic and to a lesser extent lay elite’s – demesne-land was often organised like that. As Adriaan Verhulst has demonstrated for Northern Belgium, the manorial organisation as we see it from the 'long eight century' onwards was associated with a particular type of large fields, called cultura. These large blocks of demesne-land could be managed through labour-services, slavery or wage-labour, but also granted out as fiefs, or in lease-hold in the high and later middle ages. Culturae are attested from the 9th century onwards in the Ardennes. They could be one or several big fields in the village-territory, but as we have seen with the examples of Mabompré and Tavigny, culturae belonging to one single estate could be dispersed in more than one village-territory. In any of these cases, these blocks of demesne-land are clearly apparent in the field system, as a few examples will make clear.

---

31 Raucq, op. cit., p. 36-37.
32 Raucq, op. cit., p. 38.
33 Ego in nomine Dei Wesericus traditor trado de jure meo in jure et dominatione Bertingo fideli nostro ex rebus meis propriis que sunt site in pago Condustrinse in villa nuncupante Hamor : mansum unum cum bonuariis viii et duobus saticis atque terris, campis, pratis, silvis aquarumque decursibus, cum watriscampis et perviis legitimis, cum egressu et regressu, totum et ad integrum cum terminis definitis sancti Petri et sancti Remacli et terram fiscalem sive stratas publicas atque perveniunt in fluvium Orte ; et duos campos conjacentes inter Fielon et Hamor cum Silva optima (Donation from Wesericus to Berting, the 11th of april 895 – Joseph Halkin & Charles-Gustave Roland, Recueil des chartes de l'abbaye de Stavelot-Malmedy (I), Brussels, 1909, p. 112) Vendimus vobis in pago Condustrinse in villa nuncupante Amarne, id est terram arabilém et silvis bonuaria qui jacent inter confines sancti Petri et sancti Remacli et Helvius sive strata publica et pervenit usque in fluvio Marne (sale of land from Roger and Heilgaud to Anemodus, 22nd of october 896 – Ibid., p. 114).
34 Raucq, op. cit., p. 37 & 39.
37 Devroey, La hiérarchisation... op. cit.
Axel Wieger has showed that in Anthisnes (Condroz), the land belonging to the monastery of Stavelot formed a single block (38). The land belonging to the monastery of Waulsort was more scattered: one block of land belonged to the manorial centre (cense de l'abbaye - ). Given its location, it could hardly be part of a three field system and the rotation was probably within it. The rest of the demesne-land was regularly dispersed between peasant parcels and attached to two farms in order to lease them ( ). The same remark is valid for the land belonging to the advocate ( ). This scattered version of monastic and aristocratic property allowed it to be inserted into a village field system.

38 Wieger, op. cit., p. 93-109.
Another example can be observed in a estate belonging to the monastery of Stavelot: in Vieuxville, the demesne-land was separated in several big but scattered blocks of land that covered a significant part of the village territory, allowing to manage a three field rotation including demesne (grassland) and peasant (woodland) land (castle)\textsuperscript{39}.

These significant differences in the layout of demesne-land can result from differences in the history of its acquisition (donations, clearance, etc.) and/or its management (type of crops, relations between the tenures and the demesne, etc.).

**Conclusion**

The major argument developed in this paper is that field systems are a result of interactions between environment, social domination and organisation of landowning. Unfortunately, because of the lack of evidence, the problem of the chronology and the dynamics of change in crops and rotations in the early and high middle ages could not be addressed. Moreover, other factors should be taken into account, such as peasant agency, the impact of open fields on risk-management and on the perception of tithes, or the relationships between settlements and fields systems. Trade and towns seem less important in the region under consideration, but these issues need a careful examination as well. All these questions should be addressed by taking archaeological evidence into account.

Nicolas Schroeder
University of Oxford
Université libre de Bruxelles

\textsuperscript{39}Henriette Damas, *Vieuxville, commune rurale de Wallonie : essai de géographie sociale*, s.l., 1960.