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List of Abbreviations

AC	Actes Capitulaires	
AG	Agence générale du clergé de France	
AN	Archives Nationales	
BN	Bibliothèque Nationale	
CEL	Célestins	(Benedictine: Independent)
CM	Congrégation de la Mission	(“Lazarists”)
CSM	Congrégation de Saint-Maur	(Benedictine confederation)
Lt	Livres tournois	
ND	Chapitre de Notre-Dame de Paris	
OM	Ordre de Malte	
SD	Abbaye de Saint-Denis	(Benedictine: Saint-Maur)
SG	Abbaye de Saint-Germain-des-Prés	(Benedictine: Saint-Maur)
SGN	Abbaye de Sainte-Geneviève	(Augustinian: “Génofévains”)
SM	Prieuré de Saint-Martin-des-Champs	(Benedictine: Cluny)

List of Measures

1 *arpent de Paris* = 0.4041 hectares = 0.9986 imperial acres

1 *acre de Normandie* = 2.39 arpents de Paris

1 *muid de Paris* = 12 *setiers* = 18.72 hectolitres = 53.12 US bushels

1 *pied de Paris* = 324mm = 1’ ¾” imperial feet and inches

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Abstract

THE CATHOLIC AGRICULTURAL ENLIGHTENMENT IN FRANCE

This dissertation helps explain how and why agriculture escaped its Malthusian structures through the practices of the ecclesiastical proprietors that owned the most productive land around Paris in late ancien régime France. It shows how a confluence of agricultural, social, religious, intellectual, and political factors enabled and encouraged clerics, armed with unique corporate advantages, to build a partnership with tenants that was among the most dynamic in the late ancien régime economy. This matters because it gives a hitherto unrecognized "religious" agronomic and Enlightenment dimension to the French path to modernity.

Untangling the modes, causes, and results of church landlords' practices requires a combination of economic, rural, material, business, political, intellectual, and religious history, using both quantitative and cultural evidence. This dissertation shows how church landlords reinvested far more of their agricultural rents than secular landlords did, and that their reinvestment went into rent relief and into physical infrastructure to enhance tenants' profits by lowering costs and increasing sales. These supports gave tenants an opportunity to increase output and productivity by building up capital and changing their operations, as well as the incentive to innovate to pay the higher rents that church landlords demanded for their investment. Church landlords' investment in agriculture was routine, structured, comprehensive, and in some cases institutionalized, which explains its success. The landowning clergy's success in generating agricultural growth through investment in part arose through the immersion of key clerics in Enlightenment institutions and projects, but it also derived from church landlords' organizational capacity as corporations. Seen as economic "firms," these church corporations were sufficiently permeable that their interests aligned with those of their tenants, though without

losing control of decision-making. Church landowners' investment in agriculture was successful and sustainable because it was informed, and church landlords' ability to innovate to meet changing organizational needs, and their effect on agricultural growth, demonstrate that this distinctively French, corporate, and ecclesiastical economic model provided a path to modernization that was likely to have remained competitive in the post-revolutionary world.

This dissertation further shows that church landlords' investment practices were structured by a politically enforced lack of alternative investment opportunities and by Enlightenment anticlericalism and new ideals of good proprietorship, which church landlords turned to their advantage by presenting themselves as model citizens. That strategy protected church landlords' privileges from criticism by the intellectual elite and the Crown; it meant church landlords felt confident of leading the regeneration of France; and it indicates that agricultural development allowed an emergent utilitarian element within the church to demonstrate its value to society in new and politically ambitious ways.

In summary, this dissertation places a large part of that supposedly archaic and declining institution, the church, at the center of the most dynamic elements of contemporary France, in fields with which the church has been associated as an opponent or obstacle, such as the Enlightenment, economic growth, and political change. In doing so, it connects Enlightenment anticlericalism, economic thought, and agronomy to economic change in ways that have been improperly understood until now. Religion in the form of theology is absent from this dissertation, as it is absent from church landlord sources on managing and protecting agricultural wealth. Church landlords' intervention as agricultural developers arose from their immersion in the Agricultural Enlightenment and in the social, political, and scientific elite. Yet church proprietors' strategy and role in rural investment were inherently religious: they sprang from the

organizational character and capacity of church corporations, and they defended church proprietors against anticlerical criticism in late Enlightenment France. By adopting a broader viewpoint of both religion and the Enlightenment that reflects how both were *lived* by eighteenth-century clerics, we see that these institutions were in fact strongly interlinked in ways that led to France escaping its agricultural ancien régime.

Introduction

On Monday morning, November 22, 1790, the 51 canons of the cathedral chapitre of Notre-Dame de Paris ("Notre-Dame") assembled in their chapterhouse to receive some unwelcome guests. Earlier, the scheduled Mass for the dead had been celebrated, which was an appropriate coincidence. The officers of the commune of Paris had come to end the chapitre's 1,037 years of existence, in fulfillment of decrees by the National Assembly that abolished church corporations and seized their property.[1] As the chapitre dispersed and the city officers sealed both the chapterhouse's doors and the Sanctuary of the cathedral, the canons might have mused on the lines of Psalm 130, "Out of the depths I have cried to you, O Lord; Lord hear my voice," given the total defeat that was upon them.[2] Yet, while many clerics would be impoverished, deported, or executed during the 1790s, the fall of Notre-Dame was bathetic. Canon Jean-Lucien Lucas, for example (a minor though respected agronomist), left the cathedral and walked the short distance to his comfortable house on rue Chanoinesse, where he lived on, quietly, until his death in 1802. If historians have considered Lucas and other landowning clerics – and mostly they have not - it is as an obstacle to economic development. The canons of Notre-Dame have been forgotten; even their chapterhouse was later demolished to make way for a street running alongside the cathedral.[3] Yet they might have appreciated the nineteenth-century state's investment in facilitating economic activity, for that had been *their* role in agricultural development a century before, when church proprietors' rural investments gave a hitherto unrecognized "religious" and agronomic dimension to the French path to modernity.

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[1] Joseph Meuret, *Le chapitre de Notre-Dame de Paris en 1790* (Paris: 1903), 254-8.

[2] Psalms, 130: 1-2.

[3] Rue du cloître Notre-Dame (known as rue du cloître de la raison during the Revolution) was extended by Georges-Eugène Haussmann to join the bridge from the Ile-Saint-Louis to the parvis Notre-Dame.

Ancien régime church proprietors operated as parallel but distinct liturgical and temporal institutions, with temporal wealth supporting worship and their community. Church landlords' role as agricultural developers owed little to theology, but arose from their immersion in the Agricultural Enlightenment and in the social, political, and scientific elite of France. At the same time, their rural investment was inherently religious, as it sprung from the organizational character and capacity of church corporations, and because it offered the most effective defense of the privileges of church proprietors against anticlerical criticism in Enlightenment France.

Eighteenth-century French agriculture has been under intense historical study for the best part of a century, and it might appear that everything has been said, and every agent of change examined. Neither is the case. The demise of Notre-Dame might be acknowledged more if historians knew that it marked the end of an unsuspected source of economic development in late ancien régime France, namely the practices of the ecclesiastical landowners who owned the most productive land around Paris. Untangling the modes, causes, and results of their practices requires a combination of economic, rural, material, business, political, intellectual, and religious history, using both quantitative and cultural evidence. It places a large part of that supposedly archaic and declining institution, the church, at the center of the most dynamic elements of contemporary France, in fields with which the church has been associated as an opponent or obstacle, such as the Enlightenment, economic growth, and political change, and in doing so it connects Enlightenment anticlericalism and agronomy to material and economic change in ways that have been improperly understood until now.

Explaining Agricultural Development

Sometime during the eighteenth century the population of France smashed through the level that agriculture had sustained for the best part of a millennium. It has proved difficult to

explain how France began to escape its agricultural ancien régime of structurally limited output and productivity, or why that process began in the Ile-de-France, which achieved English levels of output in the mid to late eighteenth century, whereas France as a whole did not match that success until around 1870.[4] Ostensibly, little changed that would have enabled such an increase in output. Organic fertilizers remained expensive and in limited supply, new crops that enhanced productivity elsewhere in Europe (e.g., potatoes or turnips) made little impact, and agronomic knowledge and even farm implements were scarce and inadequate. The basis of English productivity gains, the four-year Norfolk crop rotation system (wheat, followed by turnips, barley, and then clover or ryegrass, increasing fertility and fodder for animal muscle power and stock rearing), made little progress.[5] Institutional disadvantages remained: producers paid the majority of direct taxes and were subject to seigneurial dues such as the *champart* (levied at a rate of 1: 9 on most crops and animals). Yet the Ile-de-France differed from the rest of the kingdom: demand from Paris was not only unmatched but growing, and smallholders held 17% of the land, versus 50% nationally. The region, and particularly its most productive area, the Plaine-de-France north of Paris, was a land of large *fermes* worked by well-capitalized tenants, who had long before pushed the majority of country dwellers into landless wage labor.[6]

The presence in an area of developed agriculture of large properties worked by wealthy capitalist tenants raises the question of whether the dynamics of development in the Ile-de-France might have been similar to those that applied in England, where, Robert Brenner argues, agriculture developed because tenants increased productivity and output to pay for higher rents,

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[4] Jean-Marc Moriceau, "Le sens d'une "révolution agricole" dans la France du XVIIIème siècle," in *Traditions et innovations dans la société française du XVIIIe siècle: Actes du colloque de 1993* (Paris: Presses de l'Université de Paris-Sorbonne, 1995), 11.

[5] Mark Overton, *Agricultural Revolution in England: The Transformation of the Agrarian Economy, 1500-1850* (Cambridge; New York: Cambridge University Press, 1996), 1-2.

[6] Gérard Béaur, *Histoire agraire de la France au XVIIIe siècle: Inerties et changements dans les campagnes françaises entre 1715 et 1815* (Paris: SEDES, 2000), 17, 25, 101, 138-9, 234.

which landlords reinvested in improving their lands, and then demanded even higher rents from their tenants, in a virtuous circle that raised English yields far above those of France.[7] (Brenner's argument is discussed below). The region's capitalist fermiers might satisfy Brenner's model, but their landlords are harder to fit. In the 1780s, for example, the English agronomist Arthur Young reported that landlords reinvested little, which gravely handicapped agriculture.[8] Yet Young's evaluation refers only the secular proprietors that owned a fraction of all land. Little is known of the behavior of the church landlords who owned 50% of that prime arable area the Plaine-de-France, and 20% of the region as a whole.[9]

Historians' conflation of the behavior of secular and church landlords has its roots in revolutionary justifications of expropriation that present sole, lay proprietors as the only model for landownership, and in a neglect of the role of landlords, *tout court*. Yet, due to their control over physical infrastructure and rent, landlords, and particularly church landlords, had the ability to supply essential supports for agricultural development. The historical neglect of this vast slice of agricultural life has created a false picture of the manner, extent, and effect of improvement and its relationship to the Agricultural Enlightenment. It is time to study canon Lucas not as the irrelevance he became after 1790, but as the busy, confident, applied agronomist he was in the decades when agricultural productivity made its definitive break from immemorial constraints.

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[7] Robert Brenner, "Agrarian Class Structure and Economic Development in Pre-Industrial Europe," in *The Brenner Debate: Agrarian Class Structure and Economic Development in Pre-Industrial Europe*, eds. T. H. Aston and C. H. E. Philpin (Cambridge: Cambridge University Press, 1985), 12, 46-63.

[8] Arthur Young, *Travels during the Years 1787, 1788 and 1789... with a View of Ascertaining the Cultivation, Wealth, Resources and National Prosperity of the Kingdom of France* (Dublin: 1793), 2: 122-3, 301-3; Jean-Claude Perrot, "La comptabilité des entreprises agricoles dans l'économie physiocratique," *Annales. Histoire, Sciences Sociales* 33, no. 3 (mai - juin, 1978), 569. Data from farm accounts collected by physiocrats corroborates Young's claim.

[9] Béaur, *Histoire agraire*, 23, 234-6.

Historians, the Church, and the Agricultural Enlightenment

In the 1930s, the founders of French rural history, Marc Bloch and Georges Lefebvre, asked fundamental questions about agricultural change that are still disputed. Why did French productivity fall behind England's, and when and how did it catch up? What prevented or enabled the adoption of new crops, technologies, and agrarian capitalism? The founders and their followers in the *Annales* school that dominated rural history until the late 1980s argued that agriculture was constrained by static technologies, Malthusian demographics, hostility to innovation, isolation from markets, and economic and political relations that blocked growth, though they found it hard to explain how agriculture escaped these structures sometime between 1730 and 1850.[10]

Brenner interpreted this *annaliste* literature to argue that the development of agriculture in France was stifled by institutional (i.e., legal and political) protections for tenants. These, he argued, prevented French landlords from forcing tenants to pay higher rents, which in turn removed the necessity for tenants to innovate to pay those higher costs, as well as depriving landlords of the capital that powered the English Agricultural Revolution.[11] Brenner's diagnosis of French conditions is questionable: tenants in France were almost as exposed to rent increases and eviction as their English counterparts, and rural proletarianization was in operation from the

[10] Marc Bloch, *French Rural History: An Essay on its Basic Characteristics*, trans. Janet Sondheimer (Berkeley: University of California Press, 1966); Emmanuel Le Roy Ladurie, *The Peasants of Languedoc*, trans. John Day (Urbana, University of Illinois Press, 1974), 1-6; Georges Lefebvre, "La révolution française et les paysans," in *Les caractères originaux de l'histoire rurale de la Révolution française: Recueil d'articles publiés dans les Annales historiques de la Révolution française de 1924 à 1998*, ed. F. Gauthier and C. Wolikov (Paris: Phénix, 1999), 12; Jean-Marc Moriceau, *Terres mouvantes: Les campagnes françaises du féodalisme à la mondialisation, 1150-1850. Essai historique* (Paris: Fayard, 2002), 16-8; Pierre Goubert, *Cent mille provinciaux au XVIIe siècle: Beauvais et le Beauvaisis de 1660 à 1730* (1960; reprint, Paris: Flammarion, 1968), 14; Emmanuel Le Roy Ladurie, "Troisième partie: De la crise ultime à la vraie croissance," in *Histoire de la France rurale*, ed. George Duby and Armand Wallon, (Paris: Seuil, 1975), 2: 364-70, 416-7; Michel Morineau, "Y a-t-il eu une révolution agricole en France au XVIIIe siècle?," *Revue historique*, no. 486 (avril-juin, 1968), 301-3, 321, 326; Béaur, *Histoire agraire*, 136.

[11] Brenner, "Agrarian Class Structure," 12, 46-63.

1600s.[12] That said, Brenner's contribution remains useful, not as an historical description but as a model of the dynamics of growth, though its applicability is difficult to judge given that French rural historians have not considered fixed capital worth investigating.

Economic historian George Grantham is an exception. He argues that the key to French agriculture's rise to English levels of productivity was an enormous investment in "structures and land improvements" between 1750 and 1870. Grantham claims that agricultural fixed capital investment generated similar increases in labor productivity to capital invested in manufacturing and that, through reduced wastage, it also increased net output. He calculates that French fixed agricultural capital rose by 83%, "three times as fast as labor input." Given that labor intensification is credited with the increased productivity of French land in the nineteenth century, the effect of capital investment is worth investigating, but a lack of sources makes that a challenging project. Grantham's estimates had to be based on costing and depreciating buildings back from a census of 1965. Such archival problems may be why the impact of fixed capital investment has not been studied, but this thesis takes Grantham's provisional conclusions seriously and will show how they were borne out by the practices of church landlords.[13]

Grantham and Brenner's focus on capital investment is eclipsed by the current historical consensus that agricultural development occurred as tenants innovated through specialization and crop substitution in response to opportunities afforded by increasingly favorable external factors (finance, roads, demand), so that productivity and output increased where those influences were

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[12] Pierre de Saint Jacob, *Les paysans de la Bourgogne du nord au dernier siècle de l'ancien régime* (Paris: Société les Belles Lettres, 1960), 187, 256, 400, 445; Guy Lemarchand, *La Fin du féodalisme dans le pays de Caux, conjoncture économique et démographique et structure sociale dans une région de grande culture, de la crise du XVIIe siècle à la stabilisation de la Révolution (1640-1795)* (Paris: CTHS, 1989), 35, 69, 74; Cynthia A. Bouton, *The Flour War: Gender, Class, and Community in Late Ancien Régime French Society* (University Park, PA: Pennsylvania State University Press, 1993), 53-7, 62, 179, 232.

[13] George Grantham, "The French Agricultural Capital Stock, 1789-1914," *Research in Economic History* 16 (1996), 39-42, 44, 51, 56, 58; Patrick K. O'Brien, "Path Dependency, or Why Britain Became an Industrialized and Urbanized Economy Long Before France," *Economic History Review* 49, no. 2 (1996), 218-9.

strong, such as the Ile-de-France. The development of supports analogous to those that underlay English agricultural growth, such as the expansion of credit, improved communications, and growing demand from Paris, large cities, and colonial and international trade, could only have encouraged the innovation in agriculture that is evident after 1760, but it does not account for all of it.[14]

Given the difficulty of demonstrating institutional cause and agricultural effect, even the foremost historian to espouse this Smithian view of growth, Phillip Hoffman, struggles to explain - as opposed to demonstrate - agricultural development. In an analysis of rents charged in the leases of the chapitre of Notre-Dame de Paris from 1450 to the end of the eighteenth century, Hoffman uses Total Factor Productivity (TFP, the ratio of the index of weighted costs of land, labor and capital to the index of weighted returns) to demonstrate, convincingly, that agricultural productivity in those Ile-de-France properties rose slowly throughout those years before accelerating rapidly in the last decades of the ancien régime. Hoffman ascribes vaguely this late spurt in productivity growth to tenants' responses to institutional improvements (laws, markets, finance, political support), easier communications, growing demand from Paris, and fermiers' use of the capital's plentiful manure, because his data tells him that the determinants of tenants' performance were exogenous, rather than internally driven by economies of scale from larger farm size or from enclosure. Yet TFP is too "murky" and Hoffman's lease data for specific sites is too narrow to test for the possibility of endogenous changes in productivity. His solution is to refer to data from other locations and regions whose comparability is questionable. For example,

[14] Alain Becchia, *Modernités de l'ancien régime (1750-1789)* (Rennes: Presses Universitaires de Rennes, 2012), 47, 51, 55; Jean-Pierre Poussou, *Bordeaux et le Sud-Ouest au XVIIIe siècle: Croissance économique et attraction urbaine* (Paris: EHESS et Jean Touzot, 1983), 14-5, 235-6, 245, 269 ; Gilles Postel-Vinay, *La terre et l'argent: L'agriculture et le crédit en France du XVIIIe au début du XXe siècle* (Paris: Michel, 1998), 16, 21, 76, 132; Reynald Abad, *Le grand marché: L'approvisionnement alimentaire de Paris sous l'ancien régime* (Paris: Fayard, 2002), 801, 804-15; Poussou, *Bordeaux et le Sud-Ouest*, 235-6, 240, 263-6; Gérard Béaur, "Les chartier et le mystère de la révolution agricole," *Histoire & Mesure* 11, no. 3/4 (1996): 370-2, 376, 383-6.

his argument that fermiers' technological innovations had no effect on productivity is based on the impact of enclosure at a ferme near Caen, which is a tenuous basis for assertions about the far larger, openfield fermes of the Ile-de-France. That choice is driven by Hoffman's difficulty in finding informative source material for his enormous study: his cost mix, for example, derives from one set of accounts for the year 1765 for what he presents as a "typical ferme, in the Paris basin" that was located 100 miles from the capital, in Picardy, where fields were long and narrow, as the large trapezoids of the Plaine-de-France had been a century or two before. The impact of changing field shapes on the cost of operations alone undermines Hoffman's assertion that technology (in the shape of the mix of inputs) was static during the 365 years of his study, and indicates that productivity gains could arise within the ferme as well as externally.[15]

These weaknesses in Hoffman's methodology lead him to both understate the extent of productivity gains and to obscure their sources. While Grantham warns of the necessity (and difficulty) of reflecting the effect of capital investment in TFP, Hoffmann claims that assuming the mix of inputs was static is "very reasonable in early modern agriculture."[16] This thesis agrees with Grantham that cost mixes cannot be presumed to be static, because (as will be shown below) capital investment was both heavy and explicitly intended to reduce costs in labor, output, and consumables for the fermier. Even without this assumption, Hoffman's reliance on TFP understates productivity gains for the fermes of Notre-Dame, because he takes rent increases as a proxy for extra profit earned through increased productivity. Hoffman is right to assume that in the long run rent devours tenants' profit above a minimum required to survive, so

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[15] Philip T. Hoffman, *Growth in a Traditional Society: The French Countryside 1450-1815* (Princeton: Princeton University Press, 1996), 130, 103-4, 89, 91-4, 151-61, 165-7, 176-180; Xavier de Planhol and Paul Claval, *An Historical Geography of France*, trans. Janet Lloyd (Cambridge: Cambridge University Press, 1994), 265-7; Béaur, *Histoire agraire*, 102.

[16] Grantham, "Agricultural Capital Stock," 40, 58.

that productivity growth is indicated by the outputs from a tenancy being able to support more costs, including rent (formerly profit). However, it will be shown that Notre-Dame did not convert all productivity gains (i.e., extra profits) into rents, and that this was its deliberate policy. Contrary to Hoffman's assumption, Notre-Dame was *not* a representative landlord, because its investment in fermes boosted productivity and, in the short term, left the resulting profit with tenants. That behavior contradicts Hoffman's conclusion that "for Notre-Dame, better management may have simply meant greater accuracy in estimating rents," which he arrives at not on the basis of research into the chapitre's practices, but from economic and anthropological theories of landlord behavior that make no allowance for time or space.[17] Hoffman is correct in his belief that fermiers increased productivity by increasing revenues (e.g., by substituting higher price wheat for low price rye, or by selling straw in Paris for more than the cost of manure in the city), but they also cut costs and increased output with the aid of landlord capital.

Jean-Marc Moriceau (the other great recent historian of *longue durée* productivity and output growth in the Ile-de-France) corroborates Hoffman's evidence of productivity gains in the Early Modern period, though Moriceau contradicts Hoffman by crediting families of *gros fermiers* with increased productivity through achieving economies of scale, over centuries, by expanding and then consolidating rented lands into compact, contiguous fields whose operation required less human and animal labor. These bigger fields could operate independently of communal field systems, particularly as smallholders were proletarianized, enabling growth through specialization in more lucrative wheat varieties for the Paris market. Moriceau attributes gros fermiers' improved productivity and yields in the eighteenth century to their capital investment in extra, more effective tools, plowing, and manuring, larger and faster carts, and to

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[17] Hoffman, *Growth*, 103-4, 89, 91-4, 151-61, 165-7, 176.

their skeptical but profound interest in agronomy and experimentation in new machinery and practices. Moriceau's focus on this "caste" to the exclusion of other agricultural agents leads him to misunderstand the role landlords – or at least church landlords - played in their success. He ignores the fact that many major innovations by gros fermiers required the permission of their overwhelmingly ecclesiastical landlords, who vigilantly policed breaches of contract such as sub-leasing, the exchange of lands, or the lucrative sale of hay and straw in Paris. Further, as Moriceau reveals (but does not explain), a significant cause of the increased prosperity of gros fermiers from the mid eighteenth century was the failure of rents to keep pace with grain price-inflation. Lastly, though Moriceau notes the importance of better roads and farm buildings in increasing the volume of fermiers' output that reached the market and in improving labor productivity, he does not examine why these capital investments occurred or their effect on productivity and output.[18] Like Hoffman, Moriceau largely ignores how the relationship between tenants and landlords shaped fermiers' ability to survive, prosper, and innovate, which is unsurprising given the pervasive historical disinterest in French landlord behavior.

There has been little interest in landlords since Bloch argued that they played a key role in overcoming traditional agriculture. The literature on rural proletarianization, for example, devotes little attention to proprietors.[19] Stephen Miller relies on Young's assertion that landlords in the Ile-de-France reinvested little in their lands, in order to support his argument (without

[18] Jean-Marc Moriceau, *Les fermiers de l'Ile-de-France: L'ascension d'un patronat agricole, XVe-XVIIIe siècle* (Paris: Fayard, 1994), 109, 119-20, 156-7, 228, 243, 299, 363-8, 403, 421-4, 461, 478-9, 489, 631, 634, 641-4, 655; Jean-Marc Moriceau and Gilles Postel-Vinay, *Ferme, entreprise, famille: Grande exploitation et changements agricoles: Les Chartier, XVIIe-XIXe siècles* (Paris: EHESS, 1992), 38, 108, 115, 159-50, 180-1, 197, 205-6, 238-9, 323; Jean-Marc Moriceau, "Au rendez-vous de la "Révolution agricole" dans la France du XVIIIe siècle: A propos des régions de grande culture," *Annales. Histoire, Sciences Sociales* 49, no. 1 (jan-fév, 1994): 33, 36-9, 53-7; Moriceau, *Terres mouvantes*, 240-5, 275-6; Moriceau, "révolution agricole," 25-6, 49, 28-30, 35; Béaur, *Histoire agraire*, 101-2.

[19] Bloch, *French Rural History*, 197, 218-9, 228, 243, 308-9, 319, 326; Lemarchand, *Fin du féodalisme*, 74, 227, 309.

dealing with the evidence of Moriceau or Hoffman) that smallholders were the source of French agricultural innovation.[20] Jean-Michel Chevet's *thèse* on the marquisat d'Ormesson contains information on every aspect of economic life within a collection of noble estates apart from the role of the proprietor.[21] To be fair, micro-histories present examples of landlords, such as the Saulx-Tavanes of Burgundy, that rejected support for improvements suggested by their tenants, and refused to "spend a sou beyond essential maintenance" for the entire century.[22] Historians' lack of interest in landlord behavior may be because most were absentees, and lacked the type of steward who led improvement in Britain, or because landlords' efforts at improvement were sporadic, under-resourced, and irrelevant to agricultural practice.[23] But it could also be because historians are prejudiced against church proprietors, whose archives both dominate the sources on landlord activity that survive today, yet have not been examined for their own merits.

The compatibility of church landlords with economic growth has been obscured by the politically driven denigration of corporate economic organizations in the late eighteenth century and by subsequent historians.[24] Jean-Laurent Rosenthal has presented the elimination of church

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[20] Christopher Isett and Stephen Miller, *The Social History of Agriculture: From the Origins to the Current Crisis* (New York: Rowman and Littlefield, 2016), 96-100.

[21] Jean-Michel Chevet, *Le marquisat d'Ormesson, 1700-1840: Essai d'analyse économique*, thèse (Paris: EHESS, 1983).

[22] Robert Forster, *The House of Saulx-Tavanes: Versailles and Burgundy, 1700-1830* (Baltimore, MD: Johns Hopkins Press, 1971), 87-90.

[23] Nadine Vivier, introduction to *Élites et progrès agricoles, XVIe-XXe siècle* (Rennes: Presses Universitaires de Rennes, 2009), 9-10; Peter M. Jones, *Agricultural Enlightenment: Knowledge, Technology and Nature, 1750-1840* (Oxford: Oxford University Press, 2016), 76-7, 79-81; José-Marie Michel, "Les Phélyppeaux agronomes novateurs sur leurs terres d'Ile-de-France au XVIIIe siècle?," in *Paris et ses campagnes sous l'ancien régime: Mélanges offerts à Jean Jacquart*, ed. Michel Balard, Jean-Claude Hervé and Nicole Lemaître (Paris: Publications de la Sorbonne, 1994), 58-64; Jean-Dominique de La Rochefoucauld, C. Wolikow, and G. Ikni, *Le duc de la Rochefoucauld-Liancourt: 1747-1827: De Louis XV à Charles X, un grand seigneur patriote et le mouvement populaire* (Paris: Perrin, 1980), 106-8.

[24] For the vitality of eighteenth-century monasticism, see Derek E. Beales, *Prosperity and Plunder: European Catholic Monasteries in the Age of Revolution, 1650-1815* (Cambridge: Cambridge University Press, 2003), 11. For a conclusion that monasteries were more economically significant as consumers than as landlords, see Dominique Dinet, *Religion et société: Les Réguliers et la vie régionale dans les diocèses d'Auxerre, Langres et Dijon (fin XVIe - fin XVIIIe siècles)* (Paris: Sorbonne, 1998), 1: 274, 370-2; For a dismissal of clerical activity see Michel Vovelle, "Un des plus grands chapitres de France à la fin de l'Ancien Régime: Le chapitre cathédrale de

proprietors as necessary for economic growth, on the basis that their objections to land improvements could not otherwise have been overcome. Bernard Bodinier's and Eric Teyssier's study of the sale in the 1790s of *biens nationaux* justifies the expropriation of church property by asserting that it was necessary for agriculture to gain access to capital for development, a view that may be connected to the political values of their publisher, the Société des études robespierristes. As Reynald Abad's study of the politicization of (mainly) ecclesiastical pisciculture reveals, the political needs of revolutionary anticlericalism obscured the value of church landlord proprietorship then, and has endured, historically.[25] Steven Kaplan's analysis of late eighteenth-century debates on the role of labor corporations in French society (and their abolition in 1776 and in 1791) provides a useful way of interpreting the dynamics and the historical stakes of the politicization of economic groups. Kaplan argues that the justifications for the abolition of the guilds were ideological and political rather than economic.[26] The church (as he also points out) was a corporation in a society in which everyone belonged to a corporation of some kind, and the findings of this dissertation will support Kaplan's argument that corporations denigrated by the discourse of economic liberalism still retained economic vitality, to the extent of being a prime driver of growth.

A lively strand in the economic literature of ancien régime France demonstrates the continued viability of corporations, which were often, perhaps paradoxically, mobilized by a

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Chartres," in *Actes du 85e Congres national des Sociétés savantes* (Paris: Imprimerie nationale, 1961) 169, 177; For an example of a cathedral chapitre being ignored as an actor in a history reconstructing land transfers, see Liana Vardi, *The Land and the Loom: Peasants and Profit in Northern France, 1680-1800* (Durham, NC: Duke University Press, 1993), 68, 78-82, 97.

[25] Jean-Laurent Rosenthal, *The Fruits of Revolution: Property Rights, Litigation, and French Agriculture, 1700-1860* (Cambridge; New York: Cambridge University Press, 1992), 47-58, 90, 172; Bernard Bodinier and Eric Teyssier, *"L'événement le plus important de la Révolution": La vente des biens nationaux (1789-1867) en France et dans les territoires annexés* (Paris: Société des études robespierristes, 2000), 443; Reynald Abad, *La conjuration contre les carpes: Enquête sur les origines du décret de dessèchement des étangs du 14 frimaire an II* (Paris: Fayard, 2006), 13-4, 19, 34-5, 78-9, 86.

[26] Steven L. Kaplan and Béatrice Vierne, *La fin des corporations* (Paris: Fayard, 2001), 7-8.

state anxious to impose liberalizing reforms from above, but which lacked the power or the will to break the role of the corporation in ancien régime life. I will argue that the agrarian capitalist behavior observed by rural historian Jean Jacquart in Vincent de Paul's management of his new Lazarist congregation's lands in the seventeenth century, later prompted the Crown, exasperated at the aversion of the laity to business and investment, to encourage the church's propensity for deep, sustained, investment in agriculture.[27] That policy explains ostensibly isolated incidents of the state's direction of church resources that have been revealed by Kaplan and by Simone Zurawski.[28] My presentation of late ancien régime dirigisme is analogous to Jeff Horn's argument that awards of privilege to selected manufacturers remained a central means of economic management for the Crown, and it supports Jean-Yves Grenier's claim that government remained a key institution in gathering and protecting the capital necessary for growth in a risk-averse economy.[29] It also shows that this Catholic culture of proprietorship (not to mention church resources) made church corporations, *pace* Turgot's criticism of *fondations*, eminently compatible with the Gournay circle's efforts to translate their liberal economic doctrine into actions intended to transform and develop the French economy.

While maintaining that church landlords' investment in agriculture was made with the approval of the Crown, I argue that this was a matter of self-interested cooperation by a church responding to Enlightenment anticlericalism and new economic ideas in hitherto unremarked

[27] Maarten Ultee, *The Abbey of St. Germain des Prés in the Seventeenth Century* (New Haven: Yale University Press, 1981), 105-6; Jean Jacquart, "La politique foncière de Monsieur Vincent," in *Paris et l'Ile-de-France au temps des paysans (XVIe – XVIIe s.). Recueil d'articles par Jean Jacquart* (Paris: Publications de la Sorbonne, 1990), 295-7.

[28] Steven L. Kaplan, "Lean Years, Fat Years: The Community Granary System and the Search for Abundance in Eighteenth-Century Paris," *French Historical Studies* 10, no. 2 (Fall, 1977): 197-230; Simone Zurawski, *Vincent de Paul and Saint-Lazare, Paris, 1625 to ca. 1800: The Arts & Politics of Sainthood* (Forthcoming).

[29] Jeff Horn, *Economic Development in Early Modern France: The Privilege of Liberty, 1650-1820* (Cambridge; New York: Cambridge University Press, 2015), 3-6, 9, 27-31, 41-3, 205, 213; Jean-Yves Grenier, *L'économie d'ancien régime: Un monde de l'échange et de l'incertitude* (Paris: A. Michel, 1996), 91, 96.

ways. I propose that clerics' anxiety at Enlightenment criticism and the weakening of the old "Two Powers" partnership with the Crown (revealed by Dominique Julia) did not *only* result in the dynamic of feverish hostility to anticlerical attacks that Darrin McMahon characterizes as the "Catholic Counter-Enlightenment," but led to a new, utilitarian variant of the Catholic church in France.[30] The appropriation and adaptation of economic discourse that John Shovlin sees as occurring among the politically anxious "middling elite" had its counterpart, it will be shown, in apologias for church proprietorship by Notre-Dame and the clergy's representative corporation, the Agence générale du clergé de France, as they sought not only to protect but to expand their powers in an intellectual environment in which old political bargains and identities were no longer adequate.[31] I will argue that from 1750, a new Catholic ideology developed, whose origins lay in late seventeenth-century "Christian Agrarianism" as described by Lionel Rothkrug, but which was now shaped by Enlightenment anticlericalism, and which co-opted and reinterpreted emerging liberal economic arguments to present a justification of church landownership that rejected the supposed empirical basis of physiocracy and liberalism.[32] This

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[30] Darrin M. McMahon, *Enemies of the Enlightenment: The French Counter-Enlightenment and the Making of Modernity* (New York: Oxford University Press, 2001), 24-5; For the breakdown of partnership with the crown and an emergent utilitarian church, see Dominique Julia, "Les deux puissances: Chronique d'une séparation de corps," in *The Political Culture of the Old Regime*, ed. Keith Baker, Colin Lucas, François Furet, and Mona Ozouf, vol. 1 of *The French Revolution and the Creation of Modern Political Culture* (Oxford: Pergamon press, 1987), 295-6, 306-7. For the political value of presenting oneself as an ideal proprietor, see Amy S. Wyngaard, *From Savage to Citizen: The Invention of the Peasant in the French Enlightenment* (Newark, Del.: University of Delaware Press, 2004), 17, 22, 71-3, 80, 82-3, 90; Robert M. Schwartz, "The Noble Profession of Seigneur in Eighteenth-Century Burgundy," in *The French Nobility in the Eighteenth Century: Reassessments and New Approaches*, ed. Jay M. Smith (University Park, PA: Pennsylvania State University Press, 2006), 79-80, 107.

[31] John Shovlin, *The Political Economy of Virtue: Luxury, Patriotism, and the Origins of the French Revolution* (2006; reprint, Ithaca; London: Cornell University Press, 2007), 4-5; Arnault Skornicki, *L'économiste, la cour et la patrie: L'économie politique dans la France des lumières* (Paris: CNRS, 2011), 190, 194.

[32] John McManners, *The Clerical Establishment and its Social Ramifications*, vol. 1 of *Church and Society in Eighteenth-Century France* (Oxford: Clarendon Press, 1998), 104-5, 420-422, 509, 583, 663-6, 677; Caroline Chopelin-Blanc, "L'abbé Baudeau théologien: La physiocratie au service de l'utopie chrétienne," in *Nicolas Baudeau: Un "philosophe économiste" au temps des Lumières* (Paris: Houdiard, 2008), 63; Jeffrey D. Burson, *The Rise and Fall of Theological Enlightenment: Jean-Martin de Prades and Ideological Polarization in Eighteenth-Century France* (Notre Dame: University of Notre Dame Press, 2010); Jeffrey D. Burson, "The Catholic Enlightenment in France from the Fin-de-Siècle Crisis of Consciousness to the Revolution, 1650-1789," in *A*

hitherto unknown culture was not simply a matter for intellectual history, however, for it encouraged the church landlord investment that led to the agricultural development noted, but not fully explained, by Hoffman and Moriceau.

If church landlords did produce a religious interpretation of Enlightenment ideas on the economy and politics, it would mark a significant extension of the scope of the Catholic Enlightenment, which religious historians have struggled to expand beyond theology. Since the 1970s, religious historians have overturned the claim that the Enlightenment was uniformly hostile to Catholicism and areligous, and have attempted to show that a reform movement within the church sought to reconcile doctrine with new scientific, economic, and political ideas from the wider Enlightenment with which it shared core values such as seeking clarity and improvement, and which shaped the clergy's initial welcome for the Revolution.[33] More broadly, however, historians of the Catholic Enlightenment have struggled to show that "enlightened" clerics (such as the physiocrat apologist the abbé Baudeau) were more than minor acolytes of secular Enlightenment thinkers. Yet if, as religious historian Nigel Aston argues, the "Enlightenment in France… had a Christian dimension too readily overlooked," it is both

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Companion to the Catholic Enlightenment in Europe, ed. Ulrich L. Lehner and Michael O'Neill Printy (Leiden: Brill, 2010); David J. Sorkin, *The Religious Enlightenment: Protestants, Jews, and Catholics from London to Vienna* (Princeton: Princeton University Press, 2008), 281-2, 287-8; Lionel Rothkrug, *Opposition to Louis XIV: The Political and Social Origins of the French Enlightenment* (Princeton: Princeton University Press, 1965), 245, 249, 277; Christian Albertan, "Entre foi et sciences: Les *Mémoires de Trévoux* et le mouvement scientifique dans les années 50," *Dix-huitième siècle*, no. 34 (2002): 91-7.

[33] Ulrich L. Lehner, "Introduction: The Many Faces of the Catholic Enlightenment," in *A Companion to the Catholic Enlightenment in Europe*, ed. Ulrich L. Lehner and Michael O'Neill Printy (Leiden; Boston: Brill, 2010), 3, 9, 16; Peter Gay, *The Rise of Modern Paganism*, vol. 1 of *The Enlightenment: An Interpretation* (London; New York: W.W. Norton, 1967), 3, 7-8; Bernard Plongeron, "Recherches sur l'Aufklärung" catholique en Europe occidentale (1770-1830)," *Revue d'histoire moderne et contemporaine* 16, no. 4 (oct. - dec., 1969): 560, 579, 583, 594.

because Catholic historians have looked at the wrong clerics and because Enlightenment historians have paid little attention to the role of the clergy in secular Enlightenment activities.[34]

Non-religious historians have missed a significant aspect of the Enlightenment due to their inability to see the participation of French clerics in its projects and its sociability. Unless they have a theological or ecclesiastical focus, historians have presented the clergy not as actors in their own right but as anonymous, shadowy extras in events that center on a rising laity. This approach appears to arise from a teleological assumption that the ancien régime clergy deferred to the laity that would supplant it from the 1790s. For example, Catherine Duprat's characterization of the 1780s *bienfaisance* (philanthropic) movement as overwhelmingly secular makes no comment on the prominence of clerics among the participants she lists. Daniel Roche mentions the many clerics who were active, though apparently not memorably so, in Parisian and provincial academies (in the latter they formed 18% of the membership), "where their influence had fallen victim to a secularizing reaction that allowed other social groups to move ahead."[35]

I question whether clerics allowed themselves to lose influence in Enlightenment institutions where the elite jockeyed for access to power, particularly as the supposed retreat of religion, even in Paris, has recently been challenged.[36] This dissertation does not suggest that church landlords materially influenced the secular Enlightenment. They were strongly influenced by it, but they nevertheless competed for power within its structures and associations. Emma Spary's argument that in these associations would-be experts moved "between agronomy,

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[34] Nigel Aston, *Religion and Revolution in France, 1780-1804* (Washington, DC: Catholic University of Washington Press, 2000), 87-8.

[35] Abad, *Conjuration*, 78-79, 104-5; Catherine Duprat, *"Pour l'amour de l'humanité": La philanthropie parisienne des lumières à la monarchie de juillet,* vol. 1 of *Le temps des philanthropes* (Paris: CTHS, 1993), 54; Daniel Roche, *France in the Enlightenment,* trans. Arthur Goldhammer (Cambridge, MA; London: Harvard University Press, 1998), 439, 505.

[36] Aston, *Religion and Revolution*, 52-6.

philanthropy, chemistry and political economy" to promote their power by positioning themselves as selfless lovers of the *patrie* and of humanity applied as much to the clergy present as to the lay naturalists, botanists, and chemists whose personal agendas and technocratic hopes she follows.[37] The secular experts that have been the focus of historical attention rarely had the power to translate their ideas into widespread practice, whereas the landowning clergy, whom historians have chosen to ignore, are worth studying because they could and did do just that.

Focusing on the landowning clergy makes it possible to connect the Agricultural Enlightenment with material changes in agricultural practices. Historians of the eighteenth-century clergy that have approached this topic have been foiled by their concentration on the landless parish clergy, whose widespread and determined efforts to disseminate agronomy had little effect on practice.[38] Peter Jones' Europe-wide study of the Agricultural Enlightenment concludes that it had as little impact on practice in France as it had in the rest of Europe, outside of Scotland and Denmark. Jones' judgment is incorrect regarding the Ile-de-France for two reasons. First, his definition of the stuff of the Agricultural Enlightenment is too focused on the prescriptions of the "how-to" manuals of agronomists, rather than the culture of criticism and improvement by enlightened proprietors that they espoused. Second, this dissertation will show that church landlords invested heavily in the productive capacity of their tenants in order to live up to the improvement ideals of the agronomists. I will show that the majority of the infrastructural element of that investment went into farm buildings, which (unlike in Britain) have not been studied for their agricultural effect, never mind examined for any connection with

[37] Emma Spary, *Feeding France: New Sciences of Food, 1760-1815* (Cambridge: Cambridge University Press, 2014), 14-5, 32-3, 74-6.

[38] Jones, *Agricultural Enlightenment*, 74-6; Alain Contis, "Ecclésiastiques et agriculture aquitaine au XVIIIe siècle. De l'information à l'innovation agricole," in *Du ciel à la terre: Clergé et agriculture, XVIe-XIXe siècle*, ed. Florent Quellier and Georges Provost (Rennes: Presses Universitaires de Rennes, 2008), 111, 118-9; Florent Quellier, "Le jardinage, une signature de bon prêtre tridentin (XVIIe – XVIIIe siècle)," in *Du ciel à la terre*, 29-30, 34-8.

the Agricultural Enlightenment or Revolution.[39] I will also show that church landlords nurtured their tenants and, through carefully timed rent increases, are likely to have prompted increased productivity, which seems to demonstrate the applicability of the Brenner thesis to the practices of French church landlords.

Though church landlord investment arose from a religious economic capacity, its closest political analogy appears to be in contemporary Scotland. Scottish historians depict landlords who appear far closer to the Brennerite ideal of high reinvestment in ambitious improvement schemes than were English proprietors, and it does not seem coincidental that Scottish landlords' extraordinary expenditure (and its success, on their terms) was at least partly driven by the post-1745 political imperative to remake Scotland according to Enlightenment norms.[40] Politics are also inseparable from the repercussions of the abolition of church landownership. Tim Le Goff and Donald G. Sutherland have argued that revolutionary economic reforms (quite apart from chaos and war) led to "a lost generation" for economic growth, due to "the unintended consequences for the rural world… of political decisions, which have so stirred generations of historians, who have seen the Revolution from a fundamentally urban point of view." I will argue that because church landlords were the main investors in agricultural fixed capital before

[39] For a 1790s advocate of rammed earth construction for farm buildings, see Paula Lee, "François Cointeraux and the School of "Agritecture" in Eighteenth-Century France," *Journal of Architectural Education (1984-)* 60, no. 4 (2007), 39. For the Crown's use of largely utopian agricultural imagery to boost its political reputation, see Catherine Clavilier, *Cérès et le Laboureur: La construction d'un mythe historique de l'agriculture au XVIIIe siècle* (Paris: Éditions du patrimoine, 2009), 50-1; Meredith S. Martin, *Dairy Queens: The Politics of Pastoral Architecture from Catherine de Medici to Marie-Antoinette* (Cambridge, MA: Harvard University Press, 2011), 161-2.

[40] Thomas M. Devine, *The Transformation of Rural Scotland: Social Change and the Agrarian Economy, 1660-1815* (Edinburgh: Edinburgh University Press, 1994), 45-6, 60-1, 70, 166; Brian Bonnyman, *The Third Duke of Buccleuch and Adam Smith: Estate Management and Improvement in Enlightenment Scotland* (Edinburgh: Edinburgh University Press, 2013), 5-8; Fredrik Albritton Jonsson, *Enlightenment's Frontier: The Scottish Highlands and the Origins of Environmentalism* (New Haven: Yale University Press, 2013), 14-17.

