

Estate Maps in 18th Century France: Between Representation of Land Rights and the Production of Accurate Maps

Although a few recent publications in France have revived the interest in history of local map-making in the modern period¹, the subject does not appear to have been a major concern of historians or geographers. Only after the studies of Marc Bloch's, one of the main historians of the first half of the 20th century, a survey of European estate maps was launched at the end of the 1920s². Bloch's undertaking consisted of starting from the estate maps of the 17th and 18th centuries in order to reconstruct medieval spatial layouts. The recent interest in the question has several explanations. First of all, there are the analyses seeking to articulate art history and landscape history in research on defining the place of artists in the map-making of the 17th and 18th centuries³. Finally, again in connection with these issues of landscape, there is the research based on estate maps and aiming to reconstruct the landscapes contemporary to the creation of these maps⁴. The questions raised here are not approached in complete reverse, but the aim is to start by focusing on the slow diffusion of these maps, then to concentrate on the methodologies developed in the 18th century, in order to explain the

For more information: N. VERDIER, *La Carte avant les cartographes, l'avènement du régime cartographique en France au XVIII^e siècle*, Paris 2015.

¹ C. BRUNEL, O. GUYOTJEANNIN, J.-M. MORICEAU (edd.), *Terriers et plans terriers du XII^e au XVIII^e siècle*, Paris 2002.

² M. BLOCH, S. AAKJAR, H. HALL, A.-H. TAWNEY, W. VOGEL, *Les plans parcellaires: Allemagne, Angleterre, Danemark, France*, «Annales d'histoire économique et sociale», 1-2, 1929, pp. 225-31.

³ N. VERDIER, *Cartes et paysages: tenter la médiation au XVIII^e siècle. La question des paysages en plan et en perspective*, «Les Carnets du Paysage», 20, 2010, pp. 14-31.

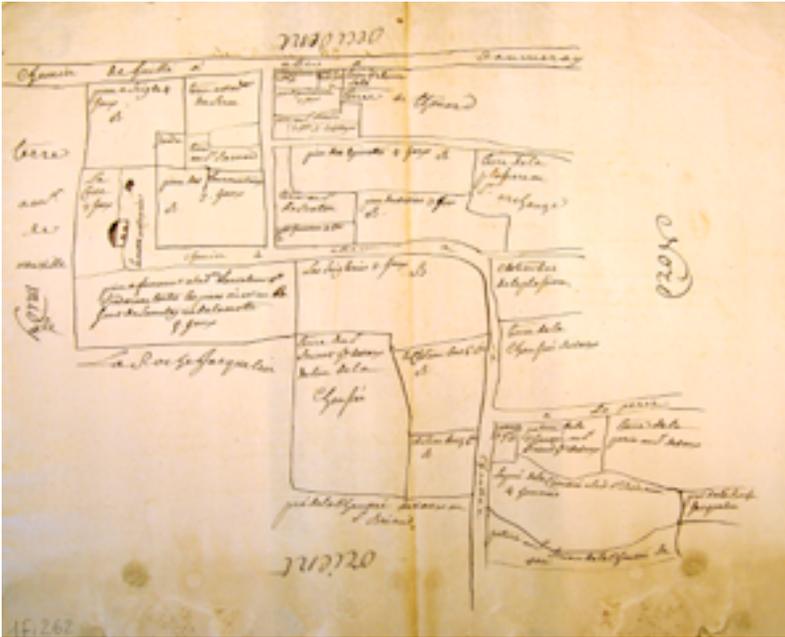
⁴ A. ANTOINE, *Le paysage de l'historien. Archéologie des espaces bocagers de l'Ouest de la France au XVIII^e siècle*, Rennes 2000.

difficulties of dealing with 18th century estate map, to reach a modern reconstruction of the special dimension of the past.

These questions first of all were generated by an interest in the history of space representation, and then by a difficulty to comprehend the very heterogeneous nature of the archival sources. Indeed, how should we consider estate maps produced about at the same time, but that have very little in common? One is clearly oriented, by a compass rose showing that the north is not exactly at the top of the sheet, while another carries indications that attribute a direction to each side, but without the same precision. One has a scale that appears precise, easily recognisable to the eye, while another has none. Some are easy to identify, others can only perplex (fig. 1-2).



