Preserving Stability in a Changing World: Free and Unfree Labour, Peasant Mobility and Agency on Manorial Estates Between the Loire and the Rhine

Alexis Wilkin Université Libre de Bruxelles

Examining peasant (social and physical) mobility implies paying attention to many factors, amongst which the (in)existence of a Carolingian labour market is central. In many regards, boon work prevented peasant mobility, as it tied peasants to their holdings, checking their movement, to preserve, in a hereditary manner, the future of the tenure. The master wanted to foresee the quantity of labour collected by boon services performed by dependent holdings, that is to say labour performed by peasants on the master's demesne. Such work could consist in collective ploughing, meadow mowing, cart work, and an almost infinite variety of jobs whose burden bore upon the holders of dependent peasant tenures. There were, however, alternative options for cultivating the masters' estates. One possibility was waged labour. Its existence is minimized by Chris Wickham and Alice Rio, who argue that the contraction of economic exchanges hindered large-scale recourse to waged labour in specialized rural operations, owing to the risk involved and to the lack of commercial demand for the resulting products. Slave labour was another possibility, its extent depending directly on the quantity of labour collected by masters through mandatory duties.

There were many forms of organization of production in the

¹ Rio, 2017, p. 175, f. 4; Wickham, 2005, pp. 35-37 and 300-301.

Carolingian world, amongst which large manorial estates were only one; the others – smaller farms and freeholdings – are seldom documented, whereas manors are the most easily recognizable and studied, thanks to an abundance of polyptychs. In the manorial system, boon work was theoretically central to the exploitation of the master's reserve; the bipartite division of the estates into *indominicatum* and tenant farms performing boon work on the lord's land is essential to define the "classical manorial system" as found in its purest form between the Loire and the Rhine.² From a theoretical point of view, boon work was thus the linchpin of the manorial organization, the link between the manorial *indominicatum* and the tenants who provided labour services (of which *corvada*, ploughing the demesne, was the most important). If this was true in actuality, the use of wage labour should have been supplementary at best if not inexistent, and peasant mobility due to the labour market marginal.

But was it? While boon work was supposed to be central to "manors", scholars such as Devroey or Verhulst quickly noticed divergent organizations from one estate to another, sometimes in neighbouring areas;³ attention to local diversity led to a scrapping of the idea of cohesive socio-economic organizations, such as the *Rentenlandschaften*, put forward by Ludolf Kuchenbuch in painstaking research published in 1978.⁴ According to that theory (later refined by Kuchenbuch himself), some areas saw a more or less pronounced use of boon work according to a local "balance of powers". While *Rentenlandschaften* were quickly discarded, increasing awareness of manorial divergence from the ideal-type led scholars like Yoshiki Morimoto to try to reconcile it with the many particular situations by using an evolutionist framework.⁵ Estates organized without the use of sufficient boon work were supposed to be either incomplete or decaying forms of large estates, the former tending

² Devroey, 2003.

³ Devroey-Wilkin, 2002, pp. 249-260; Verhulst, 1983, pp. 142-143.

⁴ Kuchenbuch, 1978, pp. 233-240.

⁵ Morimoto, 1995; 1994.

toward the "ideal-type" of manor, the latter shifting from it as that model headed toward dissolution. But this way of understanding diversity is too straightforward. It has been recognized that regions that had a uniform work organization probably did not exist: manorial and unorthodox manorial organization could co-exist in neighbouring areas; boon work could come and go in the same areas and on the same estates, and, moreover, was combined with the use of waged labour into the High and Late Middle Ages. All in all, internal diversity was the rule, and the local organization of many estates, as early as the ninth century if not earlier, implied some degree of mobility: local or mobile poor workers supplementing or often bearing the brunt of the cultivation of the demesne.⁶

But what about the estates that made quite extensive use of boon work, which represent the archetype of the manorial system? No calculations exist to show that boon work alone was sufficient in these cases to permit cultivation of the master's demesne: this is an assumption more than a proven fact. The question is not merely rhetorical: in light of the above-mentioned reappraisal of diversity, the potential finding that boon work was only auxiliary even in places where it was best documented and seemed quite burdensome would have some significance. It would definitely undercut the idea of "stability" of the manorial world and lead to a more versatile paradigm including waged workers – possibly mobile – and hence the existence of a labour market.