1789, their removal helps support Le Goff's and Sutherland's conclusion that the Revolution deferred France's agricultural rise by at least a generation.[41]

In summary, I argue that a hitherto unknown movement, the Catholic Agricultural Enlightenment, played a key role in France's escape from its ancient Malthusian limits. The dominant, Smithian historical consensus cannot explain how that process occurred. Hoffman ignores how technological change increased productivity by reducing inputs, and relies on the unsubstantiated influence of exogenous institutions to explain growth in output. Moriceau's focus on tenants blinds him to the role of fixed capital investment (a landlord responsibility) in increasing productivity. Both historians ignore capital investment because it came from landlords, and in doing they miss that the subjects of their enquiries were not representative of all fermiers because their landlords were not representative either. Church landlords were not representative of all landlords because they were religious, corporate, and threatened by Enlightenment anticlerical and liberal criticism. When church landlords' privileges were attacked using liberal and physiocratic economic arguments, they did not respond only in the defensive, Counter-Enlightenment manner described by McMahon. Instead, their presentation of the utilitarian value of church proprietorship is analogous to the co-option of liberal and physiocratic economic discourse by the middling elite depicted by Shovlin. The emphasis on support for tenants in church landlords' economic discourse was intended to appeal to liberal economic thinkers within the Crown. It was translated into practice in original ways that reflected the culture of agronomy, and was led by clerics who expected agricultural investments to protect church landlords politically. The institutional basis of agricultural growth in much of the Ile-de-

[41] Tim Le Goff and Donald G. Sutherland, "The Revolution and the Rural Economy," in *Reshaping France: Town, Country, and Region during the French Revolution*, ed. Alan Forrest and Peter Jones (Manchester; New York: Manchester University Press, 1991), 76-7.

France was religious (in the sense defined above), political, and intellectual, because those domains were inseparably linked for church landlords.

Method

This dissertation explains how and why agriculture broke through its Malthusian structures in the Ile-de-France towards the end of the ancien regime. Moriceau and Hoffman, the foremost recent historians of the dynamics of ancien régime agriculture, demonstrate that this region was the leading center of innovation and increased yields in France, yet their focus on the agency of fermiers does not adequately explain the latter's capacity to bring about economic development. My approach combines an organizational investigation of church landlords' support for tenants with an institutional history of how ecclesiastical agency was structured by the Agricultural Enlightenment and Enlightenment ideas on economics and religion. I then interpret decisions reconstructed from the accounts of church landlords in the light of the social, intellectual, and political contexts in which those choices were made. This reveals the type, scale, and effect of a decisive factor in fermiers' capacity to develop production – church landlords' investment in the fixed capital available to tenants - that Hoffman and Moriceau ignore, and it shows why church capital became available to agriculture in this period.

Instead of relying on the minimal data contained in land leases that is the basis of Hoffman's evidence, it is necessary to analyze church landlords' accounts for evidence, particularly in rent and capital reinvestment, of support received by tenants for the productive capacity of their operations. This information reveals how church landlords' practices differed over a wide geographical area that encompassed differing types of agriculture, and it means decisions can be aggregated and followed to the level of individual fermes. I analyze ecclesiastics' effect on tenants in the high output, arable Plaine-de-France north of Paris, the less

productive, mixed husbandry area to its south, and the wetlands of the Brie, to the east. I contextualize detailed analysis of church landlords' actions at 100 locations by supplying broader indications of the behavior of around 200 church landlords, and I follow landlord decisions at 40 fermes for decades at a time, with a preponderance of evidence relating to the years 1760-1788, for my project is more akin to a movie, rather than a snapshot, of decisions affecting development. Ostensibly puzzling patterns of landlord behavior that differ from those of secular landlords or seem economically irrational in terms of maximizing revenue are teased out in order to explain the rules of church landlord investment. This evidence is used to determine the effect of church landlords on fermiers, in terms of the rents charged, the types and value of reinvestment in fixed capital used for production, and in other, sometimes invisible supports given to tenants, providing a basis for a brief comparison with the practices and impact of British landlords in the same period. By analyzing church landlords' accounts I then show what and how church landlords knew about the needs of their tenants, which helps explain the form taken by their support for fermiers.

Interpreting accounts requires caution, and cross-verification makes figures more informative. Care is taken not to infer anachronistic intentions by the original producers and readers of accounts, which must be read with some skepticism regarding their completeness and honesty given the prevalence of tax evasion among the clergy. That said, five-yearly, codified declarations produced on an *année commune* basis can show the revenues of church landlords, as does one exceptionally detailed working that help reveal the data, assumptions, and calculations behind those income figures. Even when the information in accounts is likely to be complete and true, its meaning sometimes has to be discovered by cross-referencing with other sources.

The innovative capacity of church landlords is assessed to determine whether they were economically archaic or suited for development even in a post-privilege France. Economic theory of the firm suggests that organization should be regarded as an extra, fourth factor of production (after the traditional ones of land, labor, and capital) that gives firms the competitive edge to meet the challenges of their environment and to generate, through efficiency, economic rents inaccessible to their competitors. I examine whether the corporate structure of church landlords held advantages over the single proprietor model of secular landlords in terms of memory, continuity of purpose, and above all in generating the knowledge that economists argue is the key to organizational success.[42] To do so, I focus on the routine of data collection and information production, through inspections of fermes and the use of experts, but also through management and financial accounting. I treat accounting as a means of generating knowledge (such as the yields and cost structure affecting tenants), and examine its ability to provide coherence for managers by creating a vision of the organization and its future. Comparing those characteristics in the accounts of church landlords, their lay counterparts, and large French and British businesses reveals where church landlords stood in comparison to contemporary firms in their propensity to innovate, which can act as a gauge of their relative competitive advantage versus other types of contemporary firms.[43] Economic theory of the power of stakeholders from outside the legal bounds of the corporation or the formal structures of power is used to examine whether church landlords' decisions encompassed tenants' interests in a partnership that differs

[42] Michael Dietrich and Jackie Krafft, *Handbook on the Economics and Theory of the Firm* (Cheltenham: Edward Elgar, 2012), 50, 231; Nicolai J. Foss, et al, *Towards a Competence Theory of the Firm* (London; New York: Routledge, 1996), 10; Richard R. Nelson, "Why do Firms Differ, and Why Does it Matter?," in *The Theory of the Firm: Critical Perspectives on Business and Management* (London; New York: Taylor and Francis, 2000), 4: 43.

[43] Ash Amin and Patrick Cohendet, "The Firm as a 'Platform of Communities': A Contribution to the Knowledge-Based Approach of the Firm," in *Handbook of Knowledge and Economics*, ed. Richard Arena, Agnès Festré, and Nathalie Lazaric (Cheltenham: Edward Elgar Publishing, 2012), 403-5, 408-10, 413-5; Joel Mokyr, *The Gifts of Athena: Historical Origins of the Knowledge Economy* (Princeton: Princeton University Press, 2011), 31-2.

from Hoffman's and Moriceau's depiction of independent fermiers. Widening the group of stakeholders requires an investigation of who controlled decision-making (in economic terms, whether there was a principal-agent problem whereby tenants externally, and experts within the corporations, had taken them over for their own purposes), or whether church landlords institutionalized the culture and practice of investment.[44]

The diversity and number of church landlords and the uneven survival and quality of their sources mean that my conclusions are not an aggregate of all ecclesiastical behavior, but a model of investment that suggests broader conclusions about development in a predominantly agricultural economy. That said, the variety of church landlords sampled and the extent of their landholdings as a proportion of all clerical lands, mean it is possible to define representative types of church landlord behavior. In addition, some church proprietors from the sample owned such extensive lands that their investments affected global agricultural output. The wealthy chapitre of Notre-Dame de Paris, for example, rented 9,986 acres, and its leases provide all of Hoffman's data for the Ile-de-France. By comparing its practices to those of other church landlords, I show that Notre-Dame is not representative of church proprietors, never mind all landlords, as Hoffman presumes when he interprets the stellar productivity increases of its tenantry.

Organization type mattered when it came to proprietor practices, as I show for the limited investment capacity of the old, land-rich, though heavily indebted Benedictine abbeys of the Congrégation de Saint-Maur (which included the monasteries of Saint-Denis and Saint-Germain-des-Prés) and the Parisian priory of Saint-Martin-des-Champs. Notre-Dame and the Benedictines rented lands wherever possible, using surplus income to support their liturgical and

[44] Dietrich and Krafft, *Theory of the Firm*, 340.

contemplative functions, whereas the post-Tridentine Congrégation de la Mission (or Lazarists, from their motherhouse at Saint-Lazare, outside Paris) founded by Vincent de Paul in 1625, worked its lands directly, using the surplus to finance missionary and clerical training programs.[45] The military order of Saint John of Jerusalem, known as the Order of Malta, allocated estates (*commanderies*) to knight *commandeurs* to fund their naval expenses and retirement. Given the differing resources and functions of church proprietors, they cannot be presumed to be interchangeable in their effect on tenants, yet this very variety in behavior is an analytical advantage that reveals the conditions, potential, and limits of church landlords' support for tenants, and its relationship to the environment in which that investment occurred.

Understanding the causes of church landlords' investment in the productivity of tenants requires that structuring institutions be used to interpret financial *chiffres* that otherwise tell only a small part of the story. This approach recognizes that economic actors did not make their decisions in a social, cultural, and intellectual vacuum, and so contradicts Hoffman's rejection of the role of culture in choice.[46] More promisingly, Moriceau concludes that fermiers' adoption of new technology and interest in agronomy suggests a spirit and habit of experimentation that fed into improved production. His approach provides an example for connecting church landlords' capital investments with the Agricultural Enlightenment, and is particularly useful in cases with no obvious correspondence between agronomic recommendations and clerical expenditure.

Given that most support for tenants took the form of innovations not recognized by agronomists and whose objectives are cursorily explained in church landlords' accounts, it is at times necessary to go further in interpreting proprietors' decisions than chiffres-centered French

[45] Seán A. Smith, *Fealty and Fidelity: The Lazarists of Bourbon France, 1660-1736* (New York: Routledge, 2015), 91, 94; McManners, *Clerical Establishment*, 32; Jacquart, "Politique foncière," 290-6.

[46] Hoffman, Growth, 189; Steven L. Kaplan, *The Stakes of Regulation: Perspectives on Bread, Politics and Political Economy Forty Years Later* (London: Anthem Press, 2015), 82.

rural historians might prefer. This is the case when interpreting behavior as reflecting either agronomic prescriptions for good proprietorship and tenant relations or ecclesiastics' own discourse on those topics. To avoid over-interpreting evidence, conclusions are justified by patterns of corroborating decisions and polemical positions adopted by church landlords and the people they associated with. Church corporations were not monolithic but composed of individuals who forged professional, social, and intellectual links with allies in the laity, and the shared values underlying those associations are used to explain decisions, policies, and the stakes behind them.

Religion in the form of theology (or its manifestations such as charity) are notably absent from this dissertation because they are absent from church landlord sources on managing and protecting agricultural wealth. That could be an accident of the post-confiscation life of those archives, but it seems more likely that clerics believed their duty was to manage on a utilitarian basis the temporal patrimony on which their mission and livelihoods depended. That said, it may be that new moral and hierarchical influences played a role in agricultural investment through church landlords' relationship with the worldly, improving clergy that were politically powerful in the l780s (such as Loménie de Brienne) but extending research into that area seems best left for another research project.

This dissertation's argument that institutions played a key role in structuring supports for tenants is tempered by evidence that church landlords' agency (and urgent need) meant that discourses were unstable and power over them was contested in ways that encouraged church landlords to invest in agriculture. Agronomy aside, Moriceau neglects the wider anticlerical, political, and economic Enlightenment, but John Shovlin's extension of economic debate from the ownership of the physiocrats and Gournay's circle to the "middling elite" that created a new

political economy attuned to their political needs provides a template for understanding how threatening Enlightenment discourses were contested and turned around by church landlords.[47] I show that new ideas that attacked church landlords contained qualifications that have been overlooked due to historians' neglect of the agency of the church, and which church landlords co-opted to breathe new life into their organizations, defend their privileges, and create a self-image and behavior that were very different from the historical clichés of the Catholic Counter-Enlightenment. This interpretation requires something of a leap to link discourse and action, but, again, the consistency and weight of evidence supports my argument that Enlightenment ideas affected agricultural practice and development.

Sources

Substantial documentation is available for the most important church landlords, the abbeys of Saint-Denis and Saint-Germain-des-Prés, the priory of Saint-Martin-des-Champs, the chapitre of Notre-Dame de Paris, the Lazarists, and the Order of Malta. Together, these different but complimentary sources enable a reasonably full reconstitution of church landlord behavior: they cover a wide area of the Ile-de-France and span most of the eighteenth century, and particularly the last three decades when agriculture was undergoing major change and the church was under political pressure.

This availability of behavioral documentation might seem surprising, given that sources on agricultural practice are far more elusive than is Enlightenment agronomy. Commonplace activities, techniques, and data were not recorded, documents were not kept once their usefulness had expired, and country dwellers burned landowners' records in 1789. The meticulously maintained archives of church landlords soon faced another danger, the revolutionary state's

[47] Shovlin, *Political Economy of Virtue*, 4-5.

confiscations in the 1790s. As the new régime's nascent archives were inundated with enormous quantities of church documents, the archivists kept only those records that proved title to properties that might be sold, or that were thought to be historically interesting. The rest were pulped, including books of accounts, internal memoranda, and correspondence on everyday matters between church managers, architects, tenants, and the Crown's administrators. Nothing survives of Notre-Dame's centuries of detailed annual accounts prior to 1759, for example. However, the thirty years that have survived, together with the haphazard, scattered, and incomplete archives of other church landlords, are more extensive and informative than anything remaining for the laity. Yet, while historians have repeatedly studied church land leases in the Archives Nationales' S series to discover how tenants fared in much of the Ile-de-France, they have rarely ventured into the other sections and types of church archives.

The limited data (rent values, occasional requirements of tenants to improve lands) provided by leases reveals little about church landlords' practices. Their accounts in the H series, however, are vastly more informative about what church landlords did, the sources and destination of their funds, and how these changed over time. The accounts of Notre-Dame for the three decades before 1789 reveal expenditure on repairs, construction, legal and surveying fees for fermes both in the aggregate and for each location, as well as their value compared to the income and expenditure of the chapitre as a whole. With inputting to spreadsheets and some reconfiguration, the data can be charted, which reveals otherwise invisible trends and anomalies over time that prompt further investigation in the light of external events and conditions.

Church landlords' accounts provide useful detail on physical inventories, the names and areas of operation of building contractors, when they worked, were paid, and were recorded in the books, machinery purchases, the profession, identity and cost of staff, and their traveling

expenses for visits to fermes. Given the variety of church landlords and the uneven survival of their accounts, it can be hard to get an overall picture of their financial position for any one year, never mind over time, either as individual institutions or as a class. Audit reports produced by a single authority to one standard that reveal tax-driven variances in accounting treatment (i.e., fraud) provide 60 years of information on the financial state of the Benedictine abbeys that were France's greatest church landlord, from which their problems and options can be deduced. The archives of Saint-Martin-des-Champs contain extremely rare detailed and integrated physical and financial accounts for a working ferme over a decade, which reveal the inputs, consumption, and yields of many types of produce and animals. This data reveals what church landlords knew about fermes at different periods of the eighteenth century, what information they were interested in, their capacity for innovation, and how informed their investment and tenant decision making was.

Rental values can be checked by comparison with other landlords in a given area using taille rolls from the Z series, while the Archives Départmentales of the Val d'Oise L series contains records of estimated and realized values from the sale of church lands in 1791. The Archives Nationales' N series provides seigneurial maps that contain outline plans of farmyards and buildings, but given the rarity of more detailed plans among surviving archives, the best test of the form taken by church landlords' investments is to visit the surviving farmyards themselves, notably the greatest project of all, which stands largely unchanged in the village of Belloy-en-France and whose current owner very graciously gave me a tour of the *corps de ferme*.

Narrative accounts help fill out laconic descriptions in financial accounts. The S series contains long inspection reports and the minutes of meetings of the assembled members of church landlord corporations that are far more informative than leases about church landlords'

rationalization and justification for their choices in tenant relations and in investments. The inspection reports of the Order of Malta provide justifications for construction expenditure, as well as showing what the inspectors were interested in. The minutes of Notre-Dame and Saint-Denis (both LL series) give some explanations for decisions taken, though, at best, they hint at dissenting or minority views, which can make church landlords seem like unanimous, monolithic institutions. A corrective reminder of the role of individuals in corporate bodies is provided by a few years of particularly comprehensive minutes. These reveal the internal politics engaged in by the individuals behind investment decisions to persuade their fellows to act as they did.

The discourse and political activism of church landlords is found in the previously mentioned inspection reports, and in the *procès-verbaux* of the Agence générale du clergé de France (G series), which contain published reports and manuscript memoranda that show how church landlords defended their privileges against critics. Pamphlets both for and against the privileges of the clergy c. 1750 are available in the Bibliothèque nationale's 16 volume *Recueil des pièces concernant les affaires du clergé au sujet du XXe & autres impositions,* while the Archives Nationales' H series contains Notre-Dame's collection of pamphlets and correspondence from 1788-1790 and the library catalogue of Notre-Dame. The catalogue of Saint-Lazare is in the Bibliothèque Mazarine.

Argument

The eighteenth-century takeoff in agricultural growth in the most productive region of France, the area around Paris, is impossible to explain without referring to the investment and management practices of church landlords, a class of proprietors long portrayed as an archaic obstacle to economic development that exemplifies the limited growth capacity of the ancien régime economy. Economic growth came about through a confluence of agricultural, social,

religious, intellectual, and political factors that enabled and encouraged clerics, armed with unique corporate advantages, to build a partnership with fermiers that was among the most dynamic in the late ancien régime economy.

Church landlords directly and indirectly reinvested far more of their agricultural rents than lay landlords. This reinvestment went into the physical infrastructure of fermes to enhance fermiers' profits by lowering costs and increasing sales, and also into rent relief for favored tenants. These supports gave fermiers the opportunity to increase output and productivity by building up capital and changing their operations, as well as the incentive to innovate to pay the higher rents that church landlords demanded for their investment.

Church landlords' investment was a distinctively religious manifestation of the Agricultural Enlightenment whose impact on agricultural yields indicates that here, at least, the Agricultural Enlightenment coincided with an Agricultural Revolution. Investment was routine, structured, comprehensive, and (in some cases) it was institutionalized, which explains its success. The absence of those factors among lay landlords helps explain why French agriculture continued to perform below its potential.

Church landlord investment practices were structured by a politically enforced lack of alternative investment opportunities and by anticlericalism and new cultural ideals of good proprietorship that derived from the Enlightenment, which church landlords turned to their advantage by presenting themselves as model economic citizens. That strategy protected church landlords' privileges from growing criticism by the intellectual elite and the Crown; it meant church landlords felt confident of a leading role in the expected regeneration of France; and it indicates that agricultural development can be added to the ways in which an emergent utilitarian

element within the church, led by Loménie de Brienne of Toulouse and Dillon of Narbonne, demonstrated their value to society through investing in ports, canals, commerce, and industry.[48]

Church landlords' success in generating agricultural growth through investment in part arose through the immersion of key clerics in Enlightenment institutions and projects, but it also derived from church landlords' organizational capacity as corporations. As economic firms, they were permeable enough that their interests aligned with fermiers', though without losing control of decision-making. Investment in agriculture was successful and sustainable because it was informed, and church landlords' ability to innovate to meet changing organizational needs, and their effect on agricultural growth, demonstrate that this distinctively French, corporate, and ecclesiastical economic model provided a path to modernization that was likely to have been competitive in the post-revolutionary world.

Chapter Structure

The dissertation moves from instances of ecclesiastical agricultural improvement to the underlying economic, intellectual, social, and political structures and objectives that arose from church landowners' participation in the Enlightenment.

Chapter one reveals that levels of investment in agricultural improvements across all large church landlords were exceptional for their scale compared to their lay counterparts and even to English landlords, and for focusing on the physical infrastructure of agriculture in ways that were ignored by agronomists, but which indicate how farm output was increased even within existing technological limits. This opening survey establishes that church landlords' distinctive practice and modes of investment in improvement applied across a wide range of clerics, and that

[48] Julia, "Les deux puissances," 306-7.

it was explicitly intended to increase tenants' productivity and welfare in order to maximize rents in the long run.

Chapters two and three reveal how the financial, legal, fiscal, and agronomic structures of ecclesiastical investment led to large church landlords reinvesting and spending far more on agriculture than the laity, albeit in ways that varied according to the wealth of the church landlord and the degree to which agricultural reinvestment became an institutionalized practice and culture. Chapter two demonstrates the sustained nature of investment and its evolution over three decades through a microhistory of the cathedral chapitre of Notre-Dame de Paris. An analysis of Notre-Dame's investment and rental practices reveals that its relationship with tenants was a nurturing but demanding partnership, and investment in young tenants who were encouraged to increase productivity shows that agricultural development was an institutionalized, cooperative effort between landlord and tenant. Chapter three explores the improving behavior of the many cash-poor church landlords, revealing how they used lenient rent levels to encourage tenants to undertake improvements in a form of hidden investment. While chapter two shows how church landlords were pushed into agricultural investment by increasing Enlightenment anticlericalism, chapter three demonstrates the connection between investing in tenant partnership and agronomic discourses that promoted a new vision of good proprietorship whose acceptance by church landlords was far from predetermined.

Chapter four analyzes the modes and stakes of church landlords' active and positive engagement with an Enlightenment culture that permeated the closely overlapping social, administrative, agronomic, and political circles in which they moved. The activities and milieux of two improving ecclesiastic individuals are used to illustrate how church landlords' leading role in agricultural improvement was shaped and reinforced by their members' enthusiastic

participation in Enlightenment associations and activities. The reinvention of church proprietorship through the practice and performance of improvement in ways consistent with agronomic ideals is shown to have generated a claim to continued leadership among the elite that expected to rule France soon.

Chapter five examines the relationship between church landlords' innovations in business technology, their policies on rent and the alleviation of tenants' costs, and agricultural development. It reveals how church landlords broke open the black box of agricultural yields and profitability, and adjusted their accounting practices to make investment informed and sustainable. It briefly compares church landlords, as firms, with landlords and the largest manufacturing enterprises in France and Britain, and it reveals how the key business qualities of these ancient institutions were more reminiscent of the constant innovation of nineteenth-century, industrialized businesses than of their own time.

Chapter six examines the political and intellectual stakes of an ecclesiastical discourse of the superior utility of church over secular land proprietorship that emerged in response to a confluence of utilitarian ideas on religion, property, citizenship, and governance that threatened church landowners. This narrative of the political, social, and economic indispensability of church landlords is shown to have transformed Crown hostility into a collaborative exploitation of the economic potential of ecclesiastical improvement, and for justifying the claim of church corporations to political power among the order of proprietors that expected to rule regenerated France. It reveals how Enlightenment criticism, growing anticlericalism, and new economic ideas prompted a resurgence in the church's political power and led to the practices that promoted the dynamism and development of late ancien régime France.

Church landlords' agricultural practices during the last decades of the ancien regime can only be explained through a study of their connection to the society in which they lived, its politics, the Agricultural Enlightenment, and the Enlightenment proper. This dissertation will describe how church landlords managed their lands and relations with tenants, and how church landlords' enthusiastic participation in Enlightenment culture and associations influenced those actions. The evidence for this consists of financial data, narrative, discourse, and association. For narrative purposes, this dissertation moves from practice to ideas to politics, but the central message of the behavior and culture of church landlords is that their economic behavior – and its effect on agricultural development - was inseparable from the culture, politics, and ideas of the world with which they were busily engaged.

Chapter One
Improvement in Practice

In 1760, a *chevalier* of the Catholic military Order of Saint John of Jerusalem (the Order of Malta) was busily expanding his chateau and chapel near Rouen. His architect produced drawings of the impressive buildings – and a cowshed – on the same sheet of paper (Fig. 1).

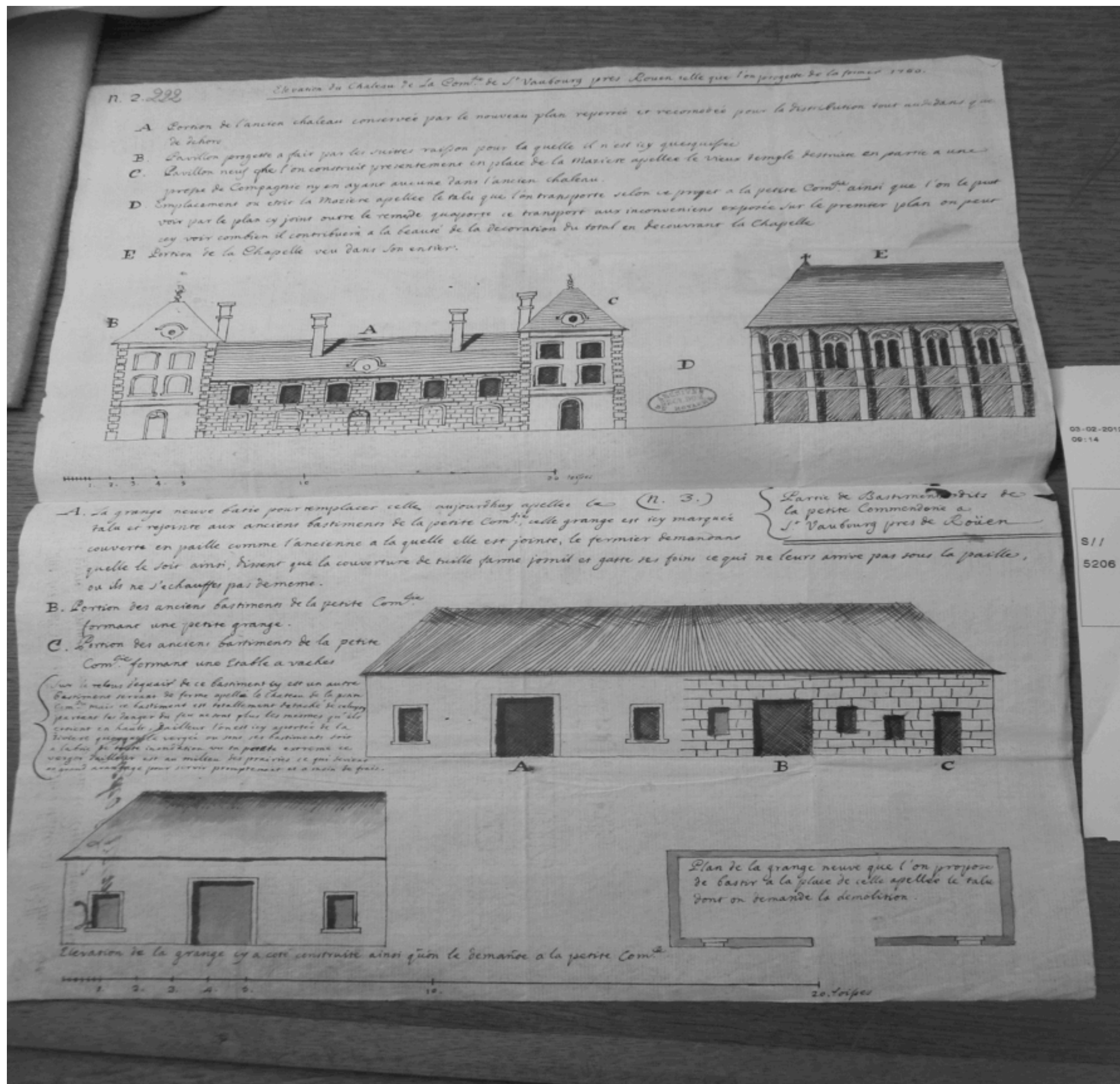

Fig. 1 The Chateau and Ferme of the Commanderie of Saint-Vaubourg.

SOURCE: AN S5206 OM 77, Procès-verbal Sainte Vaubourg, 1763.

The renovation of the chevalier's chateau and chapel is in keeping with the contemporary desire for comfort and elegance, but *a cowshed*? And why was this ostensibly humble building drawn to a smaller scale than the chateau and chapel, particularly given its location on a property rented by the chevalier to a fermier? It may be because the sketch was not intended for the chevalier alone. He held the estate as a temporary benefice – he was its *commandeur* – but the estate belonged and would return to the Order of Malta, and the drawing was intended to help persuade the order to reward him for the works he hoped to complete. The plans may even have been commissioned by the order itself, for an interest in practical (i.e., materially productive, as opposed to decorative, pleasurable, or architecturally utopian) agricultural improvement was endemic to large landowning religious corporations during the eighteenth century.

The forms and prevalence of modes of agricultural improvement among large French church landlords differed from those advocated in contemporary agronomic literature, or that have been the subject of historical research. There is little evidence of ecclesiastical interest in increasing output by eliminating the fallows or by crop substitution. No landowning clerical Parmentier would seriously push the potato on doubtful producers and consumers. Instead, church landlords focused on investments that they expected would bring a tangible benefit, and whose value would be self-evident and accepted by two audiences. Whether improvements were minor, inexpensive, and manifold, or singular and enormously expensive, their goal was always to increase the profits of both landlord and tenant.

This chapter shows how large church landlords in the regions around Paris engaged in sustained, capitalist practices of investment in rural infrastructure that had a real impact on agricultural operations and productivity, and which were comparable not to their French lay counterparts but to English landlords. The quality and extent of church landlords' investments

mattered because of the sheer proportion of the land controlled by the church in France's most productive agricultural regions. The distinctive behavior of church landlords helps reveal how French agriculture grew in spite of continuities in an agricultural ancien régime of largely unchanging crops, fertilizers, land use, and legal systems, as religious corporations adapted to, exploited, and created economic change before 1789. As such, it helps explain not only how improvements were diffused, but also how French agriculture began to develop. These changes had their origin not in the criticism and reforms inherent to Enlightenment agronomy, but to a significant degree in the accumulation of small changes that can be called a Catholic Practical Enlightenment.

The Scope of Ecclesiastical Improvement

The scope of church landlords' involvement in agricultural development was limited. Leases were church landlords' most potentially powerful instruments for enforcing tenant improvement, but (apart from rent) the terms of these contracts barely changed during the eighteenth century, and they required very few improvements of fermiers. Standard clauses (such as the obligation to plant a number of useful orchard or roadside trees annually) would have generated some extra income for tenants, but had little chance of materially increasing the output of fermes. Clerics' fascination with having tenants line roads with fruit trees may instead reflect an interest in socially higher status horticulture or forestry rather than grain or fodder crops, which were left to the fermier.[1]

The conservatism of ecclesiastical leases was quite usual in France, where very few landlords, whether secular or clerical, ever imposed improving clauses.[2] Church proprietors - like

[1] AN S128 ND, Baux Andrésy, 1745, 1763; Florent Quellier, *Des fruits et des hommes: L'arboriculture fruitière en Île-de-France (vers 1600-vers 1800)* (Rennes: Presses Universitaires de Rennes, 2003).

[2] Jones, *Agricultural Enlightenment*, 103. Improving clauses were unusual throughout continental Europe outside of Sweden.

the vast majority of landlords - generally left production, let alone innovation and reorganization, to the fermier. Few clerics lived on, never mind managed, their rural properties, while some of those who did, like many secular rural landowners of the time, built high walls to separate themselves and their homes and gardens from the adjacent farmyard.[3] As a result, and despite the prominence of clerics from the abbeys of Saint-Germain-des-Prés and Saint-Denis, and from the chapitre of Notre-Dame de Paris, in the prestigious, enthusiastic, and (in immediate, practical terms) almost completely useless Société royale d'agriculture de Paris in the 1760s, ecclesiastical landlords might well appear mere dabblers in the newly fashionable agronomy that Henri-Louis Duhamel du Monceau had pioneered in the 1750s, when he published his empirically-based adaptations of English agricultural practices for French conditions.[4]

Aiming to increase the output and productivity of land, Duhamel and his successor agronomists advocated a combination of deep, repeated plowing, better implements, mechanical sowing, artificial meadows, new crop rotation schemes and forage crops, and improved animal breeds. This *nouvelle agriculture* was widely disseminated through correspondence between amateurs, a rush of new agricultural publications and societies, and by the Crown, yet its methods were too questionable and expensive to affect fermiers' practices. The significance of the new agronomy is now thought to lie in the sustained attention, experimentation, and publicity it drew to agriculture, which was - already - increasingly changing in response to demand and because of innovations in methods, crops, and distribution by the producers themselves.[5]

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[3] Florian Reynaud, *L'élevage bovin: De l'agronome au paysan (1700-1850)* (Rennes: Presses Universitaires de Rennes, 2010), 305 ; AN S5206 OM, Procès-verbal Sainte Vaubourg, 1773; Mark Girouard, *Life in the French Country House* (New York: Knopf, 2000), 271.

[4] Société d'agriculture de Paris, *Recueil contenant les délibérations de la Société royale d'agriculture de la généralité de Paris, au bureau de Paris, depuis le 11 mars jusqu'au 10 septembre 1761* (Paris: 1761), 8, 18, 21; Léonce de Lavergne, "La Société d'agriculture de Paris, son histoire et ses travaux," *Revue des Deux Mondes* 21 (Paris: 1859), 574-5.

[5] André Bourde, *Agronomie et agronomes en France au XVIIIe siècle* (Paris: SEVPEN, 1967), 1: 22-3, 311, 325-338, 343, 356, 3: 1567-71, 1579, 1583, 1590-1, 1655.

Fermiers' slow reduction in fallowing is far more to their credit than it is to church landlords', at least if lease terms are any guide to practice. The prohibition on removing straw from the land, for example, would have shut fermiers out of a burgeoning market for bedding and forage for the increasing equine population of Paris, as well as from a cheap source of vast quantities of manure from the stables and dairies of the city.[6] Clerics knew of and grew the new forage crops that were breaking the dependence on fallowing by feeding more animals and creating more manure using less land, but their leases rarely accommodated this development. In 1715, a Lazarist lease suddenly required the tenant to maintain an area of sainfoin, a nitrogen-fixing (and fertility improving) leguminous herb at all times, but this condition was not replicated elsewhere, even in fermes held by the same tenant.[7] The coexistence of the new crops with continued triennial rotation may even have reduced the output of wheat when fallowing was diminished, initially, at any rate.[8] In line with practice throughout continental western Europe, ecclesiastical leases imposed an unvarying obligation to "plow, manure, cultivate and sow" fields according to customary, communally-set rotation régimes that, if enforced, would have impeded fermiers' flexibility to improve output and profitability by reducing fallowing.[9] In short, contractual restrictions remained a potential liability for innovating fermiers. When in 1749 Notre-Dame sought an excuse to discipline a tenant, it checked whether fallowing was being maintained. (It was.)[10] Yet these restrictions may be more apparent than real, given that, owing to their fields' size and contiguity, many tenants could act independently of other fermiers, and

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[6] Moriceau, *Les fermiers*, 655-8.

[7] AN S6666 OM, Bail Grand et Petit Freneville, 1715. Sainfoin and luzerne (i.e., alfalfa) are highly nutritious, protein-rich forage crops that can feed more livestock using a given area of land than can conventional hay made from grass.

[8] AN S6698 CM, Etat de ce que doit rapporter la terre de Draveil en mettant chaque chose à sa juste valeur, c.1780.

[9] AN H5 3626 SGN, Bail La Grande Harangerie, 1727; Bail Attainville, 1777; Jones, *Agricultural Enlightenment*, 103.

[10] AN MC ET CII 359 ND, Baron, 18 juin 1749.

because church landlords probably turned a blind eye to such clauses, as Moriceau suggests. The timing of the 1749 Notre-Dame case – before agronomy began to disseminate new ideas on fallowing – therefore means it may not be representative of the chapitre's behavior in the second half of the century. For evidence of church landlord activism in improvement, however, it is necessary to look outside of the technological changes proposed by agronomists.

The apparent stasis in French ecclesiastical leases may be a deceptive indictor for landlord initiative. The majority of England's landlords also played it safe in "encouraging their tenants to stick to well-tried and established practices," but English lease conservatism was far from precluding an active role for landlords in promoting improvement.[11] The culture of French agricultural improvement, with its criticism of routine, was multifaceted and effective in ways that differed from the English model of elimination of the fallows, new crops, and enclosure, and there were other ways in which church landlords could act to increase agricultural productivity.[12]

To understand how, it is necessary turn away from the concentration on the fermier established by the physiocratic economic writer, François Quesnay, and onto the capital invested by the landlord. Quesnay distinguished between fermiers' *avances annuelles* (seed, labor) and *primitives* (horses, livestock, plows), and landlords' *avances foncières* (land improvements and buildings), though he neglected the latter avances in his analyses.[13] Perhaps that is because French landlord reinvestment was then and has been considered to be insignificant. The English agricultural commentator Arthur Young thought so. In a scathing comment on his experiences of French agriculture in the late 1780s, he declared that "repairs, which form a confiderable deduction with us, are a very trifling one with them." Worse, "improvements invested in the land, by marling, draining, &c, which on farms in England amount to large sums of money, are

[11] Overton, *Agricultural Revolution*, 184.
[12] Bourde, *Agronomie et agronomes*, 12-4.
[13] Cited in Perrot, "Comptabilité des entreprises agricoles," 569.

rarely seen in France." Young claimed that in France the capital per arpent invested in "building, inclosing, marling, claying, draining, laying to meadow, and other *permanent* improvements" was half that of England, and equal to that of Ireland.[14] Though Young was overly dismissive of techniques that differed from his obsession with English-style enclosure, turnips, and the Norfolk crop cycle, his criticism of French landlords appears justified, for they invested little in the infrastructure of farming.[15] That was not the case with church landlords, however, as the remainder of this chapter will show.

Investment in Improvement: Initial Responses

Large Catholic institutions were often under severe financial pressure in the eighteenth century. They needed and sought to generate money for seminaries, church and residential rebuilding, church taxes, interest and loan payments, and pensions. Although they earned substantial amounts from interest received, from seigneurial dues on the sale of property, and from urban rents, rural properties generated a large share of their revenues, which clerics were anxious to increase. However, even maintaining rent levels was difficult until the 1760s, as rents first collapsed in the depression between 1690 and 1720, and then remained largely flat until the mid 1760s, before rising rapidly until the mid 1780s. This rental context had a crucial effect on the changing approaches used by ecclesiastical landlords to maximize their income.

Initially, "maximizing" rent meant reducing it, as otherwise tenants could not survive the fall in grain prices. In 1714, in the depths of the collapse, a cleric in Saint-Denis poring over a one page summary of the historical lease terms of a certain ferme lamented that its rent was at its lowest for a century.[16] That tenant remained in place because ecclesiastical landlords knew the elastic limits of rent. If rent was set too high no taker might be found or the tenant could become

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[14] Young, *Travels*, 2: 122-3, 301-3.
[15] Jones, *Agricultural Enlightenment*, 97-8.
[16] AN S2378 SD B, Note sur bail de Saint Denis en Brie, 1714.

bankrupt, resulting in both zero income and the expensive deterioration of neglected lands and buildings until reduced rent was conceded. Urgent repairs equivalent to three years' (notional) rent were incurred after successive tenants of one commanderie went bankrupt between 1730 and 1750.[17] Operating properties directly was no more attractive: clerics managed fermes only as a last resort, and at the risk of popular opprobrium for denying tenants a livelihood.[18] In 1726, a Lazarist reviewing a loss-making ferme glumly described direct operation as the only response when tenants in arrears were so insolvent that they were not worth suing.[19] Where rent was paid in grain, ecclesiastics could try to maximize its value by insisting on payment not during the harvest glut, but between the leaner months of January and May, when prices might be greater.[20] That option was risky and inconvenient, however, and in any case rents were almost all paid in cash by 1740. Improving the attractiveness of land for tenants – i.e., its profitability - was necessary in order to increase rent sustainably, and ambitious and capable church landlords prioritized this goal.

Creating large and contiguous parcels of land was an established means of increasing rents by making fermes more attractive for the fermier.[21] In the early 1700s, clerical improvers expanded and consolidated lands by purchase and exchange with landowners large and small. In the wake of the famine of 1709, the Lazarists increased the economic viability of a small estate by "accepting" lands from many small proprietors unable to repay dues and advances of seed. Another option was to secure judicial permission to close and plow up public-access through-roads that traversed fermes.[22] Consolidation of lands offered substantial cost savings to the

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[17] AN S4489 A 12 52 OM, Bail Ivry-le-Temple, 1728, 1739, 1748; AN S4489 A 13 15-16 OM, Procès-verbal Ivry-le-Temple, 1734,1747.
[18] McManners, *Clerical Establishment*, 101.
[19] AN S6660, Déclaration au clergé des biens du prieuré de Coudres, 1726.
[20] AN S4489 A 12 52, Bail Ivry le Temple, 1728.
[21] Jacquart, "Politique foncière," 295-7.
[22] AN S6660 CM, Ventes, Coudres, 1712-1713; AN S6665 2-3 CM, Grigny, 1712.

fermier, by reducing the horsepower and human labor spent moving between fields.[23] That said, ecclesiastical land acquisitions were few and minor in the eighteenth century, because they were illegal without costly, uncertain, and – particularly from 1749 – rare royal permission.[24]

Church landlords might not have enforced new crop rotation régimes, but they did impose and invest - in the expectation of a return - in more profitable land use and crops. In evaluating such projects, clerics in effect took their opportunity cost into account, in the shape of rent forgone to indemnify fermiers for lands reallocated to improvement projects that would take years to mature. A commandeur explained the reduction in a fermier's rent by 60lt per year for the "*non jouissance*" of grazing land given over to new woodland, which led visiting inspectors from the order to offset the rent forgone as a cost against eventual future income in their evaluation of the profitability of the project.[25]

Covering tenants' opportunity costs during improvements could generate unusually strong rent increases even during the agricultural depression. In 1745, Notre-Dame set annual targets for arable land to be converted to *grosette de franc* vines, which were more profitable per arpent than wheat, in return for 2,500lt of support for the cost of labor and capital during the conversion period. This was a significant investment in a property whose annual rent value was 7,000lt, but it resulted in a payback at the next lease renewal, when the rent was raised 8%, thus repaying the investment in less than five years. This success encouraged Notre-Dame to require further changes in that ferme's output, for the subsequent lease required the tenant to convert 18% of the land from wheat and meadows to luzerne or sainfoin. This time there was no mention

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[23] AN S6666 3 CM, Acquisitions: Grand et Petit Freneville, 1630-1689.

[24] "Edit concernant les établissements et acquisitions des gens de main-morte, du mois d'aout 1749," in Henri François d'Aguesseau and Jean-Marie Pardessus, *Oeuvres complètes du chancelier d'Aguesseau…* (Paris: 1819), 13: 62-4.

[25] AN S5057 OM, Procès-verbal Villedieu-les-Bailleul, 1771. Presumably, the new wood was a coppice of, say, hazel or ash, which could be harvested quickly.

of support, which perhaps is why the rent remained unchanged at the next two renewals, but such interventions nevertheless enabled Notre-Dame to increase rents a decade earlier than where improvement did not take place.[26]

Church landlords that evaluated land critically and with an eye to increasing its revenue and reducing its costs could welcome new, more profitable crops that left triennial rotation intact. Far from being swayed by the mania, around 1760, for clearing woods for grain, Notre-Dame promised a fermier 1,200lt as *eventual* compensation for converting 200 arpents to forestry. To judge by the relatively small value of the compensation, this was poor arable land, even though it was located in an important grain area for Paris. The conversion was justified in terms of profit, an elusive achievement among the many contemporary *défrichement* (conversion of scrubland, heaths, and wetlands to arable) projects that failed in their attempt to grow grain sustainably on unsuitable ground.[27] When the Lazarists considered buying a chateau and its lands in 1780, they calculated the scrap value of the house and the doubling of revenue from sainfoin if it was extended onto unused land.[28] Critical examination of current use was a key factor in ecclesiastical improvement.

Clerics were very conscious of whether fermes' locations and configurations made economic sense. Cost reduction could entail the destruction of farmyards and their consolidation into nearby units. In 1729, inspectors of the Order of Malta recommended that the all too accurately named ferme of Fontaines be serviced from their other, adjacent ferme, and that Fontaine's farmyard be abandoned, because it was permanently waterlogged and almost

[26] AN S128 ND, Baux Andrésy, 1745, 1753, 1762, 1771.

[27] AN LL343-344 ND, AC, 7 février 1759; Hugh D. Clout, *Themes in the Historical Geography of France* (London; New York: Academic Press, 1977), 256-8. The compensation would be paid at the end of the lease, not immediately.

[28] AN S6698 CM, Etat terre de Draveil, 1780.

inaccessible.[29] Other farmyards were razed and fermes consolidated when they were judged too small to be viable.[30] In 1762, Notre-Dame authorized one such *réunion*, for which the "reconstruction of barns, stables, cowsheds, dairies and other buildings" (including a farmhouse) cost 31,600lt by 1763.[31] This level of expenditure was purposeful: in 1762, the chapitre approved as a "wise economy" the proposal by its in-house architect to invest 20,000lt in new buildings to enable one ferme to accommodate another.[32] Eighteenth-century ecclesiastical improvement would become more conscious of opportunity cost and of alternative use as it became increasingly capitalist, expert, centralized, and interventionist.

Investment in Improvement: Farmyards

During the eighteenth century, church landlords became far more involved in productive changes to farmyards that increased the returns on their properties. The few surviving seventeenth-century inspection reports of the Order of Malta for its fermes are brief and focus almost entirely on chapels and mansions rather than on farm buildings, which they neither measure and nor describe in terms of condition or repairs. By contrast, eighteenth-century reports devote much more attention to the condition, layout, and dimensions of farmyards, provide copious detail on the types and costs of productive repairs, and present that section of the enterprise as both malleable and an appropriate and essential focus for the respectable and profit-seeking commandeur.[33]

[29] AN S5221 OM A 1, Procès-verbal Fontaines, 1729.