1. 1^{er} carte du plan général des dixmes de Varenne, Archives Maine et Loire, 1 Fi 2.



2. Terres de la Métairie de la Motte, Archives Maine et Loire, 1 Fi 262.

The first question is what hampered diffusion. In other words, we need to determine why plots were not all mapped to produce the 18th century estate maps. The first part of the answer lies in the history of the spread of the actual use of maps. At the end of the 17th century and at the beginning of the 18th century, some landowners had already seen maps, and indeed few of them had received instruction about maps, for example, in the Jesuit colleges, or had even had occasion to use maps in court proceedings. However, as a general rule, maps were rare objects, and probably were mainly on different scales – the nation, the province or the episcopate. Although a few estate maps appeared in the 17th century, they only spread, gradually, in the course of the 18th century. In addition, in a world in which repetition was a principle for survival, and where innovation equated with risk, there was probably no reason to adopt this costly object, inevitably not so well mastered than verbal descriptions of territory.

We need to remind that the French monarchy did nothing to encourage this process. When, in the phase of reaffirming royal power following the *Fronde* (1648-53), a series of texts was issued aiming to re-compose the royal estates, the idea of appraising these estates by way of maps was never put forward.

With the attempts to establish cadastral maps covering larger areas, appearing in the mid 18th century⁵, their exorbitant cost was regularly recalled for the purpose of opposing the drawing-up of estate and land

DES DROITS SEIGNEURIAUX. 123

O R I E N T.

Chemin de la Grange à Rillieu.

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|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Chemin du Port de Colonge, à la Chapelle, & à Rillieu. | Terrier Moral de 1508. A. Maison de François Dufrene, dernière parcelle de la Reconnaissance, au Terroir des Mercistes, joignant le chemin de la Grange à Rillieu, & aux Charrolières de Masin; la Maison d'Antoine Violard, de Vent; la maison de la veuve Pierre Odinet, de Soir; & le chemin du Port de Colonge à la Chapelle, de Bise. | Moral 1508. D. M ^r . Antoine Violard, Notaire à Lyon, article premier de la Reconnaissance. Maison, cour, granges, étabbes, verchere & pré, joint le max & tement des héritiers M. Pierre Odinet, de Bise; la terre & verchere deid, héritiers Odinet, un fen-tier entre deux, de Vent & de Martin. | Terre & verchere des héritiers Odinet. Sentier entre deux. |
| | Terrier Moral de 1508. B. La veuve Pierre Odinet, huitième parcelle. Une maison jointe les Maisons de François & Claude Dufrene, de Masin, la grange d'Antoine Violard, de Vent; la grange de Claude Saunier, de soir; & le chemin du Port de Colonge à Rillieu, de Bise. | | |
| | Terrier Moral de 1508. C. Guillot Dufrene, Tuteur de Claude Saunier, a reconnu une maison joute celle de la veuve Odinet, de Masin; les granges d'Antoine Violard, de Vent & Soir, & le chemin de la Chapelle au Port de Colonge, de Bise. | | |

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3. LA POIX DE FREMINVILLE, *La pratique universelle pour la rénovation*, p. 123.

⁵ M. TOUZERY, *Atlas de la généralité de Paris au XVIII^e siècle, un paysage retrouvé*, Paris 1995.

ownership maps⁶. Albert Soboul reported estimated costs for the revising of estate maps amounting to 15,000 *livres*, for a work that could take more than five years⁷. This means, that before approaching the problem of the methods of developing estate maps, we have to take in account the extremely slow acceptance of this kind of space representation. In other words, before the question of the methods for developing these estate maps is even asked, the first element to be taken into account is that of the extremely slow acceptance of the map as a way of representing territory.