This paper addresses this question of peasant mobility first by looking at the centrality of boon work in places where it was documented in its purest form, by providing gross estimates of the total labour input needed to cultivate fields in different religious institutions, where such calculations are possible. It then examines whether the numbers allow us to estimate the need for other forms of labour input and verify if we can identify other sources of labour. It concludes by investigating the "margins" of polyptychs, searching for

⁶ Schroeder-Wilkin-Snijders, 2014.

other different types of workers, evolving at the "borders" of the large estates and perhaps physically moving from one to another by renting their labour power.

Rough estimates of the labour input

Historians have rightly been reluctant to quantify the numbers provided by polyptychs and have therefore often limited themselves to making rough estimates of the possible ratios between the number of *bonarii* on the *indominicatum* and the number of dependent peasant holdings. This is especially true for more recent decades; in the nineteenth century and early twentieth century, scholars were more audacious and less aware of the difficulties of the Carolingian metrology.⁷ A proper estimate of labour input requires calculation both of the demesne and of the number of labour days provided by tenants. Many polyptychs where boon work is central (for example, Saint-Germain; see Guerard 1844) miss one or two of the required data:

- (i) a description of the *indominicatum* estimated in *bonuaria* (measure of surface);
- (ii) a detailed listing of the boon work provided by the tenants, with an account of the days of work on the *indominicatum*.

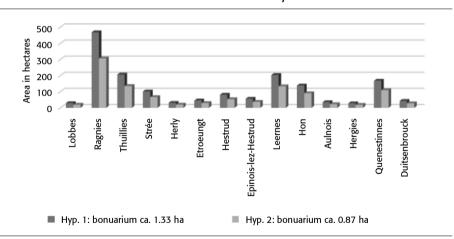
Sources often use vague wording, such as "X makes corvadas II", or "facit servicium et manopera". In Jean-Pierre Devroey's list of the surviving polyptychs between the Rhine and the Loire, only three provide approximate data for the ninth century: Lobbes, Saint-Bertin and Saint-Amand-les-Eaux (for four estates only). They are not perfect. Surfaces are expressed into bonuaria, of which only estimates can be made, as the bonuarium ranged from 0.87 ha. (hypothesis 2 in graph 1, below) to 1.33 ha. (hypothesis 2 in graph 1), according to

⁷ Musset, 1951.

⁸ Devroey, 1986, pp. 868-869; Ganshof, 1975, pp. 844-859; Hägermann-Hedwig, 1990, pp. 821-872. On the distribution of polyptychs, see Devroey, 2006c.

the place. These sources do not support anything beyond gross calculation of the surface of the demesne – but are there any sources for the Carolingian era that really do otherwise? The first numbers detailed in graph 1 focus only on arable land devoted to the cultivation of cereals, putting aside meadows, forests or pastoral areas. Results show significant discrepancies between polyptychs: for Lobbes, if we except the monastic centre itself, the masters' fields put under corn ranged between 18 and 300 hectares, for the largest ones; the *Polyptyque de Saint-Amand-les-Eaux* is less rich, offering only a description of four small estates, ranging between 13 and 58 hectares; finally, the more specific *Polyptyque de Saint-Bertin* provides descriptions of 11 estates ranging between 67 and 256 hectares.

Using the first dataset of the labour input needed to cultivate the *indominicatum* of medieval abbeys at the beginning of the four-



GRAPH 1Area of demesnes of the abbey of Lobbes

⁹ Guerard, 1844, 1, pp. 169-171 vs Guilhiermoz 1913, p. 304. In the case of Lobbes, as Devroey (1986) is too careful to offer estimates, calculations were expressed according to two hypotheses (Guerard [1844], hyp. 2; Guilhiermoz [1913], hyp. 1). For the other polyptychs, values of the *mansi* were the one adopted by the editors, often using local archives. Two estates (Berzée and Castillon) were not included in calculations, as their surface is estimated according to the quantity of grain sown, whose density is unknown.

teenth century, one can estimate a theoretical labour requirement and compare it with the amount of work actually expected by estates for the cultivation of their demesne. 10 Again, these are gross estimates, as geographical variations and labour practices heavily impact on the required labour input. Amongst the factors that could interfere with the estimates, let us cite the fact that estates studied in England were made of clay soils, different from the silty ones where boon work was provided in the three polyptychs, and these clay soils required more irrigation work. One must also take account of the differences in agricultural practices from one estate to another. This holds even more strongly for fields cultivated in different areas of fourteenth-century England, which differed from post-Carolingian Europe. The density of sowing, the number of ploughings, crop rotations and the extent of fallow land (which nevertheless also needed some work): all of these could affect the amount of work needed. Let us add that Karakacili's estimates included all the possible tasks to be performed on this agricultural land, and not just ploughing, reaping and harvesting of cereals. Finally, the workload was not constant throughout the year: harvests or the preparation of land implied an exceptional mobilization of people for intense periods, consuming very substantial inputs of labour. Needless to say, the following data likewise are not statistically precise but only give a rough magnitude of the work needed.