[30] AN S5243 OM 87, Procès-verbal Auxerre, 1787.

[31] AN LL323 ND, Chapitre of Notre-Dame re ferme de Belloy, 18 novembre 1762; AN LL232 30 (1-2) ND, Actes Capitulaires re fermes de Belloy, Larchant and Bagneux, 20, 29 octobre, 12 novembre, 14 décembre 1763.

[32] AN LL323 ND, Chapitre of Notre-Dame re ferme de Belloy, 18 novembre 1762.

[33] AN S5134 46 OM, Procès-verbal Chalons la Reine et d'Etampes, 1662, 1782; AN S5171 A OM, Procès-verbal Beauvais en Gâtinais, 1682.

Landowning clerics invested in farm buildings for both direct and indirect returns. In 1757, Notre-Dame agreed to its fermier's request to double the size of a barn that needed to be replaced, an improvement that also doubled the cost of the work to 3,000lt. The chapitre did so in return for an immediate 150lt (8%) increase in the annual rent, equivalent to a 10% return on the discretionary, or "new" element of the investment.[34] Explicitly recorded deals such as this are rare, however. It is far more common for the sources to speak of ecclesiastics investing in the unquantified *commodité* of the fermier.

The fermier's commodité encompassed his convenience and that of his workers, in the sense of reducing operating costs and preventing waste of inputs, output, and the fermier's capital: farm buildings provided shelter, security and control for the animals that comprised 80 to 90% of the capital invested by fermiers.[35] The accounts of Saint-Denis and of the Célestins show heavy and regular expenditure on masons, ironworkers, and roofers for new farm buildings, but without explaining what they were busily working on.[36] However, narratives in the inspection reports of the Order of Malta show that barns and animal housing were not only repaired, but were extended and reconfigured. In 1760, an inspector noted that a rebuilt barn – the "cowshed" mentioned above - had grown from 80x20 *pieds* to 120x23 pieds, i.e., by 72%.

The seemingly incongruous juxtaposition of this humble building with drawings of the new chateau illustrates both the seriousness with which farm buildings were planned, and who planned them. The new building was improved not only in terms of size, but also in its lighting, ventilation, and access. It had larger doors and windows, and its location was justified as being in the middle of the meadows, which will be of "great advantage in working more quickly and at

[34] AN LL349 ND, Chapitre meeting Notre-Dame re Viercy, 12 novembre 1755, and 18 avril 1757.
[35] Perrot, "Comptabilité des entreprises agricoles," 572.
[36] AN H5 3691 SD, Journal de la Depositairerie: Chapitre 8, des réparations, 1786-1789; AN H5 3933 CEL, Comptes, 1757-1765.

less cost." As is evident from this drawing, the landlord took responsibility for both the cost and the planning of farm works. Yet while the cowshed's roof was to have been tiled, the fermier preferred thatch to conserve heat and that was how it was built.[37] Church landlords' impetus for innovation could be influenced by the experience of the fermier, which suggests that clerics, like respected agronomists such as Duhamel, were open to the influence of practitioners. (As will be demonstrated, it was as well that they were, for church landlords could expect little guidance from agronomists.) Still, while the fermier requested and influenced change, the landlord decided on the improvement, its form, and its implementation.

Centralization of the planning, supervision, and, at times, implementation of repairs and construction is evident from the 1730s. The Order of Malta was among the most decentralized of church landlords, but it deployed commandeurs of variable expertise to inspect its fermes, backed up by local master craftsmen and occasionally by its Parisian architect.[38] From the 1720s, Notre-Dame deployed *intendants des bâtiments* to assess, recommend, and organize farm works. By the 1750s, its *inspecteur des bâtiments* from 1732 to 1779, Nicolas Parvy, claimed to be "on horseback most of the time, going around making plans, audits, measurements and decisions on workers' bills both in Paris and in the countryside for very considerable distances…" Parvy's duties included more than his title of master-mason might suggest: he was, in effect, Notre-Dame's in-house architect and often its *entrepreneur*, directly employing workers and ordering construction works to his specification in multiple fermes around Paris.[39]

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[37] AN S5206 77 OM, Procès-verbal Sainte Vaubourg, 1763.

[38] AN S4989 A 13 no. 16 OM, Procès-verbal Ivry le Temple, 7 septembre 1747.

[39] AN LL337 ND, Chapitre meeting Notre-Dame, Orly, 1722; AN S373 ND, Devis pour le curage de la rivière de Rozay, par le S Parvy, 1739; AN LL320 ND, procès-verbal du Sr Parvy sur construction a neuf d'un auditorium dans l'enceinte de la ferme d'Andresy (1748); AN LL343-344 ND, Chapitre meeting Notre-Dame re procès-verbaux de marnage 1746, 1748, 1751, 19 mai 1758. Eugene Thoison, "Note sur Nicolas Parvy, architecte du chapitre de Notre-Dame de Paris," *Bulletin de la Société de l'histoire de Paris et de l'Ile-de-France* 19 (1892): 28-9. AN LL232 33 2 ND, AC, 6 mars 1772. In 1772, the Chapitre appointed "Vincent Bouland architecte" to assist and

Little of Notre-Dame's building expenditure escaped Parvy's control. Over 90% of the cost of some projects was paid directly to him. He was the main contractor at nine of Notre-Dame's 33 fermes, and 19% of the chapitre's total expenditure on repairs and reconstruction went through his hands.[40] The centralizing control by Parvy over all plans and some works was augmented by his practice of employing a sole contractor to successively complete projects in multiple fermes in a locale. Thus, one Baillard, mason, was paid for stonework for four fermes in a ten square mile area southwest of Paris over the years 1760-1787. In the same area, the ironwork contractor (iron work was extensively used to strengthen roof and wall structures) Lambert worked on three fermes, the carpenter Menichon worked on six fermes, while the aptly named masonry entrepreneur Les Murailles built four fermes in a 26 square mile area east of the city.[41] Notre-Dame was not alone in this level of centralization. In the 1780s, the expense claims of the architects-entrepreneurs of the abbeys of Saint-Géneviève and of Saint-Denis show that they too were regularly visiting and organizing work on fermes.[42] The well funded, recurring, institutionalized, and increasingly intrusive practice of ecclesiastical construction offers a new explanation for the elusive process by which improvements were not only disseminated but also implemented in the late ancien régime.

Ecclesiastical improvements encompassed all aspects of the farmyard, but were united in being cost and convenience driven. Again, the Order of Malta's inspections are crucial in explaining the objectives of this expenditure. Expensive innovations had to be justified, but

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eventually replace Parvy, who remained "maitre maçon" throughout his long career with the Chapitre of Notre-Dame.

[40] AN LL232 31 (1-2) ND, AC, fermes de Louvres et de Damart, 23 juillet, 22 aout, 5 septembre, 17 décembre 1766, 29 mai 1767.

[41] Baillard was paid 65,374lt as contracting mason for the fermes of Rungis, Wissous. Mons, and Ivry-sur-Seine. Lambert was paid 1,966lt for Grande Paroisse, Ivry, and Vitry. Menichon received 9,417lt for Ivry, Lay et Chevilly, Mons, Orly, Rungis, and Wissous. Les Murailles received 16,744lt for Brégy, Rosay, Epiais, and Mory.

[42] AN H5 3636 1 SGN, Mémoires des ouvrages aux fermes de Sainte Geneviève. Contin, 1787, Jussigny, n.d.; Epinay and Rungis, 1789 ; Etat de voyages de Michault, entrepreneur des bâtiments de Saint Geneviève, 1788; AN H5 3691 SD, Journal de la Depositairerie: Chapitre 8, des réparations, 1789.

commandeurs also highlighted smaller improvements as evidence of their up-to-date familiarity with good practice and of their good stewardship. In the 1770s, a report duly noted the apparent novelty of double doors in all buildings for the easy removal of manure.[43] Inspectors paid little attention to repairs that mended or "made new," but they carefully noted productive innovations, such as the placement of entrances to the farm yard and to barns which enabled carts to be turned around more quickly, a critical productivity gain during the urgent, labor-intensive (and therefore costly) harvest, in particular.[44] One busy commandeur put a ceiling in the cowshed that preserved heat for animals on the ground level, while creating a granary overhead, accessed by a new stairs. He made sure the inspectors noted the wall he had built to separate cows and bulls in the building, presumably to improve the animals' management and to enable selective breeding. That commandeur also installed a mechanism involving three pulleys and two weights in the well so that water could be easily procured, no matter its depth.[45] Hygiene and human health and comfort were also of some concern. In an apparent reflection of the contemporary agronomic advice on the hygienic treatment of milk, one commandeur added drainage and washable flooring in a dairy, and tiled the earthen floor of the overhead room that was used for storing cheese. Another installed a new chimney and windows in the fermier's house as a remedy for its dampness, and added iron bars to the roofs "for greater security." An unusually thorough commandeur installed communal latrines at the end of the stables, with "a seat and a door."[46]

Cumulatively, such ostensibly modest changes would have led to sustained and significant reductions in costs incurred through the time to complete tasks and move around farmyards, and in the housing of people, crops and livestock. In the nineteenth century, much of

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[43] AN S5193 43 OM, Procès-verbal Bourgoult, 1773.
[44] AN S5258 A OM, Procès-verbal Villedieu le Bailleul, 1782.
[45] AN S5134 OM, Procès-verbal Etampes, 1782.
[46] Reynaud, *L'élevage bovin*, 170; Meredith, *Dairy Queens*, 122; "Laiterie," in *Encyclopédie*, 9: 213; AN S5134 OM, Procès-verbal Etampes, 1786; AN S5166 OM, Procès-verbal La Croix en Brie, 1772.

the increased productivity of French land would come from adding extra units of labor to increase output. Church landlords' investments in reducing fermiers' labor requirements anticipated this by freeing up labor that could be applied to production and thus increase tenants' revenues, in effect subsidizing and facilitating what later became a generalized, successful French strategy of increasing the productivity of land by adding labor.[47] In the absence of breakthroughs in fertilizers, seeds, and rotation, these many small improvements in farm buildings help explain the increased output of agriculture, and also the ability to produce and conserve output more efficiently and effectively.

The efforts of church landlords to improve farm buildings link them to English rather than French agricultural improvers. French ecclesiastics shared their passion for farmyard reconstruction with English improvers and agronomists, from landlords to Arthur Young, who were interested in the architecture of ideal but practical farm buildings: their layout, size, and the efficiency of interrelated parts.[48] In France, church landlords were alone in focusing on agriculturally useful farmyard construction: architects and landlords (and current-day historians) were far more interested in the decorative, escapist, political and propagandistic, or utopian potential of farm buildings than in their practical uses. Architect Claude-Nicolas Ledoux, for example, designed monumental, impossibly expensive neo-classical farm complexes that, had they been built, could only have been useful as great seigneurial chateaux. As well as the ferme ornée at the Petit Trianon at Versailles, Louis XVI built a magnificent dairy at Rambouillet to create a more favorable public impression of the queen through associating her with healthy, maternal, and agricultural images.[49] While the disgraced former chief minister of Louis XV, the

[47] O'Brien, "Path Dependency," 218-9, 226, 229.

[48] John M. Robinson, "Model Farm Buildings of the Age of Improvement," *Architectural History* 19 (1976), 17-9.

[49] Lee, "Agritecture," 39; Clavilier, *Cérès et le laboureur*, 49-51, 161-2.

duc du Choiseul, built at Chanteloup what Arthur Young would later describe as a "noble cow house… with stalls for seventy-two… and the best-built sheep house I have seen in France," this exceptional investment was designed primarily to attract, entertain, and impress the duc's guests, who could survey the farmyard (and appreciate Choiseul's interest in agriculture) from the safe distance of the terrace on the cow-house's long, flat roof.[50] Agronomists effectively ignored the practical uses of farm buildings. The few who wrote of farm buildings did so briefly and in broad terms of hygiene, humidity, light, shelter, and orientation that drew on Roman authors from the fourth century C.E. and before, i.e., they merely recycled the ancient sources that dominated European agricultural literature, outside of England, until the rise of experimental, empirical agronomy in the mid eighteenth century.[51]

Despite the boom in French agricultural literature after 1750, not a single work on agricultural architecture was published before 1775, and just four followed before 1800. The founder of French enlightened agronomy, Duhamel, got around to the topic almost thirty years after the publication of his first agronomic work in 1750. In 1778, he added a chapter to the final revised edition of the *Eléments d'agriculture* (first published in 1762) in which he reported on a farmyard he had built on his own estate. Duhamel described the layout, dimensions, functions, and features of its farmhouse, stables, cattle, sheep, pig, and poultry houses, the granaries, haylofts, and areas for the collection of manure, and the materials used in the buildings for security and fire-safety. This ideal farmyard might well have interested the "public" (presumably other landowners), as Duhamel claimed. Church landlords, for example, could have been focused on the great agronomist's thoughts on situating grain hoppers or manure heaps, given that they

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[50] Girouard, *French Country House*, 274; Arthur Young, *Travels in France during the Years 1787, 1788, and 1789* (Bury St. Edmund's, 1792), 1: 52.

[51] Reynaud, *Elevage bovin*, 150, 170; G. E. Fussell, *The Classical Tradition in West European Farming* (Teaneck, New Jersey: Fairleigh Dickinson University Press, 1972), 154, 156-9.

had already long striven to achieve his objectives, the rational layout and construction of the necessary parts of a farmyard to maximize its output and minimize the cost of operations for tenant and landowner.[52] Yet Duhamel's brief foray into farmyard improvement found few lay imitators, either in theory or in reality. Instead, the practice remained a feature of the Catholic Agricultural Enlightenment, and died with it in 1789. When interest in farmyard improvement reappeared as the discipline of "rural architecture" in the early 1800s, architects François Cointeraux and Léon de Perthuis de Laillevault proposed practical, precise models to remedy what the latter described as the lack, common to both proprietors and building contractors, of "any idea" of rational farmyard construction.[53] Church landlords had not existed for a generation by then, which perhaps explains Perthuis' opinion of the general state of French farm buildings.

Investment in Improvement: Land

The economically and agriculturally dubious, Crown-sponsored drive for défrichement from the 1760s does not seem to have attracted church landlords, though they did invest in inexpensive and profitable drainage works. Such minor works could generate a good return: a small and simple drainage scheme costing 57lt, which enabled two crops of hay to be grown, paid for itself in three years, and raised rent by 7% in the 1760s.[54] A fermier told inspectors how the ditches his commandeur had ordered be dug to drain a small and waterlogged farm had raised its income by almost half.[55] Some commandeurs introduced targeted enclosure to manage grassland. In the 1760s, a fermier explained a recently enclosed and freshly sown pasture: "it was monsieur le commandeur who had recommended and organized it… and had even paid for it in

[52] Henri-Louis Duhamel du Monceau, *Eléments d'agriculture, par m. Duhamel du Monceau*, 2nd ed. (Paris: 1779), 2: 59-62, 65-76, 88.

[53] Reynaud, *Elevage bovin*, 54, 57; Léon de Perthuis de Laillevault, *Traité d'architecture rurale* (Paris: 1810), 1.

[54] AN S5178 OM, Procès-verbal Maisonneuve sur Coulonniers, c.1770.

[55] AN S5134 OM, Procès-verbal Etampes, 1782.

advance." The inspectors were impressed, concluding that this improving commandeur could not have acted as a "better *père de famille*," the stock phrase, dating back at least to the sixteenth century, for the proprietor who was a good, responsible manager of land. Another enterprising commandeur had a ditch dug to join uncultivated land to grassland and then divided the whole into two fields for grazing. This enabled cattle to be kept alternately in them, which would have given grass a better chance to recover more quickly between controlled grazing periods, thus increasing fodder output and land productivity: the inspectors noted that this would "improve both [fields] and increase the revenue of the ferme." Despite their welcome for these improvements, the inspectors soberly described the ferme as having "fairly well cultivated, fairly poor, cold and clayey soil."[56] For ecclesiastical readers, the adjective "cold" would have signaled a specific problem with the soil, for its remediation absorbed a large share of reinvestment for many church landlords in the eighteenth century.

Ecclesiastics only had to look in their libraries at perennially popular agronomic works by Oliver de Serres or the periodically updated *Nouvelle Maison Rustique* to see that the confidently and consistently prescribed cure for this problem was marling.[57] Marling is essentially liming. Marl (*marne*) is a powdery mix of clay and calcium carbonate, which when spread on the soil in small amounts helps balance soil pH by reducing acidity and also improves soil structure. As a result, marling enables soil bacteria (which require moderate soil acidity) to break down organic matter – particularly manure - so that plants can absorb the nitrogen, phosphorous and potassium essential for leaf and root formation and the ripening of fruits and seeds. Before the advent of cheap, concentrated, and plentiful lime, marl had an essential, long-

[56] AN S5057 OM, Procès-verbal Villedieu-les-Bailleul, 1771.
[57] Bibliothèque Mazarine MS4175, *Catalogue de la Bibliothèque de Saint-Lazare*, vol. 3.

established, and celebrated role in improving acidic and waterlogged soils and sandy heaths.[58] In 1600, de Serres claimed that it worked "marvelously, with great advancement for wheat," for ten to twelve years.[59] In 1769, marl was endorsed as "the first and most natural of all fertilizers… the one that fertilizes the best and for the longest duration… whatever costs are occasioned by marling would have to be indeed great, for the effort not to procure a great profit."[60] Marling was no French peculiarity: Arthur Young argued it was "the great foundation of wealth" in Norfolk, where what was later called "high farming" (the application of high inputs, including fertilizer, to generate high outputs), a key element of the English Agricultural Revolution, was developed.[61] Mid nineteenth-century French chemists claimed that grain output was "doubled, and almost tripled, by marl."[62] Little wonder that church landlords invested heavily in it to improve output, profits, and rents.

The goal of investment in marling was to substantially improve tenants' profits for decades, and with it their rent paying potential. In 1714, during the depths of the agricultural depression and famine of the last decades of Louis XIV, a scandalized Benedictine of Saint-Denis noted that a *fermière* who had been obliged by the abbey to marl her lands had held onto all the resulting profit by leasing the lands at an unchanged rent for 27 years. To appreciate the profit lost to the abbey, he complained, "one only had to see the assets this widow had

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[58] W.M. Mathew, "Marling in British Agriculture: A Case of Partial Identity," *Agricultural History Review* 41, no. 2 (1993), 97-8; Overton, *Agricultural Revolution*, 16; O'Brien, "Path Dependency," 220.

[59] Olivier de Serres, *Le théâtre de l'agriculture et mesnage des champs* (1600; reprint, Arles: Actes Sud, 2001), 210.

[60] Froger, *Instructions de morale, d'agriculture et d'économie pour les habitans de la campagne, ou avis d'un homme de campagne à son fils* (Paris: 1769), 159-60.

[61] Arthur Young, *A Six Weeks Tour through the Southern Counties of England and Wales* (London: 1769), 102; B. A. Holderness, "The Origins of High Farming," in *Land, Labour, and Agriculture, 1700-1920: Essays for Gordon Mingay*, ed. B. A. Holderness and Michael Edward Turner (London; Rio Grande, Ohio: Hambledon Press, 1991), 150, 157.

[62] Théophile Jules Pelouze and Edmond Frémy, *Notions générales de chimie* (Paris: 1853), 475.

amassed."[63] In the 1760s, a commandeur ordered repeated annual applications of marl to neglected land at considerable expense "to make it fruitful and to increase the next lease, as otherwise it would fall." His inspectors concurred, noting "with satisfaction that the wheat and oats were now good, and that the more the marl takes effect, the greater the product will be for about twenty years."[64] That long payoff was just as well, for marling could be very expensive, particularly if transported over considerable distances.[65] In 1721, an influential work on agronomy put the cost of marling an arpent of land at 25lt.[66] All the more remarkable then that for many decades ecclesiastics saw little return on their heavy investment in soil improvement.

Ecclesiastical investment in marling is a striking example of landlord subsidization of struggling tenants. Occasionally, ecclesiastics required tenants to marl without any landlord contribution to the cost, which could be a heavy investment burden for tenants. In 1751, Saint-Denis required a fermier near Chartres to marl at his expense all the lands that could take it. If applied at a cost of 60lt per arpent to even half of the land, the cost would have been equivalent to six years' rent, even without taking into account the drop in output in the harvest subsequent to marling (when the soil was less productive owing to a chemical reaction to the lime).[67] That case was exceptional, however, as generally landlords contributed half of the cost. In the 1720s and 1730s, Saint-Denis spent 36,000lt to marl four large contiguous fermes in the highly acidic Brie, at an average cost of 24lt per arpent, which would have required an increase in rent of 19% to break even. The fermes were already generating a respectable rent of 7lt per arpent, and the

[63] AN S2378 B SD, Note sur bail de Saint Denis en Brie, 1714. The widow's was no mean feat, considering the slump.

[64] AN S5057 OM, Procès-verbal Villedieu-les-Bailleul, 1771.

[65] Mathew, "Marling in British Agriculture," 108.

[66] Louis Liger, *La nouvelle maison rustique, ou economie generale de tous les biens de campagne: La maniere de les entretenir & de les multiplier*, 3rd ed. (Paris: 1721), 1: 518.

[67] AN H5 4270 SD, Bail Torson près Chartres, 1751. Variations in the lime content of marl mean it often "burnt" and killed any seeds in its first year of application.

rent increased by just 1% by 1750.[68] At 24lt per arpent, the tenant's marling investment would have been onerous, but it was (probably) spread over several leases and should have been covered by the increased profit from improved harvests. Given the simultaneous nature of this investment over all four tenancies, it seems likely that it was landlord rather than tenant led, yet rents barely shifted. Admittedly, a rent increase might have been hidden; one of these fermes had a *pot-de-vin* (a defeasance hiding extra rent to that declared in the lease) equivalent to 36% of the lease in 1772. Such a supplement (if it existed) would have helped cover the abbey's investment, but it would still have left the great majority of the extra product with the fermier. From the late 1740s, however, Saint-Denis' policy hardened, and now the same ferme was to be marled at the tenant's expense.[69] In Villeneuve, the abbey obliged its tenant to marl from 1736 to 1752, by which date its rent had increased by 127%, a massive return that occurred more than a decade before rents generally began their takeoff.[70] Ecclesiastics' marling investments before 1750 resulted in a substantial increase in output and in the wealth of tenants; from then the abbey made sure the value of the land was maintained, but the combination of pot-de-vin and cost reallocation meant it saw a return on its investment.

The capitalist nature of ecclesiastical improvement is even more evident in the investment policy of clerics who continued to pay for marling during the rent boom. In the 1760s, a commandeur marled 80 arpents at a cost of 67lt per arpent, when the ferme was already earning a quite good 10lt per arpent in rent. If the marl were to remain effective during two leases or 18 years (as was expected), the breakeven rental increase required, before interest, would be 4lt per arpent marled, or 39%. Considering the history of the previous six decades, that

[68] Micheline Baulant, "La Calabre de père en fils. Un siècle de la vie d'une ferme (1655-1761)," *Annales. Histoire, Sciences Sociales* 40, no. 1 (jan. - fév., 1985), 46; AN S2381 B SD, Déclaration des biens et revenues des Religieux de Saint Denis, 1729, 1750.

[69] AN S2378 A SD, Baux Grande Loge de Maisoncelles en Brie, 1772, 1747, 1756; Contre-lettre 1772.

[70] AN S2378 B SD, Baux Villeneuve Saint Denis, 1728, 1736, 1745, 1752.

was an optimistic premise; presumably it was a reaction to the high prices arising from poor harvests and the liberalization of the grain trade after 1764. The venture obviously impressed the commandeur's successor in the 1780s, as he was willing to spend 118lt per arpent to marl the fermier's choice of the poorest lands, which would have required a 69% increase on 1760s rents to break even.[71]

The bullish mood on land improvement continued right to the end of the ancien régime. The last commandeur of La Croix-en-Brie marled all of his lands, but he appears to have had easily accessible marl on or near his estate, as marling cost him just 14lt per arpent, which would have required a rent increase of only 8% over 18 years to break even. He did not pocket the windfall saving, however. The commandeur drained an enormous *étang* (fish pond) covering 85 arpents and converted it to arable, at a cost of 5,526lt, or 65lt per arpent, to put it "in a state of cultivation." The commandeur explained his financial plan to the inspectors. He expected to earn 2,550lt annually from his investment, or 30lt per arpent. Deducting the (in effect) opportunity cost of 1,000lt for the forgone rental of the étang, the annual net return would be 1,550lt, or 18lt per arpent. (I calculate that the breakeven term would have been just four years.) This commandeur, admittedly, appears exceptional in consciously enacting the role of ideal improving landlord. He held annual celebrations and awarded prizes for the best local fermiers, and (according to the inspectors) by his example inspired the respect and emulation of the inhabitants.[72] While other ecclesiastical improvers omitted such obvious agrarian role-play, they shared the commandeur's interest in large speculative improvements that, cumulatively, profited from and helped supply the increasing demand for agricultural produce after 1760.

[71] AN S5178 OM, Procès-verbal Maisonneuve sur Coulonniers, 1766, 1788.
[72] AN S5166 OM, Procès-verbal La Croix en Brie, 1787.

Investment in Improvement: Roads

Ecclesiastical landlords had strong incentives to invest in access to their properties. The commandeur of La Croix-en-Brie was fortunate to have marl on site, which greatly reduced the cost of efforts to increase output. Transport costs could be prohibitive for any commodity, and ecclesiastics were aware of the problem. Inspectors of the Order of Malta who remarked to a fermier in another commanderie that an area of reclaimed heath was in obvious need of marling were told that marl could "not be had without a great deal of expense given the bad road and [the ferme's] remoteness."[73] All the more frustrating, then, that regional grain prices were rising from the mid 1720s, as new trunk roads and increased movements of grain led to price convergence in the regions around Paris.[74] Ecclesiastics responded with an early, increasingly substantial, and consistent investment that linked their fermes to this new network and market.

The new trunk road network that the Crown began in the 1720s offered great potential gains to fermiers, if only they could get to on to it. The entirely new roads greatly mitigated formerly atrocious travel times and conditions, not just due to the roads' materials and dimensions (the paved area was 20 pieds wide), but by avoiding villages in the name of speedy connections between large towns. Yet the latter was precisely the problem fermiers had with this primarily military and administrative project, whose objective, at least until the middle years of the century, was not to increase commercial activity, but to strengthen the power of Versailles over France. The Crown had neither the interest nor the resources to extend the already expensive network to connect its hinterland, even when the *corvée royale* (which required inhabitants to provide up to fourteen days of unpaid labor for road works) was imposed on rural

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[73] AN S5057 OM, Procès-verbal Villedieu-les-Bailleul, 1771.

[74] Philip T. Hoffman, "Produce," in Paris: 1380-1870," 2005, revised 2008, http://gpih.ucdavis..edu/Datafilelist.htm#Europe/Paris_1380-1870 (accessed May 3, 2012).

communities in 1738.[75] Church landlords immediately saw the benefits of the road-building program, however, which they were in a position to foster thanks to fermiers' lease obligations to provide cartage for the materials used in new construction, generally without specifying time limits.[76] In 1723, Notre-Dame instructed a tenant to provide two carts for ten days for the road at Orly, which was at the center of a cluster of six of its fermes. There is no record of the chapitre contributing. Before the corvée was imposed, Notre-Dame used its influence with the *intendant* to force rural dwellers to provide free labor on roads.[77] Yet this cheap (in more than one sense), vicarious support was abandoned when the royal road-building program entered its most intensive phase, between 1750 and 1775.[78]

After mid century, church landlords invested heavily to ensure their fermiers had access to the new trunk network. The Crown would build a connecting spur if proprietors paid half of the cost. If local secular notables were willing to help raise the necessary funds the contribution of ecclesiastics could be relatively small. In 1759, Notre-Dame (prompted by the fortunate convergence of the "public utility, and the private advantage of the chapitre") needed pay only 1,000lt, and in 1772, just 600lt as its share of the cost of linking its fermes to the main roads.[79] The previous year, the chapitre had approved a scheme to connect its unified (and expensively refitted) ferme of Belloy-en-France, noting that there was hope that half of the private contribution of 3,000lt would be borne by other local proprietors. The resolution observed that the new road would be "very advantageous for the chapitre, and would facilitate the exploitation

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[75] Guy Arbellot, "La grande mutation des routes de France au milieu du XVIIIe siècle," *Annales. Histoire, Sciences Sociales* 28, no. 3 (mai - juin, 1973), 766-9.
[76] AN S4489 OM A 12 45, Bail Ivry le Temple, 1732.
[77] AN LL337 ND, Chapitre meeting Orly, 25 octobre 1723, Chapitre meeting Outrebois, 25 octobre 1733.
[78] Arbellot, "Routes de France," 773.
[79] AN LL350 ND, Chapitre meeting Wissous, 3 février, 11 décembre 1759; AN LL232 33 2, AC, 23 décembre 1772.

of the ferme." Given the staggering 99,000lt Notre-Dame had invested in rebuilding Belloy, an additional 1,500lt for a road to the gates of the ferme must have seemed an unmissable bargain.[80]

Yet church landlords also invested in better communications for their tenants even without the assistance of secular proprietors, or even the Crown. In 1739, Saint-Germain-des-Prés paid two thirds of the cost of a connecting road when proprietors in nearby villages baulked at the price and rejected the connection to their areas.[81] In 1758-1762, Notre-Dame contributed two thirds of the 16,000lt cost of a road of 13,194 pieds joining its (marled) ferme at Rosay-en-Brie to the main road to Paris, and even paid the cash-strapped king's share (there was a Seven Years' War on) to have the road finished.[82] The final entry in Saint-Denis' repairs journal for 1789 is a payment for half the cost of a road.[83] Where necessary, church landlords improved communications entirely on their own initiative. In the 1760s, the Order of Malta built bridges to enable access to fermes surrounded by étangs.[84] In one of the last ever inspection reports, in 1790, a commandeur described how he had contributed one third of the cost of rebuilding a road on which, formerly, two vehicles could not pass. He had it widened and given an easier gradient, to allow "free and easy access to vehicles, without having to take, as before, a long detour."[85] His fermier would have made direct savings, perhaps been less exposed to the popular seizure of grain when prices were high, and so the commandeur could expect more rent.

Ecclesiastics' decisions to invest in improved roads were driven by the belief that reducing transport costs and providing fermiers with access to new markets gave tenants a greater capacity to pay rent. Notre-Dame's precocious involvement in road building may have

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[80] AN LL232 33 1 ND, AC, 22 avril 1771.

[81] AN S2902 ND, Extrait de Registre du Conseil d'Etat, Marly, 15 décembre 1739.

[82] AN LL343-344 ND, Rosay en Brie, Chapitre Meetings Notre-Dame, 5 & 22 mai 1758, 5 mars 1759, 20 mars 1762.

[83] AN H5 3691 SD, Journal de la Depositairerie pour l'année 1789: Chapitre 8, des réparations, décembre 1789.

[84] AN S5178 OM, Procès-verbal Maisonneuve sur Coulonniers, c.1770.

[85] AN S5134 OM, Ameliorissements de la commanderie d'Etampes, 1790.

been shaped by arguments such as those of the abbé de Saint-Pierre, in 1708, which argued that new roads worthy of the name would benefit both fermier and proprietor by providing access to markets that would enable specialization and crop substitution.[86] The agronomic movement only sharpened this claim. In the 1780s, the abbé Rozier's agricultural encyclopedia explained that good roads benefited the fermier by reducing the cost of work: horses were less tired, manure more easily moved, greater quantities of crops were carried in a single trip, the harvest was completed more quickly, and wear and tear on vehicles much reduced.[87] In the early 1770s, a group of Order of Malta inspectors pondered a commandeur's justification for leading lay proprietors in contributing to a spur from a new royal road to enable communication

> between the markets of Provins, Nangis, and Coulommiers… from which they must get a considerable advantage for removing their timber and facilitating the transport of grain and forage, which having easier markets will augment the rent on the land… this project is too solid for the reality of its outcome to be rejected.

The commandeur justified the cost of 2,400lt by pointing out that the road led straight to his estate, and that he would get the first fruits, "as is just, because he has employed his credit, his efforts and his money." Although the inspectors described the scheme as a "far-fetched speculation," the commandeur's justification seems reasonable. At this time, harvests were poor and prices were high. Breakeven rental increases of 17% in nine years, or 8% in 18 were quite feasible if the fermier's product could be gotten to market cheaply, safely, and at the optimal moment.[88] Church landlords invested in improved roads, as they did in improving their fields and farmyards, in order to increase their tenants' profits and capacity to pay rents. It is now time to consider how much reinvestment these improvements required, in order to compare ecclesiastical proprietors to their secular French counterparts and to landlords in Britain.

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[86] Charles-Irénée Castel de Saint-Pierre, *Mémoire sur la réparation des chemins* (N.l.: 1708), 9-10.

[87] François Rozier, *Cours complet d'agriculture ou Nouveau dictionnaire d'agriculture* (Paris: 1785), 6: 164. Rozier was speaking of intra-ferme roads, but the reasoning equally applies outside.

[88] AN S5166 OM, Procès-verbal La Croix en Brie, 1772.

The Level of Ecclesiastical Investment

Church landlords invested in improvements that were expected to generate a substantial and reliable return, and sometimes that connection was explicitly documented in negotiations with fermiers over future rents. In the 1760s, for example, Saint-Denis reported being offered an increase of 36% on a lease, to be raised to 54% if the abbey built a spur to connect the ferme to the main road. The breakeven on the connecting road would have been eighteen years on the increase that was offered.[89] (It is not clear whether Saint-Denis made the investment, but - as will be shown - a decade later, at least one of its monks was working with impressive and unexplained technical expertise on similar projects.) Yet, at times, church landlords' rents were strangely slow in increasing, compared to market levels. This stickiness is a signal that investment occurred whose immediate bills were paid by the fermier, but whose costs were – by agreement - ultimately borne by the church landlord through rents forgone. Quantifying church landlord investment is not merely a matter of totting up their payments for building, road, and land improvements, it also requires seeking out commitments to costs that that were invisible in the accounts, for reasons that could be accidental, but which were also at times quite deliberate.

Church landlords' use of what would now be termed off-balance sheet financing for improvements gives a misleading impression of both their rent maximization and the value of their investment. Improvements that required great expenditure and created a lasting impact in enabling growth could cost them little in nominal terms. Notre-Dame booked the cost of the road to Rosay (mentioned above) not as expenditure of two thirds of 16,000lt, but as *income* of 2,000lt, when it secured royal permission to finance the work by cutting and selling a wood that it was required to hold in reserve. The cost of the road was hidden in the chapitre's accounts as it

[89] AN LL998 CSM, Procès Verbal du Temporel des Maisons de la Province de France ordre de St Benoit Congrégation St Maur, 1767-1768.

was netted against the sale price of the wood, which was greater. Only the surplus, the so-called "income," was declared and visible in the accounts.[90] Without Notre-Dame's instructions to its *comptable* (in effect, accountant), we would be unaware of this. Something similar appears to explain why rents remained static despite improvement. The total nominal rents of Saint-Denis' fermes rose by a not very impressive 62% between 1755 and 1785. That 62% masks considerable variances: some rents more than doubled, those of other, major fermes rose by barely 20%.[91] The depression of the late 1780s does not explain this poor growth. It could reflect pot-de-vin distortions, though any recorded in the surviving sources have been accounted for in this calculation. The true cause appears to be a shift in the capital costs of improvement onto the tenant that reflects a change in landlord-tenant power, along with a continued, or even greater, commitment to investment.

In at least some cases, church landlords accepted investments in improvements by tenants in lieu of rent increases. The foregone rent increases, in refunding the costs to the tenant, meant that over the period of the lease the landlords continued to fund, at least in part, the improvements they had initiated. This agreed tradeoff occurred in cases of marling, where tenants were forced to pay the entire cost, as opposed to the previous 50%.[92] Given that by the 1770s one of Saint-Denis' fermiers was obliged spend the equivalent of between one and two years' rent on marling, it is hardly surprising that, as a trade off, his rent grew relatively slowly.[93] Fermiers saw marling as an investment that required two leases to recoup, and church landlords

[90] AN LL343-4 ND, Rosay en Brie, Chapitre Meeting, 5 & 22 mai 1758, 5 mars 1759, 20 mars 1762.

[91] AN S2381B SD, Déclaration des biens et revenues des Religieux de Saint Denis, 1755; AN H5 3699, Compte général de la Cellerie, 1785.

[92] For explicit tradeoffs of investment in marling and construction by tenants in return for unchanged rents see AN LL1223A SD, Actes Capitulaires Saint Denis, 23 novembre 1736, 2 novembre 1738, discussed in chapter 3.

[93] AN S2378A SD, Bail Maisoncelles and contre-lettre, 1772.

agreed successive leases at moderate increases in advance in order to secure the fermiers' funds for these projects.

Explicit bargains between landlord and tenant of precisely this type will be detailed in chapter three, but for now the case of Saint-Denis and fermier Courtier of Merville explains how such tradeoffs worked for both parties. The rent from Merville increased by only 16% by 1785, not from the abbey's carelessness, lack of ambition, or charity, but from a policy of long-term development in which costs were effectively shared with Courtier, through amortizing the cost to the abbey over several leases. In 1776, Saint-Denis agreed to this new fermier's proposal to build, entirely at his cost of 16,817lt, a road 2,304 pieds (0.464 miles) in length that led straight from his barn and bridged two streams to their nearby mill, in return for a guarantee that his lease would be extended at the same rent for another nine years. The cost saving that made it worthwhile for Courtier to spend the equivalent of an extra 16% on his rent over the period of his lease would also accrue to future tenants, so that within 15 years the abbey could expect a substantial and lasting increase in the rents it could charge to Courtier's successors.

The Merville case shows the value of investment in improvement to agriculture and to all parties. It clearly benefited Courtier, the fermier, as he proposed and was willing to pay for it upfront. The landlord, Saint-Denis, saw it as a lasting benefit, as it was willing to accept a lower rent even as rents rose dramatically all around. The abbey was focused on and capable of ensuring lasting improvement: it imposed its own, pre-existing, in-house plan of the work required of the tenant. The planner was a Benedictine, Dom Adrien Pauchet, who specified the design, materials, and methods of the construction, including the changes required to realign the farm buildings on a new axis with the mill. Pauchet left little to either chance or to Courtier,

whose discretion was limited to choosing red or yellow paint for the bridge.[94] Saint-Denis would have been encouraged to pay for improvements by outsourcing their upfront costs to tenants, as it reduced the abbey's liability for *décimes*, its allocation of the First Estate's supposedly voluntary but in reality expected contribution to the Crown. Décimes were calculated on declared gross revenue; repairs and construction were not deductable, and Saint-Denis paid 9% of its revenues. This tax avoidance ruse would also have reduced the abbey's contribution to the crown-imposed sinking fund for Benedictine debt, which took a further 3% of gross income.[95] Paying for improvements through reduced rents was therefore tax efficient, even if it was illegal. The apparent stasis of this ferme's rent is not evidence against the abbey behaving as a capitalist investor. It is evidence for it.

Heavy ecclesiastical reinvestment was clearly related to the size of properties. Reinvestment in the form of tenant reimbursements for repairs was just 7% of rent for both a sharecropping ferme of Saint-Germain-des-Prés (1764-1768) and for a landless ferme of Saint-Lazare that depended on seigneurial dues (1770-1789).[96] The substantial investment behavior previously described relates to the large fermes that formed the great majority of ecclesiastical tenancies for wealthy church landlords. An initial way of evaluating their agricultural investment is to compare their expenditure on repairs and new construction over time as a proportion of rent values and per arpent of land. Surviving ecclesiastical accounts are few and fragmentary, but declarations of année commune spending on maintenance (excluding new construction) for

[94] AN S2244 SD, Devis de la Chaussée, des ponts et du pavé que Mr Courtier fermier de Marville devise faire, 1776; Chapitre meeting, 14 janvier 1776.

[95] AN S2381B SD, "Avis sur ce qu'il convient observer dans les Déclarations à fournir au Diocèse de Paris, en exécution de la Délibération de la Chambre Ecclésiastique du Diocèse, du douze aout 1756"; AN L817 CSM Congrégation de Saint Maur États, 1772-3, 1782.

[96] AN H5 3633 CM, Recette et mises de la terre et seigneurie d'Avesnes en Maine, 1764-1768; AN S6650 CM, Prieuré de St Germain de Salle, Comptes de Fermages, 1770-1789.

Saint-Denis and Saint-Lazare are available for the 1720s, 1750s, and 1780s (Table 1).[97] Investments, where known, have been added to those declared values, and crosschecks against balances owed to contractors indicate that these are probably reliable. It may be no coincidence, however, that a far higher expenditure figure is revealed in the 1786-1789 payments journals of Saint-Denis, which I have used to calculate the abbey's actual nominal spending for that period.

Table 1 "Réparations" as a Percentage of Rents and Arpents for all Fermes

Saint-Denis	Number of Fermes	Réparations/Rent	Réparations/Arpent
1720-1729	27	14%	1 lt. 11s
1740-1750	27	18%	2 lt. 5s
1746-1755	27	11%	1 lt. 9s
1780-1789	27	24%	4 lt. 2s

Saint-Lazare All	Number of Fermes	Réparations/Rent	Réparations/Arpent
1720-1729	12	18%	1 lt. 2s
1746-1755	13	17%	1 lt. 0s
1780-1789	14	11%	1 lt. 16s

Saint-Lazare Directly Managed	Number of Fermes	Réparations/Notional Rent	Réparations/Arpent
1720-1729	6	17%	1 lt. 1s
1746-1755	5	16%	1 lt. 2s
1780-1789	5	13%	2 lt 18s

Saint-Lazare Rented	Number of Fermes	Réparations/Notional Rent	Reparations/Arpent
1720-1729	6	19%	1 lt. 3s
1746-1755	8	20%	0 lt. 18s
1780-1789	9	9%	1 lt. 5s

SOURCE: AN S2381B SD, Déclaration des biens et revenues des Religieux de Saint Denis, 1729, 1750, 1755; AN H5 3691 SD, Journal de la Depositairerie, 1786-1789; AN H5 3699 SD, Compte général de la Cellerie, 1785; AN S6590 CM, Déclaration des biens et revenus des Religieux de la Congrégation de la Mission de Saint Lazare, 1729, 1756, 1790.

These samples demonstrate that reinvestment was substantial in value and over time, and that it applied both to leased and directly managed fermes. Estimated reinvestment was in the

[97] I constructed similar averages for decades for other church landlord, but it was not possible to do so in a time series.

range of 15-20% of rent, and would mostly remain over 10% even if rent values were increased by 40% to cover any unknown, but possible pot-de-vin distortion. (40% is an extremely cautious allowance for pot-de-vin charges, which were equivalent to 8 to 20% of nominal rents at Saint-Denis.)

Perhaps most significant is the high level of verified cash reinvestment (24% of gross rents) for Saint-Denis in the late 1780s, which includes all spending on fermes, whereas the other, estimated samples do not. Over those four years, Saint-Denis spent 9% (92,000lt) of its entire expenditure on reinvestment in fermes, approximately the same amount as it spent on refurbishing the abbey. That could indicate a major expansion of reinvestment in the 1780s, but it more probably reveals the otherwise hidden value of new construction in other decades, which, on average, was equal to the cost of maintenance. For example, Saint-Denis spent nothing – in cash - on marling and little on road construction in the 1780s, when, it has been shown, both were subsidized by foregoing increased rents to fermiers who marled and built roads on the abbey's behalf. The Merville case shows how the abbey subsidized and, in effect, paid for a road in that period. A similar commitment to pay indirectly for marling half of a ferme's land, depending on its price, could have increased the reinvestment by another 50%. Even without these hidden subsidies, the level of reinvestment by these ecclesiastical landlords was far from the negligible rate for French landlords calculated by Young. The sample suggests that church landlords reinvested similar amounts to British landlords' 6-7% of rent in 1760-1779 and 11% in the 1790s. For Saint-Denis in the 1780s, reinvestment was similar to historical estimates of the highest annual rate of capital investment in agriculture in Georgian England, 16% over the decade 1801-1810.[98]

[98] Young, *Travels*, 122-3; C.H. Feinstein, *Capital Formation in Great Britain*, cited in Overton, *Agricultural Revolution*, 92.

Another way of evaluating church landlords' level of reinvestment is to apply the levels of spending already noted to each element of farm infrastructure. In 1789, a building of 132 pieds used to house carts, a granary, cows, and sheep cost 8,759lt.[99] There would usually be another building, around 60 pieds long, for the same purpose, costing perhaps 3,000lt. Farmyard walls and gates cost 2,000lt.[100] Road, at 5lt per pied, cost perhaps 2,500lt.[101] Housing for laborers cost 800lt, and a farmhouse cost 3,000lt[102] The total cost comes to 20,059lt, a conservative estimate, given that 27 years before, Notre-Dame's intendant des bâtiments put the cost of refitting a ferme "of the best condition" at 20,000lt.[103] If the average ecclesiastical ferme's area was 200 arpents (Saint-Denis' fermes averaged 193 arpents) the investment works out at 100lt per arpent. Marling, which was necessary in most of northern France, would have added between 14lt and 140lt per arpent, depending on its availability and the contribution of the tenant: marling could have added 42lt to the investment per arpent. 142lt corresponds to over £6 sterling, which would put ecclesiastical investment – at a minimum - at a similar value to Young's claim of £5 per acre in England.[104]

Conclusion

The article "Ferme" in the *Encyclopédie* urged landlords to provide fermiers with the necessary funds for improvements in order to increase the rental potential of their land.[105] During the eighteenth century, large ecclesiastical landlords around Paris did not need to be told this by

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[99] AN H5 3691 SD, Journal de la Depositairerie: Chapitre 8, des réparations, mai 1789.