The second, larger question is that of the methodologies introduced to develop estate maps. Extensive use will be made of the a major work in this field, the treatise by Edme de la Poix de Fréminville, which had four editions in the 18th century, in 1746, 1748, 1752 and 1757 (fig. 3). This work is important for different reasons. First of all it emphasises the importance of maps, and the emphasis increases from one edition to the next. Secondly it describes the methods to be used. Thirdly, it was widely diffused, as attested by its presence in numerous libraries. And finally, it is considered as a reference in the treatises of the 1760s. Among the twenty odd works devoted to the revision of estates published in the 18th century, ten of which went through several editions (amounting to some 40 publications in all), Fréminville is the first author to have stressed the need for maps, in 1746, thus signalling the birth of a type of treatise that was to adapt maps to the revision of estates. He indeed gave a definition of his profession in 1746. In his view, the Estates Commissioner should be «an upright, fair man, more intent on his duty than his interest, and having at heart as much the rights of the landlord as an aversion for injustice, erudite and experienced in the practice of feudal rights, able to draw up maps, to map estates, and apply them justly, a good reader of former deeds, active, diligent and very faithful. These are the qualities for a good estates commissioner, and without this it is not possible to conduct a good revision»⁸.

The first aspect of interest here resides in the distinction made by the author between surveying to produce a plan and mapping estates.

⁶ M. BLOCH (under the name Fougères), *Plans cadastraux de l'Ancien Régime*, «Mélanges d'histoire sociale», 3, 1943, pp. 55-70.

⁷ S. BIANCHI, *Terriers, plans terriers et Révolution*, in BRUNEL, GUYOTJEANIN, MORICEAU (edd.), *Terriers et plans-terriers du XIII^e au XVIII^e siècle*, pp. 309-24.

⁸ E. DE LA POIX DE FRÉMINVILLE, *La pratique universelle pour la rénovation des Terriers*, Paris 1746, p. 21.

What in fact is involved in mapping estates? For Fréminville, above all it involves starting from written archives to produce a graphic representation. Thus Fréminville takes the example of a text concerning an estate, comprising the description of each plot in both form and content, and he explains how to ‘map’ it. Here he uses an estate document signed by a solicitor, Morel, in 1508. The text first of all describes the plot belonging to François Dufrene.

The description explains that the plot borders «the track to Rieu’s barn» to the east, Antoine Violard’s house to the south, the house of widow Odinet to the west, and the Port de Colonge road to the north. He then moves on to the property of widow Odinet, and repeats the enumeration, and so forth from property to property until the whole estate area has been included⁹. To put the value of this map in context, it can be noted that the method used was very similar to that used by Guillaume Delisle (1675-1726) when he corrected the dimensions of the Mediterranean at the end of the 17th century, giving it, on maps, the shape we know today. This erudite brand of cartography, of which Anville (1697-1782) was the main exponent in the 18th century, is essentially derived from written material rather than from surveying procedures and coordinates. In other words, this form of cartography, while we today may find it surprising or even unsettling, was nevertheless a relevant mode of map-making at the time. It is a thematic mapping technique, designed to represent rights to plots of land. It can be noted that by using maps of more recent plots, it is in fact possible to partly retrieve the layout of the past.

However this procedure was not necessarily the last task of the estates commissioner. Indeed, once the estate map was drawn up, according to Fréminville it then had to be «applied to a plan». Here there was a choice: either a visual plan, or a geometric plan. While the estate map was produced away from the field, the second stage was to draw up a plan actually in the field, working «from sight», that is to say without any instruments, or perhaps more accurately without any instrument other than a surveyor’s chain (Gunter’s Chain), and measures related to the human body. At the time, the body was commonly used in various techniques, and surveyors learnt not only to pace out distances, but also to avoid their paces varying with the nature of the terrain. It is exactly in this manner

⁹ *Ibid.*, p. 122.

that Kashmir was mapped in the 1860s¹⁰. Thus in short, the task was to make a document, here a land register, coincide with a landscape as it can be represented by an observer at ground level.

If on the other hand a geometric plan and not a visual plan was to be used, the whole procedure was reorganised. Fréminville starts by noting that when a landlord has a geometric plan drawn up, he does so with the intention of preserving it. This distinction is interesting, since it positions estate maps and maps applied to a visual plan on the side of documents that are not necessarily intended to be kept. In other words, the impression we derive from archives when we consult a series of estate maps – that they should be classified on an equal footing with other documents intended to last – is incorrect. This does not however mean that estate maps were not to be preserved, or that preserving them was a mistake. It merely means that only the geometric plans were designed by their developers as retaining value for subsequent estate revisions.