In almost all of the cases, in the polyptych of Saint-Amand-les-Eaux and that of Saint-Bertin, the expected services were theoretically suited to the required labour input. This equilibrium is encountered in half of the estates of Saint-Bertin, where there was a

¹⁰ Manorial rolls listed on an annual basis the numbers of wage workers hired by the abbey to supplement boon work (Eona Karakacili calculated that a hired peasant could work as much as 300 days a year, which is too much), which was still required of the peasants. Karakacili, 2014, p. 45, aggregated numbers from different estates and estimated an average labour input (counting both boon work and wage workers) of 9.475 days of labour per acre (= 23.41 days of work for one cultivated hectare; as she remarks, these are probably 20% overestimated, as productivity may have been higher: thus, around 18.728; we stick to the more pessimistic calculation).

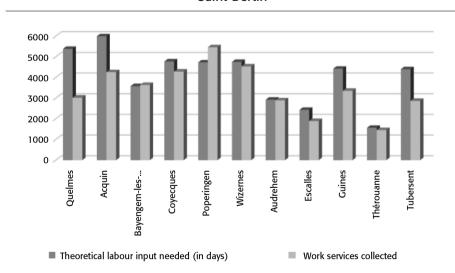
perfect or nearly perfect match (see Bayenghem¹¹, Coyeques, Wizernes, Audrehem, Thérouanne), or a slightly positive trend (see Poperingen); the same goes for Saint-Amand, Bousignies and an unidentified estate. This finding is remarkable, especially in light of the above-mentioned statistical imprecision: estimates often seem to show a sort of equilibrium between the area of the demesne and the quantity of labour expected. This is even truer if account is taken of the availability of prebendarii, i.e. people who could be fed in return for work. There were in fact four of the villae where labour services were not of sufficient quantity to meet the needs for cultivation of the demesne. But there were between 4 and 6 prebendarii in 4 of the 5 estates requiring a supplement of labour (and where services already covered around 75 % of the total amount of work needed). That was more than sufficient: if a *prebendarius* could provide three days of work a week - the heaviest burden of service required of tenants, but prebendarii, living on the master's estates, could provide even more work – 7 of them could perform 1092 days of work, enough to reach equilibrium except in one case, in the villa of Quelmes. But the private church owned by the abbey had 6 mancipia there, in addition to the 6 prebendarii, and Ganshof supposes mancipia did additional work for the abbey too (where the priest held only one bonuarium). 12 The mayor of Acquin also employed 23 mancipia on his *mansus* held from the abbey – these being unfree workers. All in all, there was enough labour to be collected almost everywhere, except in Tubersent, for Saint-Bertin. But this was a very special place, very close to the emporium of Quentovic and with a peculiar organization that was not properly "manorial". Two other exceptions were Maire, for the Saint-Amand estates, and Million. But Maire and Million were also portions of a larger ensemble, which was given in beneficium together with another unknown villa, Million. There could have been transfers of labour between estates, es-

 $^{^{\}rm 11}$ Often identified as Bayenghem-les-Eperlecques, it could be Bayenghem-les-Seninghem, 15 kilometres away.

¹² Ganshof, 1975.

pecially as the second unknown *villa* collected much more labour than needed for its cultivation. According to my estimate, the quantity of labour available there was more than twice the quantity needed.

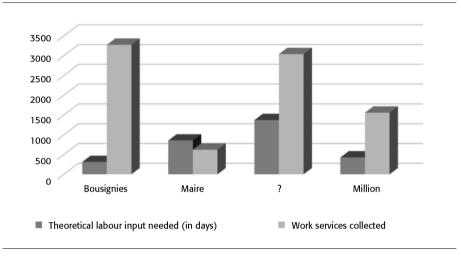
Also, many inventories did not mention the *mancipia* living on the demesne: in fact, these were often only cited when they lived on a portion of an estate that was given as a *precaria*. This legal practice consisted in the giving of a tract of land by a proprietary to a church, with the tract temporarily lent back to the donor during his lifetime and supplemented with further land. Therefore, inventories referred to *mancipia* in order to avoid losing these labourers when these estates were "rented" or temporarily granted. Finally, all the abovementioned estates also included *lunarii*, people providing one day of labour a week who were certainly also waged workers, a matter discussed at the end of this article. So, it is more than likely that there was even more labour available.