[100] AN S5166 OM, Procès-verbal La Croix en Brie, 1788.

[101] AN S2244 SD, Devis de la Chaussée, des ponts et du pavé que Mr Courtier fermier de Marville devise faire, 1776. Excluding the costs of bridges and buildings, Courtier paid 11,275lt for 2,304 pieds of road, or almost 5lt per pied.

[102] AN S4994 2 45 OM, Procès-verbal Ivry le Temple, 1773.

[103] AN LL323 ND, 18 novembre 1762.

[104] Young, *Travels*, 301-3.

[105] [Charles-Georges Le Roy], "Ferme," in *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, etc.,* ed. Denis Diderot and Jean Le Rond d'Alembert (University of Chicago: ARTFL Encyclopédie Project (Spring 2011 Edition), Robert Morrissey (ed.), http://encyclopedie.uchicago.edu/), 6: 511.

external or lay *lumières*, nor wait until the agromania of the 1750s to invest in agricultural improvement. Like their English landlord and tenant contemporaries, though in different ways, French church landlords were capitalist in the sense that they used their capital to invest "heavily in the long term improvement of the land."[106] Church landlords' religious, corporate character facilitated rather than obstructed capitalist investment in farming. They needed to increase their incomes and had access to investment funds, but could not apply them to land acquisitions. Instead, their cash and expertise went to increase the productivity their lands, as their ability and tendency to think and act in the long term enabled them to pursue a policy and practice of maximizing rents in the long run through making their lands more profitable for fermiers.

Wealthy church landlords invested in improvements that increased fermiers' incomes through enabling them to produce more and to produce more profitably, by connecting fermiers more easily to higher value markets, by reducing their operating costs in labor and wastage, or by enabling fermiers to increase output by adding extra or freed-up labor inputs to production and away from storage and distribution activities. Initially, the weak rental market meant that ecclesiastical investment strongly benefitted the tenant. Later, much of the burden was shifted onto the fermier, but ecclesiastical landlords continued to subsidize and impose improvements, often in hidden ways that obscure both their influence and the capitalist nature of their behavior. Understanding the practices of church landlords helps explain how, through cumulative improvements within existing crop, crop rotation, fertilizer, and property structures, agriculture changed and output grew in the France of the religious, political, and agricultural ancien régimes. The Catholic Enlightenment was not merely cultural, elusive, and fragile, as it might appear from the historical literature. It had an agricultural aspect that was practical, significant, and lasting in its economic impact.

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[106] Overton, *Agricultural Revolution*, 204.

Chapter Two

Notre-Dame de Paris

Chapter one's copious examples of church landlords' expenditure on agricultural improvement in the period 1750-1789 offer a prima facie case that those investments were representative of the behavior of the church landlords that authorized them, but that is all. Due to gaps in the sources, the evidence for chapter one's survey of ecclesiastical practices was diverse, fragmentary, and intermittent, making it difficult to define representative behavior over time, in any particular church landlord, and by comparison with secular proprietors. A continuous series of financial accounts would provide such information, but most were lost in the nationalizations of 1789 to 1791 and their aftermath. However, the accounts of one large landlord, the chapitre de Notre-Dame de Paris, have survived in unbroken series, detailed, and in a consistently classified and so interpretable form for the years 1759 to 1788.[1] Happily, that period coincides with a developing crisis in French agriculture that saw price inflation, experimental agronomy, government interest in agricultural improvement and reforms, capital investment, and accelerating growth in output and productivity. This chapter uses the accounts of Notre-Dame to reveal the interplay between structure and agency that shaped the agricultural investment practices of that landowner. The sources and destinations of the chapitre's funds, its payback on investments, and changes in its tactics and strategies over time demonstrate that improvement was neither random nor negligent, but a disciplined, rules-based effort by an informed and

[1] AN H5 3384-3408 ND, Comptes, 1759-1787; Martine Le Roc'H-Morgère and Michèle Bimbenet-Privat, *Le temporel du chapitre de Notre-Dame de Paris et de ses filles: S 1A à S 942: Inventaire* (Paris: Archives Nationales, 1990), 16-7; Edgar Boutaric, "Le vandalisme révolutionnaire: les archives pendant la révolution française," *Revue des Questions Historiques* 7 (1872): 389. Faced with a deluge of meticulously preserved church records (39 wagon loads arrived from Notre-Dame alone), revolutionary archivists preserved the majority of the chapitre's enormous archives, but accounts predating 1759 were destroyed for their supposed lack of historic or administrative interest. Some were recycled as wrapping for the decrees of the Conseil d'état.

deeply involved landlord in partnership with tenants to apply funds where they would have most impact over the medium and longer term.

Notre-Dame's behavior contradicts Moriceau's and Hoffman's case that development occurred in the eighteenth-century as a result of fermiers acting alone or in response to exogenous effects, and it challenges Rosenthal's argument that the Revolution was central to the development of agriculture thanks to its institutional changes to property rights.[2] These narratives' shared neglect of the developmental significance of relations between landlord and tenants and of fixed agricultural capital stock is called into question by the sustained, heavy investment that, it will be shown, was central to Notre-Dame's behavior over the period 1759-1788, and which undermines the claim that the revolutionary transfer of church lands to the laity finally provided agriculture with the capital necessary to break out of its structural constraints.[3]

Notre-Dame poured funds into agricultural improvement in preference to other investments, and the religious character of the chapitre was fundamental to that choice. Notre-Dame's investment choices were partly structured by legal constraints and elite fears of the financial power and economic effect of church privileges and wealth, and partly by the agronomic interests of the managers of the chapitre. Notre-Dame methodically improved its fermes through a series of large investments while pricing its rents so that tenants could build their working capital. It behaved as an ideal improving landlord as defined by contemporary agronomy and even in current-day economic terms, by shifting capital back into the countryside, and it did so when lay landlords were shipping their surplus to Paris. Wealthy, improving church landlords like Notre-Dame acted as an accelerant rather than an obstacle to agricultural development. Their entrepreneurial culture, organizational competency, and the strength of the

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[2] Moriceau, *"Révolution agricole,"* 33-9; Hoffman, *Growth*, 201-5; Rosenthal, *Fruits of Revolution*, 47-58, 90, 172

[3] Bodinier and Teyssier, *Biens nationaux*, 443.

networks that linked them with tenant farmers meant this type of firm was not archaic but among the most suitable economic models for survival and growth in pre-industrial France.

The Eglise de Paris

The 51 canons who made up the cathedral chapitre de Notre-Dame de Paris enjoyed great privileges as the premier church of France. Founded in 754, the chapitre, rather than the archbishop of Paris, constituted the *église de Paris.* Its ancient, primary duty was to perform the cathedral's seven daily offices and high Mass. The canons helped run the archdiocese, but they answered to Rome, not to the archbishop, who could neither be installed nor even use the cathedral without their permission. They organized the cathedral's choir, music, and ceremonies, received the royal family on great public occasions, and attended court and parlement.[4] Supporting all this bustling activity, pride, and magnificence was the canons' other, constant concern, the growing wealth of their chapitre.

The extent, variety, and evolution of Notre-Dame's urban, rural, and financial property and revenues make it an ideal subject for analyzing the economic capacity of religious corporations. In 1790, the chapitre owned 81 houses in Paris, while outside the city it possessed 31 seigneuries, 74 fiefs, and six independent fermes. It owned 935 arpents of managed forestry and 8,174 arpents of agricultural land, and levied tithes over a further 35,603 arpents. The lands of Notre-Dame were mostly clustered around Paris in some of the most developed and valuable farmland in northern Europe, and were rented to 33 tenants, which makes them a large but feasible sample for study. A further 50 tenants leased the right to extract tithes where the chapitre owned no land. It held lucrative seigneurial rights, not least *lods et ventes*. Levied at a rate of 1/12th of the price of real property sold within its seigneuries in Paris and in the countryside,

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[4] Philippe Bourdin, "Collégiales et chapitres cathédraux au crible de l'opinion et de la Révolution," *Annales historiques de la Révolution française*, no. 331 (janvier - mars, 2003), 30-1; Meuret, *Notre-Dame de Paris*, 99, 31.

these rose with the property boom.[5] Lastly, the chapitre lent about 300,000lt (net of its own borrowings) to the city of Paris and the Crown.

The chapitre was diligent in liturgical performance and in managing its property. It scrupulously defended its privileges but avoided the bitterly politicized theological disputes of the time, diplomatically switching its opinions on Jansenism and Ultramontanism in line with successive archbishops of Paris. In 1790, the chapitre reported that its members came from all over France, and particularly Normandy, with seven coming from Paris. 44 of the 51 canons were ordained, and these well-connected priests maintained impressive corporate and individual *états*. Paid from the common fund, they lived in comfortable houses in the walled cloître Notre-Dame just north of the cathedral. Yet despite their corporate wealth, the large number of canons meant their individual incomes were lower those in smaller chapitres.[6] This gave the canons another incentive to improve their patrimony, which they did with dedication and practiced skill.

A permanent group of expert canons and lay professionals managed the chapitre's affairs. Two senior canons had overall responsibility; junior colleagues acquired experience as roving inspectors. These clerics worked with and closely monitored their highly paid lay comptable, archivist, and architect, whose offices and documents were required to be in the cloître. The chapitre assembled three times weekly to hear these administrators' reports and to make decisions. Notre-Dame was a corporation: its canon-administrators could and did influence the chapitre's agenda - if they were persuasive, which was not always the case.[7] Studying the chapitre over time provides a window into a community composed of individuals.

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[5] Pons Augustin Alletz, *L'agronome, ou, dictionnaire portatif du cultivateur contenant toutes les connoissances nécessaires pour gouverner les biens de campagne, & les faire valoir utilement, pour soutenir ses droits, conserver sa santé, & rendre gracieuse la vie champêtre* (Liège; Francfort; Bruxelles: 1761), 1: 466.

[6] Meuret, *Notre-Dame de Paris*, 104, 31, 4-5, 1, 10, 28; McManners, *Clerical Establishment*, 403.

[7] Meuret, *Notre-Dame de Paris*, 127, 72, 77-8.

The Accounts of Notre-Dame

The variety and evolution over time of Notre-Dame's property are accessible from its accounts due to their consistent format and (mostly) uniform treatment of transactions. The accounts cover receipts and expenditure in kind and in cash. One can trace movements of grain, rents, and payments, such as repairs conducted at fermes and other properties, and this data is reliable. Audits, the chapitre's supervision, professional and corporate pride and expectations, not to mention substantial personal financial guarantees from the comptable for his honesty and diligence produced accurate accounts. Notre-Dame's comptables were literally accountable for its finances: the comptable appointed in 1763 gave a guarantee of 50,000lt on the collateral of three houses in Paris, his successor in 1782 promised "each and every one of his possessions, personal and real, present and to come."[8] The accounts' emphasis on stewardship, however, means that these sources require some modification before they can be interpreted to reveal what was going on at Notre-Dame.

In line with contemporary practice for large organizations, the goal of Notre-Dame's accounts was to demonstrate successful stewardship of property. Criteria such as growth, efficiency, or return on investment were ignored, but the accounts are detailed enough to generate at least some of that information. The comptable listed receivable income, explained what was still due, and where the cash received had been spent, but from a current-day accounting point of view there are serious deficiencies in the information thus generated. As these are Single rather than Double Entry accounts, it is not certain that all transactions are included. There is no balance sheet, and assets and liabilities must be deduced. Internal divisions of income among the canons distort the accounts: 40% of cash rents were not booked to Notre-

[8] AN H5 3388 ND, Contract of appointment Pierre Marin, 2 mai 1763; AN L232 38 1-2 ND, AC Contract of appointment Jean-Charles Barbié, 7 janvier 1782.

Dame as they were allocated to another chapitre, so this notionally lost income has to be added back in.[9] Rent-in-kind was given no monetary value, but is so substantial that its value has been calculated and included for this exercise. "Extraordinary" costs and receipts are so large they must be reclassified to be comprehensible. In addition, the minimal, often laconic terminology used to label transactions can be difficult to interpret. For example, does *redressement* of a barn mean its reconstruction or repair? Do repairs to a *domaine* relate to agricultural or non-farm buildings?[10] Qualitative differences (e.g., between types of grain storage equipment) must be inferred from the value of the transaction, the authorizing canon, or other leads. The meaning to be drawn from aggregated transactions and values over time is often only apparent when viewed in charts, which have been used copiously in this chapter. Despite these challenges, Notre-Dame's accounts are a wonderful and apparently untapped historical source.

The adjusted cumulative total accounts for 1759-1788 (Table 2) show the sources and destinations of the chapitre's cash and their relative rankings. 50% of all cash received came from the countryside: 44% from rent from fermes, 2% from sales of income in kind, and 4% from forestry. A much smaller amount, 18%, came from rents on houses in Paris, 9% was earned from interest on loans, 9% came from lods et ventes, and 10% of cash receipts derived from capital deposits received from canons and the laity.[11] The biggest cost was the canons themselves (38% of all payments), followed by repairs to their properties in the countryside (12%) and Paris

[9] Meuret, *Notre-Dame de Paris*, 116. From 1740, no further canons were accepted into the chapitre of Saint-Germain-les-Auxerrois and its properties were transferred to and managed by Notre-Dame, on the understanding that their income would be paid to Saint-Germain's surviving canons until they became extinct, at which point the total would be inherited by Notre-Dame. In 1790, Saint-Germain's sole surviving canon from 1740 was also a (very wealthy) canon of Notre-Dame.

[10] AN H5 3408 ND, Comptes, 1784. Repairs are stated for the "différentes fermes composant le domaine de Rosay," by which I understood that this particular "domaine" was agricultural and not residential.

[11] The accounts are intended to show total cash movements. They do not differentiate assets and liabilities from revenues and costs, except by location in the accounts. Notre-Dame acted as a banker in its own right, lending and receiving cash at interest.

Table 2 Notre-Dame's Accounts, 1759-1788, as Adjusted for Analysis

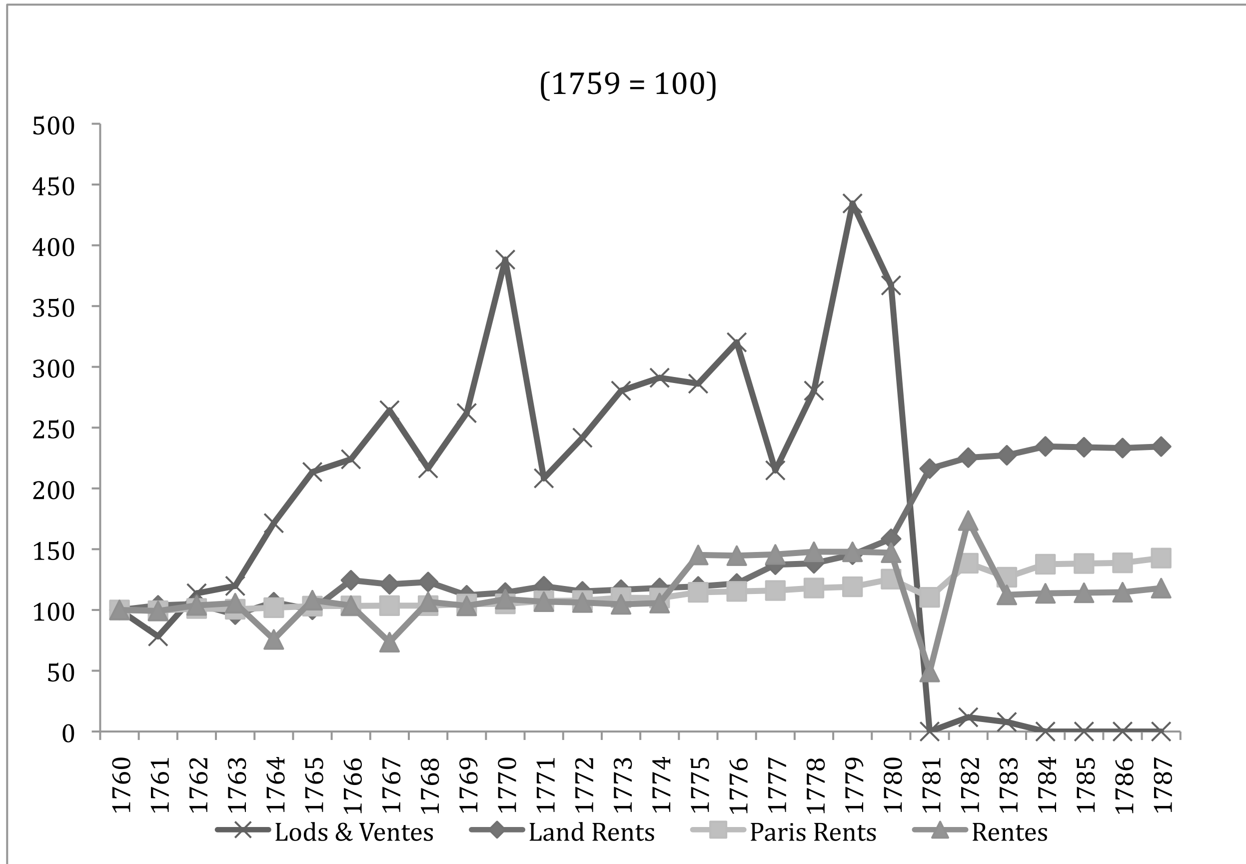
Cash Surplus/(Deficit) at November 1 1759			(31)
Cash Received			
Sales of Grain	1.6%	118	
Fermes de la Campagne	44.2%	3,320	
Produit des Bois	4.3%	320	
Rentes et Redevances de la Campagne	0.5%	41	
Loyers Maisons de Paris	18.1%	1,362	
Rentes et Redevances de Paris	2.7%	202	
Rentes, Aides et Gabelles	4.7%	352	
Revenus Prebende Morte	1.1%	81	
Miscellaneous Receipts	1.0%	73	
Lods et Ventes	8.7%	653	
Capital Receipts connected to Canons	10.0%	752	
Capital Receipts from laity	1.4%	108	
Petits Vins des Baux	0.6%	49	
Windfall Disposals	1.1%	83	
Total Receipts			7,514
Expenditure			
Distributions Messieurs	25.0%	(1,878)	
Rural Rents Allocated to St Germain l'Auxerrois	17.9%	(1,343)	
Decimes	5.6%	(417)	
Rentes dus aux messieurs, fabrique, curés	3.7%	(280)	
Gages, honoraires, officiers de justice, charges de police	2.9%	(221)	
Pensions Viagaires/Rentes	1.4%	(104)	
Enfants de Choeur	4.6%	(349)	
Reparations Fermes de Campagne & Maisons de Paris	12.3%	(922)	
Reparations Paris	9.1%	(686)	
Honoraires: auditeur, comptable, frais du compte	1.3%	(100)	
Miscellaneous	4.7%	(353)	
Charity	1.3%	(101)	
Capital Payments to Canons and Laity	8.5%	(640)	
Applied to Reprises	0.4%	(28)	
Legal Expenses	1.2%	(88)	
Total Expenditure	100.0%		(7,508)
Cash Surplus/(Deficit) at Otober 31, 1788			(25)

SOURCE: AN H5 3384-3408 ND, Comptes, 1759-1787.

(9%). 28% of rural income was reinvested in the countryside, but it would be difficult to evaluate the importance of rural reinvestment to the canons based on these cumulative values alone.

Chart 1 1ooks beyond this static information to show change over time, which helps contextualize rural income and expenditure by comparison to the chapitre's four main sources of

Chart 1 Notre-Dame's Growth in Revenue, 1759-1787



income over the years 1759 to 1788. Lods et ventes outperformed all other revenues as it rose with the property boom in Paris. The chapitre assiduously defended this income through updating its property registers and by litigation, but could do little to influence its growth. However, Notre-Dame's other sources of revenue - rural rents, +78%; urban rents +44%; and *rentes* (loans at interest), +14% - did grow at rates that reflected its policy of investing in rural investments above all other alternatives.

The Great Divergence

Agriculture was far from being the only possible investment for clerics seeking to increase their wealth. For Notre-Dame, the obvious alternative might appear to have been Parisian real estate. Rents in Paris were rising, and secular developers made fortunes as the city expanded and was in part rebuilt.[12] Abbeys whose properties were primarily within the city adapted their external walls for rental as shops and housing and tripled their income over the century.[13] Yet the chapitre invested little in the city until the late 1780s, and as a result missed the urban speculative boom and saw its properties decline in relative value due to their location in increasingly unfashionable areas.[14]

Over the period 1759-1787, Notre-Dame's Paris rents grew by 44% (Chart 2), a lackluster performance compared to rural rents, which rose by 78%. The poor returns from Parisian property were directly related to the chapitre's low rate of urban reinvestment, which only definitively exceeded its 1759 level in the late 1780s. Even that belated revival was involuntary: several of Notre-Dame's properties were judged to be in imminent danger of collapse "that threatened at any moment the lives of citizens" and it was obliged by the city to reconstruct an enormous block on rue de la Ferronnerie.[15]

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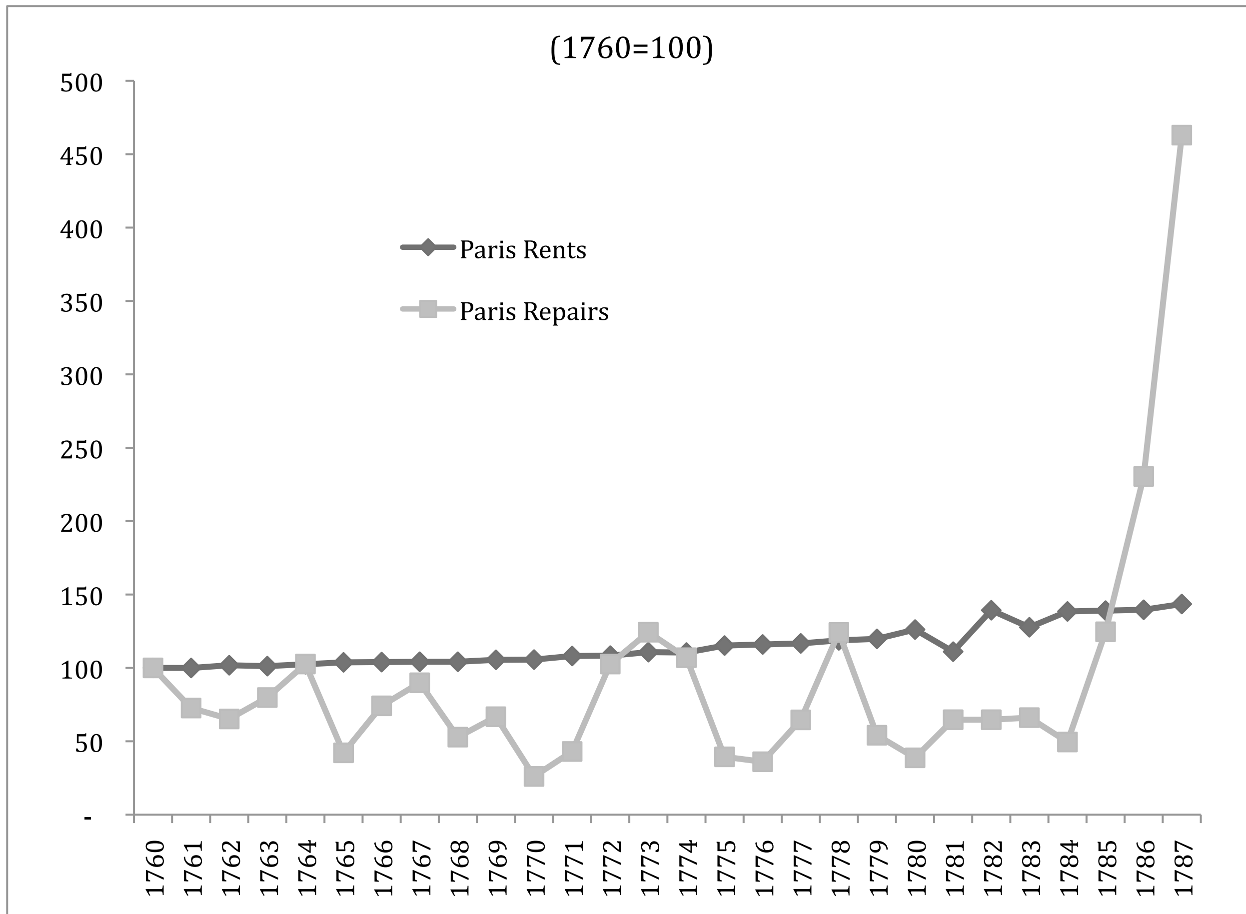
[12] Allan Potofsky, *Constructing Paris in the Age of Revolution* (Basingstoke, England; New York: Palgrave Macmillan, 2009), 35, 24-6.

[13] Preston M. Perluss, "Monastic Landed Wealth in Late Eighteenth-Century Paris: Principal Traits and Major Issues," in *The Economics of Providence: Management, Finances and Patrimony of Religious Orders and Congregations in Europe, 1773-c1930,* ed. Maarten van Dijck, Jan De Maeyer, Jimmy Koppen, and Jeffrey Tyssens (Leuven: Leuven University Press, 2012), 59-61, 64.

[14] AN H5 3408 2 ND, Comptes, 1787: Dépenses, dixième chapitre, réparations. Maisons de Paris. Reconstructing a single house in 1786-1787 cost 85,817lt.

[15] AN S33 ND, Plans Rue de la Ferronnerie; AN LL232 41 2 ND, AC, 16 novembre 1789. District of Saint-Germain-l'Auxerrois to the Municipality of Paris. The district sought the houses' immediate evacuation and demolition.

Chart 2 Notre-Dame's Rental Property in Paris, 1760-1787



The chapitre's aversion to investing in Paris was not only involuntary; it was a legal and political requirement. A royal edict of 1749 sought to tighten laws designed to prevent the growth of religious foundations, with the exception of those "truly useful to the public" for their charitable or teaching functions. The edict's declared purpose was to defend the king's subjects from being deprived by the growth of ecclesiastical possessions of the "funds naturally destined for the sustenance and the conservation of their families," to prevent property from being removed from "commerce" (in effect, the economy), and to protect seigneurs and the king from the loss of revenues on properties acquired by the church, which were exempt from seigneurial and royal dues. The law lamented the continued acquisitions of the clergy, complaining that they paid the punitive tax designed to deter their expansion "in the hope of making better use of the land they

acquired than former owners" had.[16] Popular and official perceptions of the superior improving capacity of church landowners were not only politically and socially problematic; they had a financial edge that deterred the chapitre from adding to or improving its properties in Paris.[17]

The edict of 1749 reinforced existing punitive royal charges on ecclesiastical purchases and improvements that made residential and commercial building in Paris uneconomic for Notre-Dame. The tax was payable on increased rent, which was visible in notarized leases. That the chapitre paid it only once in the 28 years after 1759 indicates its chilling effect on their attitudes to urban investment. In 1778, the canons spent 16,500lt to rebuild a house on the Ile de la Cité, and then increased its rent from 600 to 1,400lt. That did them little good: the tax, or *droit d'amortissement* – was the equivalent of four and a half years of the rent increase, and it delayed the breakeven period of the investment by the same period.[18] Amortissement charges were not evadible taxes, because alert, revenue-hungry royal and city officials avidly policed them.[19] In an unusual note to this entry in the books, Pierre Marin, Notre-Dame's comptable, wrote that it was "essential and de rigueur to alert the *Fermiers Généraux* [tax franchisees] before a reconstruction" began.[20] Amortissement charges made urban investments unattractive, given the brief lifespan of houses in this period (perhaps 30 years before they needed major reconstruction).[21] Notre-Dame could and did avoid this tax, however, by reinvesting only the

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[16] "Edit du mois d'aout, 1749," 13: 62-4.

[17] *Encyclopédie méthodique. Jurisprudence: Dédiée et présentée à Monseigneur Hue de Miromesnil ...* (Paris: 1782), 1: 332.

[18] The increase in rent was taxed by capitalizing it at denier 22, i.e., at 1/22 or 4.5%, which was then taxed at a rate of 28%.

[19] John McManners, *French Ecclesiastical Society Under the Ancien Régime: A Study of Angers in the Eighteenth Century* (Manchester: Manchester University Press, 1960), 119-20.

[20] AN H5 3403 ND, Comptes, 1778; AN H5 3403 ND, Comptes, 1779. The cancellation of the lease from the tenant, Cheveneau, a mere year later might seem contrived to obscure the real value of the rent increase, except that Cheveneau was buried, as the accountant carefully notes.

[21] Potofsky, *Constructing Paris*, 30. Preston Perluss disputes this, saying houses lasted far longer.

minimum required to maintain but not improve its urban rental properties, and by placing its surplus cash elsewhere.

Cash Flow

The edict of 1749 was designed to force the church (and its large, well organized, and predictable revenues) into becoming a captive financier of the Crown. Rentes to the king or the municipality of Paris (but not to individuals) were exempted from amortissement taxes, as the eminent jurist and *chancelier* of France Henri-François d'Aguesseau pointedly explained, with the aim, "as the king requires… of facilitating loans [from the clergy] which are for the good of the state."[22] John McManners (historian of the eighteenth-century French church) argues that ecclesiastical property

> was regarded, in a certain sense, as public property. It was held in usufruct, the clergy were its administrators, and the King, or the nation, or the 'national will' … could intervene to ensure it was used to best advantage.[23]

Quite possibly, though Notre-Dame had other ideas on the best use of its funds. Its net capitalized lending doubled in the period 1759-1787, but not because it lent much more as a rentier. The capitalized value (at 5% interest) of its income from lending grew just 13% from 1759 to 1787, meaning the principal lent grew from 423,000lt to 478,000lt. It became more of a rentier, in net terms, because its borrowings fell from a capitalized value of 275,000lt to 179,000lt.[24] The apparent move by Notre-Dame to greater lending is therefore misleading, even excluding the fact that by 1789 its borrowing had again expanded to include 565,322lt to satisfy the city's order that it rebuild its property around the now closed cimetière des innocents.[25]

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[22] D'Aguesseau, *Chancelier d'Aguesseau*, 13: 82.

[23] McManners, *French Ecclesiastical Society*, 118-9.

[24] AN H5 3384, 3408 2 ND, Comptes, Recettes. huitième chapitre : rentes. Dépenses, quatrième, sixième chapitre : rentes. Capitalized value is calculated using the formula interest/interest rate.

[25] AN S460 ND, Déclaration Générale du Chapitre de l'Eglise de Paris.

Notre-Dame did not put new funds into rentes, though in lending at interest it had a readily available, easily administered, fairly secure (though the toxic memory of the John Law crash proved long-lasting), and certainly profitable and untaxed investment. Dominique Dinet has concluded that Burgundian church landlords poured surplus cash into ecclesiastical buildings for lack of investment outlets.[26] Around Paris there was another alternative, rural investments, which (it will be shown) eclipsed Notre-Dame's faint moves into urban property and rentes. The canons were not content to sit on their money, which flowed to the investment that promised the greatest return. For them, that was agriculture, which differentiated them from lay investors, who in the Beauce and around Paris were reducing their dependence on rural property revenues.[27]

Secular proprietors diverted their funds away from agriculture because the returns on agricultural improvements could not compete with those from rentes. Between 1778 and 1787, Antoine Lavoisier, the wealthy financier, chemist, and agronomist, spent 389,000lt on new crop rotation régimes and animal breeds, which – very slowly, he admitted – succeeded in increasing the output of forage and manure (and so fertility) on the 2,258 acres of his fermes in the Beauce. But despite Lavoisier's commitment to applying agronomic precepts and English models, not to mention his equally exceptional level of investment, this enlightened improver *par excellence* failed to increase appreciably his net output of wheat or profit. He could not generate a 5% yield on his capital, and concluded that this explained why "wealthy fermiers near Paris, prefer to place any profit in public rentes than in agricultural improvement.[28] Despite Lavoisier's

[26] Dinet, *Religion et société*, 1: 379.

[27] Gérard Béaur, *Le marché foncier à la veille de la Révolution: Les mouvements de propriété beaucerons dans les régions de Maintenon et de Janville de 1761 à 1790* (Paris: EHESS, 1984), 131-2, 135-8, 214-7; Potofsky, *Constructing Paris*, 12.

[28] Antoine Lavoisier, "Résultât de quelques expériences d'agriculture, & réflexions sur leur relation avec l'économie politique…," in *Annales de Chimie* (XV: 1792), 299, 303-4; Jean-Pierre Poirier, *Lavoisier: Chemist, Biologist, Economist* (Philadelphia, PA: University of Pennsylvania Press, 1996), 121; Jean Boulaine, "Lavoisier, son domaine de Freschines et l'agronomie," in *Il y a 200 ans Lavoisier: Actes du colloque organisé à l'occasion du bicentenaire de la mort d'Antoine Laurent Lavoisier, le 8 mai 1794* (Londres: Lavoisier Tec and Doc, 1995), 87-8; André

disappointment his return on investment may *still* have been remarkably high: Gerard Béaur argues that real returns on capital invested in rural property were closer to 3%.[29] Poor returns on agricultural investment for secular landowners, along with some unintended consequences of anti-clerical criticism and legislation, meant that the canons of Notre-Dame were in the lonely position of investing heavily in agriculture when the tide of lay capital was flowing strongly into Paris.

A Program of Rural Investment

Having revealed the political, legal, and financial structures that deterred Notre-Dame from investing its surplus funds in urban property or rentes, it is time to analyze the chapitre's expenditure of 937,000lt on the repair and reconstruction of its rural properties between the years 1759 and 1788 (Table 3).

Bourde, *The Influence of England on the French Agronomes, 1750-1789* (Cambridge: Cambridge University Press, 1953), 193, 211.

[29] Béaur, *Marché foncier*, 313.

Table 3 Notre-Dame's Expenditure on Rural Repairs and Reconstruction, 1759-1788

Fermes, Forestry, and Communications		
Reconstruction/New Projects:		
Fermes	53%*	
Tithe Barns	3%	
Roads/Bridges/Dredging Rivers	3%	
Forestry (drainage, planting)	2%	
	___	61%
Repairs:		
Fermes	23%	
Tithe Barns	1%	
Mills	5%	
	___	29%
		___
Total Fermes, Forestry and Communications		90%
Other Repairs:		
Churches (initiated by the Chapitre)	4%	
Churches (imposed by the intendant)	2%	
Seigneurial Courts	2.5%	
Roadside Trees	0.4%	
Houses	0.7%	
Seigneurial Pews in Churches	0.3%	
Public Facilities	0.1%	
	___	10%
		___
Total Spending on Rural Repairs and Reconstruction		100%

SOURCE: AN H5 3384-3408 ND, Comptes, 1759-1787.

* This value includes items labeled reconstruction in the accounts (40% of all repairs) plus items not labeled as reconstruction but which appear to be so, given the very large expenditure in defined locations over one or two years (13% of repairs). Maintenance on the latter scale amounts to reconstruction.

Table 3 reveals the rural investment priorities of Notre-Dame. It was not greatly concerned about the condition of churches in its seigneuries, which perhaps is why church maintenance costs imposed by the intendant appear more frequently from the 1770s. The scant spending on publicly beneficial facilities (e.g., fountains, cesspits) also occurred by order of the intendant, as an imposition on landowners. The chapitre supported schools in 40 rural parishes, but did so using funds from the bequests of a handful of canons rather than from current

income.[30] The priority was improving agricultural assets: farm buildings, a handful of tithe-barns, roads, bridges, river dredging, and planting forests on uncultivated ground.[31] A little was spent on marling, which lease terms made the responsibility of the tenant and for which no compensation was paid, but *nothing* else was spent on land improvement (e.g., drainage) outside of forestry, perhaps because serious deficiencies in the chapitre's lands had been resolved centuries before.[32]

Notre-Dame's response to the Crown's campaign for défrichement was political, defensive, and unimportant to the investment priorities of the chapitre. Expensive and sometimes dramatic though it was, Notre-Dame's direct expenditure on land improvement was merely a distraction that is best appreciated as a contrast with its overwhelming and enduring focus, the improvement of farm buildings. In line with their belief that only wealthy fermiers had the capital and agronomic knowledge to improve agriculture, agronomists envisaged that défrichement would be undertaken by improvers with large capital to invest. As an incentive, the Crown promised tax and tithe exemptions to entrepreneurs who would bring wasteland into cultivation. In 1761, Notre-Dame, led by the canon with responsibility for managing its temporal property, Jean-Lucien Lucas, volunteered to suspend tithes and champarts (levied at a rate of 1: 9 on crops and animals) on such lands for twenty years.[33] Land improvement was a political gesture for the chapitre, and its payback was certainly not economic.

Land improvement was financially expensive for Notre-Dame. In the 1770s, relatively

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[30] AN H3405 ND, Comptes, 1780: Dépenses, dixième chapitre, réparations. 39lt for a cesspit; H3399 ND, Comptes, 1774: Dépenses, dixième chapitre, réparations. 376lt for a water trough, 42lt for a school. Meuret, *Notre-Dame de Paris*, 148-9.

[31] AN S182B ND, Belloy, Notre-Dame to Minister, 15 janvier 1772.

[32] In a conversation with me in July 2014, Gilles Postel-Vinay observed that Notre-Dame's lands had been improved long before the eighteenth century, and had relatively few problems to begin with.

[33] Bourde, *Influence of England*, 87-8; Bourde, *Agronomie et agronomes*, 2: 1121-2, 1144, 1147, 1124; AN H1495. The representatives in the société of the great Parisian abbeys of Sainte-Geneviève and Saint Germain-des-Prés followed suit within weeks. The seigneurial due of champart was generally levied in the Paris region at a rate of one sheaf or animal in nine.

poor "improvers" unexpectedly occupied and cultivated part of Notre-Dame's heath at Sucy, which the chapitre then scrambled to survey, along with its other heaths, to determine how much land might be lost through adverse possession.[34] The squatters were bought out, expensively, and the chapitre drained, enclosed, and afforested the heath. The chapitre then installed its architect and forestry expert, Nicolas Parvy, as co-tenant of the new wood, and allowed him to defer rent payments until he could realize an income from the mature timber.[35] The expenditure deployed to improve the heath amounted to just 22% of the cost (including rents foregone) by 1788, and the chapitre could not expect a return before 1800. Sucy was not the only defensive "investment" made by the chapitre to protect tenant revenues and its property. In 1777, the chapitre successfully sued in its seigneurial court the day-laborer Joachim Vilvis, who had "unduly cleared 7 arpents" of its land at Rosay-en-Brie. Vilvis was ordered to abandon the land and demolish the house he had built, for which the chapitre paid him 240lt. It then spent 16,365lt to afforest the property.[36] Yet for all this drama and expense, défrichement was no more than an irritating distraction from Notre-Dame's real agricultural priority.

Notre-Dame's capital expenditure was overwhelmingly concentrated in the chapitre's 33 rural properties with lands (as opposed to its 50 landless tithe properties). In absolute terms, the 937,000lt involved is impressive, but its significance for the chapitre's role as a rural proprietor lies in the rate of reinvestment it represented, which can be calculated by adjusting the chapitre's accounts to reflect its real sources and destination of funds. Excluding the 23% of rents arising from tithe-only properties and including the cash value of rents in kind reveals the rent from productive fermes. These adjustments reveal that 31% of rents from properties with land was

[34] AN H5 3396, 3400, 3403 ND, Comptes, 1771, 1775, 1778.

[35] AN H5 3408 ND, Comptes, 1785. The deal with the "habitants" cost 3,639lt; AN H5 3408 2 ND, Comptes, 1787. Parvy owed six years' rent to the chapter in October 1788, and he was also overdue for his houses in Paris.

[36] AN H5 3395-3407 ND, Comptes, 1770-1782; Meuret, *Notre-Dame de Paris*, 96.

reinvested in productive farm buildings from 1759 to 1787. Chapter one's sample of ecclesiastical reinvestment (which excludes data from Notre-Dame) puts the highest rate of ecclesiastical reinvestment at 24%. Notre-Dame's far higher, 31% rate of reinvestment was driven by large-scale reconstructions: the chapitre spent 22% of revenues from landed properties on reconstructions and 9% on repairs, and, as Table 4 shows, reconstruction was concentrated among a few major fermes in a systematic, if uneven, multi-decade program of improvement.

Table 4 Notre-Dame's Expenditure on Reconstruction per Decade, 1758-1788

Date of Build	Location	'000lt			Growth in Total Rent	Réunion*
1758-1763	Larchant	28			+153%	1772
1763-1764	Ferrieres	9			+153%	
1765-1766	Damart	17			+92%	
1765-1770	Belloy	99			+113%	1773
1770	Vitry	27			+150%	
			180	36%		
1770-1775	Orly	7			+123%	
1775-1776	Andresy	8			+113%	
1776	Rosay en Brie	46			+173%	
1778	Mons	5			+63%	
1777-1779	Wissous	23			+175%	1771
			89	18%		
1780-1782	Grande Paroisse	7			+23%	
1782	Épône	12			+44%	
1782	Ivry	7			+83%	
1782	Sucy	8			+72%	
1784	Wissous	7				
1782-1785	Mory	43			+110%	
1782-1787	Andresy	29				
1782-1787	Viercy	57			+144%	1780
1783-1787	Brégy	40			+43%	
1787	Belloy	20				
1787	Rosay en Brie	8				
			236	46%		
Total 1758-1788			504	100%		

SOURCE: AN H5 3384-3408 ND, Comptes, 1759-1787.

* [1] A *réunion* was the term used when two nearby fermes that had been separately leased were combined into a single working unit under one lease.

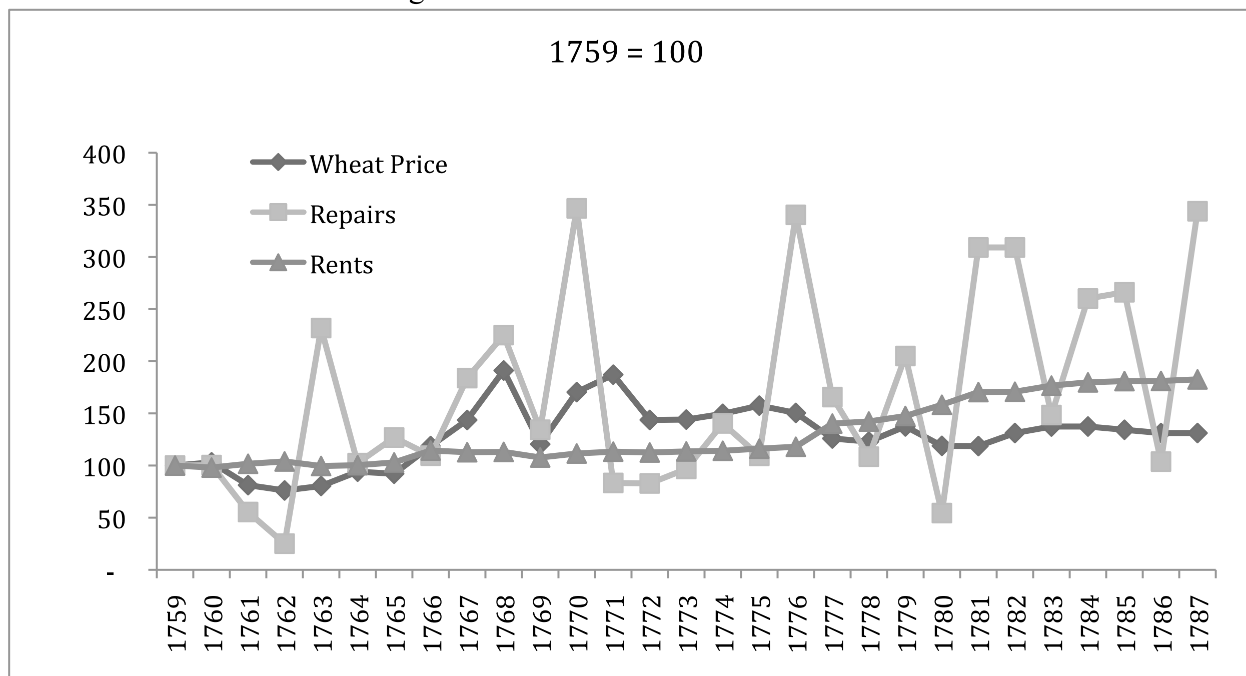
Reconstruction was heavy in the 1760s, fell sharply in the 1770s, and rebounded in the 1780s. The pace of reconstruction varied but was continuous, with the chapitre planning and working through improvements to fermes over long periods. For example, in 1767, the chapitre sent its architect, Parvy, and the canons that served as inspectors of buildings to see whether the fermes of Viercy and Villaroche should be united into a single unit, with one farmyard. Yet only in 1782 was it reported that in preparation for the imminent réunion of those fermes, Parvy was having

the "sheep-house, cowshed, and stable" reconstructed according to his estimate.[37] Such delays were inevitable, given the scale of reconstruction required, but progress was steady. By 1788, 18 large fermes had been reconstructed at least in part, and just two were outstanding.