In all events, when a geometric plan was used, it involved surveying in the field, using technical instruments, and then in a second stage mapping the estates on this plan. Thus this was a reverse procedure: the visual plan enabled an approximation, so that it was then possible first of all to map, and only then to survey «in the same style». In contrast, the geometric plan preceded and imposed itself on the map. But another element occurs here, which also enables the period when geometric plans spread among estate commissioners to be more accurately dated. Indeed, in Fréminville's first edition in 1746, the use of a geometric plan required a form of delegation. The estate commissioner relied on another person to produce geometric plans beforehand. However in the 1752 edition, Fréminville adds a short treatise on the use of the plane table, which is in line with the literature of the map-makers in the 17th and 18th centuries, such as Jean Beaulieu, and later Jacques Ozanam whose work appeared in numerous editions, or Louis-Charles Dupain de Montesson who in the mid 18th century produced manuals for the design of plans and maps.

The considerable difference between a layout plan drawn up from visual survey and a geometric plan in estate revisions is in fact of

¹⁰ K. RAJ, *La construction de l'Empire de la géographie, l'odyssée des arpenteurs de sa Très Gracieuse Majesté la Reine Victoria en Asie Centrale*, «Annales H.S.S.», 5, 1997, pp. 1153-80.

only relative importance. Indeed, Fréminville considered on the one hand, that if the visual layout plan was correctly managed, and the information from local sources enabling the estate map to be adjusted to the plan was adequately verified, this layout plan could be considered sufficient. This was an important point, as Fréminville had to pay attention to the financial means of his clients. Having a geometric plan drawn up required considerably more money than a visual survey plan. Thus it was important not to excessively devalue the product of work that would cost less. However the difference between the two was also related to differences in practice. Thus the visually surveyed plan was based on individual reports, which meant that it belonged to the sphere of legal experts, who in the 18th century in France were attaching increasing importance to proof on paper rather than to verbal evidence. In contrast, the geometric plan was reputed to possess qualities of accuracy, assimilating it to the technical sphere where deception was viewed as being impossible. Indeed, the two notions of precision and truth occur throughout the description of the geometric map in Fréminville's argument.

The difference between visually surveyed plans and geometric plans is not always clear-cut. In many cases, it is difficult to know which technique was used to establish the estate plans, and distinguishing between excellent visual survey maps and technically incorrect geometric plans is often not easy, in particular because there is always a lack of homogeneity. A geometric plan is in fact a plan for which a certain number of points have been surveyed using instruments. The lines joining up these points are always left to the appreciation of the person drawing the map.

Thus research on the plans and maps used in the 17th and 18th centuries, first of all requires understanding that the relationship with maps was not as obvious as today. From this point of view, estate maps, sometimes very far-removed from our present-day conceptions, provide us an approach to the conceptions of our ancestors. While the large-scale digitisation of maps from the past is highly desirable, for a better understanding of the modern period, we should keep in mind that maps have altered our perceptions of space, whether on global or local scale. A remark in 1790 by an inhabitant of Pont de l'Arche in Normandy, criticising the Cassini map used to create the French *départements* in December 1789, gives us the measure of this: «The Cassini maps that were used for this task, very good in themselves to measure visual distance from

steeple to steeple, are not suited to this job; you need to have paced it out and checked the position and the extent of the plots, to have apprehended obstacles and the fording of rivers, to satisfy the requirements of the Assemblée Nationale»¹¹.

NICOLAS VERDIER
CNRS UMR 8504 Géographicité
CNRS/Université Paris I Panthéon Sorbonne
Université Paris VII Denis Diderot

¹¹ French National Archives, D IV^{bis} 6 / 192 - 4, *Adresse à nosseigneurs de l'assemblée Nationale, par les habitants en général de la ville de Pont de l'Arche, Province de Normandie*, Rouen 1790.