GRAPH 2 Saint-Bertin

¹³ On Saint-Bertin, see Renard, 1999.



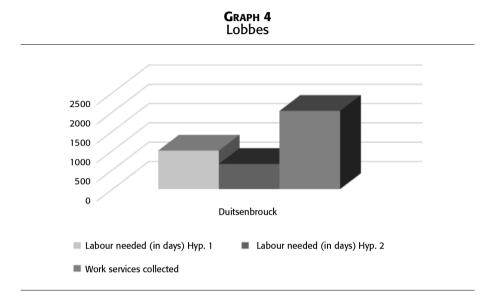


The cases of Saint-Bertin and Saint-Amand show that boon work, possibly supplemented in some instances by *prebendarii* or *mancipia*, was sufficient to cultivate the demesne. Saint-Bertin is probably special: Some of its features satisfy an ideal ratio in terms of labour input and organization. Ganshof noticed the regularity of the area of the holdings and concluded it might be a "recently" organized estate. Id do not claim that the monks of Saint-Bertin were importing the "ideal-type" of the large estate. Rather, the almost perfect match reflected a recent organization which had not yet been disturbed by external factors.

In Lobbes, boon work was only used in three *villae*: Duitsenbrouck, Berzée and Castillon (but for the last two, proper calculation of the area of the demesne is not possible); there, *mansi serviles* had to provide 3 days of work a week. This was the heaviest type of boon work, since it took up to half of the peasant's available time and was usually performed only by *mansi serviles*. In Duitsenbrouck, the abbey was indeed able to collect 2028 days of work a year (with 13

¹⁴ Ganshof, 1975.

mansi serviles): more than three times the 651 days theoretically needed to cultivate the relatively small demesne, or two times if we opt for hypothesis 1 on the area of the *bonuarium*.



Job market and peasant mobility

These estimates confirm the diversity of practices identified above and the range of complementary possibilities available to estate managers. Boon work could totally supplement other forms of work organization, as in Saint-Amand or Saint-Bertin – sometimes in combination with domestic work, especially in silty and rich areas. It could thus fulfil the master's expectations. But was it the optimal work organization? This was a question of decision-making according to a specific rationale and was highly dependent on the local situations. It reflected "management" policies, a function of different factors:

(i) Productivity. Was boon work less productive than paid work (in kind or money)? David Stone convincingly observed that boon workers might be reluctant to perform their duties. His estimates

for Cambridgeshire, again in a much later context (fourteenth century), 15 show that hired labour was 36% more efficient than boon work in hay gathering; boon work also resulted in poorer harvests, taking all local ecological and climatic differences into account. Again, the case of Lobbes may be enlightening: with a demesne of at least 1400 hectares of arable land (excluding meadows, forests, vineyards and pastures), the abbey needed a total of 32,200 days of labour a year. Theoretically, if a mancipium or prebendarius could work 300 days a year (this is more than theoretical), the abbey would have needed 109 full time mancipia or 210 tenants of a servile status (3 days a week). However, these do not appear in the polyptych. It has been suggested that another way of maximizing profit was applied in Lobbes: monastic managers noticed that when peasants provided a fixed amount of work, there might be a surplus of work left over; asking, instead, for fixed amounts of cereals paid in kind or money, as was the case in Lobbes, allowed the abbey to hire workers at lower costs, with increased productivity, and according to its needs. Mills, millers and mayors were important intermediaries in such processes, concentrating in their hands rents in kind and releasing them to hired workers on a local and variable basis, as the times required. ¹⁶ There were alternative solutions. In places such as Montiérender (Droste, 1986), pioneer farms were created in the forest and mainly cultivated by unfree people; this organization may have reflected the former organization of many Merovingian estates and was a backward alternative to the more versatile use of waged workers.

(ii) Workforce stability. This is, of course, where peasant (im)mobility is at the core of the debate. For monastic managers, another important factor was the availability of labour: using hired workers instead of labour services could be advantageous if there was a labour force seeking employment in desperate con-

¹⁵ Stone, 1997.

¹⁶ Verdoot, 2013.

ditions. Stability was a value which monks prized, and monastic managers sought predictability: this is why recent monastic estates might favour boon work over hired workers, or mix these with *prebendarii*. Verhulst suggests that the more classical organization of the manor, with subsequent boon work, is found in places where churches and lay-elites were able to hold a cohesive and significant share of the available lands: physical control of workers went hand in hand with a good grip on property and social structures (justice, etc.).¹⁷ Such arrangements were, however, not the rule but an exception, for the construction of a nucleated estate took time and energy.