Agronomy and Power

The capacity and confidence of the canons of Notre-Dame to invest in their rural properties were sharply increased by the sudden, strong inflation in grain prices from the mid 1760s and its concomitant promise that fermiers would be able to afford higher rents from rising profits. There is prima-facie evidence of a link between wheat prices, rents, and investment at Notre-Dame: Chart 3 appears to show some positive correlation between expenditure on repairs

Chart 3 Notre-Dame's Signals for Investment?



and wheat prices, particularly in the 1760s and 1780s. The coefficient of correlation between the two over the years 1759-1787 is positive (+0.33), though weak. That suggestion is strengthened by smoothing annual fluctuations in repairs on a rolling three-year average basis, which produces

[37] AN LL232 31 ND, AC, 4 mars 1767; AN LL232 38 1-2 ND, AC, 7 mars 1782.

a marginally stronger correlation (+0.45) between wheat prices and repairs, and a much stronger correlation (+0.64) between repairs and rent. The remainder of this chapter explains the relationship between wheat prices, rent, and investment at Notre-Dame, which, though strong, was not deterministic, but depended on the interests of an agricultural improver – canon Lucas - becoming routine institutional practice.

Lucas was elected *chambrier* of Notre-Dame in 1762 and he served in that key position until 1774. The *Encyclopédie* defines a monastic chambrier as one who looks after revenues. Notre-Dame's chambrier was "the busiest man in the chapitre," whose duty it was to examine "cost estimates, reports, [and] plans" and to make frequent visits to its properties.[38] Nevertheless, Lucas also found time to play a prominent role in the Société royale d'agriculture of Paris, which he attended from its foundation in 1761. His name appears first on its list of members, reflecting the precedence enjoyed by the église de Paris, but also Lucas' serious intention and efforts to improve French agriculture.[39] Lucas' interest in agronomy was not unusual: among the elite, the publication in 1750 of Duhamel de Monceau's *Traité de la culture des terres* had prompted widespread experimentation, publication, and controversy. Lucas was different because he had an exceptional opportunity and capacity to do more than talk about improvement.[40]

Lucas' intimate knowledge of local conditions and his financial capacity to translate improvement into practice differentiate him from almost all other associates of the Société royale d'agriculture. That glittering assembly of clergy, princes, financiers, academics, and judicial figures contained powerful individuals who were in many cases interested in agricultural improvement. They included Turgot, economist and intendant of Limoges, Bertin, royal *contrôleur général des finances* and agrarian reformer, and natural historians Buffon and Thouin

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[38] [Boucher d'Argis] "Chambrier," *Encyclopédie,* 3 : 66; Meuret, *Notre-Dame de Paris*, 78, 127.
[39] *Almanach royale* (Paris: 1762), 488-9; Société d'agriculture, *Délibérations*, 8, 21.
[40] Bourde, *Agronomie et agronomes*, 2: 1124, 3: 1572; AN H1495.

of the botanical Jardin du roi, all worthies that have been extensively studied for their ambitious but mildly effective attempts to remake France.[41] Those intellectual, administrative, and naturalist associates of Lucas in the agricultural society had little familiarity with or power over conditions on fermes. The lone *laboureur* (independent farmer) who was an associate member had nothing like Lucas' financial resources, and neither Turgot nor Duhamel had Lucas' capacity to increase utility in practical terms.[42] By contrast, Lucas' initiatives extended into practice and were institutionalized, and that process reveals an historically new aspect of the improving Enlightenment.

The canons knew they were getting an expert on agricultural buildings when they elected Lucas as chambrier, and from that position he launched Notre-Dame's program of radical and expensive reconstruction and repairs to farmyards. Lucas had served as an intendant des bâtiments since 1759, visiting fermes with Parvy, the chapitre's architect, and approving invoices from builders.[43] He had also learned how to make a persuasive case for action to the chapitre. In 1759, he read to the canons a letter from the curé of Belloy-en-France, in the great grain region north of Paris, which warned that the chapitre's two fermes there required "urgent and necessary repairs." By prompting the chapitre to instruct Lucas and Parvy to visit Belloy and report back on the fermes' condition, that helpful letter started the process that would lead during his time as chambrier to the unification of the fermes into a single unit, the demolition of one farmyard, and the expenditure of 99,000lt on the complete reconstruction of the other in order to service the

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[41] Charles Gillispie, *Science and Polity in France at the End of the Old Régime* (1980; reprint, Princeton; Oxford: Princeton University Press, 2004); Emma Spary, *Utopia's Garden: French Natural History From Old Regime to Revolution* (Chicago: University of Chicago Press, 2000); Bourde, *Agronomie et agronomes*, 3: 1079-1279; G. Matthew Adkins, *The Idea of the Sciences in the French Enlightenment: A Reinterpretation* (Newark, Del.: University of Delaware Press, 2014), 70-80.

[42] *Almanach Royal*, 488-9; Société d'agriculture, *Délibérations*, 8, 21; Henri-Louis Duhamel du Monceau, *Traité (supplément au traité) de la conservation des grains et en particulier du froment, par m. Duhamel du Monceau* (Paris: 1754), x.

[43] AN LL232 29:1 ND, AC, 29 mars 1760.

consolidated farm. Following this investigation, in 1762, newly installed chambrier Lucas informed the chapitre that conditions at the fermes were so bad that the only option was complete reconstruction over five or six years, and rather than rebuild both it would be a “wise economy” to make a single, larger, unified farmyard.[44]

In fostering the réunion of the chapitre’s two adjacent fermes at Belloy, Lucas was implementing a controversial reform, which agronomists justified in the name of enabling the enlightened owner – through his fermiers - to better and more efficiently exploit the land. The fermier would be able to exploit the land more economically, for example by saving time while performing the repeated plowing recommended by agronomists.[45] Increasing productivity through rationalization was socially risky, and on the scale of Belloy it was enormously expensive and unsustainable, absorbing as it did 20% of Notre-Dame’s entire spending on reconstruction in all fermes over three decades. Lucas’ apparently foolhardy initiative and the canons’ approval become more understandable, however, when the confluence of timing and grain prices is considered.

Work began at Belloy in 1766 and went on until 1770. By coincidence, those five years saw a sudden and massive inflation in grain prices that fed directly into Notre-Dame’s revenues, for, in addition to cash payments, the total annual rent for Belloy included 20 *muids* of wheat, and other fermes contributed another 59.5 muids of wheat. The average price of wheat at the Halle of Paris rose 66% from 172lt per muid in the years before construction (i.e., 1759 to 1765) to 286lt during the building period (1766-1770), generating average annual rent-in-kind increases of 9,223lt for all fermes, including 2,320lt for Belloy. Notre-Dame’s total rent-in-kind windfall

[44] AN LL323-4 ND, 26 février 1759, 18 novembre 1762.
[45] Bourde, *Agronomie et agronomes*, 3: 1469-70, 1473-77.

during the five years of the building of Belloy was thus approximately 46,000lt, which comfortably covered the 40,000lt jump in the final cost of the project.

The case of Belloy is significant not as an example of uncharacteristic extravagance or lax control of spending, which it was not (as will be demonstrated in chapter five), but for revealing Notre-Dame's priorities and reinvestment strategy. The canons could have distributed the rent-in-kind windfall of the 1760s among themselves. Instead, they reinvested it at Belloy. When grain prices fell in the 1770s, the chapitre's grand farm projects were pared back too, and only recommenced in the 1780s when grain prices began to rise again. As in contemporary Scotland, improvers invested when prices were good, and cut back when they fell.[46] However, prices were not the sole driving factor in investment spending (it will be shown that suitable opportunity played a role too). Rather, ambitious managers such as Lucas skillfully adapted their tactics to manage structural circumstances in pursuit of consistent long-term goals.

A major part of Notre-Dame's strategy was to protect and nurture the fermiers of properties like Belloy as well as the infrastructure they operated, which helps explain why the phenomenal expenditure at Belloy resulted in feeble nominal rent increases. Nominal rents rose 4% in 1767, when the fermier's grain prices were rising fast and work was half complete on the new farmyard, and only 7% in 1773, when work was finished. Even the increase of 52% in 1782 meant Belloy's cumulative rise in nominal rents of 69% since the 1750s was far below Hoffman's average for all landlords' lands in the area, whether they were improved or not. Admittedly, this slow rise in rents at Belloy came as the fermier, Claude Meignan, absorbed costs normally paid by Notre-Dame. After the reconstruction, the chapitre paid for no repairs at Belloy for almost twenty years, an unprecedented situation given that it generally spent something on all fermes every year, and all the more surprising given the likely damage

[46] T. C. Smout, "A New Look at the Scottish Improvers," *Scottish Historical Review* 91, no. 1 (2012), 134.

sustained by the ferme when it was raided by a crowd during the Flour War of 1775.[47] Absorbing normal wear and tear might have added 10% to Meignan's rent. Further, even if his rents never rose, the level of reconstruction at Belloy would have imposed a heavy cost burden on Meignan. As with all Notre-Dame's fermiers, his lease (as the chapitre noted while mulling over the proposed reconstruction) made him responsible for carting building materials to and around the ferme and the adjacent ferme as it was demolished.[48] This was no minor expense. Carts and their horses and labor were among the most expensive costs on a ferme. It may be that Meignan's resources were exhausted by six years of unpaid haulage, and that this was reflected in the relatively slow rise in his rent. The main reason for the glacial pace of increase in Meignan's nominal rent, however, was the previously mentioned increase in the value of Belloy's rent payable in kind from the mid 1760s.

Notre-Dame's dramatic windfall from the grain price inflation of the 1760s was the fermier's loss. Chart 4 shows the value in livres tournois of Meignan's increased rent in cash and in kind from 1759 to 1788. The base value of the rent in kind is taken as the average value for the years up until grain price inflation took off, in 1766, which, coincidentally, was when reconstruction began on the ferme.

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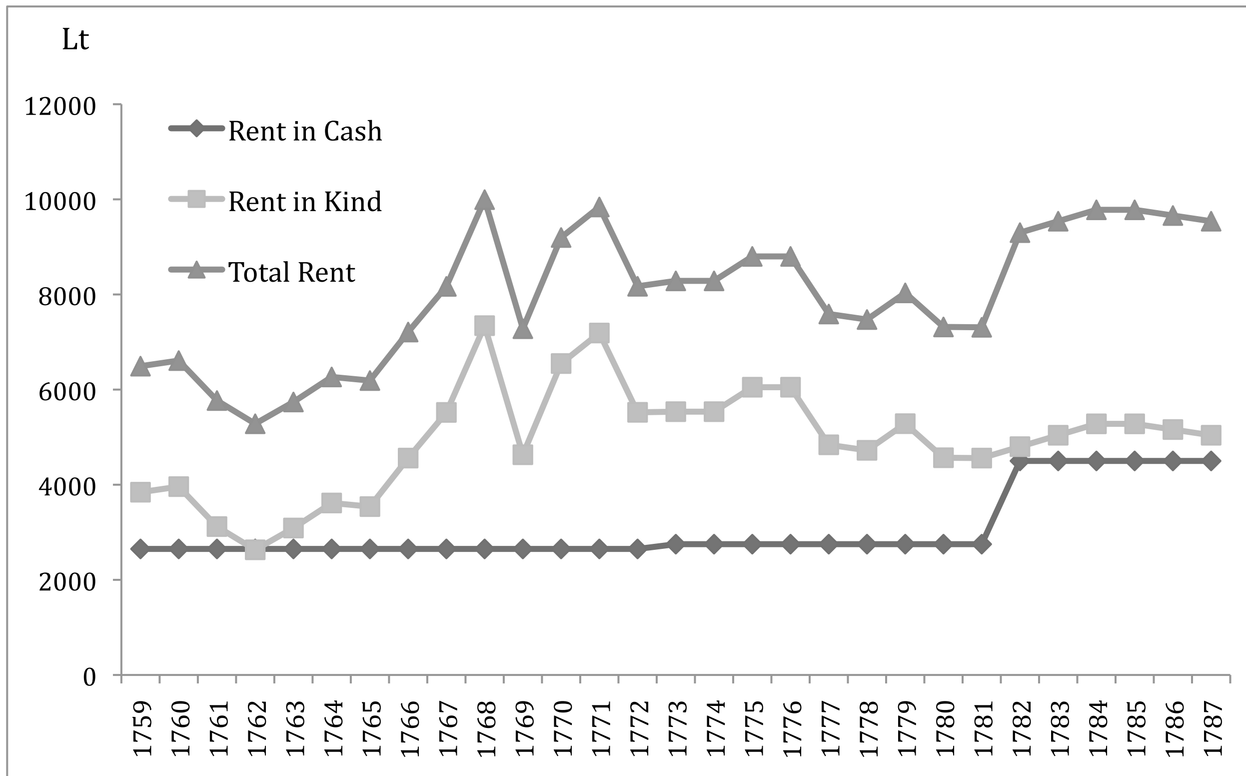
[47] Bouton, *Flour War*, 200.
[48] AN LL323-4 ND, AC, 1 mars 1762.

Chart 4 Notre-Dame's Rents from Belloy Valued in Livres Tournois, 1759-1787



It is difficult to imagine that Meignan was indifferent to the value of his rent in kind of 20 muids, fixed in volume though it was. As higher prices almost invariably meant a smaller harvest, 20 muids probably represented a greater share of his output in the high price years after 1765. Paying 20 muids to Notre-Dame meant he had less opportunity to make up for lower output by selling at a high price, and this while he was providing free transport for the materials for the rebuilding of Belloy. Instead, the fermier saw the value of his total rent rise 39% from an average of 6,050lt for 1759-1765 to 8,370lt for 1766-1770. In 1768 and 1771, Meignan's total rent was worth almost 10,000lt to Notre-Dame.

Notre-Dame's puzzlingly low nominal rent increases from the first lease renewal after rebuilding, in 1773, become explicable as a means of partly compensating for the windfall surplus it was receiving from the ferme. Nominal rents did not substantially increase until 1782, when grain prices had fallen sharply and inexorably from their peaks a decade earlier. As a

result, the annual total value of rent paid for Belloy in the late 1780s was no more than it had been in the late 1760s. In 1788, the cumulative total rent increase of 113%, though hardly negligible, was less than the average rent increase imposed by all landlords in the Ile-de-France. The delay in increasing nominal rent relieved pressure on the fermier, thus indicating that Notre-Dame was conscientious about the impact of rent costs on his profitability. The cash rent was only increased when Meignan would have had time to recover from the cost of reconstruction in the late 1760s and the villagers' raid on the ferme during the Flour War in 1775, and when grain prices were much reduced from their peak.[49] The aim clearly was not to maximize rents in the short term, but to bring fermiers safely through to being able to profit from their improved farmyards. As the next section will demonstrate, this policy was neither limited to Belloy nor a solo initiative by Lucas, but the institutionalized practice of the corporation of Notre-Dame.

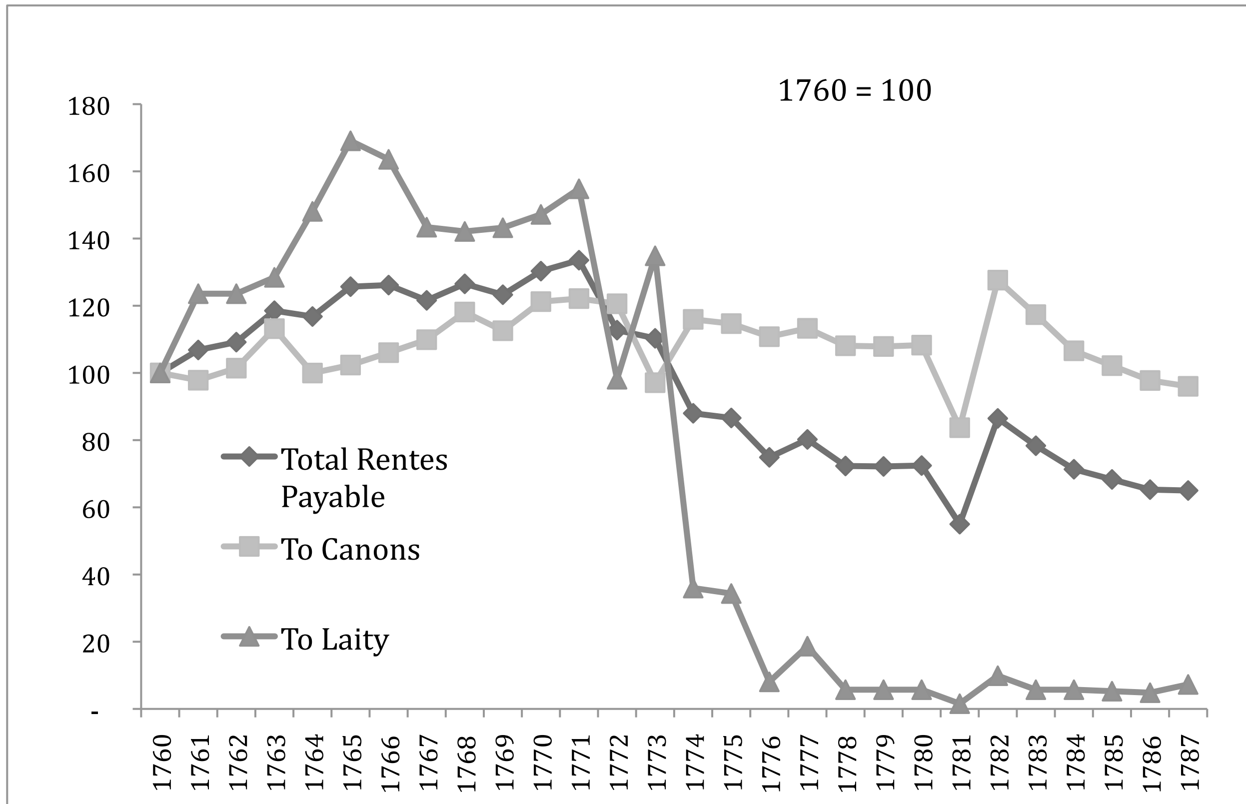
Improvement as an Embedded Practice

Organizing tenant and ferme development was a core strength of Notre-Dame. It might seem farfetched to argue that the practice of investment in agricultural improvement was institutionalized there, given the sustained fall in expenditure on farm buildings after Lucas retired as chambrier in 1774. At first sight, the new chambrier, Canon Pierre Delon, would appear to have abandoned Lucas' high investment policy. In the 11 years when Lucas was chambrier the chapitre spent 189,093lt on reconstructions, equivalent to 33% of all the cash land rents it received. While the majority of this sum could eventually be covered by rents, the chapitre had to borrow heavily to make up the shortfall. By 1772, borrowings had risen by 92,000lt, and on several occasions the chapitre had to reduce its lending by 100,000lt. To judge by the subsequent sharp drop in spending on reconstructions in the 1770s, the concurrent and

[49] Bouton, *Flour War*, 200.

rapid paying down of borrowing, and the rebuilding of cash reserves, the chapitre took fright at the risk of insolvency posed by Lucas' highly leveraged reconstructions (Chart 5).

Chart 5 Notre-Dame's Rentes Payable



During the 1770s, rural investment fell to 50% of its level in the previous decade. Borrowings never again rose above 70% of their 1760 level, even when heavy reconstruction expenditure resumed in the 1780s.

Notre-Dame could have continued to borrow funds through its long-serving notary, who would have acted as a broker between borrower and lenders, as was common in Paris.[50] The chapitre, like other religious institutions, was an attractive refuge for secular deposits. In 1764, its lenders included clergy, bourgeois and their widows and daughters, the widow of a marquis, a procureur of the parlement, and (a mark of confidence if ever there was one) the chapitre's

[50] Philip T. Hoffman, Gilles Postel-Vinay, and Jean-Laurent Rosenthal, *Priceless Markets: The Political Economy of Credit in Paris, 1660-1870* (Chicago: The University of Chicago Press, 2000), 113, 118.

comptable and its secretary.[51] Secular lenders, arguably, were no longer necessary as rents rose in the 1770s and 1780s, but investment was deferred in the 1770s to rebuild cash reserves and to pay off loans. The speed of the reduction in borrowings after Lucas' removal in 1774 indicates that this was a key reform of the new chambrier, but if so its importance was tactical rather than strategic.

While borrowing for investment declined after Lucas, there was considerable continuity in the practices that helped Notre-Dame overcome the financial limits of its investment capital. As previously mentioned, Lucas had diverted the windfall from the inflation of rent-in-kind. In 1763, he had also used quarrying revenues from Larchant to pay 20,000lt of the 28,000lt it cost to reconstruct that ferme.[52] The practice of converting what might be called non-performing assets into capital was endemic to Notre-Dame, before and after Lucas. In 1755, Canon Claude Joly bequeathed to the chapitre his magnificent collection of 300 medieval manuscripts, some of which dated from Merovingian times. Within a year the lot were sold to the king for 50,000lt, to pay for repairs to the sacristy of the cathedral.[53] More prosaic but equally sensitive negotiations with the Crown also generated useful cash for specific projects. By royal regulations dating back to Colbert in 1669, forestry owners had to maintain but not to cut one quarter of their best woodland, and the boom in building and a resulting shortage of timber made these *quarts de réserves* very valuable, potentially. The chapitre (and other religious foundations) could and did ask the Crown for permission to sell reserves to cover capital costs. In 1758-1763, Notre-Dame raised 18,000lt from the sale of its quart de reserve at Rosay-en-Brie in order to pay for a road

[51] AN H5 3389 ND, Comptes, 1764.

[52] AN LL232 30 (1-2) ND, AC, 12 novembre 1763.

[53] Charles Samarin, "Les Archives et la bibliothèque du Chapitre de Notre Dame," in *Huitième Centenaire de Notre-Dame de Paris (Congrès des 30 mai-3 juin 1964). Recueil des travaux sur l'histoire de la cathédrale et de l'église de Paris* (Paris: Vrin, 1967), 174.

costing 16,000lt.[54] The sale of reserves accelerated under Lucas' successors. In the 1770s, the chapitre sold quarrying rights for 20 years for 25,000lt, and in 1782 it sold part of a quart de reserve for 6,000lt in order to pay for reconstruction costing 42,000lt at its ferme at Mory.[55] In 1788 (outside the period covered by Notre-Dame's surviving accounts), the chapitre secured authorization for the sale of forest reserves at Outrebois and Sénart for 138,021lt to cover reconstructions at the fermes of Mory, "the major part of the ferme of Viercy," and Brégy.[56] The chapitre's allocation to agriculture of the proceeds of such privileged deals helps explain not only the rapid investment of the time (the latter works cost just 138,931lt for all the fermes), but the canons' commitment to improvement.[57]

The fall in rural investment cannot be attributed to any reduction in the canons' identification of their interests with that of the program. As Chart 6 shows, there was a strong correlation between distributions to the canons and the rising level of agricultural rents over the years 1765-1780, and the divergence only occurred when lods et ventes income was reallocated from the chapitre to another part of the cathedral's clergy.

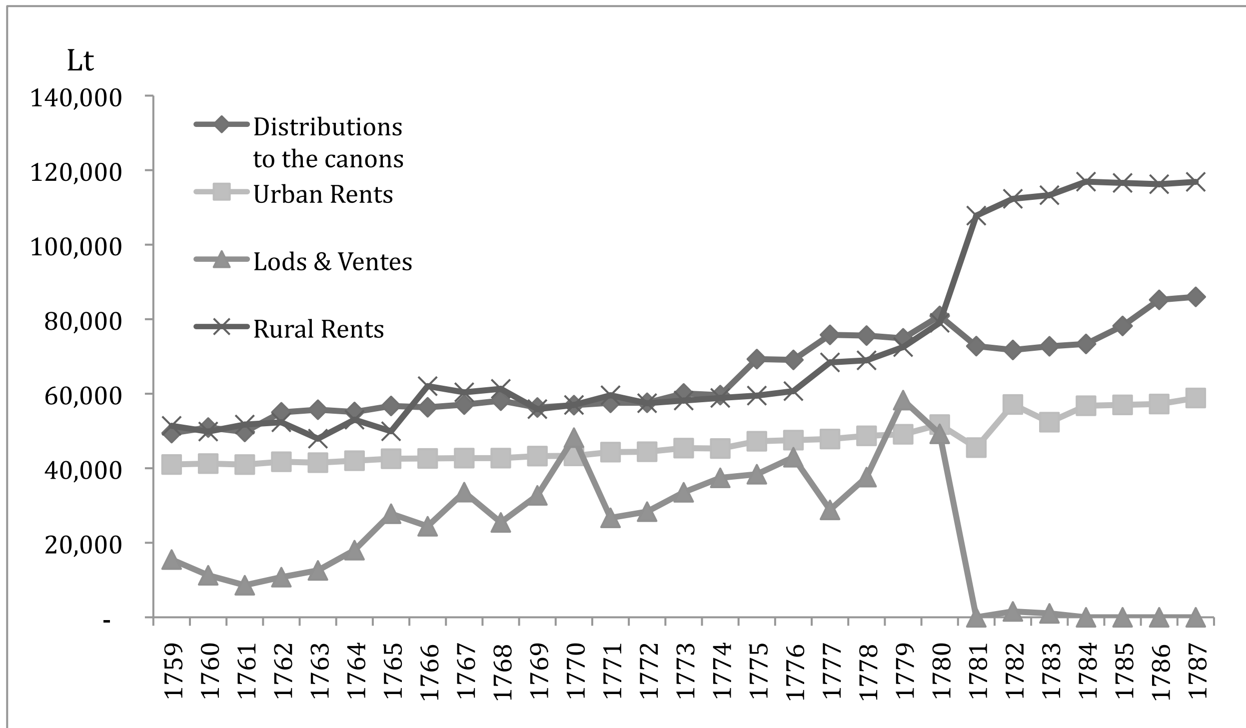
[54] AN LL343-344 ND, Chapter Meetings, 5 & 22 mai 1758, 5 mars 1759, 20 mars 1762.

[55] AN H5 3402 ND, Comptes, 1777; AN H5 3406 ND, Comptes, 1781.

[56] AN LL232 41 1 ND, AC, 9 janvier 1788; Robert Chodron de Courcel, *La forêt de Sénart, étude historique par Robert de Courcel* (Paris, Champion, 1930), 36, 40.

[57] AN LL232 41 (2) ND, AC, 21 mars 1789.

Chart 6 Notre-Dame's Annual Income in Livres Tournois, 1759-1787



When that occurred in 1781, rather than cut the value of rural investment – their preeminent discretionary expenditure – the canons cut distributions to themselves. As when Lucas ploughed the rent-in-kind windfall back into investments, the improvement program came before the short-term interests of the individual canons. The degree to which their incomes tracked rural rents helps explain the centrality of those rents to their welfare and why they consistently authorized such large expenditures on rural farm maintenance and reconstruction. The demand for income alone was not sufficient for investment, however. It was not any breach with Lucas but fluctuations in the missing factor, suitable opportunity, which drove the evolution of spending up to 1787.

It can be difficult to keep track of Notre-Dame's investments in its 33 fermes, never mind to interpret them. This chapter has followed trends for all fermiers, but such viewpoints reveal little about why particular fermiers were favored or ignored, any patterns behind improvement

decisions, or the criteria for investment appraisal. To clarify Notre-Dame's behavior, Table 5 shows when building occurred for the years 1759 to 1787 for 10 of the chapitre's 33 fermiers, a significant sample, given that those tenants held 51% of Notre-Dame's farmland, and received 85% of its building expenditure on reconstruction. The year of the lease is shown to the right of each calendar year (e.g., 1759 = year 1 for Belloy). This table also shows other major events. The

Table 5 Lease History of the Major Fermes of Notre-Dame

Ferme	Belloy	Bregy	Damart	Ferrieres	Larchant	Mory	Rosay	Viercy	Vitry	Wissous
Arpent	229	304	144	160	666	353	1379	296	221	416
Locale	France N	Brie	France N	Brie	Gatinais	Brie	Brie	Gatinais	France S	France S
Rent +	113%	43%	92%	153%	153%	110%	173%	144%	150%	175%
1759	1	3	3	8	Build 6	3	1	6	7	7
1760	2	4	4	9	Build 7	4	2	7	8	8
1761	3	5	5	1	Build 8	5	3	8	9	9
1762	4	6	6	Build 2	Build 9	6	4	9	1	1
1763	5	7	7	Build 3	Build 1	7	5	1	2	2
1764	6	8	8	Build 4	2	8	6	2	3	3
1765	7	9	Build 9	5	3	9	7	3	4	4
1766	Build 8	1	Build 1	6	4	1	8	4	5	5
1767	Build 9	2	2	7	5	2	9	5	6	6
1768	Build 1	3	3	8	6	3	1	6	7	7
1769	Build 2	4	4	9	7	4	2	7	8	8
1770	Build 3	5	5	1	8	5	3	8	Build 9	9
1771	4	6	6	2	9	6	4	9	1	1
1772	5	7	7	3	1	7	5	1	2	2
1773	1	8	1	4	2	8	6	2	3	3
1774	2	9	2	5	3	9	7	3	4	4
1775	3	1	3	6	4	1	8	4	5	5
1776	4	2	4	7	5	2	Build 9	5	6	6
1777	5	3	5	8	Build 6	3	1	6	7	Build 7
1778	6	4	6	9	Build 7	4	2	7	8	Build 8
1779	7	5	7	1	Build 8	5	3	8	9	Build 9
1780	8	6	8	2	9	6	4	9	1	1
1781	9	7	9	3	1	7	6	1	2	2
1782	1	8	1	4	2	Build 8	7	Build 2	3	3
1783	2	Build 9	2	5	3	Build 9	8	Build 3	4	4
1784	3	Build 1	3	6	Build 4	Build 1	9	Build 4	5	Build 5
1785	4	Build 2	4	7	5	Build 2	1	Build 5	6	6
1786	5	Build 3	5	8	6	3	2	Build 6	7	7
1787	Build 6	Build 4	6	9	7	4	Build 3	Build 7	8	8

period between the death of the male lessee and the succession of his adult son as tenant is shaded in gray. A border between years indicates the transfer of a lease to a new family. The Meignan family held Belloy throughout the period, for example (at Claude Meignan's death in 1781 his widow held the lease until 1787), whereas Brégy went to a new family in 1784. The

table also shows the area in arpents and the cumulative rent increase for each ferme. While Notre-Dame's officers left few surviving written explanations of their decisions, the contextual information provided by Table 5 reveals patterns that can be interpreted as the chapitre's rules for farm investments. (Those patterns appear strong enough to cover unplanned, inevitable reconstructions, such as after fires, though there is little available information on when these occurred.)

The first insight gleaned from Table 5 is that the slowdown in building began in 1771, three years before Lucas left office, and so was not a departure from his practice. Why was nothing then built until 1776? Because the early 1770s saw an unusually heavy death toll among the male lessees (four out of ten fermes, versus one in the 1760s) of the chapitre's largest fermes - Rosay, Wissous, Ferrières, and Larchant - and it was only from 1776 that the tenancies of those fermes came close to providing the security that the chapitre required before committing itself to investment. During the 1760s, Notre-Dame invested only in fermes held by an adult male lessee, such as Belloy. In the 1770s, all investment went to the fermes of widowed lessees in the years just before the widow's adult son took over the lease at the next renewal (Larchant and Wissous, 1777-1779), as the chapitre prioritized investment for young fermiers and a very few new tenants.

From 1776 to 1779, those male minority fermes were the only ones that were rebuilt, while sitting adult tenants had to wait until the 1780s. Improvements to widows' fermes were undertaken towards the end of lease periods to provide a ready farmyard for the male successor or new tenant (Damart 1765-1766, Rosay 1776). The sexism of Notre-Dame's investment policy did not mean it evicted widows. Despite frequent male lessee deaths, leases rarely transferred to new families, even when the period until the maturity of the son was lengthy. The widow

Mongrolle held Ferrières from 1766 until her son took the renewed lease in 1779; the widow Aubouin held Wissous from 1768 until her son became its fermier in 1780. (The chapitre's wariness of investing in widowed fermières may have arisen from the laboureur belief that managing fields and merchants, the male's arena, and the household and *basse-cour*, the female's, required a couple.[58]) Improvements at Brégy did not begin until 1783, the year before the aging Georges Dardel was replaced by the D'Huigne family. By contrast, improvements to the fermes of male lessees tended to straddle lease periods (Belloy 1766-1769, Larchant 1758-1763, and Mory 1782-1785), suggesting that, if happy with tenants, Notre-Dame timed construction so fermiers' enormous haulage costs could be absorbed over 18 rather than 9 years.

The lease practices of the chapitre were an embedded economic routine, in the sense of being stable, regular tasks undertaken in response to circumstances by several actors. Strong individuals like Lucas or Delon might have influenced the degree to which they were undertaken, but there is still a recognizable pattern.[59] Notre-Dame's rest in the 1770s from the hectic investment pace of the previous decade was not a break with Lucas' policy of investment in development. The canons prioritized investment into the fermes of three of the four widowed fermières whose son was about to take over the lease (the fourth widow's ferme had already been rebuilt). When the chapitre invested more widely in the 1780s, as in the 1760s, it timed construction to ease pressure on tenants. The practice of improvement was therefore far from being a case of agronomists gone wild or haphazard development. Investment grew out of the chapitre's close reading of the needs and capacity of current and future generation of fermiers as much as the condition of the buildings. On their regular inspections tours the canons had time to appraise the worth of tenants and their families. Improvement meant nurturing tenants and

[58] Moriceau, *Fermiers*, 315.

[59] Michael Dietrich and Jackie Krafft, *Handbook on the Economics and Theory of the Firm* (Edward Elgar Publishing, 2012), 245.

directing funds towards young fermiers, but it was never applied so widely among tenants as in the last years of Notre-Dame.

The timing of the chapitre's investment in farm buildings was closely related to its expectations of securing rent increases. In 1788, the *actes capitulaires* (minutes of the Notre-Dame's thrice-weekly assemblies) record the chambrier's recommendation that a tithe-barn be repaired immediately as the lease on the property was in its final year, because "otherwise the persons who would present themselves for the tenancy would not carry their bids as high as they might." Seven days later the canons approved the 2,700lt estimate for the repair.[60] In the early 1760s, building works coincided with rent increases far greater than the static or single digit rates common to the decades before the grain price inflation of 1766 (Ferrières +26%, Larchant +60%, and Damart +38%). In the 1770s, the widowed fermières of Wissous, Larchant, and Ferrières were aided by *zero* increases in rent, but c. 1780 their sons paid an extra 56%, 57%, and 100% to take over those recently improved fermes. The minor rent increases generated by unimproved fermes provide further evidence of this link between building and rent. No rent increases were secured at Brégy from 1759 until rebuilding finally began in the mid 1780s, and even then the gain was an underwhelming +43%. Damart's rent rose precociously when it received a relatively small (17,000lt) improvement in 1765, but nothing more was spent there and in 1787 the cumulative increase was 92%, well below the triple digit growth in the other fermes. Grande Paroisse (not included in Table 5) received an even smaller investment of 7,000lt, and returned the lowest cumulative increase of all, +23%.

The rent and building interventions of Notre-Dame were not mentioned in leases and were of too short a duration to be visible to Hoffman's longue durée analysis of the tenants of the chapitre, but they nevertheless affect his productivity evidence and conclusions about the timing

[60] AN LL 232 41 1 ND, AC, mai & 4 juin 1788.

of the takeoff of agricultural development in the Ile-de-France. Growing tenant surpluses-before-rent are only picked up by Hoffman's TFP measures when rents rise. If rents are flat, profits before rent – a proxy for productivity gains - are also presumed to be flat. As a result, the extra profits earned and kept by the widowed fermières of Ferrières and Wissous during the rent holiday they enjoyed throughout the 1770s, before their sons acceded as lessees c. 1780 (when rents rose by +100% and +56% respectively) are invisible to Hoffman. That exaggerates the productivity gains he sees in the years 1775-1790 and understates the gains of the previous quarter century, indicating that productivity gains occurred decades earlier than his evidence suggests. That distortion in TFP underscores the importance of examining the practice and culture of landlord-tenant relations rather than presuming that tenants were merely responding rationally to exogenous opportunities and institutions, as he does.

For the canons of Notre-Dame, improvement was a means to increase their rents. When the widowed fermières' sons signed up for large increases in rent for improved fermes they were responding competitively, as the canons expected them to. The canons did not maximize rents in the short term, but they were not pushovers either. Their decisions to invest were taken on an economic basis, in the expectation of generating improved returns, net of building costs, over the medium term. As the cumulative rent totals in Table 5 reveal, Notre-Dame granted generous terms to struggling laboureur families it wanted to retain and nurture, but within a decade those families were paying much increased, competitive rents. Over the long term, the chapitre's improved fermes, including Belloy, generated significant returns that would have repaid investment within one or two lease periods and so were self-sustaining.

In applying both economic criteria to its investments *and* deliberately under-pricing subsequent rents for the best part of a generation, Notre-Dame's behavior was similar to that of

nineteenth-century English landlords. They had similar reinvestment rates: 31% for English landlords, 33% for Notre-Dame. Like Notre-Dame, English landlords invested in the hope of generating a superior long-term return, but their rents were generally not maximized in the interest of permitting tenants to invest in improvements.[61] Despite their differences in history, organization, and environment, both types of landlord evolved very similar, and similarly effective, strategies that channeled surplus funds into agricultural development and managed rental income to maximize long-term returns.

The behavior of Notre-Dame demonstrates that wealthy church corporation landlords, though ancient and privileged, could put enormous sums back into developing the rural economy, and young fermiers in particular, when secular landlords were sending their rural income to Paris. Careful protections for young tenants, when needed, and challenges, when capable, along with enhancing the output of mature fermiers, may have provided as good a support for tenants who were reorganizing and adding value to production as any landlord could offer. At a minimum, church corporations like Notre-Dame contributed strongly to the dynamism of the rural economy, and they provided support for agricultural development that secular landlords could not.

That effectiveness in terms of agricultural and therefore economic development grew out of a core resource - organizational knowledge - that was right for the period. Excluded from other investments, large, wealthy church landlords like Notre-Dame were forced to concentrate on developing their fermes, a task that was facilitated by their close connections to fermiers, to the extent that, in economic terms, the "firm" of Notre-Dame could be said to include tenants. Certainly their interests, though legally external, played a major role in determining how

[61] Michael Edward Turner, J. V. Beckett, and B. Afton, *Agricultural Rent in England, 1690-1914* (Cambridge; New York: Cambridge University Press, 1997), 22-3, 201.

managers such as Lucas or Delon implemented rent and investment strategies. This effective partnership in sharing fermiers' agricultural surplus generated knowledge of the needs and potential of the chapitre's lands that enabled both fermiers and Notre-Dame to thrive. *Pace* Hoffman's view that tenant farmers made their own success, the resource or knowledge perspective of theory of the firm provides a framework for seeing a much wider, informal but none the less powerful organization at work in the particularly impressive rent generation – and, by implication, production and profits – of the fermiers of the chapitre by comparison with the performance of the tenants of secular landlords around Paris and in the rest of France. Without understating the role of fermiers in changing their output and inputs to generate greater profits, agricultural growth also arose from the cooperation of landlord and tenants and led to the chapitre's fermes around Paris generating the agricultural growth that Hoffman has demonstrated was unmatched in late ancien régime France.

Given its structural constraints, Notre-Dame might have struggled to compete as a firm had an agricultural depression removed the rising rents that its organizational resources translated into an investment program, but then French agriculture prospered into the 1870s. It is difficult to speculate how the chapitre might have adjusted to the abolition of tithes and seigneurial dues had it survived the 1790s, but secular landowners did quite well after the National Assembly allowed them to raise rents to absorb the former tithes in 1790, and Notre-Dame might have done the same.[62] Given its successful flexibility in developing fermiers and rent, the Notre-Dame model had the organizational capacity to successfully compete with secular landowners. The continuity of the strategy of fermier and ferme development demonstrates the commitment of the chapitre to fostering technological change, not in aspirational terms but

[62] John Markoff, *The Abolition of Feudalism: Peasants, Lords, and Legislators in Revolutionary France* (University Park, PA: Pennsylvania State University Press, 1996), 480.

through the routines of its analysis and treatment of lands and tenants. (Chapters four and five will reveal the strength of Notre-Dame's organizational/knowledge capacity in its agronomic and accountancy officers.) As a firm, its routines and the relationship between internal managers and external tenant farmers meant it might well have been able to survive and thrive in the new régime. As firms, there was nothing archaic about church landlords such as Notre-Dame, either in their form or their economic role.

Conclusion

Between 1759 and 1788, the chapitre of Notre-Dame de Paris engaged in a massive program of agricultural investment in the building stock of its extensive agricultural property. Far from inhibiting that initiative, the corporate, ecclesiastical character of the chapitre ensured that its rate of reinvestment exceeded that of secular landlords, as royal restrictions on church investments drove Notre-Dame out of the urban property market. Yet it did not opt for the safe alternative of lending at interest, but invested heavily and systematically in the reconstruction of its largest fermes.

The pace of Notre-Dame's investment in improvement varied according to the funding policy of successive chambriers, but their strategy remained the same: to put the great majority of the chapitre's investment capital into agricultural improvement. The canons tried and rejected funding investments through borrowing, but that caution did not inhibit investment in the longer term, because they had the ingenuity, intellectual interest, connections, and experience to increase the efficiency and productivity of their income and assets through innovatory, institutionalized practices of investment and management.

The timing of the major investments of the chapitre shows that they conformed to rules or routines whose aim was to nurture fermiers capable of repaying investment through higher rents

in the medium term. The timing and value of rents and expenditure on improved facilities were cards played in a long game, for improvements were strongly associated with above-normal rents, whereas unimproved farms generated below-market rents. Vulnerable tenant families were sheltered from competition, sometimes for over a decade, but improvements to their fermes signaled an imminent return to market rates. Established families were equally expected to pay more for investments, though, again, the timing of building works and rent increases was designed to minimize short-term pressure on fermiers. The relatively low cumulative rent increases imposed by Notre-Dame are not a sign of laxness or charity, they arise from the snapshot effect of cutting off rent levels in 1787, before a new generation of investments could bear fruit. The investment behavior of the canons of Notre-Dame is a sign of their commitment to nurturing tenants, and also of the importance of capital stock to increasing productivity, given the demonstrable link between investment levels and rent increases among the chapitres' fermiers. This contradicts Hoffman's and Moriceau's views that fermiers alone broke the old structural limitations of agriculture in the Ile-de-France, along with their presumption that fixed capital levels were unimportant for productivity and development. Notre-Dame's careful and informed tenant management would have greatly helped the fermier of the Parisian grain-belt whose exceptional productivity and ability to pay high rents are the basis of the current historiographical consensus that here, at this time, began true agricultural development in France.

This microhistory provides evidence of investment process, practice, and context that was missing in chapter one. The value of the canons' reinvestment in improvement shows how church landlords played an active and consequential role in capital investment in agriculture that contradicts historical depictions of ecclesiastical landownership as a particularly severe obstruction to economic development. In Schumpeterian economic terms, Notre-Dame was an

entrepreneurial and technological innovator whose behavior was superior to secular landlords'. The chapitre showed no sign of struggling to survive as a firm because its partnership with tenants generated long-term growth.

The Notre-Dame example gives church landowners a more prominent historical role in agricultural improvement, reveals the strengths of corporate management structures in long-term development, and highlights ecclesiastical techniques and attitudes towards capital investment that will be further discussed in chapters three, four, and five. The behavior of the canons also reveals that farm improvement should not be seen as a discrete agricultural or even agronomic process. It was also shaped by the urban economy and by cultural attitudes towards the social role of Catholicism, as well as by Enlightenment anticlericalism. As such, it diminishes the importance of the Revolutionary land settlement as a necessary condition for real economic development, and gives the church an unexpected role in the dynamism of the ancien régime and in a corporate French path to modernity.

Chapter Three

Improving Abbeys

A central hypothesis of this dissertation is that church landlords invested heavily in improvement in their agricultural properties. Large, sustained spending on investment presupposes the financial capacity to support such a policy (such as existed at Notre-Dame), but what does that precondition mean for the improvement potential of the many ecclesiastical proprietors who were nearly insolvent, most notably the greatest and most ancient church landowners of all, the Benedictine abbeys? An incapable, cash-poor bloc of landlords might seem likely to contribute little to the development of agriculture. Given the scale of the Benedictines' landholdings, their investment in improvement matters in terms of the dynamism of the ancien regime economy, which is why this "hard case" will be examined now, to weigh the strength of my argument that church landlords were able to make a decisive contribution to agricultural development.

Benedictine agricultural practices have not received much historical attention, though Dominique Dinet's study of religious landowners in three dioceses in Burgundy and Champagne concludes that, as under-capitalized, passive, and ineffective proprietors, their primary economic role was as large consumers of food, clothing, building materials, and services rather than on the supply side.[1] The far wealthier abbeys of the Paris region were also under financial strain and so might seem likely to be feeble economic actors, but as this chapter shows, political necessity, ignored by Dinet, ensured that they, too, could play an important role in encouraging improvement in agricultural output.

This chapter examines the improvement practices of the 35 Benedictine abbeys of the Congrégation de Saint-Maur in northern France through the preeminent monastery of Saint-

[1] Dinet, *Religion et société*, 1: 395, 410-3.