In this context, peasant physical mobility – at least for members of the *familia* – was strictly controlled or prohibited for families holding *mansi*. This phenomenon is well known. Light has been cast on it especially by Devroey's important addition to Pierre Toubert's thesis, which emphasized the "invention" of the Christian wedding to secure the social organization.¹⁸ Notably, Devroey has shown that the ideal economic holding was synonymous with a nuclear family under the authority of one male heir. 19 Carolingian and post-Carolingian texts repeatedly insisted on the tying of people to the lord's land. They prohibited accepting poor individuals into the clergy, since this would empty the estates of their workforce (803-804: Capitula ecclesiastica: MGH Capit., 1, n. 43, ch. 11, 122); the Edit de Pîtres (864) cancelled serfs' weddings that were to take place outside of the lordship – recall that some tenants fled from their duties with the Norman conquest in order to earn more by working in vineyards - and sought to reinforce the perhaps flawed control of masters on tenants (MGH Capit., 2, n. 273, ch. 29-31, 323-4). However, tying a family to the land did not equate to the providing of boon work; if boon work was crucial in some estates (most notably, several

¹⁷ Verhulst, 2002, pp. 36-37.

¹⁸ Toubert, 1998.

¹⁹ Devroey, 2006b and 2010.

estates of Saint-Germain), many holdings transmitted through inheritance were not linked to boon work but rather to payments in kind or money.²⁰ Moreover, the personal and legal status of the workers, as revealed by polyptychs, is a matter of debate. Recently, Alice Rio has suggested that the writing of polyptychs was a moment of "intense definition and redefinition": the writing created room for negotiation and was not a literal recording of previous legal arrangements. Devroey has put his finger on two other important issues.²¹ One is the contradictory interpretations of the fragmented nature of holdings: some historians read such fragmentation as the result of the division of holdings through inheritance, whereas this process of splitting-up was in fact unsure. He has also underscored how surprisingly great the physical mobility of people was in a world where stability praised.²² His conclusions can only be summarized here. He found: massive exogamy of women who left the lordship to marry or were established on precarious holdings at the margins of the estates, or the flight of serfs; physical mobility of younger sons, since the eldest was likely to be the only one to keep the farm running; the fact that younger males could use the *mansi absi*, i.e. temporary rented holdings that could act as a buffer in the event of demographic pressure; the granting of peasant holdings whose inhabitants were without male heir to former slaves moving up the social ladder; spontaneous emigrations following land clearances or, at the opposite end, top-down organized clearances and the granting of new holdings. All of this usually took place in a rather concentrated environment, probably within a radius of some 15-20 km, which was the world in which peasants' daily lives evolved. And it all occurred in a context of non-linear demographic growth, which did not run counter to the masters' main objective of predictability.

²⁰ Alice Rio, 2017, pp. 193-194.

²¹ Devroey, 2003, p. 76.

²² Devroey, 2006b.

(iii) Finally, one must consider the specific monastic ethos: the hiring of poor workers at times of crisis could be interpreted by those hired as a form of charity. Moreover, collecting large quantities of cereals could help monks to attain other non-economic goals as well as to fulfil their own religious agenda. Texts such as the *Statutes* of Adalhard of Corbie show this link between mobility of the poor and relief of the poor by the display of temporary work in exchange for food (Semmler, 1963, pp. 365-418).

Conclusion: toward a complex view of the Carolingian manor

This attempt of quantification has helped to refine and confirm the picture of the pronounced diversity and dynamism of manorial structures that began to emerge in the late 1980s.²³ It has shown unambiguously that boon work could be self-sufficient, at worst if complemented by recourse to supplementary or alternative domestic or waged work. In the places where boon work was central, external peasant mobility was not necessary to supply the labour market. But even in the most classical bipartite manors, social and physical mobility figured prominently, despite monastic or lay managers' aspiration to stability: demographic pressure, the need to maintain a single family on the *mansus* or to stimulate the creation of new holdings, created room for physical mobility. It was sometimes necessary to move in order to escape the paucity of opportunities in the theoretically fixed frame of the manorial estate.