Denis, whose indebted financial situation was typical of the other Maurist abbeys and whose sources are unusually strong and, at times, revealing. The changing behavior and discourse of Saint-Denis shows that the agricultural policies of monastic church landlords were a function of their environment and of Enlightenment criticism, as well as their need for revenue. The rising prestige of agronomy, the idolization of agriculture and the improved and improving laboureur, along with growing criticism of the land stewardship of the clergy, posed a challenge and an opportunity for clerics seeking to defend Catholic landownership. From the decision-making and management processes and capacity of Saint-Denis emerged an ostensibly conservative - though in reality, radical - Catholic moral economy of improvement. That ideology was translated into practice through a strategy of indirect investment that got around financial constraints and satisfied the urgent need to alter political conceptions of church landownership. This response was far from predetermined. The leaders who created it were aware of new agronomic ideals of landowner practices, and the leader who abandoned it reverted to traditional means of defending church privileges, though not before this strategy of improvement had shifted a significant amount of agricultural surplus from landlord to tenant, relative to all other landlords in the region. The financially typical case of Saint-Denis and its rent policies indicate that given the external pressures of late Enlightenment France, even cash-poor church landlords had the incentive and the means to realign their landownership with new cultural expectations that aided agriculture and protected the privileges of church landownership.

This chapter is also intended to help solve the puzzle of the rent policies of church landlords: their failure to keep pace with the rent increases of secular landlords. That lag is particularly jarring as it meant that the return on investment of church landlords was sometimes poor, particularly for very expensive projects. Hoffman argues that rent increases of “79 to 120

percent" were common in the Ile-de-France.[2] Yet the total rents of Saint-Denis' fermes rose by just 62% between 1726 and 1785, and that 62% masks considerable variances. Some rents more than doubled, those of some major fermes rose by barely 78%, and rents from étangs (fish ponds) fell by 9%.[3] Saint-Denis was not alone in the modesty of its rent increases: the nominal rents of the fermes of Notre-Dame de Paris grew by 80% in the years 1759-1788.[4] (That shorter period provides a comparable basis given that rents were almost flat throughout the Ile-de-France until their takeoff in the 1760s). This discrepancy between ecclesiastical and secular rent increases was widespread: Hoffman's sometime co-researcher and writer, Gilles Postel-Vinay, has concluded that after the confiscation of the clergy's properties in 1790, tenants found that their new, secular landlords took a much larger part of their surplus than the clergy had.[5] In part, this clerical "leniency" stemmed from the old expectation among tenants that church landlords should and would rent on more favorable terms than those of the laity.[6] This chapter shows, however, that tenants benefitted primarily from this protection because the leasing and investment decisions of even financially embarrassed church landlords were informed by the needs of agricultural improvement and the protection of church proprietors' privileges as the impact of Enlightenment anticlericalism threatened these ancient corporations.

Indebted Abbeys

As agricultural change accelerated between 1760 and 1789, the Benedictine priors who directed the great landowning abbeys of northern France were preoccupied not by improvement but by survival. Dom Pierre-François Boudier, grand prior of Saint-Denis from 1772 to 1778 and

[2] Hoffman, *Growth*, 104.

[3] AN S2381B SD, Déclaration des biens et revenues des Religieux de Saint Denis, 1755; AN H5 3699 SD, Compte général de la Cellerie, 1785.

[4] AN H5 3384-3408 ND, Comptes, 1759-1788.

[5] Gilles Postel-Vinay, *La rente foncière dans le capitalisme agricole: Analyse de la voie "classique" du développement du capitalisme dans l'agriculture à partir de l'exemple du Soissonnais* (Paris: F. Maspero, 1974).

[6] McManners, *Clerical Establishment*, 101-5.

from 1781 to 1786, sighed that "I would succumb to an excess of sadness, if I thought only of the evils that afflict us." Boudier was an experienced administrator who knew the challenges facing the Benedictines, as he had been prior of Bayeux, Séez, and Bec before acting as superior-general of the Maurist congregation from 1766 to 1772. As superior-general, Boudier had presided over the bitter Benedictine conferences that attempted to reform the monasteries and repress their dangerous strife. Litigation by monks against their superiors for "despotism" threatened to invite Jansenists in the parlement of Paris to adjudicate on church administration, repeating the intervention that led to the suppression of the formerly invincible Jesuits in 1764.[7]

Much of the strife among the Benedictines and the criticism they faced stemmed from their success in adapting to the needs of the eighteenth century. Whereas lay critics imagined idle, selfish *solitaires* contemplating death and their salvation and contributing nothing to society, most male religious orders, and particularly the Benedictines, were busily engaged with the world. Benedictine monks – "the foundation of modern historical studies" - wrote religious and secular histories, or taught in the order's many secondary colleges and military academies, which expanded to help fill the void left by the sudden expulsion of the Jesuits. These activities were thought to require new and expensive premises for both students and monks. The residential areas of abbeys such as Saint-Denis were rebuilt on a palatial scale, and individual rooms with fireplaces replaced austere dormitories. (Saint-Denis' eighteenth-century accommodation has the appearance of an elegant chateau, which is not surprising given its architects' royal connections. It has proved sufficiently grand, large, and enduring to house the secondary school for female descendents of the Legion of Honor since 1811.) Benedictine monks dressed and dined well in their new homes. As the then Benedictine the abbé Prévost wrote to a

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[7] J.B. Vanel, *Les Bénédictins de Saint-Maur à Saint-Germain-des-Prés, 1630-1792: Nécrologe des religieux de la Congrégation de Saint-Maur décédés à l'abbaye de Saint-Germain-des-Prés* (Paris: 1896), 340, 342; McManners, *Clerical Establishment*, 603.

fellow monk in 1735, "If I am on the road to heaven, I find the carriage very comfortable… when next you see me you will find me half as fat again as I was."[8]

The "luxury" of Benedictine monasteries, which McManners describes as "a comfortable religious club," became a target for envious churchmen. Post-Tridentine pastoral orders such as Vincent de Paul's Lazarists had long argued that Benedictine wealth should be used to support (Lazarist) seminaries, missionaries, teaching, and charitable projects.[9] Close connections between the Lazarists, the royal family, and ministers made this a formidable though latent threat, which revived in the 1760s when several bishops denounced the Benedictines' wealth and splendid lodgings. Eventually, the Crown and the hierarchy established the Commission des Réguliers (1766-1780) to deflect judicial and public criticism of the religious orders by reforming them.

The Commission des Réguliers had authority to investigate and rationalize the structure of the monasteries if they were deemed to have insufficient numbers and income to survive. Some were closed, and their property was transferred to the local bishop.[10] Most Benedictine abbeys were too powerful to be expropriated, but they did not escape the commission's criticism of their administration. In 1767, the commission denounced administrators – like Boudier - for the "luxury" that burdened monasteries with "an immense and terrifying debt."[11] The abbeys' debts, often incurred to fund the rebuilding of their residential accommodation, became the focus of the commission's investigation, and an annual charge of 3.2% of gross revenues was imposed

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[8] McManners, *Clerical Establishment*, 599-601; Jean Sgard, *Vie de Prévost, 1697-1763* (Saint Nicolas, Québec: Presses de l'Université Laval, 2006), 52-3; Antoine-François Prévost to abbé Leblanc, 10 septembre 1735, in Henry Harrisse, *L'abbé Prévost: Histoire de sa vie et des œuvres d'après des documents nouveaux* (Paris: 1896), 250-1.

[9] AN S6660 CM, Déclaration au Clergé des biens du Prieuré de Coudres, 1726.

[10] Owen Chadwick, *The Popes and European Revolution* (Oxford: Oxford University Press, 1981) 220; McManners, *Clerical Establishment*, 602-4, 608-9, 614, 571-2; Beales, *Prosperity and Plunder*, 171.

[11] Pierre Chevallier, *Loménie de Brienne et l'ordre monastique, 1766-1789* (Paris: Vrin, 1959), 46-7, 52, 119-22; McManners, *Clerical Establishment*, 572-5.

on each monastery to pay off the debts of insolvent Benedictine abbeys over 25 years.[12] The commission's reforms, though minor, set a precedent not just for crown tutelage of the church but the confiscation of 1789.[13] In the two decades before that, however, it meant that the great landowning abbeys were not politically in a position to fund major capital projects even if they could afford to, which generally they could not.

Saint-Denis was typical of Benedictine abbeys in spending the 1770s and 1780s focused on austerity and debt reduction rather than investment. Table 6 shows that while the borrowings of Saint-Denis and most other Maurist abbeys peaked in absolute terms in the 1760s, debt reduction was slow over the following decade.

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[12] Pierre-Toussaint Durand de Maillane, *Dictionnaire de droit canonique et de pratique bénéficiale*, 3rd ed. (Lyon: 1776), 1: 300-1.

[13] Beales, *Prosperity and Plunder*, 178.

Table 6 Debts of the Abbeys of the Congrégation de Saint-Maur

	1752	1758	1768	1772	1782
Borrowings ‘000 Lt					
Saint-Denis	598	629	637	601	616
Saint-Germain-des-Prés	622	544	670	388	371
Next 10 Abbeys in size of revenue	656	1,263	948	1,143	1,268
Remaining 23 Abbeys	278	269	540	357	376
All Abbeys	2,154	2,705	2,795	2,490	2,631
Borrowings 1752 = 100					
Saint-Denis	100	105	107	101	103
Saint-Germain-des-Prés	100	87	108	62	60
Next 10 Abbeys in size of revenue	100	193	145	174	193
Remaining 23 Abbeys	100	97	194	128	135
All Abbeys	100	126	130	116	122
Borrowings/Borrowings for All Abbeys					
Saint-Denis	28%	23%	23%	24%	23%
Saint-Germain-des-Pres	29%	20%	24%	16%	14%
Next 10 Abbeys in size of revenue	30%	47%	34%	46%	48%
Remaining 23 Abbeys	13%	10%	19%	14%	14%
All Abbeys	100%	100%	100%	100%	100%
Surplus After Interest/Surplus After Interest for All Abbeys					
Saint-Denis	12%	16%	15%	16%	13%
Saint-Germain-des-Prés	15%	16%	13%	14%	15%
Next 10 Abbeys in size of revenue	31%	33%	33%	30%	33%
Remaining 23 Abbeys	41%	36%	38%	40%	38%
All Abbeys	100%	100%	100%	100%	100%
Interest/Surplus Before Interest					
Saint-Denis	27%	25%	24%	21%	22%
Saint-Germain-des-Prés	29%	23%	25%	16%	15%
Next 10 Abbeys in size of revenue	17%	23%	15%	20%	15%
Remaining 23 Abbeys	5%	5%	10%	5%	5%
All Abbeys	16%	18%	16%	14%	13%

SOURCE: AN L817 CSM, Etat du temporal, 1752, 1758, 1768, 1772, 1782.

Saint-Denis’ apparently greater success compared to other abbeys in reducing its debts is misleading, given that it started at a far higher level, and it had exhausted the capacity of its revenues to fund interest. In 1782, interest consumed 22% of Saint-Denis’ surplus income before

interest, whereas that ratio was 13% for all Maurist abbeys. The financial position of the abbeys was fairly stable over the period 1758-1782: borrowings stayed high, and individual abbeys' surplus after interest as a percentage of surplus after interest for all abbeys were remarkably constant, so much so that one could suspect that this ratio was deliberately targeted. That ratio for Saint-Denis fluctuated between 12% (1752), 16% (1758), 15% (1768), and 16% (1772) and 13% (1782). The ratios for the same years for Saint-Germain-des-Prés were 15%, 16%, 13%, 14%, and 15%. For the next ten abbeys by size of revenue, the ratios were 31%, 33%, 33%, 30%, and 33%, and for the remaining 23 abbeys the ratios were 41%, 36%, 38%, 40%, and 38%.

Admittedly, this apparent pattern carries a risk of over-interpretation. There is no evidence of the financial coordination of borrowings in the sources of the Congrégation de Saint-Maur or of the abbeys, and the only evidence of consistency lies in the figures collated from the congregation's accounts for this dissertation. Yet the pattern is clearly visible, and the congregation had every incentive, given the political environment, to direct (and restrain) borrowings to a safe level. Even if that is a speculation too far, however, Table 6 demonstrates that Saint-Denis was a prime example of a church landlord with no further capacity for borrowing to fund investments, a condition shared, to a lesser degree, by the other Benedictine landowners as well.

The significance of Saint-Denis' financial constraints for its investment capacity is evident in grand-prior Boudier's view of the diminished autonomy and discretion open to him as manager of the abbey's temporal affairs and wealth. Boudier criticized his successor, Dom André Malaret, whose refurbishment of the abbey church "forced him to reduce the number of monks and to neglect the repairs to the fermes, of which several are in a very bad state." Boudier had applied *his* cash "to paying off the debts, which were quite considerable, and I increased the

number of monks by 30, in order to multiply the prayers for our kings and to make the company more edifying…"[14] The slow progress in reducing Saint-Denis' interest to surplus before interest ratio (from 24% in 1768 to 22% in 1782) indicates the difficulties Boudier faced. The accounts show he had to use costlier financial instruments, and the overall interest rate rose from 4.6% in 1772 to 5.4% in 1778.[15] Debt repayment, increasing the number of monks, and repairs to fermes were all Boudier could directly achieve with the abbey's funds. Expensive reconstruction of fermes was out of the question. The financial situation at Saint-Denis and other abbeys was far more difficult than at Notre-Dame, which reduced its debt by 50% between 1768 and 1782, and where interest cost just 9% of revenue. This explains why, in the late 1780s (the only period for which Saint-Denis' detailed accounts have been preserved), the level of reinvestment of rural income in repairs to farm buildings was 33% at Notre-Dame but "only" 24% at Saint-Denis.[16] Notre-Dame could fund an aggressive reinvestment strategy from earnings, but Saint-Denis' finances necessitated another, probably more representative type of church land management in the late ancien regime.

The Laboureur to the Rescue

Although Boudier lacked the extensive funds for investments that might increase the abbey's income, agronomists and economic thinkers relentlessly drew attention to a far cheaper means, the improving laboureur. From the first publications of enlightened French agronomy in 1750, the message had gone out that good *labourage* was the key to agricultural success. Labourage encompassed all operations to do with producing crops: rotation, plowing, sowing, weeding, harvesting, storage and conservation, and managing, maintaining and improving the

[14] Boudier to Archbishop of Paris, 7 juillet 1781, in J.-J. Guiffrey, *Un chapitre inédit de l'histoire des tombes royales de Saint-Denis: D'après les documents conservés aux archives nationales* (Paris: 1876), 72-3.

[15] AN L817 CSM, État 1772-1773, 124, État 1778-1779, 153-4.

[16] AN H5 3408, 3409 ND, Chapitre de Notre Dame de Paris Comptes Notre Dame de Paris, 1785-1788; AN H5 3691 SD, Journal de la Depositairerie, 1786-1789; AN H5 3699 SD, Compte général de la Cellerie, 1785.

fields upon which production depended.[17] The founder of contemporary and modern French agronomy, Duhamel du Monceau, distinguished between good laboureurs, "who reflect and observe [the condition of the soil] its fertility, [and] humidity," and bad, unthinking laboureurs who only "know how to blindly follow the routine they learned from their fathers."[18] Unfortunately, as the agronomists invariably lamented, enlightened laboureurs were scarce. In the 1780s, thirty years into the "new agriculture," the abbé Rozier's best-selling agricultural encyclopedia declared that barely one in 20 laboureurs was excellent, two were passable, and the rest were mediocre.[19] Finding and keeping good laboureurs was notoriously difficult.

Agronomists argued that giving the fermier security of tenure and a good profit were the only means to encourage his improving propensity and thus the landlord's future rents. In 1756, Charles-Georges Le Roy's article "*Ferme*" in the *Encyclopédie* urged landlords to leave "the advantage with the fermier" when setting rents, because high rents deterred tenants who needed an "honest profit" to provide for a family and old age. When harvests were spoiled by extraordinary accidents, "such as hail, or a general rust on the crops, it is then that the proprietor is obliged to share the loss with the fermier." "No care is too much to keep" a reliable fermier, claimed Le Roy, but keeping and making him active required the hope of a long tenancy that would create a "taste of property." When time and investment made the tenant really want his land, the proprietor could then expect considerable increases, but should be cautious, lest the fermier be discouraged.[20]

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[17] Bourde, *Agronomie et agronomes,* 1: 461-2.

[18] Henri-Louis Duhamel du Monceau, *Traité de la culture des terres, suivant les principes de m. Tull...* (Paris: 1761), 16: 5.

[19] François Rozier, "Bail," *Cours complet d'agriculture*, 2: 116-7.

[19] *La nouvelle maison rustique, ou Économie générale de tous les biens de campagne: La manière de les entretenir & de les multiplier* 10th ed. (Paris: 1775), 16: 148.

[20] [Charles-Georges Le Roy], "Ferme," *Encyclopédie,* 6: 512-3.

Le Roy's ideas on tenure and rents were widely disseminated. The physiocratic economic writers Quesnay and Victor de Riqueti, marquis de Mirabeau, argued that fermiers had to be rich to afford the working capital necessary for large-scale arable agriculture, which, they claimed, was the only productive kind for the proprietor, society, and nation.[21] The seventh, 1755 edition of the perennially popular *Nouvelle Maison Rustique* said little about the qualities of a good fermier, but the ninth and tenth editions of 1768 and 1775 defined him as "industrious and competent in agriculture, and zealous for the upkeep and improvement of buildings and property." From 1768, the *Maison Rustique* urged proprietors to set rents that allowed fermiers to make a profit and take care of the land, and warned that evicting good fermiers for higher rents destroyed properties.[22] In 1783, Rozier's encyclopedia of the previous thirty years of agricultural experimentation dramatically declared that the best fermes passed from father to son, because such fermiers treated the land as their own, whereas insecure tenants merely extracted as much as possible before they were evicted, thinking "*après nous, le déluge*." Rozier insisted that a "prudent proprietor must make some sacrifices to keep an honest tenant… do not let him escape… he will be bound to you through gratitude, and his own interest." Rent should be remitted if the price of grain collapsed, no matter what the lease declared. "If you want the fermier to work as a *bon père de famille*, put him in the position of considering your property as his own. The more he is convinced of this idea, the more you will gain," as the tenant makes improvements (clearances, drainage, afforestation) in the expectation of profiting from them.[23]

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[21] [François Quesnay], "Fermiers," *Encyclopédie*, 6: 529, 534-5; Victor de Riqueti de Mirabeau and François Quesnay, *Philosophie rurale, ou Economie générale et politique de l'agriculture* (Amsterdam: 1763), 15.

[22] *La nouvelle maison rustique, ou Économie générale de tous les biens de campagne: La manière de les entretenir & de les multiplier*, 9th ed. (Paris: 1768), 1: 504-7; *La Nouvelle maison rustique…,* 10th ed. (Paris: 1775), 1: 504-7. The *Nouvelle Maison Rustique*, first published in 1700, continued to be revised into the mid nineteenth century.

[23] Rozier, "Bail," *Cours complet*, 2: 126-9.

There is no evidence that Boudier read the *Encyclopédie* (nor is it mentioned in the library catalogue of Saint-Denis, though many clerics subscribed to it and Notre-Dame had a copy) or the other works mentioned above.[24] However, the abbey's tenants (described by one historian as the "aristocrats of fermiers") could afford to improve the exceptionally large landholdings that gave them economies of scale denied to their impoverished neighbors.[25] It would not have required much imagination to see them as the ideal fermiers of the agronomists and physiocrats, and new discourse and practices at Saint-Denis under Boudier align him with the ascendant agronomic ideology.

Until the late 1760s, the Benedictines' criteria for tenure were fermiers' tractability, solvency, and the rent they offered. In 1722, La Motte-en-Brie was renewed to Fourreau, "*bon fermier, honnete homme, et payant bien*," indicating his respectability, honesty, religious observance, and obliging nature.[26] In 1737, a ferme was renewed to Lapy, "*bon fermier, bien solvable, et fort accommodant*," though he offered less than a neighbor who was not solvent and difficult.[27] In the 1740s and 1760s, the monks approved leases to tenants who were "*bon solvent*," "*très solvable*," and "*très honnête homme*."[28] The first favorable mention of the term laboureur came in 1730, when a ferme held by "a very bad fermier" was offered to Nicolas Cinot, a "good laboureur and very solvent."[29] Whether tenants were good or bad at farming,

[24] Claude Jolly, "Les collections imprimées de la bibliothèque de l'abbaye de Saint-Denis sous l'ancien régime," *Bibliothèque de l'Ecole des Chartes*, no. 145-1 (1987), 185; AN L553A ND, Catalogue des Livres de la Bibliothèque du Chapitre de l'Eglise de Paris, 1790. The *Encyclopédie* was not on the Gallican Church's index of banned books.

[25] Baulant, "La Calabre," 37-8, 53; Micheline Baulant, Arlette Schweitz, Gérard Béaur, and Anne Varet-Vitu, *Meaux et ses campagnes: Vivre et survivre dans le monde rural sous l'ancien régime* (Rennes: Presses Universitaires de Rennes, 2006).

[26] AN LL1223A SD, AC, La Motte-en-Brie, 19 janvier 1722; Thomas Crow, *Painters and Public Life in Eighteenth-century Paris* (Yale University Press: 1985), 67, 123; Antoine Lilti, *The World of the Salons: Sociability and Worldliness in Eighteenth-century Paris* (Oxford University Press: 2005), 124.

[27] AN LL1223A SD, AC, Concevreux, 24 avril 1737.

[28] AN LL1223B SD, AC, Merville et La Courneuve, 25 juillet 1746, Grande Loge Maisoncelles-en-Brie, 5 février 1763, Moinvilliers, 3 février 1762, Merville and La Courneuve, 4 février 1770.

[29] AN LL1223A SD, AC, La Petite Loge Maisoncelles-en-Brie, 8 novembre 1730.

never mind improvement, does not appear to have been considered in evaluating their worth to the abbey.

From 1769, however, fermiers – now described as "laboureurs" in Saint-Denis' minutes – were also judged by their industriousness and skill at farming, and by implication their potential for improving the output of the land, and so the rents, of Saint-Denis. That year the enormous ferme (452 arpents) and étangs (500 arpents) of the Chateau of Maisoncelles-en-Brie were renewed to Cinot's son, Claude-Nicolas, but not before the candidates' experience and reputation as laboureurs were, for the first time, weighed in the monks' decision process. Cinot had held the properties for 18 years, but only now is it mentioned in the minutes of the monks' assembly that he is a "*bon cultivateur*."[30] Being a good laboureur now gave candidates for leases a decisive advantage over competitors that were unproven or bad farmers: Cinot retained the leasehold, despite underbidding young Charles-Claude Guichard, who "has little knowledge of *le labour*." Later that year, Pierrefitte was renewed to another "bon cultivateur."[31] Boudier continued this shift in discourse after he became prior in 1772. By 1775, Guichard passed the new test of labourage: he was renewed at La Motte and described as a "*très bon cultivateur et très laborieux*."[32] In 1777, Boudier secured an easy renewal for Cinot, now a "*bon laboureur cultivateur bien entendu*," before renewing the "*fort bien cultivateur*" of a nearby ferme.[33] The new discourse mattered. In a time of rampant rent increases, Boudier would let deserving tenants off remarkably lightly.

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[30] AN LL1223B SD, AC, Ferme & étang Maisoncelles, 8 janvier 1769. Guichard offered 1% more.
[31] Ibid., Pierrefitte, 26 novembre 1769.
[32] Ibid., La Motte Maisoncelles, 19 février 1775.
[33] Ibid., Ferme & étang Maisoncelles, 12 janvier 1777, La Petite Loge Maisoncelles, 11 mai 1777.

Boudier regularly offered plausible if not sufficient reasons, in financial terms, to justify conceding easier rents to fermiers afflicted by circumstances beyond their control. In 1774, he accepted a 20% rent increase on Tremblay, though grain prices had risen by 41% since it had previously been renewed, because the tenant had suffered several bad harvests, the flattening of his wheat during road works, and the depredations of game.[34] In 1775, Boudier obtained a reduction of 11% for Pierre Afforty, who farmed 355 arpents at Villepinte, owing to the "substantial losses" he had incurred. Afforty had harvested hardly any grain for "four consecutive years" due to severe frosts, and he had only survived through a loan of 14,000lt from his mother-in-law.[35] In 1777, Boudier proposed that the ferme and étang of Maisoncelles be renewed to Cinot at the rent he had been paying since 1759, because the increased profitability of grain was more than offset by the decline of fish revenues.[36]

Boudier was selective in his generosity. For fermiers who had not suffered major losses, he recommended rents that reflected the inflation of grain prices since the last rent increase.[37] In 1775, Boudier raised the rent on La Motte en Brie by 51%. Grain prices were 56% greater than when its rent had last been set.[38] In 1777, grain prices were 17% greater than when the rent was last increased at the Petite Loge of Maisoncelles; Boudier increased its rent by 20%.[39] If Afforty's rent had been increased in line with the 56% rise in grain prices by 1775, the "real" reduction on the market rent he obtained was not 11% but 43%.[40] Admittedly, this crude

[34] AN LL1223B SD, AC, Tremblay, 10 avril 1774; Micheline Baulant, "Le prix des grains à Paris de 1431 à 1788," *Annales. Economies, Sociétés, Civilisations* 23, no. 3 (1968), 540. Baulant's prices are the mean over the year at the Halle of Paris.

[35] AN LL1223B SD, AC, Villepinte, 8 janvier 1775.

[36] Ibid., Ferme & Etang Maisoncelles, 12 janvier 1777.

[37] Baulant, "Le prix des grains," 540.

[38] AN LL1223B SD, AC, La Motte Maisoncelles, 19 février 1775.

[39] Ibid., Petite Loge Maisoncelles, 11 mai 1777.

[40] ((1x1.56)-(1x.89))/1.56 = 43%.

price/rent comparison ignores opening rent values and competition from tenants. Nevertheless, it shows the scale of Boudier's concessions to Le Court, Afforty, and Cinot, and as will be shown, it was also the yardstick applied by Boudier's Benedictine critics.

There were some precedents at Saint-Denis for Boudier's loyalty to his tenants. On many occasions rents were left unchanged or even reduced, especially during the first half of the century, but only when there was no other bidder than the incumbent.[41] In 1730, Guichard, tenant of the ferme and étang of Maisoncelles-en-Brie, secured from grand prior Pierre de Biez a rent reduction of 50% on the étang for losses suffered during a drought. When Guichard sought another reduction in 1741, the now-retired Biez reemerged to advise the assembled monks that the first reduction was "not too licitly" due. When another fermier offered a substantial increase that Guichard then matched, Biez pointedly left it to the monks to decide who would get the lease. It went to the new fermier "by a plurality of votes," suggesting that while the majority wanted to punish Guichard, some remained loyal to the incumbent.[42] Yet Saint-Denis' loyalty to its tenants was hardly exemplary. It frequently evicted incumbents, including widows, for modest rent gains.[43] Le Roy and Rozier would not have been surprised to see it pay the price, as the monks' probing for maximum rents proved expensive when tenants who offered an increased rent fell into difficulty.[44] The Benedictines did not need Quesnay or Le Roy to inform them of

[41] AN LL1223A SD, AC, Villeneuve, 20 septembre 1699, Mainpincier, 3 février 1702, Tremblay, 23 mars 1703, Torson, 7 juillet 1704, Carrières, 9 février 1705, Grande Loge Maisoncelles, 10 mars 1724, Château & Etang Maisoncelles, 16 avril 1730, Grande Loge Maisoncelles, 14 mars 1733, Villeneuve, 20 février 1734; AN LL1223B SD, AC, Pierrefitte, 21 novembre 1746.

[42] Ibid., Ferme and Étang Maisoncelles, 24 septembre 1741.

[43] AN LL1223A SD, AC, Concevreux, 2 septembre 1701, Grande Loge Maisoncelles, 7 juin 1724; AN LL1223B SD, AC, Torson 1763.

[44] AN LL1223A SD, AC, Corneilles, 2 mai 1702, & 17 juillet 1702, Petite Loge Maisoncelles, 11 mai 1711, Grande Loge Maisoncelles, 7 juin 1724, Château Maisoncelles, 28 décembre 1724.

the substantial working capital required to operate a ferme. Having to borrow 17,000lt merely to stock and operate a ferme when a tenancy fell through was lesson enough.[45]

Instead of leniency, it may be more useful to think of Saint-Denis' concessions to fermiers as a negotiated incentive. Fermiers considering investment in changes in crops, in construction, and especially in marling, were assured their leases would be granted or renewed on favorable conditions. Such investment commitments by fermiers are presented in the minutes as clinching the deal.[46] As grain prices rose after 1760, tenants increasingly offered marling as well as higher rents (see Table 7), and Saint-Denis, which had paid 75% of marling costs, progressively offloaded that burden onto tenants.

Table 7 Leases of Saint-Denis Referring to Marling Costs, 1700-1778*

	1700-1719	1720-1739	1740-1759	1760-1778	1700-1778
Leases where Fermier Alone Pays	1	1	2	8	12
All Other Leases	17	13	10	15	55
Total Leases in Sample	18	14	12	23	67
Leases where Fermier Alone Pays	6%	7%	17%	35%	18%

* Leases recorded in Actes Capitulaires rather than the approximately 150 leases signed in the period.

The increasing absorption of marling expenses by fermiers shifted substantial upfront capital costs from Saint-Denis. Frequent marling was necessary in the *potentially* very fertile, flat, impermeable and frequently wet and acidic soil of Maisoncelles-en-Brie, where the abbey's

[45]AN LL1223B SD, AC, Merville et La Courneuve, 26 mai 1740. Le Roy claimed a fermier needed 27,000lt to stock a farm of 500 arpents with the horses, cattle, sheep, pigs, plows, harrows, carts, seed and human labor required to fallow, plow, weed, harvest, thrash, store, and sell the produce 18 months after taking possession of a ferme.

[46] AN LL1223A SD, AC, Maisoncelles, 23 juillet 1714, Grande Loge Maisoncelles, 3 septembre 1714; AN LL1223B SD, AC, La Motte Maisoncelles, 23 novembre 1736, Petite Loge and La Motte Maisoncelles, 2 novembre 1738, Cergy, 3 janvier 1740, Etangs et Château Maisoncelles, 24 septembre 1741, Grande & Petite Loge Maisoncelles, 15 octobre 1742, Grande Loge Maisoncelles, 18 mars 1747, Moinvilliers, 3 février 1762, Grand Loge Maisoncelles, 5 février 1763, La Motte Maisoncelles, 6 août 1767, Petite Loge Maisoncelles, 3 septembre 1769, Grande Loge Maisoncelles, 1 décembre 1771, Mainpincier, 8 janvier 1775.

great fermes were clustered.[47] In 1714, the abbey was offered reduced rents for unmarled and so less fertile and less valuable lands at Grande Loge. The monks had to spend 11,000lt, equivalent to four years' rent, to marl 300 arpents to maintain the rent level.[48] Compare this to the 1770s, when young Charles-Claude Guichard, heir to his mother's tenancy, marled the 125 arpents of La Motte required by her 1767 lease, plus an additional 205 arpents, and promised to marl the remaining 70 arpents if the lease was renewed. Guichard's new investment was equivalent to a year and a half's rent. Though he offered an increase in rent of about 50%, his new cost per arpent as agreed with Boudier was the lowest of the abbeys' four, similarly sized large fermes at Maisoncelles, and was barely two thirds of the renewal price agreed by his neighbor Cinot in 1777.[49]

Boudier knew of and rewarded tenant investment in the land. He appreciated the cost of marling to tenants, and reported on factors that made it more costly, such as the distance marl had to transported.[50] In 1776, he recommended renewal – at the same price, rather than the increased rent suggested by rising grain prices - to Rabourdin, who had been obliged to spend heavily to restore his lands' fertility after his predecessor failed to manure them.[51] Under Boudier the relationship between landlord, tenant, and investment in improvement imagined by Le Roy in the *Encyclopédie* became a reality.

Short of cash and under humiliating and dangerous royal financial tutelage, Boudier outsourced the cost of investment to the fermier, in return for security in the level of rent. This policy also applied to farm building reconstruction. As detailed in chapter one, in 1776, the monks unanimously approved Boudier's proposal to guarantee a fermier, Courtier, the renewal,

[47] Baulant, "La Calabre," 35-6.
[48] AN LL1223A SD, AC, Grande Loge Maisoncelles, 3 septembre 1714 & 10 mars 1724.
[49] AN LL1223B SD, AC, La Motte Maisoncelles, 19 février 1775.
[50] Ibid., Mainpincier, 8 janvier 1775.
[51] Ibid., Vert Saint Denis près Melun, décembre 1776.

at an unchanged rent, of their almost inaccessible ferme at Merville. In return, Courtier would, at his cost of 16,817lt, build two bridges and a road and reconfigure the farmyard so that it would be easily linked to the monks' nearby mill, thus making the ferme much more profitable to fermier and abbey alike.[52] This level of cost is comparable to the construction by Notre-Dame of a large barn or cowshed, and evidently fermier Courtier thought it would make his operation at least as profitable as his cost of investment. Saint-Denis' gain would be a more valuable property in the medium-term, achieved without adding the cost of the works to its borrowings, which would otherwise have grown by 3%, thus undermining Boudier's policy of debt reduction.

There is no evidence that Boudier made other construction outsourcing agreements, but the sources are incomplete. Saint-Denis' actes capitulaires do not mention such bargains, but then they almost entirely ignore construction costs that nonetheless existed. In 1758, for example, Saint-Denis' auditors mention repairs to a ferme (6,000lt), three bridges (6,600lt), a dovecote (3,000lt), and "an infinity of repairs at other locations for which the deals have not yet been made."[53] Yet the actes mention no repairs for 1757, 1758, or almost any other year, which defies belief, given that repairs were unavoidable. The Merville source itself is omitted from the actes, and only known from a side-letter, possibly because promises of lower rents were interpreted as amortissement avoidance by royal intendants seeking to bring the church into the tax net. Perhaps similar bargains were made, but it is not necessary to speculate on Boudier's practice given other evidence that he used renewals to encourage improvement.

Boudier wanted Saint-Denis to support its fermiers so they would invest in and improve the abbey's land. He was undeniably conservative in ecclesiastical matters, rejecting Malaret's proposal to modernize the nave and crypt of the abbey church because "I do not like changes and

[52] AN S2244 SD, AC, Ferme de Merville proche Saint Denis. Pavé construit depuis le moulin de Romaincourt jusque dans la dite ferme de Merville dans le courant de l'année 1776, 14 janvier 1776.

[53] AN L817 CSM, État, 1758.

innovations that are unnecessary. For a long time things have remained as they are, without causing any inconvenience."[54] His rent policy, by contrast, marks him out as a paragon of enlightened, late ancien régime proprietorship.

Boudier's support for deserving tenants was a means of defending the clergy against Enlightenment criticism. He cited the large families of good fermiers as another reason why they deserved the monks' support. Afforty had a "*famille nombreuse*," while Cinot had a "*forte nombreuse famille*." Boudier drew attention to the piteous condition of widows and orphans: the monks approved a lease for widow Mainfroy of Torson who had been left with very young children.[55] By inviting the monks to support these families Boudier defended the clergy against the influential and dangerous claim that it was depopulating France by choosing celibacy over family life and by depriving the population of church lands. Montesquieu, Voltaire, Melon, and (recurringly) the *Encyclopédie* had helped generate a panic in public and political opinion over the decline in France's population, which, it was alleged, was aggravated by celibate monks who were destructive of their species. By the 1770s, the increasingly advocated solution was to put monks and their property to productive use.[56] Gros fermiers tended to have larger families than was normal (double that of day-laborers), and were ideal for apologists to present as embodying Catholic morality and behavior.[57] By supporting Cinot and Afforty, Boudier was aligning Saint-Denis with agronomy and sensibility to counter the anticlericalism of the *philosophes* and of

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[54] Andrew McClellan, "Two Neo-Classical Designs for a Bourbon Chapel in St-Denis," *The Burlington Magazine* 130, no. 1022 (May, 1988), 340-1; Boudier to Christophe de Beaumont, Archbishop of Paris [forwarded to d'Angiviller, directeur général des bâtiments du roi] 8 juillet 1781, quoted in McClellan, "Two Neo-Classical Designs," 341.

[55] AN LL1223B SD, AC, Villepinte, 8 janvier 1775, Château & étang Maisoncelles, 12 janvier 1777, Torson, 15 juin 1777.

[56] Leslie Tuttle, *Conceiving the Old Regime: Pronatalism and the Politics of Reproduction in Early Modern France* (New York; Oxford: Oxford University Press, 2010), 152-3; Carol Blum, *Strength in Numbers: Population, Reproduction, and Power in Eighteenth-Century France* (Baltimore; London: Johns Hopkins University Press, 2002), 21-6, 30-2, 36, 41, 43; [Diderot], "Célibat," *Encyclopédie*, 2: 804-5.

[57] Tuttle, *Conceiving the Old Regime*, 167, 172-3, 177-8, 161; Blum, *Strength in Numbers*, 45-6, 56, 136-7, 141-2; Jean-Marc Moriceau and Gilles Postel-Vinay, *Ferme, entreprise, famille: Grande exploitation et changements agricoles: Les Chartier, XVIIe-XIXe siècles* (Paris: EHESS, 1992), 75-6, 79-80.

economic commentators. Some monks accepted Boudier's arguments, declaring of Cinot that "one often did not gain by changing fermier… and one could not do better than to keep him," but Boudier's discourse, ideas, and practices were far from institutionalized at Saint-Denis.[58]

The Struggle for the Future of Saint-Denis

Late eighteenth-century Benedictine priors, though powerful, were not the unquestioned abbots of the Rule of Saint Benedict.[59] As an officer in a corporation, Boudier had to persuade the monks to approve his proposals, as did the administrators of other great church corporations, such as the chapitre of Notre-Dame. That is easy to lose sight of when reading the minutes of Notre-Dame, which list decisions made to appoint tenants, change rents, or undertake repairs. Such documents record final approvals without any hint of arguments against proposals, and so the knowledge, opinions, interest, emotional involvement, or power plays behind these decisions are hard to gauge. This can give a misleading impression of unanimity and inevitability in decision-making, so that the individuals involved are subsumed into a monolithic corporate mind ("Notre-Dame" or "Saint-Denis"), which seems unaffected by the financial, political, and intellectual environment, not to mention individual clerics' ambitions, feuds, and beliefs.

Before the 1770s, the minutes of Saint-Denis only hint at policy differences among the monks. Rent increases or deals without alternative candidates were approved "unanimously." Reduced rents were approved by a "plurality of voices [votes]," signifying unspecified opposition.[60] This curtain of discretion was briefly drawn aside during Boudier's tenure when a new secretary, Dom Guillaume-Louis Laforcade, recorded the debates on property management

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[58] AN LL1223B SD, AC, Ferme & Etang Maisoncelles, 12 janvier 1777.

[59] Louis XIV abolished the position of abbot at Saint-Denis when he transferred the abbot's revenues to the school of Saint-Cyr. Elsewhere, abbots were titular sinecures for the court nobility.

[60] AN LL1223B SD, AC, Moinvilliers, 3 novembre 1743, La Petite Loge Maisoncelles, 30 décembre 1747, Torson, 7 juillet 1704.

in unprecedented detail, revealing the extent to which monks were involved in decision-making and the precarious success of Boudier's project.

The monks were familiar with and outspoken on the management of the abbey's affairs. Laforcade describes complex and controversial questions that prompted long discussion. The rationale and cost of a proposal by fermiers to move a seigneurial boundary marker to allow for flood relief works were "discussed long and hard," before being unanimously approved.[61] A proposal to grant a ferme to the second highest bidder, because he had superior collateral, was "rigorously discussed and the opinions of all the monks heard" before being approved by a plurality of votes.[62] The monks drew on the expertise of those holding managerial positions in the abbey as well as external experts. When Boudier argued for a reduction for Afforty, some monks demanded that the tenant have experts certify his losses. It took "the cellarer and several other monks" to convince "several" objectors that Afforty's problems were "only too real."

Boudier's defense of his proposals might have come from the agronomists Le Roy and Rozier, who urged landowners to study their land and its capacity to produce revenue for the tenant before setting rents that allowed the fermier a just profit after inevitable losses in production.[63] The prior declared that he had gathered

> Information he asked of persons who know the locality well having lived there for a long time, and having evaluated the arable land, the meadows and the other products of the ferme in conformity with the prices and customs of the locality, it appeared he could accept the offers of Sieur Cinot, particularly since it appeared that the étangs, being rented above their value, could be susceptible to a reduction…

Boudier's account implies that Cinot saw himself as a partner of the abbey, who was always devoted to its interests, most recently in getting a very good price for its timber, and because his

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[61] Ibid., Consentement de la communauté au transport d'une Borne seigneuriale qui sépare la terre de Mainpincier d'avec la seigneurie de Vert Saint Père, 12 mai 1776. "Murement discutés…"

[62] Ibid., Bail général de Chaourse, sise en Thiérache, 8 janvier 1775.

[63] [Le Roy], "Ferme," *Encyclopédie*, 5: 512-3; Rozier, "Bail," *Cours complet*, 2: 126-9.

family had held the ferme “from father to son” for 45 years.[64] The prior’s arguments and practice are strikingly similar to those advocated by the agronomists. That Boudier was the first and last prior of Saint-Denis to use this language demonstrates the diffusion and implementation of agronomic literature among the landowning clergy, as well as the limits of its success.

Boudier’s arguments and his policy of indirect investment and tenant protection help explain why Saint-Denis’ rents rose much less than one might expect. The abbey’s rents rose by 62% between 1726 and 1789, whereas lay rents in the Ile-de-France rose by 79 to 120 percent. The shortfall also applied at Maisoncelles, where Saint-Denis’ largest fermes were clustered. In 1789, the English agronomist Arthur Young reported rents of 20lt per arpent for the best land in that area, with 40lt offered for “great tracks,” and (incredibly) 100lt where “the soil… is amongst the finest I have met with in the world.”[65] Yet Saint-Denis’ average rent at Maisoncelles was a paltry 13lt 9s in 1789.

Boudier’s deals played a major role in this anomalous performance and a significant minority (at least) of monks opposed his policy for precisely that reason. “Six or eight” monks - out of 30 with voting rights - openly protested against the rent concessions granted to Afforty, Vincent, and especially Cinot on the basis that Boudier’s policy was out of step with church practice at a time when “the dearness of grains ought necessarily to increase the value of leases,” and these objectors urged the prior to auction the leases to new tenants.[66] In the Cinot debate of 1777, the protesting monks declared it

> Extraordinary that at a time when all the archbishops, bishops, commendatory abbots and others were increasing [rents] by half, the property of the abbey of Saint-Denis was not susceptible to an increase. The lands of Saint Denis must be were of quite another

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[64] AN LL1223B SD, AC, Ferme & Etang Maisoncelles, 12 janvier 1777.

[65] Young, *Travels in France*, 1: 314.

[66] AN LL1223B SD, AC, Villepinte, 8 janvier 1775; AN L818 CSM, St Maur État du temporal du province de France, 1782-1783, no 31 Saint Denis. In 1782-3 there were 30 priests, 1 conversi [lay brother], 2 novices, and 16 candidates. Only professed monks could vote.

> nature… They thought the offers of M. Cinot were insufficient, and it was necessary to announce that the ferme was to let and even to have notices printed [for a lease auction]…

It required all of Boudier's experience at institutional politics to secure the corporation's approval in the face of this opposition. He rose to leave the assembly room to preempt defeat, but some allies urged him to test whether his critics were in the majority, and so

> Each monk having put his ballot in the urn… the said ballots were counted in the sight of everyone. The ballots in favor of passing [the proposal] were of a much greater number than those of the contrary opinion, so it was concluded by a plurality of votes to give the lease [to Cinot].[67]

In the 1770s, the authority of a prior over his monks was not what it had been. Deeply engrained Jansenist struggles against the "despotism" of imposed superiors were transformed into a general criticism of prioral administration.[68] Newly overt rebellion among monks, which reflected the furious elite and popular opposition to the Crown's abolition of the Parlements in 1770-1774, obstructed another novelty, Boudier's moral economy of landlord-tenant relations. The Boudier strategy was difficult to apply in financially struggling church corporations, and it had a brief life at Saint-Denis.

The year after the Cinot debate the monks unanimously supported Malaret, Boudier's successor, in squeezing the maximum rent from tenants. The new prior's perfunctory references to fermiers' family size, troubles, or agricultural abilities show how little impact these now had on how rent was set. Malaret neither agonized over the just value of land nor sought expert advice on it: competition decided rents. When Pierrefitte came up for renewal in 1778, Malaret knew how to "rent it at its true value." He informed neighboring fermiers of the renewal and showed no preference for the incumbent, Gillet, (whose "offers were found far beneath those of

[67] AN LL1223B SD, AC, Ferme & Etang Maisoncelles, 12 janvier 1777.

[68] Chevallier, *Loménie de Brienne*, 174; John McManners, *The Religion of the People and the Politics of Religion*, volume 2 of *Church and Society in Eighteenth-Century France* (Oxford: Oxford University Press, 1998), 672.

the other fermiers…"). When Pierrefitte went to the highest bidder, Malaret reveled in his success. He disclosed to the assembled monks the bids received for the ferme, in ascending order, of 4,266lt [+25%], 4,400lt [+29%], 4,500lt [+32%], 4,600lt [+35%], and 5,000lt [+47%]. The little information the new grand prior mentioned about the winning candidate did not include his agricultural skill, and he made no reference to Gillet, whose family had held the ferme since before 1725. (The monks unanimously approved the change in tenant.)[69] Although Malaret rejected a higher bid on another ferme from a candidate with questionable collateral, he then threatened to break up the ferme, which induced the incumbent to make a second offer of +33%.[70] These increases are remarkable. In 1778, grain prices were little higher than in the early 1760s. Unless Saint-Denis' fermiers had increased output to an unlikely extent, the abbey now took a far larger share of fermiers' surplus than before the inflation in grain prices began.