So far, the question of mobility has been examined through the lens of the peasants having (or lacking) a holding, their central role in the cultivation of the demesne, their ability to move, and the existence of a complementary mobile workforce. It is also interesting, however, to look at the variety of inhabitants co-existing on the Carolingian estates, or alongside them, who certainly enjoyed consid-

²³ Toubert, 1990. But already suggested by Devroey, 1976, for the specific case of *mansi absi*.

erable actual or potential physical and economic mobility or else were cruelly deprived of it. Recent investigations of "peasant protagonism"24 or "peasant agency" seek to find out how peasants were able to act, to resist or move upward, even when they were inserted into the manorial framework. Some were at the top of the social ladder, at least in the manorial world. They worked as agents for the master, or even reached the bounds of what could still be defined as "peasants": they are the ones known by description of the tracts of land (small bipartite demesnes) given to those charged with administrative or military duties (major, forestarius, cabalarii working on behalf of the master), and holding beneficia or precaria. They held small estates, with a small demesne, had their own tenants, and controlled mancipia, prebendarii, in what looked like a smaller-scale replication of the large estate inserted in a sort of pyramidal world: some tenants worked for tenants who performed offices for the master but also provided labour services themselves (see Saint-Bertin). ²⁵

Other "outsiders", barely mentioned by polyptychs, existed at the margins: *haistaldi* are often cited and discussed. ²⁶ Devroey sees them as younger men who had no inheritance rights and were waiting to gain a holding. Saint-Bertin reveals another interesting category: it lists a number of dependents holding small tracts of land and providing a small amount of work (one day a week for *lunarii*, people working on Monday; two days a year for many men; others only paying *census* for the illumination of churches; for *luminaria*, see Ganshof). ²⁷ There were sometimes hundreds of such "outsiders" living alongside the bipartition of the estates: they were not central to labour services and had their own activity. It has been suggested that they were waged workers, hiring themselves out as often as five days a week (Sunday was a day of rest, and on Monday they provided boon work for the master), according to the needs of agricul-

²⁴ Wickham, 2009, pp. 39, 214.

²⁵ Ganshof, 1975, mentions them almost everywhere.

²⁶ Kuchenbuch, 1978, pp. 255-58; Devroey, 2006a, p. 405.

²⁷ Ganshof, 1975.

tural activity on the demesne, or working for themselves on their small plots.²⁸ Being tied to the land and to a particular day on which they had to provide labour services probably limited the extent of their physical mobility and their ability to move far from the manor, but they still could have gone off to neighbouring places, provided they were back home the following week.

In between, and amongst the many types of peasants who could enjoy a certain degree of "agency", were some tenants who provided specialized goods (iron objects, mostly), as Tange has shown, and were thus craftsmen as well, which conferred a specific economic status.²⁹ Were they still "peasants"? Probably they were craftsmen and peasants simultaneously, cultivating a piece of land in a world where complementary activities were the rule; they were also extraskilled and therefore especially well-equipped to gain some degree of independence, and maybe more mobile if they partially practised their craft all around the area.

The margins of the estate offer us a very lively but scantily documented world whose constituents ranged from peasant mediators, entrepreneurs or craftsmen, to poorer elements lacking a household or renting themselves. Internal economic stratification and variability of the peasant world was the rule, with various levels of social and spatial mobility. A subtle approach is required to grasp such internal diversity. One has to hope that archaeology will now consider more carefully these layers of richness, agency and social and spatial positions, to interpret a material culture which is often too quickly divided between the aristocracy or religious "elites" and the rest. Considering the internal stratification of the peasant world, the diversified access to prestige goods in a rural context after the end of the "peasant mode of production", in Carolingian times, would be a

²⁸ Klingelhöfer, 1983.

²⁹ Tange, 2012, pp. 347-360.

³⁰ Loveluck, 2009.

³¹ Wickham, 2005.

stimulating way to look beyond a simplistic division between lords and peasants. Such an approach could be used in combination with the new findings of archaeology regarding rural settlements, their organization and mobility, which have already proved fruitful for Ile-de-France or Northern France, as demonstrated by the works of Peytremann, Catteddu or Gentili.³² All of this will certainly confirm a positive and complex view of the manorial world, as Devroey suggested in his early articles, and help advance nuanced investigation into the complex world of the peasantry.

Bibliography

Primary sources

- BORETIUS A., KRAUSE V. (1883-1897), MGH Capitularia, vol. 1-2, Hahn, Hanover.
- DEVROEY J.-P. (1986), *Le polyptyque et les listes de biens de l'abbaye Saint-Pierre de Lobbes (IX^e-XI^e siècles)*, vol. 91, Commission royale d'histoire, Publications in-octavo, Brussels.
- DROSTE C.-D. (1988), *Das Polyptichon von Montierender*, Trierer Historische Forschungen, Trier.
- Ganshof F.-L. (1975), "Le polyptyque de l'abbaye de Saint-Bertin (844-859)", in *Mémoires de l'Académie des Inscriptions et Belles-Lettres*, 45, pp. 57-209.
- Guerard B. (1844), Polyptyque de l'abbé Irminon, ou, Dénombrement des manses, des manses et des revenus de l'abbaye de Saint-Germain des Prés sous la règne de Charlemagne, 2 vols., Imprimerie Royale, Paris.
- HÄGERMANN D., HEDWIG A. (1990), Das Polyptychon und die Notitia de Areis von Saint-Maur-des-Fossés, Beihefte der Francia, 23, Thorbecke, Sigmaringen.
- SEMMLER J. (ed.) (1963), "Breuis quem Adalhardus ad Corbeiam re-

³² Peytremann, 2013; Catteddu, 2017 Gentili, 2010.

gressus anno incarnationis domini DCCCXXII mense ianuario indictione quinta decima imperii uero gloriosi Chluduici Agusti octauo fieri iussit", in Kassius Hallinger (ed.), *Corpus consuetudinum monasticarum*, t. 1, Schmitt, Siegburg, pp. 357-408.

Secondary literature

- CATTEDDU I. (2017), "Habitat, structuration de l'espace rural et pratiques agropastorales au premier Moyen Âge. Exemple d'une collaboration interdisciplinaire autour de deux fouilles archéologiques préventives en llle-et-Vilaine à Montours et Châteaugiron", in A. Dierkens, N. Schroeder et A. Wilkin (eds.), Penser la paysannerie médiévale, un défi impossible?, Paris, pp. 335-346.
- Devroey J.-P., Wilkin A., Gautier A. (2013), "Agricultural Production, Distribution and Consumption around the North Sea, 500-1000", in L. van Molle and Y. Seghers (eds.), *The Agro-Food Market. Production, Distribution and Consumption*, Brepols, Turnhout, pp. 13-68.
- DEVROEY J.-P., WILKIN A. (2012), "Diversité des formes domaniales en Europe Occidentale", in *Revue belge de Philologie et d'Histoire*, 90, pp. 249-260.
- DEVROEY J.-P. (2006a), *Puissants et Misérables: système social et monde paysan sans l'Europe des Francs (VI^e-IX^e siècles)*, Mémoire de La Classe Des Lettres. Collection in-8°, Académie Royale de Belgique, Brussels.
- (2006b), "Peasant Mobility and Settlement. The Case of the Large Ecclesiastical Carolingian Manors", in Brigitte Kasten (ed.), Tätigkeitsfelder und Erfahrungshorizonte des ländlichen Menschen in der frühmittelalterlichen Grundherrschaft (bis ca. 1000). Festschrift für Dieter Hägermann zum 65. Geburtstag, Steiner, Stuttgart, pp. 37-47.
- (2006c), "Économie et société rurales du Haut Moyen Âge occidental: lecture dynamique des sources, compréhension dynamique de la société", in Bulletin de la Classe des Lettres de l'Académie royale de Belgique, 6e série, 17, pp. 77-99.

- (2003), Économie rurale et société dans l'Europe franque. 1. Fondements matériels, échanges et lien social, Belin, Paris.
- (1985), "Pour une typologie des formes domaniales en Belgique romane au haut moyen âge", in *La Belgique rurale du Moyen Âge* à nos jours, Mélanges Jean-Jacques Hoebanx, Éditions de l'Université de Bruxelles, Brussels, pp. 29-45.
- (1976), "Mansi absi: indices de crise ou de croissance de l'économie rurale du Haut Moyen Âge?", in Le Moyen Âge, 82, pp. 421-451.
- FOSSIER R. (1987), La terre et les hommes en Picardie jusqu'à la fin du XIII^e siècle, Centre régional de documentation pédagogique, Amiens.
- GENTILI F. (2010), "L'organisation spatiale des habitats ruraux du haut Moyen Âge: l'apport des grandes fouilles préventives. Deux exemples franciliens: Serris 'Les Ruelles' (Seine-et-Marne) et Villiers-le-Sec (Val-d'Oise)", in O. Chapelot (ed.), *Trente ans d'archéologie médiévale en France. Un bilan pour un avenir*, Paris, pp. 119-132.
- GUILHIERMOZ P. (1913), "De l'équivalence des anciennes mesures. A propos d'une publication récente", in *Bibliothèque de l'école des chartes*, 74, pp. 267-328.
- KARAKACILI E. (2014), "English Agrarian Labor Productivity Rates Before the Black Death: A Case Study?", in *Journal of Economic History*, 64, 1, pp. 24-60.
- KLINGELHÖFER E. (1983), "A Suggested Identification of the Carolingian 'Lunarius'", in *Revue belge de Philologie et d'Histoire*, 61, 2, pp. 265-269.
- KUCHENBUCH L. (1978), Bäuerliche Gesellschaft und Klosterherrschaft im 9. Jahrhundert. Studien zur Sozialstruktur der familia der Abtei Prüm, Franz Steiner Verlag, Wiesbaden.
- (1983), "Probleme der Rentenentwicklung in den klösterlichen Grundherrschaften des frühen Mittelalters", in W. Lourdaux, Benedictine culture 750-1050, Leuven, pp. 132-172.
- LOVELUCK C.P. (2013), Northwest Europe in the Early Middle Ages: C. AD 600-1150: A Comparative Archaeology, Cambridge University Press, Cambridge.
- (2009), "The Dynamics of Elite Lifestyles in the 'Rural World',