Malaret's policy marked a return to older monastic rent practices in a competitive environment that gave the landlord the advantage. Whereas Boudier sought to defend Catholicism and Saint-Denis by aligning them with the contemporary cult of the laboureur and agriculture, Malaret sought to revive the Gallican Church's – and Saint-Denis' – wavering alliance with the Crown, by converting the dilapidated Gothic abbey-church (or more particularly the jumble of royal coffins in the crypt) into a magnificent neo-classical mausoleum that would revive the glory of the Bourbon dynasty and the prestige of the monarchy. Boudier's unexpected comeback in 1781 interrupted Malaret's plans, but in 1786 Malaret successfully removed Boudier with the connivance of the comte d'Angiviller, *directeur général des bâtiments*

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[69] AN LL1223A SD, AC, Pierrefitte, 7 décembre 1725; AN LL1223B SD, AC, Pierrefitte, 11 mars 1778.
[70] Ibid., Champigny-sur-Marne, 13 décembre 1778.

du roi. Malaret was promised 500,000lt for the project by the king, which would have been executed but for the outbreak of the Revolution.[71]

Boudier's ostensibly conservative Catholic moral economy of supporting the improving laboureur was the truly novel strategy. It was hardly unparalleled in its discourse and purpose, if not in its effect on agriculture: another threatened elite, secular seigneurs, also used the cult of agriculture and the re-imagined peasant to refashion themselves as paternalist defenders of society and virtue and to protect their political, economic, and social privileges in the process, and one could say the same of the Crown and the image it fostered of the *roi laboureur*, whose legitimacy was based not on force or history but on the ability to ensure prosperity through protecting agriculture and the fermier.[72]

To judge by their generally slow-rising rent levels, something similar to Boudier's policy seems to have been operated by many church landowners. That may be why (as Dinet argues) notwithstanding the hostility of the philosophes, abbeys generally enjoyed the support of local populations who appreciated their material contribution to rural life.[73] Standing back, it would hardly have harmed the dynamism of the rural economy to make rent increases proportionate to grain price inflation while offering support for good farmers in hard times. That said, one could criticize Boudier's support for obviously failing models, such as pisciculture. His rent freezes or reductions were merely a palliative for a lingering decline, when competitive land rather than product based rent could have forced a switch to a more productive crop. Given the financial constraints facing Saint-Denis, that complaint ignores the reality of what was feasible, for it

[71] J.-J. Guiffrey, "Les tombes royales de Saint Denis, à la fin du XVIIIe siècle," in *Le Cabinet historique…* (Paris: 1876), 22: 2, 6; McClellan, "Two Neo-Classical Designs," 340-1.

[72] Wyngaard, *The Invention of the Peasant*, 17, 22, 71-3, 80, 82-3, 90; Schwartz, "The Noble Profession of Seigneur," 79-80, 107; Jeremy L. Caradonna, *The Enlightenment in Practice: Academic Prize Contests and Intellectual Culture in France, 1670-1794* (Ithaca: Cornell University Press, 2012); Clavilier, *Cérès et le laboureur*, 108-9, 122.

[73] Dinet, *Religion et société*, 1: 429.

seems that it was the lack of investment capacity rather than conservatism that impeded the conversion to arable of the étangs. That, at least, will be the lesson of chapter four, which describes how wealthy church landlords took the lead in just that.

The *bilan* for Saint-Denis' success as an economic force is distinctly mixed, partly due to its difficult financial circumstances, but also due to the misalignment of its organizational knowledge with growth. Unlike Notre-Dame, fermier and ferme development never became consistent at Saint-Denis. Changes in management personnel could result in wide swings in strategy, and Boudier's attempt to implement a partnership with tenants that is reminiscent of Notre-Dame's was reversed by his rack-renting successor, who pursued a different, far more traditional political strategy for the abbey. The canons of Notre-Dame, such as Lucas and his managerial colleagues and successors, spent decade after decade working through and learning the culture and behaviors of management of the chapitre's property. Benedictine monks, and particularly officers like Boudier, moved between abbeys throughout northern France. Their interest in management, though scrupulous, would have been general rather than focused on the particularities of individual tenants and their families, which is perhaps why Boudier relied so much on external expert opinion, and Malaret on price alone. While it is possible that Notre-Dame, too, made extensive use of external expert advice, that seems less likely for the chapitre given the permanence of its management structure. Firms like Saint-Denis did not have the familiarity with, and openness to, fermiers seen at Notre-Dame, and so were ill prepared to adapt to and to exploit the changing economic environment in the last decades of the ancien régime. Saint-Denis could survive, but it was no model for successful management or for economic development.

Conclusion

The behavior of the majority of church proprietors who had little surplus capital is an important element in evaluating the capacity of church landownership to invest and to influence the dynamism of the late ancien regime economy. The abbey of Saint-Denis was typical of the greatest church landowner, the Benedictines, in being forced by chronic indebtedness to minimize its cash investments if it was to survive both financially and politically. Outsourcing investment minimized the investment capital required by this landowner, though it remained higher than French secular landlords and comparable to levels in England, demonstrating that even the cash-poor majority of church landlords were capable of making an outsize contribution to the fixed capital stock of agriculture.

Given church rent levels relative to secular landlords, it appears that church landlords with a mixed record of investment, such as Saint-Denis, set rents that supported the main drivers of agricultural investment and experiment, the producers. The majority of church landlords, wealthy or poor, contributed to the dynamism of agricultural development as a means of protecting themselves politically by co-opting the language and practices of Enlightenment agronomy. Whether that positive effect could have continued much longer for landlords like Saint-Denis is questionable, due to the weakness of an organizational structure that restricted the development of routines, knowledge, and partnership with fermiers. Apart from brief interludes such as Boudier's administration, the tenants of poorer large landlords with shallow organizational knowledge would have been closer to Hoffman's model of self-reliant development than the subjects of his study, the highly productive fermiers of Notre-Dame de Paris.

Adopting the discourse and practices recommended by agronomists, Saint-Denis under Boudier began to encourage investment by its tenants by selectively protecting and advancing particularly good laboureurs, which enabled it to partly outflank anticlerical criticism (at least to Boudier's satisfaction) by aligning the abbey with new ideals of good proprietorship. However, the substantial cost in rents forgone of moving to a landlord-tenant partnership model similar to Notre-Dame's (which nurtured temporarily struggling tenant families through lenient rental terms until they could again compete at market rates) generated opposition within the corporation that was only narrowly overcome through the authority of the officer in command. His successor switched to a policy of maximizing rents without a thought for either improvement or its political implications, for he had reverted to the traditional church policy of seeking protection for its privileges by cooperation with the Crown. In the 1780s, a political strategy of hitching Saint-Denis to absolutism might have been economically more rational, but only in the short term. As the next chapter will show, by then church landlords were increasingly aware that their political interests were aligning with the new agronomic ideals in ways that made Boudier's and Notre-Dame's investment policies a new, urgent necessity.

Chapter Four

Power from Utility

In 1790, the National Assembly declared that priests and bishops who performed liturgical and pastoral services would alone constitute the Catholic Church in France. Cathedral chapitres and ecclesiastical military orders were abolished as useless, parasitical burdens, and their property was confiscated for the Nation.[1] A dissenting deputy of the assembly, canon Ruffo de Bonneval of the chapitre of Notre-Dame de Paris, responded with a pamphlet which railed against the "vampires of the state" who sold church property to fatten themselves, the "speculators, bankers, capitalists, Jews, Protestants indigenous and foreign," "all the blood-suckers" who "ruined the state under Louis XV and Louis XVI." Bonneval denounced the assembly for unleashing a "flood of blood," for inciting war, for the destruction of religion and its replacement by impiety and license, and he blamed this triumph of Voltaire, Diderot, and other philosophes on Malesherbes, onetime royal censor, who had facilitated the distribution of books "that attacked religion, government, and morality."[2] (Malesherbes had protected the publication of the *Encyclopédie*.[3]) Such strident condemnations of Enlightenment and revolutionary catastrophes and villains would have a long future in French Catholic, conservative, and nationalist discourses. Reading that narrative back into the late ancien régime, however, has generated an historically dominant view of the clergy that explains neither the role of religion in the Enlightenment nor the culture of the Catholic Agricultural Enlightenment, by

[1] Bourdin, "Chapitres cathédraux, 30-1, 52-5.

[2] Sixte-Louis-Constant Ruffo de Bonneval, "Notes sur le compte rendu: Extrait de l'imprimé intitulé: Les finances, ou le pot au feu national," in *École de politique, ou collection, par ordre de matières, des discours, des opinions, des déclarations et des protestations de la minorité de l'assemblée nationale, pendant les années 1789, 1790, et 1791, en faveur de la religion, de la monarchie, et des vrais intérêts du peuple ...* (Paris: 1791), 8: 380-3, 386-90.

[3] Roger Chartier, *The Cultural Origins of the French Revolution*, trans. Lydia G. Cochrane (Durham, NC: Duke University Press, 1991), 42.

whose translation into practice Bonneval and church landlords staked and seemed to have secured their political future.

The commitment of church landlords to rural investment and by extension their role in agricultural development were shaped by their social, intellectual, or political environment, which made improvement projects eminently worth pursuing given their potential political rewards. It might well seem odd to argue that agricultural development owed much to the Agricultural Enlightenment, politics, or religion. Hoffman, arguing that culture was irrelevant to practice, ignores the role of the Enlightenment. Moriceau sees the Agricultural Enlightenment encouraging fermiers' experimentation with new technology, though he, like Hoffman is oblivious to the possibility that the political repercussions of the Agricultural Enlightenment might have influenced agricultural development. Yet it is no coincidence that Hoffman's and Moriceau's studies of agricultural growth found the largest increases among the fermiers of that preeminent investor and improver, Notre-Dame, for the church landlords that were the greatest investors in agricultural improvement were also among the most active participants in Enlightenment institutions of improvement. Bonneval's lament arose not from a longtime hatred of the Enlightenment, but from church landlords' sudden exclusion in 1789 from the leadership of the reform movement, which overturned their conviction that their long and accelerating participation in agricultural improvement would not only legitimize their privileges but earn them the political power to shape and lead the coming, regenerated France.

This chapter reveals an historically unexplored, active participation by wealthy, high-investing church landlords - cathedral chapitres and military orders – in the intellectual, social, and political institutions of Enlightenment improvement. That involvement reveals the continued importance of religion in that supposedly secular phenomenon. Further, that participation was no

mere emulation of the laity's discourse. It was a politically deliberate act that was encouraged by Catholic institutional needs, and it took innovative forms that prompted church landlords to claim a major role in the dynamism and development of agriculture, the diffusion of the technology of the Agricultural Enlightenment, and the ending of the agricultural ancien régime.

The high reinvestment rates of church landowners also arose from the resilience and adaptability of church proprietorship in the face of late Enlightenment criticism. Far from recoiling from rising "secular" movements, they adapted to external pressures, ideas, and opportunities with practices of active, improving church landownership compatible with new ideas of honorable behavior. There was nothing predetermined in this outcome, which depended on individual clerics' success in promoting improvement through investment practices calibrated to their circumstances.

The investment culture, behavior, and ambitions of well-financed church landlords were very different from those of their poorer counterparts, notably asset-rich but heavily indebted abbeys such as Saint-Denis. Chapters one and two explain how, in the late eighteenth century, church landlords, and above all Notre-Dame, invested heavily in the infrastructure of their enormous agricultural holdings. The scale and ambition of such investment was exponentially greater than that of the wealthy but indebted abbeys whose indirect improvement strategies are discussed in chapter three, and so were the stakes. Even the wealthiest church landlords needed to generate increasing funds to satisfy their costly duty to "honor the majesty of God with the greatest pomp and magnificence," through ceremonies, music, choirs, buildings, and communities, not to mention maintaining their members in their proper état.[4] Whether their level of investment was efficient in terms of generating a positive marginal return is sometimes

[4] AD Eure et Loir G Supp. Art. 120, Chapitre de Notre-Dame de Chartres, L'usage de l'église de Chartres en l'administration du temporel, 1674?.

doubtful, but it will now, again, be demonstrated that church landowners invested for social and political honor as well as for a financial return.

This chapter examines the interaction of two wealthy, autonomous, but politically insecure types of church landlord (the individual, rural-based commandeur of the Order of Malta, and the corporation of the chapitre of Notre-Dame de Paris) with improving circles, and also these church landlords' own initiatives in improvement. The clerics' words, accounts, and performance of improvement reveal how enlightened social utility became increasingly central to the identity, behavior, and wider impact of these types of church landlord from 1760. Enlightenment ideas were not only significant for their impact on the great proportion of French agriculture that was dominated by the clergy's landholdings, they were a factor in prompting church landlords to take the actions that helped France escape the immemorial Malthusian limits of its food production structures.

Wealth and Ridicule

Unlike monks, canons and commandeurs received large discretionary incomes from their corporations. Individual poverty was not even notionally aspired to. Their lives and interests were centered not on contemplative withdrawal from society, but on active participation in it. The canons of Notre-Dame were comfortably well-off, and becoming more so. Canon Jean-Lucien Lucas, who managed the chapitre's property in the 1760s, drew an annual income from Notre-Dame that rose from 3,000lt in the 1770s to 6,000lt in the 1780s.[5] He also owned property in his own right: 25 arpents at Drancy, near Paris, which he rented out for 320lt per year, and the house in the cathedral close which he had bought for 22,100lt in 1764, and which on his death-

[5] Meuret, *Notre-Dame de Paris*, 22.

bed he could expect to sell to another canon, bequeathing the proceeds as he pleased.[6] Lucas fitted out his home for entertaining, reading, and work, with Madeira in the cellar and 152 plates for his table, which seated eight. He was equipped for surveying the chapitre's many properties in and around Paris, thanks to his two maps of the city, setsquare, compass, pencil holders, telescope, and pocket pistol. Lucas was equally ready to mix and to work with the scientific elite of Paris, with his "two small mathematical instruments," his barometer, and his precise gold watch from Julien Le Roy, clockmaker to Louis XV and European royalty.[7]

The commandeurs of the Order of Malta were wealthier still. For a younger son of the nobility of the Sword, becoming a chevalier of Malta provided a military career and the possibility of a commanderie with its estate, chateau, revenue, and life as a country gentleman. In 1788, Claude de Rouvroy de Saint-Simon de Sandricourt drew an annual revenue of 28,550lt from the commanderie of La Croix-en-Brie.[8] Unfortunately, however, growing wealth and comfort did little to improve the already poor public opinion of canons and commandeurs, who felt increasingly uncomfortable to be widely depicted as greedy, ridiculous, and idle gourmands.

The clerical position of commandeurs was anomalous even by the standards of the ancien régime church. Celibacy was optional. They could trade, when not fighting to defend Christians against Muslim pirates, or (more often) with the French navy. Younger chevaliers were generally thought to be dissolute, like Prévot's fictional des Grieux in *Manon Lescaut*; when retired and

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[6] AN MC/ET/CII/455, Bail Drancy Jean-Lucien Lucas, 22 mars 1770; Meuret, *Notre-Dame de Paris*, 62. Lucas' house (now 12 Rue Chanoinesse) was and is a substantial building of six bays and three stories plus an attic and courtyard.

[7] AN MC/ET/LXXIII/1172, Inventaire après décès Lucas, 23 messidor an X [12 July 1802]; Christopher Drew Armstrong, *Julien-David Leroy and the Making of Architectural History* (Abingdon, Oxon; New York: Routledge, 2012), 22.

[8] Eugene Mannier, *Les commanderies du grand-prieuré de France d'après les documents inédits conservées aux Archives Nationales à Paris* (Paris: 1872), 206, 236-7; Jean-Charles Poncelin de La Roche-Tilhac, *État des cours de l'Europe et des provinces de France…* (Paris: 1784), 3.

settled on estates, they were believed to be harsh landlords.[9] Their fermiers did not hesitate to exploit the considerable truth behind the latter criticism when attempting to minimize rent increases. In Picardy, in the 1760s and 1770s, successive absentee commandeurs imposed higher nominal rents and pot-de-vin payments and pushed the cost of repairs back on to tenants. The tenants pointedly warned of the likely impact on public opinion of the sight of shocked fermiers "like a tortured criminal, each one taking to his horse in silence… and arriving home, revealing to their family their despair of continuing in their farms."[10] The image of canons, though considerably less harsh, was not much more flattering. It had been set for the literate public in the 1670s by Nicolas Boileau's mock-heroic *Le Lutrin*, which depicted the proud canons of Paris' Sainte-Chapelle "fattened by a long and holy idleness," squabbling over precedence and living selfish, useless lives devoted to bed, table, and rent book.[11] In the 1760s, similar portrayals of the bitter, petty, and *bon vivant* canon were included as figures of fun in theatrical pieces produced to amuse the duc d'Orléans that soon passed down the social scale.[12]

The image of canons and commandeurs as greedy and selfish proved long lasting and made them appear increasingly archaic. Looking back on the ancien régime from 1825, the narrator of Jean-Anthelme Brillat-Savarin's *La physiologie du goût* sheds a tear over the Revolution's destruction of commandeurs, those "dear friends" of gourmandism. He also recalls dining in exile with a canon of Notre-Dame, who took the head of the table as of right,

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[9] McManners, *Clerical Establishment*, 486-8.

[10] AN S5259 OM, Boncourt Bail général Claude de Saint-Simon to Charles Leblond, 1766; Procès verbal d'Ameliorissement de la Commanderie de Boncourt du 2 7bre 1776 Bailly de Saint Simon; Edmond Sénemaud, *Revue historique des Ardennes* (Mézières: 1867), 6: 68; AN S5259 OM, Boncourt, Sous fermiers of Boncourt to commandeur Hubert-Louis de Culant, [1778?].

[11] McManners, *Clerical Establishment*, 411-2; A.H. Van der Weel, *Paul Louis de Mondran, 1734-1795: Un chanoine homme d'esprit du dix-huitième siècle* (Rotterdam: 1942), 173, 193; Nicolas Boileau-Despréaux, *Le lutrin: Poème héroïcomique* (Lyon: 1862), 3.

[12] Bourdin, "Chapitres cathédraux," 47-50.

complacently awaiting the best the inn could provide.[13] Wealthy canons and commandeurs who lived for ceremonial and comfort seemed the antithesis of the newly dominant clerical ideal, the *bon curé*, so fulsomely praised by writers such as Diderot, Voltaire, Rousseau, and Restif de la Bretonne. The bon curé lived simply, shared the people's poverty, and was, above all, useful to his flock and to society, advising on law, agriculture, and medicine.[14] This paragon's poverty and social accessibility held little attraction for commandeurs and canons, but the bon curé's celebrated social utility provided a model that might redeem them. In the 1760s, the foremost French agronomist, Duhamel du Monceau, had proposed that retired military officers take up agricultural improvement as a new field of patriotic service.[15] As will be shown, even the proudest of wealthy clerics could adopt that advice in an attempt to transcend public criticism.

The Model Commandeur

The exculpatory potential of the ideology of agricultural improvement was seized on by wealthy commandeurs of the Order of Malta whose immersion in agronomically minded, politically ambitious secular circles made them all too conscious of the dangers to their position from Enlightenment anticlericalism. Investments in agriculture were a performance, designed to show overlapping social, intellectual, and political groups that as church landlords were leaders in agricultural improvement they deserved their wealth and status. "Performing" improvement came easily to the knights of Malta, whose order had long required commandeurs to demonstrate "*améliorissements*" (a term peculiar to the Order of Malta) in rents to earn promotion to more lucrative commanderies.[16] The commanderie of La Croix-en-Brie was a rich prize. It was located

[13] Jean-Anthelme Brillat-Savarin, *La physiologie du goût…* (Paris: 1826), 1: 312, 2: 295.

[14] McManners, *Clerical Establishment*, 358-60; Aston, *Religion and Revolution,* 20, 24.

[15] Duhamel, *Eléments* (1762), 1: x.

[16] McManners, *Clerical Establishment*, 1: 487; Alain Blondy, "L'Ordre de Malte: Miroir brisé de la noblesse française des XVIIe et XVIIIe siècles," in *État et société en France aux XVIIe et XVIIIe siècles. Mélanges*

41 miles southwest of Paris, on a flat, wet terrain that provided farmed fish, dairy products, and grain for the city. The estate consisted of a chateau and 1,250 arpents of land, divided into nine fermes. 737 arpents were arable, and 104 arpents were étangs (fish ponds). La Croix's commandeurs had considerable autonomy over the surplus it generated, and in the 1780s, higher rents meant plentiful funds were available for land and tenant improvement.

The scope and pace of investment at La Croix mirrors the acceleration in agricultural change in France in the 1770s and 1780s, as a multitude of incremental changes had a snowballing effect on growth in output.[17] In the 1770s, neighboring lay proprietors applauded the many minor improvements (e.g., building short roads, planting roadside trees) of the then commandeur, Barthelemy de Bar.[18] Bar's neighbors, the marquis des Roches and the marquis de Guerchy, were agronomists and improvers who knew Bar because, as they declared, they had the "same justice officials, common farmers, and employed the same workers, and in addition they often came to… [Bar's] chateau." Roches and Guerchy also knew that the modesty of Bar's improvements was not due to his failure to criticize existing land use, conservatism, or lack of ambition. Bar wanted above all to resolve the problem of the declining profitability of fish relative to arable by turning the land of his vast étang over to grain through large-scale drainage and reclamation, but he lacked the funds for such an investment. Bar's wealthier successor, however, not only realized the hopes of the watching agronomists but surpassed them.[19]

Rent inflation enabled the new commandeur, Claude de Rouvroy de Saint-Simon de Sandricourt, to undertake a systematic program of improvements once he received La Croix in

offerts à Yves Durand, ed. Jean-Pierre Bardet, Dominique Dinet, and Jean-Pierre Poussou (Paris: Presses de l'Université Paris-Sorbonne, 2000), 111.

[17] Becchia, *Modernités de l'ancien régime*, 49, 55.

[18] AN S5166 OM, Procès-verbal d'ameliorissement de la commanderie de la Croix en Brie, 1772; Roche, *France in the Enlightenment,* 505.

[19] AN S5166 OM, La Croix-en-Brie, 1772, 1788; Jean-Michel Derex, "Les étangs briards de la région de Meaux à la veille de la révolution," *Histoire, Économie et Société* 19, no. 3 (Juillet-septembre 2000), 332-3, 336.

1783. Saint-Simon's age (he was 60 in 1783) did not diminish his energy.[20] By 1788, he had rebuilt the chateau, added a large glasshouse, and doubled the area of the orchard, all of which he surrounded by fashionably asymmetric and supposedly informal *jardins à l'anglaise* that echoed the "natural," apparently uncultivated gardens promoted by Rousseau in *La nouvelle Héloïse*, and which were popular among the liberal elite in the 1780s. Improvements to Saint-Simon's six largest fermes were no less thorough. In addition to many repairs to farm buildings, he marled all of his 737 arable arpents, drained the étang, converted it to arable, and built a capacious barn for the produce of the new fields.[21]

Saint-Simon spent 27,199lt on farm buildings (roughly 3,400lt per ferme) and 10,326lt on marling. Admittedly, the absolute value of his expenditure could only have covered modest repair and construction projects by comparison with those of Notre-Dame, which often cost 20,000lt per ferme. Further, Saint-Simon spent rather more - 44,127lt - redoing the chateau and its basse cour, so that agricultural spending came to just 46% of his reinvestment in the property. Still, his was a large rate of reinvestment as a proportion of the revenue generated by the commanderie. Notre-Dame's reinvestment rate was 33% over the years 1759-1788; Saint-Simon's was 73% between 1783 and 1788. His reinvestment of 81,652lt was slightly greater than the cumulative increase in rents of 80,290lt he exacted over than period. With the chateau complete this level of reinvestment would not be required in ensuing years, but farm buildings and marling generated perennial costs, so his agricultural reinvestment rate might have settled at the 28% he achieved for farm buildings in 1783-1788, even without new farm improvement. The increased rents Saint-Simon earned from higher grain prices flowed back into the rural economy

[20] Nicolas-Viton de Saint-Allais, *Catalogue général et alphabétique des familles nobles de France, admises dans l'ordre de Malte…* (Paris: 1873), 162.

[21] AN S5166 OM, La Croix-en-Brie, 1788; William Howard Adams, *The French Garden, 1500-1800* (New York: George Braziller, 1979), 111-4; Jean-Jacques Rousseau, *La nouvelle Héloïse*, in *Lettres de deux amans…,* 2nd ed. (Amsterdam, 1761), 2: 284-310.

through reinvestment in maintaining and improving his rural property and lands, justifying the physiocrats' argument that proprietors were not to be conflated with the *classe stérile* precisely because of that reinvestment.[22] This ideal scenario occurred not merely due to higher rents enabling value-adding investments, however, but because the maturity, acceleration, and diffusion of the agronomic movement coincided with new ideas of patriotism and honor that could be made to benefit and protect Saint-Simon.

By the 1780s, a mutually reinforcing network of improving landlords was active within the Order of Malta. The order's cross-inspection régime - commandeurs who held estates inspected those of other commandeurs - acted as a form of systemic feedback that encouraged Saint-Simon's investments and diffused them among other landowners. Through inspections, Saint-Simon was exposed to visiting improvers among his peers. He in turn acted as an inspector and encouraged improving behavior similar to his own. In 1788, he inspected and praised the investments of a commandeur, Geraldin, who had spent heavily to convert his étangs to arable use and to marl his lands. Geraldin (like Saint-Simon) had held his commanderie since 1783, and a witness swore that since then "there had always been workmen occupied at repairing the buildings or on the improvement of the lands." Geraldin, too, served as an inspector.[23] In this way the structure of the Order of Malta ensured that improvers diffused their ideas to those able to invest, along with the ideology and practices of agricultural improvement.

Yet anyone with improving ambitions for agriculture in the southern Brie would have recognized that more was needed than better farm buildings and marling, useful though they were. Output of wheat per arpent at La Croix was less than half that of land north of Paris, and

[22] AN S5166 OM, La Croix-en-Brie, 1788; [François Quesnay], "Tableau économique", *Journal de l'agriculture, du commerce et des finances* (juin, 1766), 26-7, 29.

[23] Ibid., Ameliorissement de la Commanderie de Maisonneuve sur Coulommiers, 1772; Procès verbal de l'ameliorissement de la Commanderie de Maison-Neuve sur Coulommiers, 1788; AN S5258A Liasse 7 OM, Procès-verbal des Ameliorissements de Villedieu le Bailleul, 1782.

those differentials were reflected in rents.[24] By 1788, Saint-Simon had raised rents by 67% on 1772 levels.[25] That sounds impressive, but it placed his average rent per arpent, 10lt 10s, somewhere between the rates recorded by Arthur Young for the "middling" (12lt) and worst (8lt) land in the locality.[26] The problem with output and rent at La Croix was largely structural. Being 44 miles from Paris, La Croix's fermiers were too far away to exploit the plentiful manure from the burgeoning urban stables and dairies that helped raise output north of the city, and it cost more to send grain to Paris.[27] Saint-Simon could do little about those particular disadvantages, but he nevertheless intended and expected to improve the output of the tenants of La Croix.

By the 1780s, thirty years of agronomist discourse had made this an obvious, if ambitious goal for any well-read, improving landlord. Agronomists, and indeed Saint-Simon's class, thought little of the skills, intelligence, and honesty of most fermiers. His fellow inspectors' reports, for example, described buildings in great detail but entirely omitted the names and even existence of tenants, who only appeared as rent values. In 1772, Bar's inspectors explained that they had avoided questioning his fermiers as

> Information from one's vassals, or from subalterns, is subject to inconveniences that interrupt subordination or that give rise to suspicions among people who know neither the value nor the purpose of the things one asks them, and who believe they can take some advantage from [their] account… of their seigneur's administration.

Saint Simon was so concerned that his fermiers might combine against him to offer low rents that he built a barn to work it directly, if necessary.[28] From the 1750s to the 1780s, the foremost agronomic writers confirmed landlords' suspicions of fermiers by arguing that the vast majority of tenants were held back by routine and were prejudiced against innovation. Laboureurs were

[24] Baulant, "La Calabre," 35-6.

[25] AN S5166 OM, La Croix-en-Brie, 1788.

[26] Young, *Travels in France*, 1: 314. Rents for Nangis, four miles from La Croix, seem applicable.

[27] Hoffman, *Growth*, 171, 178; Becchia, *Modernités de l'ancien régime*, 56. Farmers exchanged hay and oats for ash, human and horse manure, and vegetable matter.

[28] AN S5166 OM, La Croix-en-Brie, 1788.

described as farming "like spiders make their webs, and beavers make their houses… mechanically, like their fathers," but it was also claimed that if one fermier could be persuaded to improve, the rest would follow, like sheep. Improvement would be achieved by enlightened proprietors transforming their tenants into "a new race of Cultivateurs, [ready] to docilely receive for all the branches of their art instructions founded on sound theory and confirmed by proven practice."[29] The catalyst would be one of those wealthy, educated, and reflective men, "strangers to the profession of grain farmer," one of the "zealous amateurs" who were the sources of emulation in agriculture in recent decades.[30]

At the same time, writers on agriculture fretted that fermiers knew themselves to be universally acknowledged objects of contempt.[31] Tenants' low social status was thought to be a major impediment to improvement, with implications that went beyond agricultural productivity. Influential agronomists, economic writers, and administrators such as Gournay, Diderot, Quesnay, Mirabeau, Duhamel, and Rozier believed that only wealthy fermiers could implement the agronomically-correct improvements necessary for the prosperity and survival of France, but they feared that, given the crucial importance of honor in French society, ambitious fermiers, once rich, would rush to leave agriculture for more prestigious occupations.[32] Yet this concerned elite was also confident that the low social status of wealthy fermiers could be used to manipulate them into adapting improvement and to diffuse it among their fellow laboureurs.

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[29] Duhamel, *Éléments* (1762), 1: xi-xii; Jean-Baptiste Rougier de La Bergerie, *Recherches sur les principaux abus qui s'opposent aux progrès de l'agriculture* (Paris: 1788), 15-6, 119-21; Henry Patullo, *Essai sur l'amélioration des terres* (Paris, 1765), 213.

[30] Rozier, "Agriculture," *Cours complet*, 1: 255; Duhamel, *Traité*, 16: 46-7.

[31] Catharina Lis and Hugo Soly, *Worthy Efforts: Attitudes to Work and Workers in Pre-Industrial Europe* (Boston: Brill, 2012), 212, 222.

[32] Charles-Louis de Secondat de Montesquieu, *De l'esprit des lois*, ed. Laurent Versin (Paris: Gallimard, 1995), 1: 122-5; John Shovlin, "Emulation in Eighteenth-Century French Economic Thought," *Eighteenth-Century Studies* 36, no. 2 (Winter, 2003), 226; Duhamel, *Traité*, 16: 46-7; Georges Weulersse, *Le mouvement physiocratique en France (de 1756 à 1770)* (1910; reprint, Berkeley: 2014), 1: 369-71; [Diderot], "Laboureur," *Encyclopédie*, 9: 148; Rozier, "Agriculture," *Cours complet*, 1: 259-61.

Agronomists shared the accepted contemporary belief that emulation could improve behavior by exploiting the universal desire to be honored.[33] In the 1760s, the widely-read *Socrate Rustique* recommended competitions in which the best laboureurs would be presented as models for their peers, declared "benefactors of the *patrie*," and given prizes.[34] In the 1780s, the elite made highly publicized efforts to foster agricultural emulation among fermiers. Louis XVI awarded medals and prizes to laboureurs, as did the intendant of Paris at his newly established agricultural shows.[35] At La Croix, Saint-Simon launched a *fête céréale*, at which

> Every year on the feast of Our Lady the 8th of September… [he] has gathered all the fermiers of the parish, given them a fine meal at [the] end of which to the sound of [musical] instruments he has had come from Provins, he has given [the laboureur] who by the admission of his peers has been declared the best cultivator for that year a prize of two hundred livres which has occasioned great emulation in the locality…[36]

Saint-Simon's prize-giving ritual was not merely imitative, and it put him in the company of more than the Crown. His fête was the model for one of the first agricultural shows in the Brie, organized by his neighbor Guerchy, by now an accomplished agronomist (he translated, published, and hosted Arthur Young in 1788 and 1789), improver of ovine nutrition and breeding stock, and a would-be political reformer.[37]

Louis de Régnier, marquis de Guerchy, was "one of the great improvers," according to Daniel Roche, and "one of the most active members" of the second, far more serious and successful generation of the Société d'agriculture de Paris, in the opinion of Bourde. Yet

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[33] Natasha Gill, *Educational Philosophy in the French Enlightenment: From Nature to Second Nature* (Farnham: Ashgate, 2010), 199; Shovlin, "Emulation," 224-5.

[34] Johann Caspar Hirzel, *Le Socrate rustique ou description de la conduite économique et morale d'un paysan philosophe* (Zurich: 1764), 291-3; Rozier, "Kiloog ou Kliyoogg," *Cours complet*, 6: 121.

[35] Bourde, *Agronomie et agronomes*, 3: 1587-9; "Agriculture," *Journal de Paris* (5 juillet, 1787), 816; Clavilier, *Cérès et le Laboureur*, 122.

[36] AN S5166 OM, La Croix-en-Brie, 1788.

[37] Théophile Lhuillier, "L'ancien château de Nangis et les restes de sa galerie de portraits," in *Réunion des sociétés des beaux-arts des départements* (Paris: 1893), 580; *Mémoires de Saint-Simon* (Paris: 1879) 1: 422; Georges Weulersse and Corinne Beutler, *La physiocratie à l'aube de la Révolution, 1781-1792* (Paris: EHESS, 1985), 58, 53-4; [Arthur Young and Louis de Régnier de Guerchy], *Calendrier du fermier, ou instruction, mois par mois, sur toutes les opérations d'agriculture qui doivent se faire dans une ferme…* (Sens: 1789); Bourde, *French Agronomes*, 185-6.

Guerchy was perhaps a surprising collaborator for Saint-Simon, given that the marquis was no conservative regarding Crown or church.[38] He would later support the nationalization of church property, and in late June 1789, his guest and collaborator Arthur Young was alarmed at the excited talk of regeneration he heard from what he dismissively termed the "circle of politicians" at Guerchy's chateau at Nangis.[39] While there is no evidence that Saint-Simon's political views were as reformist as Guerchy's, he, and at least some of his fellow commandeurs, both anticipated and accepted that a change in their status was imminent.

Saint-Simon's investment in improvement, and in performing its rituals for the admiration of his influential neighbors, indicates his acceptance of the need for church landlords to conform to new expectations of citizenship. Between the 1770s and 1780s, a notable change occurred in the attitudes of commandeurs to their tax privileges. In 1772, the Order of Malta's inspectors implicitly rebuked commandeur Bar when they recorded their fear that his voluntary contribution of 2,400lt for a road part-funded by the Crown might undermine their privilege of "not contributing to public works or charities." The inspectors approved the contribution only after concluding it was not a precedent for taxation. By contrast, the inspectors of 1788 made no comment either on the 1,235lt in *impositions royales* in Saint-Simon's accounts, or on the provision for a third *vingtième* (5% tax) of 344lt per year, "equivalent to the new increase… imposed by the new regulation of the provincial assemblies."[40] The inspectors' calm acceptance

[38] AN S5166 OM, La Croix-en-Brie, 1788; Roche, *France in the Enlightenment*, 505; Bourde, *French Agronomes*, 196; Henri-Joseph-Léon Baudrillart, *Les populations agricoles de la France* (Paris: 1888), 464; Louis Régnier de Guerchy, "Mémoire sur l'amélioration de l'agriculture en France, par m. le marquis de Guerchy," in Société royale d'agriculture de Paris, *Mémoires d'agriculture, d'économie rurale et domestique…* (Paris: 1787), 175-8; Louis Régnier de Guerchy, "Mémoire sur la Société royale d'agriculture de Paris et les comices agricoles de la généralité de Paris," in Académie d'agriculture de France, *Bulletin des Séances Compte Rendu Mensuel* 60 (Paris: 1900), 799-800.

[39] Young, *Travels in France*, 1: 127. In June 1789 Young instructed the marquis and his politically excited guests in building a haystack; Louis Régnier de Guerchy, *Projet pour le remplacement de la dîme, par l'auteur du mémoire sur l'administration des biens du clergé* (Paris: 1788), 1-7, 13, 15-21.

[40] AN S5166 OM, La Croix 1772, 1788.

of actual and expected taxation might seem surprising, given that, in the same year, the body that represented the clergy to the Crown, the Agence générale du clergé de France, expressed its fury at the Edict of Toleration of Protestantism and at attempts at fiscal reform by offering only 22% of the requested *don gratuit* from the church to a clearly desperate treasury, which precipitated royal bankruptcy, with all its consequences. A gap had opened up between the attitudes to taxation of the hierarchy and those of the (relatively) lower clergy, including wealthy commandeurs and cathedral chapitres such as Notre-Dame, who saw that their tax privileges were doomed.[41] In his instructions to the newly inaugurated Provincial Assembly of the Ile-de-France in 1787, the king had ordered that the clergy's untaxed revenues be noted on the vingtième rolls, "so that one can know the just proportion these properties could pay given their revenues, by comparison with the other landed properties of the kingdom." The assembly went further, requesting that a notional levy be struck on the property of the clergy, presumably on the recommendation of the assembly's tax committee, which included Saint-Simon's neighbor, Guerchy.[42]

In the late 1780s, increasingly critical commentary on the agricultural responsibilities of church landlords made it urgent for Saint-Simon to court the approval of politically influential agronomists like Guerchy. In 1788, Rougier de La Bergerie (another member of the Paris société d'agriculture) published a pamphlet on the principal obstacles to agriculture. He demanded that the clergy grant long leases and marl a set area of land each year, because "the property of the clergy is the true heritage of France; the nation must therefore hope for its alleviation. May the

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[41] Nigel Aston, *Christianity and Revolutionary Europe, 1750-1830* (Cambridge: Cambridge University Press, 2002), 185; Donald G. Sutherland, *The French Revolution and Empire: The Quest for a Civic Order* (Oxford: John Wiley & Sons, 2008), 26.

[42] *Procès-verbal des séances de l'assemblée provinciale de l'Isle de France, tenue à Melun en novembre et décembre 1787* (Sens: 1788), 97, 320, 337-8.

clergy be permeated with these useful views!" which "will endear the first order to the state…"[43] Rougier's implicit threat was mild compared to the abbé Rozier's denunciation in 1783 (the year Saint-Simon took over La Croix), of church landlords as the "barbaric masters" of the étangs, "not only the scourge, but the destroyers of humanity," because their profiteering first deprived the poor of the grain that could be grown on this land and then finished them off with the pestilences from the stagnant waters. Rozier's widely read agricultural encyclopedia clarified the link between fish farming and the political reputation of church landlords, declaring "if anyone must give an example, it is certainly the chapitres, the religious communities of men and women. They owe it as ecclesiastics and as citizens."[44] By 1788, Saint-Simon had paid his debt as an ecclesiastic and a citizen by draining his étang.

Saint-Simon's étangs were an embarrassment to him, given his social circle, agronomic ambitions, and desire for profit. Rozier claimed the profit from grain was three times that of étangs.[45] In his study of the politicization of pisciculture before and during the Revolution, however, Reynald Abad sees the "question of the étangs [in the 1780s] as one for academies and agronomists, not proprietors, villagers, the Third Estate or Nobility," that marked "a rupture between discourse and reality." Abad's argument is based on convincing evidence that agronomists condemned the étangs using very recent claims about their declining profitability versus grain, and their social cost in illness and poverty, even as proprietors continued to profit from highly productive enterprises.[46] Yet the hopes and behavior of Bar and Saint-Simon, and the commendations of Guerchy (and the declining profitability of Saint-Denis' étangs in the 1770s, outlined in chapter three), suggest that different agronomic discourses, the public interest

[43] Bergerie, *Recherches*, 181-3.
[44] Rozier, "Etang," *Cours complet*, 4: 392-4, 396-8.
[45] Ibid., 4: 393-6.
[46] Abad, *Conjuration*, 59-62, 70, 74-79, 83.

and comparative profitability for the landowner, were very much aligned with church landlord behavior, and had been before the health issue first arose in an agronomic competition in 1778. Abad is too dismissive of the declining profitability of étangs compared to grain.[47] Saint-Simon's inspectors declared that the "result of his [reclamation] work would be of the greatest utility and a considerable increase in the revenues of the commanderie."[48] Profit rather than humanitarianism sealed the fate of Saint-Simon's carp, though he also took care to present himself as a benevolent seigneur.

Saint-Simon's agricultural efforts were part of a program of improvements designed to present him as an ideal improving, humane, and patriotic seigneur for the inspectors, local landowners including Guerchy, and the local population. The inspectors asserted that Saint-Simon's fête céréale "made him loved and respected by all the inhabitants who found in him for their maladies all the bouillons and comforts necessary for their état." The commandeur had

> Paid for a procureur fiscal to come from Nangis to uphold and enforce exactly the police du bourg against the depredations committed in the countryside during haymaking and the harvest, he ensured the cabarets remain closed during holy offices on Sundays and fetes and at 10 o'clock in the evening, and that the streets are cleaned at the appropriate times, he had distributed every year 30 or 40 setiers of wheat to the most indigent and had them given wood in the winter, he had clothed the children of those who could not afford clothing, and he kept a number of day laborers occupied during bad weather to give them relief.[49]

The commandeur's good works might have satisfied the injunction of the Gospel of Matthew that the wealthy use their wealth to feed the poor and clothe the naked, or suffer eternal damnation.[50] The inspectors, however, were only interested in the earthly impact of Saint-Simon's generosity, whose public performance justified his (and church landlords') claim to

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[47] Derex, "Etangs briards," 332-3, 336, 342; Abad, *Conjuration*, 98, 100-5.

[48] AN S5166 OM, La Croix-en-Brie, 1788.

[49] Ibid.

[50] Saint-Allais, *Catalogue général*, 162; Mathew, "Marling," 25: 31-46; Placide Olivier, *Catéchisme évangélique, ou éclaircissemens par demandes et par réponses pour faciliter l'intelligence de plusieurs textes de l'Évangile…* (Nancy; Lyon: 1772), 1: 361-2; Martin-François Thiebault, *Explication littérale, dogmatique et morale des évangiles des dimanches et fêtes principales de l'année, en forme d'homélie* (Metz: 1776), 2: 213.

continued, even growing social utility. Saint-Simon's procureur fiscal investigated crimes and regulated markets and cabarets, the aspects of justice considered the "most essential for society, to maintain religion, make commerce flourish, and enrich the subjects of the king."[51] That would have impressed other proprietors, particularly when the impoverishment of smaller laboureurs led to attacks on the gros fermiers tasked by agronomists with improvement.[52] His wealthy neighbors would also have recognized and admired in him that new phenomenon, the *gentilhomme philanthrope*.[53]

Saint-Simon's well-publicized generosity was intended to legitimize a claim to continued leadership by displaying philanthropic *bienfaisance*. Bienfaisance offered practical help to the needy and it necessarily took place in public, where its impact was magnified through inspiring emulation in other donors. In effect, Saint-Simon was using bienfaisance to clothe himself with fashionable virtues. Duprat writes that the performer of bienfaisance "blended the image of the defender of the rights of humanity, that of the savant, agent of progress of the sciences and technology, that of the man of action, entrepreneur and provider of humankind." Bienfaisance became something of a craze among the elite in the late 1780s. It was new, as it was thought to be different from charity, which was associated with Christian atonement by the donor, who gave modestly and discreetly, and which required some Christian quid quo pro by the recipient. Duprat interprets bienfaisance as a secular movement - although her list of bienfaisant gestures includes Notre-Dame's well-publicized donation of 30,000lt in 1788 - and focuses on recurring

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[51] Albert Babeau, *Le village sous l'ancien régime* (Paris: 1878), 216; Michel Peronnet, "Police et religion à la fin du XVIIIème siècle," *Annales historiques de la Révolution française* 42, no. 200 (avril-juin, 1970), 375, 382; Edme de la Poix de Fréminville, *Dictionnaire ou traite de la police générale des villes, bourgs, paroisses, et seigneuries de la campagne… dans lequel on trouvera tout ce qui est nécessaire de savoir & de pratiquer en cette partie, par un procureur fiscal…* (Paris: 1775), vi.

[52] André Abbiateci, "Les incendiaires dans la France du XVIIIe siècle: Essai de typologie criminelle," *Annales. Histoire, Sciences Sociales* 25, no. 1 (jan. - fév., 1970), 243-5; Bouton, *Flour War*, 235-7.

[53] Henri Gouhier, *La jeunesse d'Auguste Comte et la formation du positivisme*, 2nd ed. (Paris: Vrin, 1970), 2: 175, 167-8.

references to celebrated, secular scientific, agronomic, and economic figures such as Antoine Lavoisier, Dupont de Nemours, the duc de La Rochefoucauld-Liancourt, and Antoine Parmentier.[54] Duprat's interpretation may be correct in theological terms, but the new preponderance of the laity in philanthropy and the novelty of self-publicity were far from incompatible with ecclesiastical activism.