- AD 600-1150: Archaeological Perspectives from Northwest Europe", in F. Bougard, R. Le Jan and R. McKitterick (eds.), *La culture du Haut Moyen Âge, une question d'élites?*, Brepols, Turnhout, pp. 139-170.
- MORIMOTO Y. (1995), "Sur les manses surpeuplés ou fractionnaires dans le polyptique de prüm: phénomènes marginaux ou signes de décadence?", in *Campagnes médiévales: l'homme et son espace. Études offertes à Robert Fossier*, Publications de la Sorbonne, Paris, pp. 409-423.
- (1994), "Autour du grand domaine carolingien: aperçu critique des recherches récentes sur l'histoire rurale du Haut Moyen Âge", in Y. Morimoto, A. Verhulst (eds.), Economie rurale et economie urbaine au Moyen Âge, Centre Belge d'Histoire Rurale and Kyushu University Press, Ghent-Fukuoka, pp. 25-79.
- Musset L. (1951), "Observations historiques sur une mesure agraire: le bonnier", in *Mélanges d'Histoire du Moyen Âge dédiés à la mémoire de Louis Halphen*, Presses Universitaires de France, Paris, pp. 535-542.
- PEYTREMANN E. (2013), "Identifier les résidences des élites au sein des habitats ruraux du VI^e au XI^e siècle dans la moitié nord de la France", in J. Klápste (ed.), *Hierarchies in Rural Settlements*, Turnhout, pp. 183-197.
- Rio A. (2017), *Slavery after Rome*. 500-1100, Oxford University Press, Oxford.
- RENARD E. (1999), "Lectures et relectures d'un polyptyque carolingien (Saint-Bertin 844–859)", in *Revue d'histoire ecclésiastique*, 94, pp. 392-406.
- Schroeder N., Wilkin A., Snijders T. (2014), "Documents de gestion inédits provenant de l'abbaye de Stavelot-Malmedy et concernant les domaines de Lantremange, Jenneret et Louveigné (Xe-XIIe siècle)", in *Bulletin de la Commission Royale d'Histoire*, 180, pp. 5-48.
- Stone D.R. (1997), "The Productivity of Hired and Customary Labour: Evidence From Wisbech Barton in the Fourteenth Century", in *The Economic History Review*, 50, pp. 640-656.
- TANGE S. (2012), "La paysannerie indépendante et autonome à côté

- du grand domaine carolingien", in Revue Belge de Philologie et d'Histoire, 90, pp. 347-360.
- TOUBERT P. (1998), "L'institution du mariage chrétien, de l'antiquité tardive à l'an mil", in *Morfologie sociali e culturali in Europa fra tarda antiquità e alto medioevo*, Spoleto, pp. 503-550.
- (1990), "La part du grand domaine dans le décollage économique de l'Occident (VIII^e-X^e siècles)", in *La Croissance* agricole du Haut Moyen Âge. Chronologie, modalités, géographie, Comité départemental de tourisme du Gers, Auch, pp. 53-86.
- VERDOOT J. (2013), "Les domaines mosans de l'abbaye de Lobbes au IXe siècle: structure el organisation interne de villae fonctionnant sans corvée", in *Revue belge de Philologie et d'Histoire*, 91, pp. 187-214.
- VERHULST A. (2002), *The Carolingian Economy*, Cambridge University Press, Cambridge.
- (1983), "La diversité du régime domanial entre Loire et Rhin à l'époque carolingienne", in W. Janssen and D. Lohrmann (eds.), Villa-Curtis-Grangia. Landwirtschaft zwischen Loire und Rhein von der Römerzeit zum Hochmittelalter, Beihefte der Francia 11, Artemis-Verlag, Munich-Zurich.
- WICKHAM C. (2005), Framing the Early Middle Ages: Europe and the Mediterranean, 400-800, Oxford University Press, Oxford.