Attempts to exalt the laboureur drew much of their resonance from religion, and agricultural improvement promised spiritual as well as temporal redemption. The first French fête céréale, in 1778, was initiated by the curé of Pantigny, near Auxerre, to reward the best laboureur, who had to be both technically superb and a "*bon chrétien, honnête homme, bon père de famille*."[55] At another such occasion, the priest informed a (presumably startled) congregation of laboureurs that "you are the ministers of God."[56] Saint-Simon lent religious prestige to his fête céréale by holding it on the important harvest feast of the Nativity of the Virgin Mary. It might seem anomalous to include Saint-Simon and his fellows in a discussion of "religious" or "ecclesiastical" landowners, given their not exactly ascetic or kindly reputations (Bar, Saint-Simon's predecessor, paid 3lt for the trial of a "fruit thief: condemned to the galleys"), military and carousing youth, and comfortable retirement, not to mention their lack of clerical functions.[57] Yet that is to judge them by the standards of the purged, post-revolutionary church. As a chevalier *Grand Croix*, Saint-Simon was one of the professed, at least nominally celibate knights who, whatever lay contemporaries thought of them, identified themselves with the church to the extent of referring to the Order of Malta as "*la religion*." The focus of this dissertation is not on the theological views, still less the faith of church landlords, but on their influence on the

[54] Duprat, *Philanthropie parisienne*, 40-4, 54-5, 69, 73.
[55] *Mercure de France* (Août, 1778): 351.
[56] Weulersse, *La physiocratie*, 58.
[57] AN S5166 OM, La Croix-en-Brie, 1772.

adaptability of the church and so on the dynamism of a significant part of the ancien régime. Despite the low contemporary esteem for the commandeurs of Malta, Saint-Simon's strenuous and successful efforts to co-opt the public honor and political respect associated with agricultural improvement and social utility demonstrate that he believed that, through enlightened religious proprietorship, his privileges as a church landlord could be reconciled with the new, emerging France of secular improvement. Saint-Simon was not alone in that belief, which was shared by church landlords who were not only close to but were active leaders of the reforming elite.

Institutionalized Improvement at Notre-Dame

From the birth of enlightened French agronomy in the 1750s to the early Revolution, the chapitre de Notre-Dame de Paris was a leader in the culture and networks of the Agricultural Enlightenment, which profoundly shaped the investment practices and tenant relations of the chapitre, described in chapter two. Notre-Dame's translation of the Agricultural Enlightenment into practice was as distinct from the concerns of the agronomists as it was from the investment capacity and inclinations of lay landlords, and it reveals how wealthy churchmen were perhaps uniquely fit to help agriculture escape its structural limits. The overlapping social, intellectual, and administrative circles through which the canons of Notre-Dame lived the Enlightenment and sought to change France and enhance their share of power demonstrates that the Catholic Agricultural Enlightenment and the practices it prompted and justified were inherently political and, it appeared, successful, in ensuring the church's continuing leadership of the coming, reformed France.

Saint-Simon was not the only enlightened, politically active ecclesiastic known to Guerchy. No bishops or bons curés were nominated to the provincial assembly of the Ile-de-France in 1787, but Notre-Dame supplied four of the 48 members. Alongside Guerchy in the

committee on taxes - which, as previously mentioned, recommended that a notional levy be struck on the tax-exempt income of the clergy - sat canon Jean de La Bintinaye of Notre-Dame. Bintinaye was no figurehead or reactionary clerical nominee. His proposals accorded with Guerchy's fashionable argument that destitute women and children be held in workhouses, while men were put to work the roads. La Bintinaye also shared the intention of the assembly to wrest some accountability and power from the Crown's intendant rather than be, as had been intended, merely a facilitator of tax increases.[58] The canon's *Mémoire sur la mendicité* demanded the assembly "make a new order of things" to destroy the misery caused by the "*ancien régime féodal*."[59] Other canons of Notre-Dame worked on more mundane reforms. Charles du Tilly-Blaru served on the committee for bridges, roads, and public works.[60] Notre-Dame's remaining nominees, dean Flotard de Montagu and Lucas, made little impression on the short-lived assembly. Lucas, however, was already working alongside Guerchy in what Duprat terms the "most active proselytizing society of all for bienfaisance, the société royale d'agriculture."[61]

By 1787, Lucas was the senior surviving member of the initial agronomist movement and no stranger to its political networks. André Bourde writes that with Duhamel du Monceau's first publication on agronomy in 1750 (an adaptation of Jethro Tull's *Horse-Hoeing Husbandry* for a French context), empirically-based French "agriculture became a science." Lucas was involved in that science from its inception. That same year, in addition to becoming a canon of Notre-Dame, he helped launch French enlightened agronomy by working with Duhamel and Henry Pattullo on the *Almanach du bon jardinier*, a work intended to popularize English agricultural

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[58] Michael Kwass, *Privilege and the Politics of Taxation in Eighteenth-Century France: Liberté, Egalité, Fiscalité* (2000; reprint, Cambridge; New York: Cambridge University Press, 2006), 262-8.

[59] *L'assemblée provinciale*, viii, xxxii, 208, 211-2.

[60] Ibid., lxxii, 3, 98. Notre-Dame contributed canons Lucas and Flotard de Montagu (both for Saint Germain), Tilly-Blaru and Champigny (Rozoy), La Bintinaye (Corbeil); Thomas M. Adams, *Bureaucrats and Beggars: French Social Policy in the Age of the Enlightenment* (New York: Oxford University Press, 1990), 216-7.

[61] Duprat, *Philanthropie parisienne*, 41-4, 54-5.

knowledge among fermiers.[62] A founding member of the Société d'agriculture de Paris in 1761, Lucas served on the committee investigating plowing, tools, fertilizers, and sowing machines for wheat farming. Notre-Dame was the first of the religious landlords to support the Crown's défrichement campaign by suspending tithes and seigneurial dues on reclaimed lands for twenty years, prompting the abbeys of Saint-Denis and Saint-Germain-des-Prés to do the same, and earning the approval of Bertin, the controller general.[63] The Société d'agriculture ceased to meet after 1763, prompting Lucas to transfer his experiments in agricultural technology from the test grounds of his dormant committee to the rather larger agricultural properties of Notre-Dame.

Lucas' position as chambrier (property manager) of Notre-Dame during the 1760s enabled him to begin to reconstruct the farmyards of the chapitre. He spent 180,000lt on five fermes before leaving office in 1774, including 100,000lt for his greatest project, at Belloy-en-France, a prime arable area 18 miles north of Paris. The rebuilding of Belloy was prompted by Notre-Dame's consolidation of two adjoining fermes into a single unit of 228 arpents with one high-walled, quadrilateral farmyard (Fig. 2). The farmhouse oversaw the sole entrance gate, and

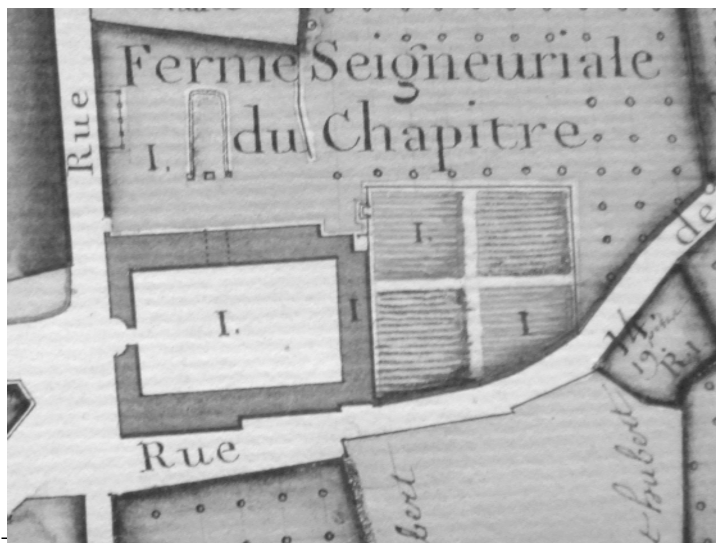

Fig. 2 Detail of Notre-Dame's Seigneurial Map Showing the Rebuilt Farmyard at Belloy-en-France, c. 1780.

SOURCE: AN N1 Seine-et-Oise 15, Belloy en France, c.1780, detail from seigneurial map.

[62] Meuret, *Notre-Dame de Paris*, 5; Louis Passy, *Histoire de la société nationale d'agriculture de France tome premier 1761-1793* (Paris: 1912), 1: 5-6, 68, 83. Duhamel's first agronomic work appeared in 1750, Patullo's in 1752; Bourde, *Influence of England*, 49.

[63] Passy, *Société nationale*, 1: 5-6, 68, 83; Bourde, *French Agronomes*, 87-8; Bourde, *Agronomie et agronomes*, 2: 1121-4, 1144, 1147; AN H1495.

on either side of the yard were vaulted animal houses with granaries, haylofts and accommodation overhead for farm workers.

Notre-Dame's archives say little about what Lucas hoped to achieve at Belloy from all this expenditure. Accommodating two fermes in a single corps de ferme was the initial aim, which was approved as a "wise economy" by the chapitre. Underlying that rationale were agronomists' appeals for the rational réunion of adjacent fermes to enable the enlightened owner, through his fermiers, to better and more efficiently exploit the land. The fermier would work larger areas of land more economically, for example by saving time while performing the repeated plowing recommended by the new agriculture.[64] The sheer scale of Belloy's indoor, winter accommodation for livestock also suggests that Lucas may have been emulating English "Norfolk" practices of increasing the output of meat, dairy, and hides in order to increase the value added of the ferme, which also generated the all important byproduct of increased quantities of manure to improve the fertility of the land. That latter windfall would have been helpful if the fermier, Meignan, had Notre-Dame's permission to reduce fallowing. Given Lucas' agronomic credentials it seems unlikely that this would have been withheld.

A lone chapter by Lucas' colleague, the arch-agronomist Duhamel, on the characteristics of the ideal farmyard gives an idea of what Lucas sought to provide for his fermier. Duhamel, after declaring that "nothing could be more advantageous to the fermier, and consequently to the proprietor, than to be lodged in a ferme whose buildings are conveniently laid out for the work one must do there," describes a "square" farmyard he had built on one of his own fermes that is similar to Lucas' Belloy. Duhamel's model farmyard (Fig. 3) allowed the fermier to monitor the *domestiques*, whose diligence and dishonesty was a perennial source of worry to agronomists.

[64] Bourde, *Agronomie et agronomes*, 3: 1469-70, 1473-77.

The explicit aim was to group animals, workers, and farm products rationally together to reduce

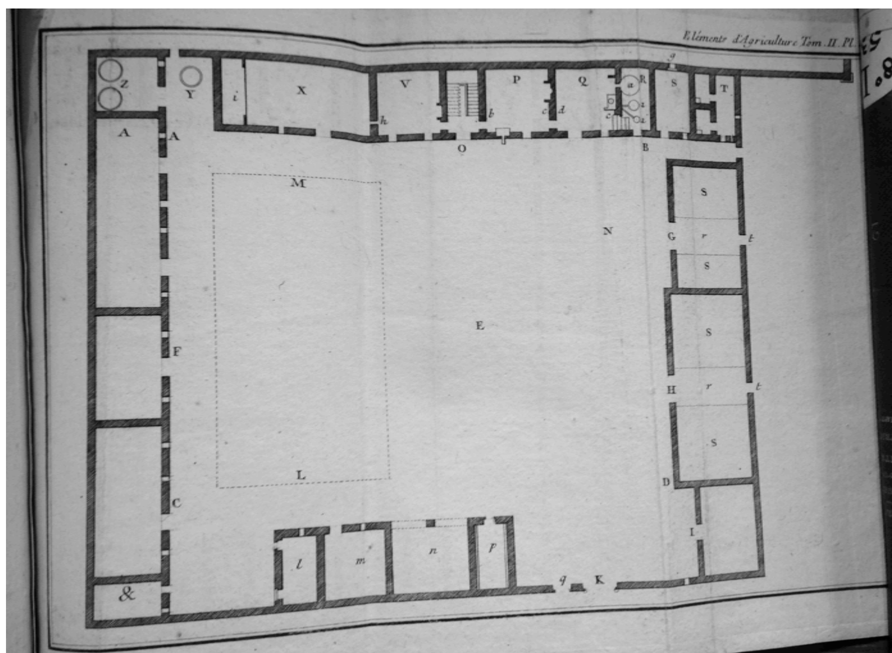

Fig. 3 Duhamel du Monceau, Plan of an Ideal Farmyard, 1779.

SOURCE: Duhamel, *Éléments* (1779), 2: Pl. VI.

the operating costs of the fermier (e.g., by installing hoists and hoppers or concentrating manure near the animal houses, making its collection easier) and for the proprietor (reducing repairs, preventing fires). It isolated seasonal workers and itinerant beggars to minimize theft and arson, while quarantine pens, drainage, and ventilation protected animal health.[65] Duhamel rebuilt his ferme around the time that Notre-Dame was reconstructing Belloy, and Lucas may have discussed his building projects with the agronomist, whose Parisian residence on the Ile Saint-Louis was near Notre-Dame, and who Lucas knew from their shared membership of the Paris agricultural society. That speculation aside, Belloy was very much an original project by Lucas, as the agronomists had little to say about farm buildings.[66] Even Duhamel addressed the topic

[65] Ibid., 2: 59-60, 64-65, 68-76, 88 ; Hoffman, *Growth,* 41-4. The interior of side of Lucas' farmyard has not survived, but the plan is unchanged, as can be verified on Google Maps.

[66] Reynaud, *Elevage bovin*, 150; Fussell, *Classical Tradition*, 154, 156-9.

only in the final revised edition of his great work, the *Éléments d'agriculture*, in 1779 – almost 10 years after Lucas completed the works at Belloy.[67]

Built without theoretical or real world models, Belloy was an experiment that resulted in over-investment. The farmyard of Belloy survives mostly intact to this day, its size a puzzle to the current owner and farmer, M. Thibaut Sainte-Beuve, who believes it to have been far in excess of the land's requirements.[68] Lucas' contemporaries probably thought much the same, to judge by the findings of another member of the Société d'agriculture, Charles de Butré, who was an exceptionally capable compiler and interpreter of empirical data on agricultural accounts, revenues, and costs for the leading physiocratic authors Quesnay and Mirabeau. Butré wrote that the avances foncières (expenditure on the buildings to house and conserve produce, stock, labor, and implements, along with clearing, draining, marling, and afforesting the land) necessary to make productive 320 arpents would cost 45,000lt.[69] One might question how much attention Butré paid to avances foncières, which were paid by the landlord, when the physiocrats' attention was all on the accounts of the tenant. Yet a near-contemporary document shows that third-party experts thought the farmyard at Belloy was exceptional and that its cost exceeded its worth. When the many religious properties of the region were confiscated and offered for auction in 1790, the corps de ferme of Belloy, alone, was given a separate valuation from its surrounding lands – of 22,446lt, which was an 81% write-down on Notre-Dame's investment since 1759. Even allowing for the 59% premium over the estimated value that was finally paid at auction for

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[67] Duhamel, *Éléments* (1779), 2: 59-60, 65, 68-76, 88. One side of Lucas' farmyard has not survived, but the plan is unchanged, as can be verified on Google Maps.

[68] From a conversation with Thibaut Sainte-Beuve at Belloy-en-France in June 2014. M. Sainte-Beuve farms 200 hectares (585 arpents) from the original farmyard.

[69] Charles de Butré, *Loix naturelles de l'agriculture et de l'ordre social. Par m. de Butré des sociétés royales d'agriculture de Paris, d'Orléans & de Tours* (Paris: 1781), 11; Loïc Charles and Christine Théré, "The Economist as Surveyor: Physiocracy in the Fields," *History of Political Economy* 44, 1 (2012): 83-6; Loïc Charles and Christine Théré, "In the Shadow of François Quesnay: The Political Economy of Charles Richard de Butré," (2013), 3-6. https://ideas.repec.org/p/drm/wpaper/2013-32.html (Accessed October 16, 2016).

the land and farmyard, Lucas seems to have over invested at Belloy.[70] Yet, any megalomania in Notre-Dame's investments was soon tamed. The chapitre continued to rebuild its fermes, but henceforth only in part, and for costs that varied between 20,000lt and 60,000lt, for Notre-Dame remained committed to making expensive and prolonged investments in the technology of agriculture, and not only in buildings.

It may be that an important element of Lucas' motive for spending at Belloy was to conserve the fermier's output. He knew the cost of such losses. Shortly after being elected to manage the properties of Notre-Dame in 1762, he warned the canons that

> The immense quantity of weevils that has infected the grain of the chapitre this year… required a redoubling of work and expense to prevent the loss of 46 muids 8 setiers remaining from the harvest of 1761, and that notwithstanding this attention, this year's wastage can only be considerable.[71]

If, as Lucas warned, the entire stock were lost, the cost would have amounted to 7.5% of Notre-Dame's annual rural rents in cash. The best he could hope for was to sell at the worst possible time of year, if he could find a buyer for his infested grain, which is doubtful, given the exacting expectations of the Parisian consumer. Due to their experience of the weevil crisis, the canons undoubtedly shared the great contemporary interest in maximizing the actual as opposed to the potential produce of the fields.[72] In the absence of detailed plans and descriptions of the building improvements implemented by Notre-Dame, one could speculate that some of Lucas' investment, at least, went into Duhamel's solutions to grain conservation problems using sealed compartments and controlled ventilation. Well publicized Crown experiments in that technology were arousing wide controversy at this time, and Lucas may have heard from the clergy of Saint-

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[70] AD Val d'Oise 2L1 1, Directoire du District, Procès-Verbaux des Séances, 18 décembre 1790, 25 janvier 1791.

[71] AN LL232 30 (1-2) ND, 30 juillet 1762.

[72] Steven L. Kaplan, *Provisioning Paris: Merchants and Millers in the Grain and Flour Trade during the Eighteenth Century* (Ithaca: Cornell University Press, 1984), 61-7; Jean Meuvret, quoted in Liana Vardi, "Construing the Harvest: Gleaners, Farmers, and Officials in Early Modern France," *The American Historical Review* 98, no. 5 (Dec., 1993), 1429.

Lazare of Duhamel's grain drying building on their property at nearby Saint-Laurent.[73] The chambrier was certainly aware of one small but key element of Duhamel's technological solution to conservation, the improved cleaning of grain.

Notre-Dame was among the very few users of improved grain conservation technology in the 1760s.[74] It had good reason for its interest, as Lucas' bleak message about the weevil infestation reveals. Fortunately, the chambrier's readings in agronomic literature and the proceedings of the Société d'agriculture he attended gave reason for hope, for Duhamel had publicized new winnowing technology. If Lucas had reservations about the cost of this equipment, he could take comfort from Duhamel's sales pitch, which promised an economical and effective investment that would improve productivity. Duhamel's *crible* (sieve), like the drying buildings and granaries he proposed, could be operated by a "weak or elderly man," at minimal cost, yet would remove the insects, chaff, and soil that caused stored wheat to deteriorate. The agronomist rejected the "well-known" open *crible incliné* ("Fig.1" in my Fig. 4) into which grain was dropped onto metal wires: it was simple and cheap to build and easy to

[73] Duhamel, *Éléments* (1762), 432-3, 437; Simone Zurawski, "Fresh Analysis of the Pillage of Saint-Lazare, Paris, on 13 July 1789" (lecture, *Consortium on the Revolutionary Era*, Charleston, South Carolina, 23-26 February 2017), 4-5; Zurawski, *Vincent de Paul and Saint-Lazare*; Kaplan, *Provisioning Paris*, 70-5.

[74] Moriceau, "Révolution Agricole," 40.

operate, but the grain had to be repeatedly winnowed, increasing labor costs for little return.[75]

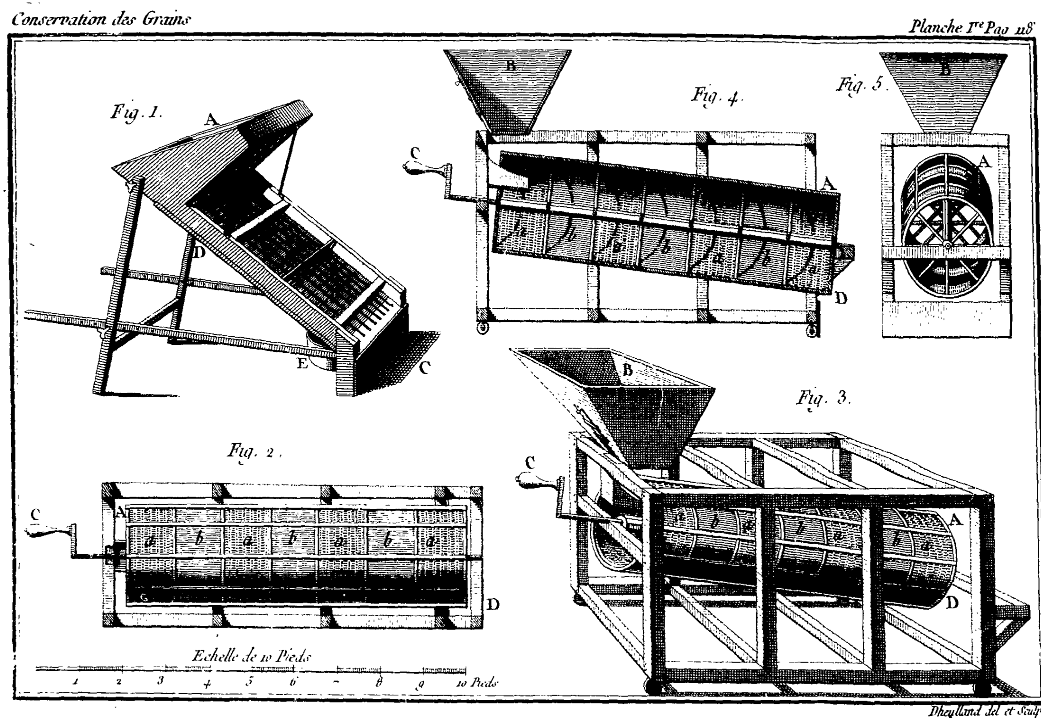


Fig. 4 Duhamel's Crible incliné and crible cylindrique.

SOURCE: Duhamel, *Traité*, 118.

Instead, Duhamel proposed a *crible cylindrique* ("Fig. 2," "Fig. 3" and "Fig. 5" in my Fig. 4), which made grain "bright, brilliant, and of a quite more beautiful color than before," and which was effective on grain blackened by disease.[76] After the costly plague of weevils the agronomist's promises would have had a certain appeal for Lucas and the chapitre.

Although the great majority of the Notre-Dame's rural rents were paid in cash, six of its fermiers together paid 90 muids of wheat per annum. The chapitre, its employees, and the choir consumed over 80% of this, but 10% was sold in the Halle of Paris. The chapitre did not book a monetary value for this income in its accounts (apart from cash receipts from sales of this surplus grain), yet the physical quantities were scrupulously recorded and can be valued using

[75] Duhamel, *Traité*, 98-9, 102-5, 3-5.
[76] Ibid., 107-8.

contemporary grain prices. The value of rent received in grain between 1759 and 1788 was very substantial, not only for Notre-Dame, but even in terms of the total volume of grain sold at the Halle. (The chapitre's income was equivalent to 1-1.5% of the total wheat sold in the market during the 1720s and 1730s.[77]) The estimated cumulative value of Notre-Dame's income-in-kind in wheat is 675,000lt, or 20% of cash rents. (If the chapitre had to buy this grain the cost would presumably have been greater again.) As is evident from the weevil crisis, this grain was kept for a year or more before being consumed. Even in a good year losses were substantial, at about 4% of volume, though the canons tried to minimize them using the practices and technology of the 1750s and perhaps long before, by employing the equivalent of two unskilled laborers to turn and sieve part of the grain in the cloister's granary every day.[78] Notre-Dame needed a more effective solution.

Under Lucas the chapitre invested repeatedly in Duhamel's expensive equipment to improve its grain conservation. In 1765, the chapitre paid a tin master 24lt to repair a *crible à bled*, so evidently it had some relatively large and expensive sieve in the 1750s, possibly the much-maligned crible incliné. In 1763, it bought a crible cylindrique for 110lt, described, very unusually, as "by order of M. Lucas." In 1768, the chapitre bought a further two "cribles" costing 260lt from Pierre Drancy, *mécaniste.* Given their cost, these unspecified cribles were presumably also cylindrical, rather than the cheaper sloping version. In 1772, the chapitre paid Drancy 1,058lt for "two cribles cylindriques with two coffers and a wheelbarrow for the granaries of the chapitre."[79] Presuming that the coffers and wheelbarrows were relatively inexpensive, the large

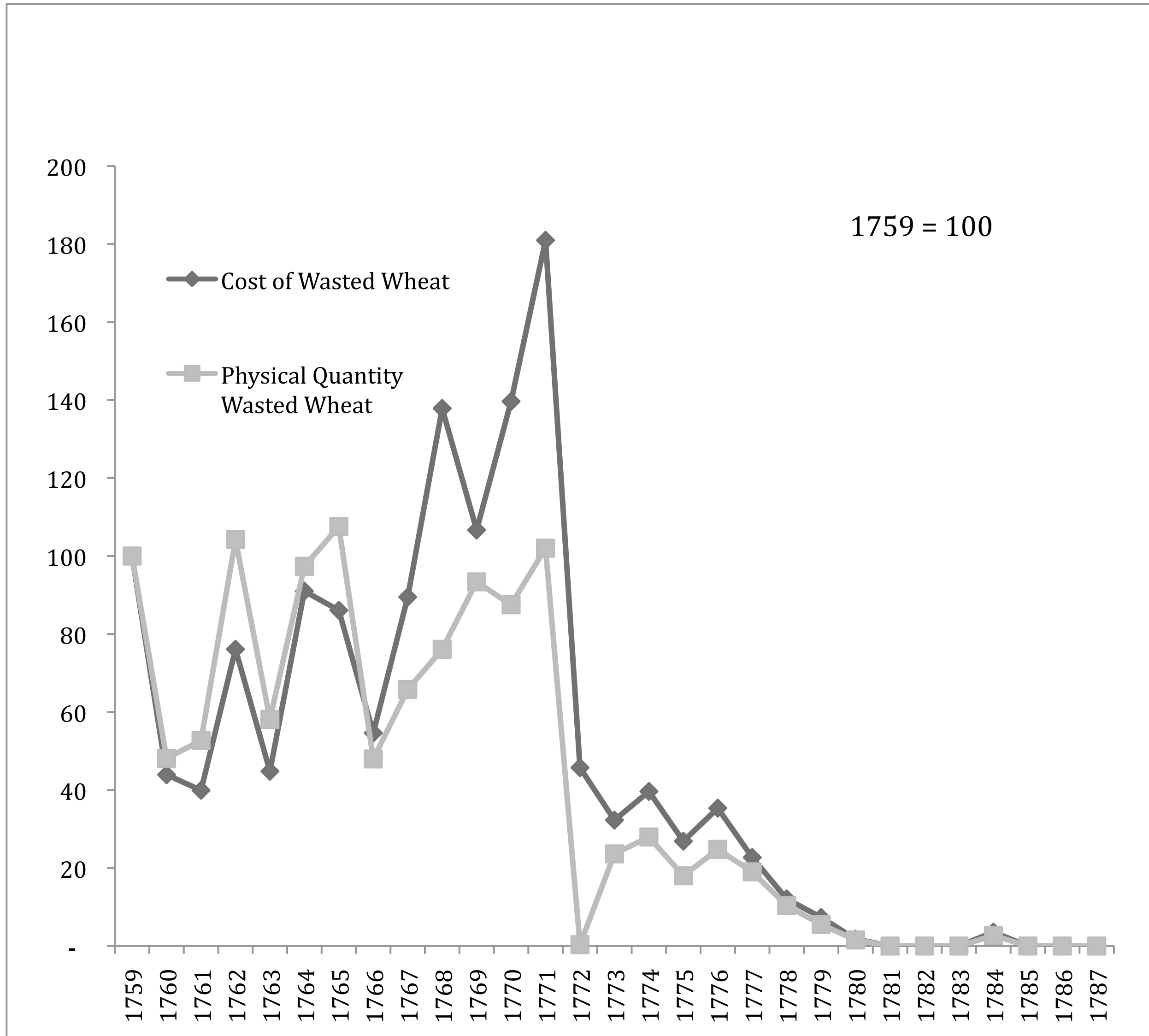
[77] Kaplan, *Provisioning Paris*, 46.

[78] AN H5 3384-3408 ND, "Compte de la Recette Générale. Dépenses, huitième chapitre, diverses causes ordinaires, criblage et remuage des bleds de la récolte..." Passim. Unless otherwise stated the physical volumes and cash figures cited in this section are from the chapters on the "Recettes de froment" and "Dépenses de froment" sections of the annual accounts.

[79] AN H5 3387, 3388, 3392, 3397 ND, Comptes, Dépenses: huitième chapitre, diverses causes ordinaires. 1762, 1763, 1767, 1772. The expenditure for 1772 is recorded between the expenses for the funeral of the dauphine

expenditure on cribles is remarkable for its value and because it was sustained. Lucas may have bought the first crible cylindrique to satisfy his agronomic curiosity and to show solidarity with Duhamel, but the more likely goal was to increase the productivity of grain and of labor, just as it was for church landlords' investments in farm buildings, roads, and fields.

Chart 7 Wastage of Wheat in Notre-Dame's Granaries, 1759-1788



As Chart 7 shows, achieving productivity gains took patience, determination, and a large purse. During the 1760s, wastage declined from 6% to 4% of wheat receipts. The determination

in 1767 and those for motets performed during the visit of the new dauphine and dauphine in 1773. Payment for cribles was more of a priority than royal funeral expenses.

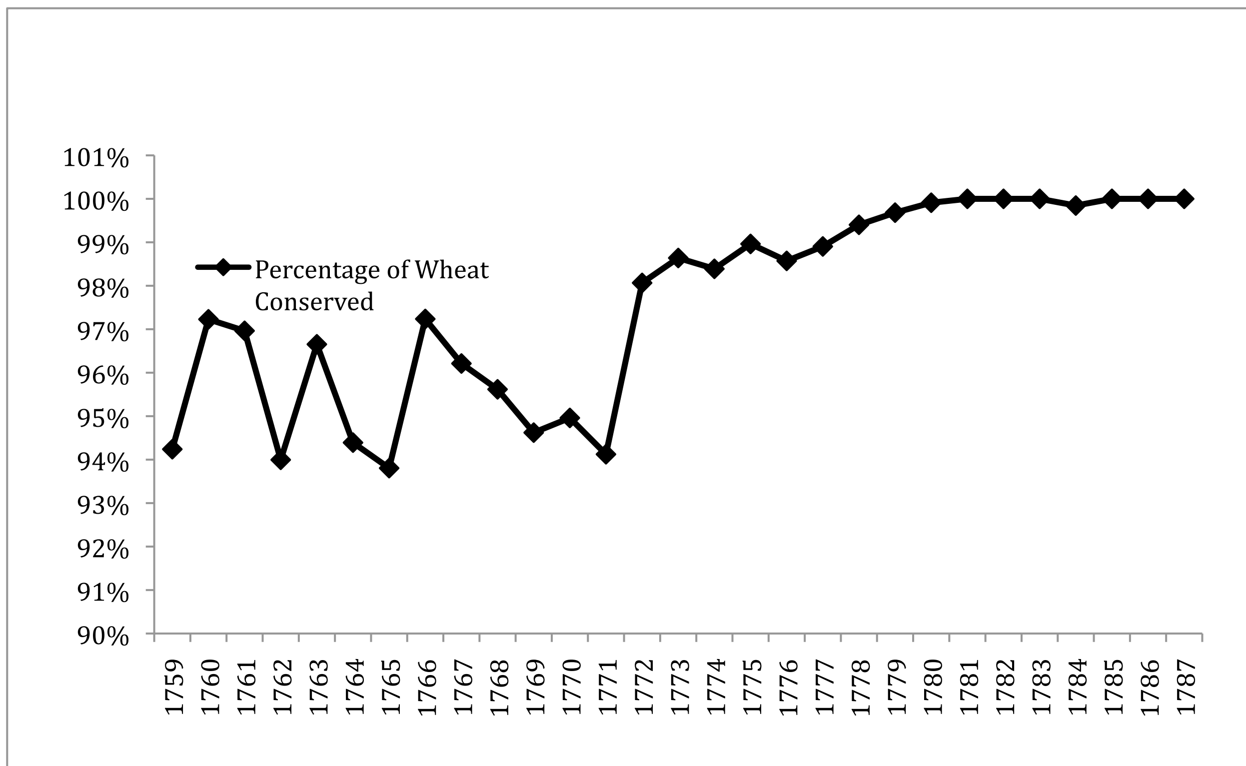
of the chapitre to reduce wastage further must have been encouraged by the rising price of wheat, which magnified the cost of wastage - and inflated the potential saving - making the substantial cost of investment seem more affordable. As the chart shows, this price effect was at its greatest between 1767 and 1772, which explains why the chapitre was prepared to spend 1% of its cash income from fermes for the latter year, when the cost of wastage peaked, on new cribles. That investment required considerable faith in the new technology, as cribles introduced in the 1760s were inadequate for the task, particularly from 1768-1770. But the investment finally paid off.

Wastage was reduced by 80% when new cribles were introduced in 1772, never again rose above 2% of wheat receipts, and fell below 1% in the late 1770s. Some caveats have to be applied to this data: it is not possible to control for the skill and diligence of the operator, or the quality of wheat, and the frankly unlikely fall of wastage to zero in the 1780s raises the suspicion of inaccurate recordkeeping. Yet nothing in the sources suggests a change in operating conditions or the quality of grain treated, and the volume of "saved" wheat does appear in increased documented sales, which rose on average from 8.8 to 11.4 muids, being at their highest (12 muids) in the years when wastage was recorded at or near zero. It is not obvious why the two "cribles cylindriques" of 1772 were so much more effective than the two, frustratingly vaguely named "cribles" of 1768, apart from the large price difference (260lt in 1768 versus 1,058lt in 1772). Even with two coffers and a wheelbarrow thrown in, there must have been a substantial increase in the performance of the 1772 equipment.

That improved performance in grain conservation paid off in revenue and labor productivity in ways that were significant for Notre-Dame, but even more so for the capacity for improvement of mid eighteenth-century Western Europe. It is worth considering the endless winnowing of the unnamed, unskilled, poorly paid laborers in the chapitre's granaries prior to the

investment in the new crible technology because of its significance for newly possible, but hard to measure changes in productivity. Steven Kaplan argues that technological improvements in grain conservation, including the crible cylindrique, were "too exotic, too expensive, or too complex. None of them could replace labor at the shovel and fussy watchfulness."[80] In his view, no productivity increase was then possible. Yet at Notre-Dame, Lucas' investments increased the physical productivity of grain conservation, along with the productivity of labor. Expenditure on the winnowers went on, but their productivity in consumable grain grew.

Chart 8 Notre-Dame's Efficiency in Wheat Conservation, 1759-1787



The absolute cost of labor and the quantity of labor days deployed remained largely unchanged after the new cribles were introduced in 1772. Yet, in 1779, when wastage was almost eliminated (Chart 8), labor costs were only 2% greater than in 1759, despite wage inflation. This apparent equilibrium in labor costs masks real productivity gains: the labor necessary to achieve nearly

[80] Kaplan, *Provisioning Paris*, 69-70.

100% conservation using the old technology would, as Kaplan argues, have been uneconomic, and so it was not achieved – until Duhamel's cribles made it feasible.[81]

Lucas' successful use of technology to increase labor productivity resulted in a weakening of the immemorial, direct Malthusian link between labor hours and agricultural output. As was then occurring in England at a newly brisk pace, improved agricultural productivity for both land and labor increased the potential population that could be fed from within the old world.[82] Agronomists' focus on the technology of agriculture, and proprietors' and tenants' investments in equipment had material successes. The efficiency gains of Notre-Dame's grain conservation would have fed (at contemporary rations) between 20 and 30 extra adults from existing resources.[83] The saving – or effectively increase - in output available for consumption was approximately 6%. It mattered that existing supplies could be made go 6% further: the increase in agricultural volume output for the Paris region between 1750 and 1789 has been estimated at just 15%.[84] Amid a growing population, slowly increasing food production, and regular dearths, Notre-Dame's successful investment in grain conservation machinery shows the potential of minor improvements in muscle-powered technology of the type disseminated by agronomists. In economic terms, such improvements in efficiency moved the supply curve slightly but permanently down and to the right, making it possible for more food to be provided by suppliers at a given price, with obvious benefits for consumers. This illustrates the reality of technological changes in tools, communications, and agronomic knowledge on the efficiency of agricultural output, and its significance, once it spread among producers.[85]

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[81] *Nouvelle maison rustique* (1775), 584, 590.

[82] Mark Overton, "Re-Establishing the English Agricultural Revolution," *The Agricultural History Review* 44, no. 1 (1996), 4-5, 15.

[83] Steven L. Kaplan, *The Bakers of Paris and the Bread Question, 1700-1775* (Durham NC: Duke University Press, 1996), 446-7.

[84] Hoffman, *Growth*, 149-50.

[85] Moriceau, "Révolution agricole," 40.

It is not unreasonable to speculate that Lucas' successful use of new, agronomist-inspired technology might have influenced Notre-Dame's tenants. In 1772 (the year the cribles cylindriques had their first great impact), the chapitre sold its surplus grain, not in the market, but back to its tenants, thereby allowing the fermiers to make the large profits possible as wheat prices reached new peaks. It seems reasonable to presume that the chapitre's fermiers heard about the remarkable improvement in the conservation of grain that generated their windfall. At a time of high wheat prices and dearth, they too might have seen the value of investing in proven equipment. The cost of the cribles and the long wait to perfect their performance meant their use was feasible for only the wealthiest landlords, or large fermiers whose economies of scale made the new cribles worthwhile. The fermiers of Notre-Dame had the economies of scale, the resources, and the interest in effective solutions to agricultural problems to make that investment. As Moriceau has shown, a few fermiers in the Ile-de-France also undertook the large expenditure necessary for cylindrical cribles.[86] If Notre-Dame's fermiers did so too, the new technology would have increased their income by improving the quantity, quality, and price of their grain, while also easing expensive labor bottlenecks at harvest time. In this way the influence of the innovation would have been greatly multiplied, and Lucas would have achieved a key aim of the new agronomy, its adoption by fermiers.

As chambrier, Lucas' immediate focus for the practical application of agronomy had been at Notre-Dame itself. After he gave up responsibility for the chapitre's property in 1772 there were no more Belloy-style extravaganzas, yet the systematic upgrading of the chapitre's farmyards proceeded through the 1770s and accelerated again in the 1780s, as detailed in chapter two. Lucas must have presented compelling arguments to the canons to persuade them to invest hundreds of thousands of livres in improvements over a decade, with little hope of a return in the

[86] Moriceau, *Fermiers*, 755-9, 780-1; Moriceau, "Révolution agricole," 45-9, 54-7.

short term. As the fiercely debated alternative visions of rural policy at Saint-Denis reveal (see chapter three), leaders of church corporations had to bring their fellows with them, and dubious personal agendas were soon reversed. The abandonment of the policy of improvement at Saint-Denis demonstrates that there was nothing predetermined about high levels of rural reinvestment by church landlords, regardless of the external intellectual and political environment or the structure of church corporations. Investment in improvement was institutionalized at Notre-Dame because it reflected a consensus among the canons.

After Lucas' success at Notre-Dame, he seized the opportunity to cooperate with France's scientific elite to further the development and diffusion of scientific agriculture. The 1770s were quiet for Lucas. He maintained his reputation as an agronomist, and almanacs continued to show his name at the head of the dormant Paris Société d'agriculture. Then, in 1785, a prolonged downturn in agricultural output (initiated by a drought that killed off half the livestock of some areas) prompted the revival of the society in a far more serious form. The socially glittering old society had been top-heavy with princes, ministers, generals, financiers, and titular abbots whose commitment to agricultural improvement was questionable. Agronomists, successful improvers (like Guerchy), chemists, veterinary surgeons, botanists, mechanics, and laboureurs predominated in the new society, whose membership included Sir Joseph Banks, Arthur Young, Antoine Lavoisier, Antoine Parmentier, and Lucas.[87]

The membership of the second Société d'agriculture often overlapped with the provincial assemblies and was equally determined to impose its version of reform and improvement on France. In its widely disseminated publications the society publicized improvements to animal fodder, livestock breeds, equipment, fertilizers, artificial meadows, and the elimination of the

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[87] Bourde, *Agronomie et agronomes*, 3: 1291, 1297-1305, 1309-12, 1372-3; *Almanach royal, année MDCCLXII* (Paris: 1762), 488-90; Passy, *Société nationale*, 1: 118, 178, 224.

fallows. Some members implemented these innovations on their properties. Others experimented on the society's farm, east of Paris, and succeeded in expanding the food supply during the dearth of 1788-1789.[88] In a reflection of his interest and experience in grain conservation, Lucas served on the committee reviewing experiments to control fungal disease in wheat. That allowed him to diffuse the new agronomy more widely – and change fermiers' behavior – when the crown had the committee's report on a "simple and inexpensive method" of preserving grain published throughout France. Lucas' possible role in enabling the replacement of fallowing by convertible husbandry (switching from arable to grazing on sown meadows for several years led to much increased fertility) may be indicated by his role in a published study of a nitrogen-fixing, leguminous plant used in artificial meadows. That study acclaimed Lucas as an acknowledged botanical expert, which would have been useful, as he would have needed all his scientific knowledge to impress his fellow committee members. They included Louis Daubenton (introducer of Spanish and English sheep breeds to France), Fougeroux de Bondaroy (nephew of the Duhamel and center of an international network of botanists, who was endlessly compiling the agricultural section of Panckoucke's *Encyclopédie méthodique*), André Thouin (professor of horticulture and head of the botanic Jardin du roi), and Parmentier (chemist and food scientist, who was attempting to popularize staple alternatives to wheat, notably the potato). As Emma Spary has pointed out, Parmentier defended his precarious position as a new type of technocrat against criticism and competition by presenting "patriotism and scientificity as characterized by a disinterested pursuit of the common good."[89] Even more so, however, Lucas and his colleagues

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[88] Bourde, *Agronomie et agronomes*, 3: 1327-31.

[89] "Rapport des expériences faites par M. Tillet, sur la carie du froment, par MM. L'abbé Lucas, Daubenton, Fougeroux de Bondaroy, Thouin, Parmentier & Cadet," in Société royale d'agriculture de Paris, *Mémoires d'agriculture, économie rurale et domestique…* (Paris: 1786) 3: 14, 85; "Extrait des registres du Société Royale d'agriculture du 27 juillet 1786. Publie par ordre du gouvernement," *Affiches, annonces et avis divers ou Journal général de France* (16 septembre, 1786), 445-6; Bourde, *French Agronomists*, 189-191, 211; Robert Darnton, *The Business of Enlightenment: A Publishing History of the Encyclopédie, 1775-1800* (Cambridge, MA;

promoted themselves politically by asserting that the common good depended on their patriotism and scientific efforts.

In the late 1780s, belonging to the Société d'agriculture was a means of sharing in and directing some of the power of the state. Parmentier and Thouin (and perhaps Lucas) officiated at agricultural shows on behalf of the intendant of Paris, and - after much bureaucratic intrigue - the society came close to becoming something like a department of the Crown, backed by the financial, administrative, and prestigious resources that entailed. The society owed its rebirth, funds, and experimental farm to the initiative of the intendant of the *generalité* of Paris, Bertier de Sauvigny. It was a short, tempting step to a reverse takeover of the Crown's functions from there.[90] That operated at a symbolic level: Guerchy told the society that its awards to laboureurs and landowners would inspire a wave of imitators who could compete with Britain, and so help their "*monarque bienfaisant*" raise the well-being of his subjects.[91] But the société was not only interested in symbolism. Du Pont de Nemours, then a servant of the controller general, felt obliged to warn the society to stick to academic matters rather than attempting to remedy abuses or change laws. Behind all the society's busyness in the very last years of the ancien régime was a determined attempt not only to direct all the agricultural societies of France but also to influence government policy on matters such as land use, common lands, the duration of leases, weights and measures, artificial meadows, and transferring all holidays to Sundays.[92]

London: Belknap Press, 1979), 423-4; Joseph Ewan, "Fougeroux de Bondaroy (1732-1789) and His Projected Revision of Duhamel du Monceau's "traité" (1755) on Trees and Shrubs: I. An Analytical Guide to Persons, Gardens, and Works Mentioned in the Manuscripts," *Proceedings of the American Philosophical Society* 103, no. 6 (Dec., 1959), 812; Ernest Maindron, *L'ancien académie des sciences: Les académiciens, 1666-1793* (Paris, 1895), 84; Spary, *Feeding France,* 61, 68, 76.

[90] Bourde, *Agronomie et agronomes*, 3: 1299-1301.

[91] Jacques de Valserres, *Manuel de droit rural et d'économie agricole* (Paris: 1846), 331; Guerchy, "Amélioration de l'agriculture," 175-8; Guerchy, "Société royale d'agriculture," 799-800.

[92] Bourde, *Agronomie et agronomes*, 3: 1304, 1320-32.

Lucas' work on agronomy thus positioned the chapitre at the center of new structures that promised to maintain and expand its honor, influence, and power. The motto of the Société royale d'agriculture de Paris — *Ex Utilitate Decus* (Honor in Utility) — could be said to apply to its individual members as much as to the association as a whole. Duhamel declared that members of agricultural societies were "zealous citizens… concerned only for the common good," who would "procure the emulation of all those around them, and will enlighten their provinces…" and revive French prosperity and power.[93] Notre-Dame could claim a leading role in the revival of France's prosperity and power thanks to Lucas' activities in the société d'agriculture and the chapitre's great and sustained investment of effort and cash in agricultural improvement. Forty years of agronomic discourse told them so, and the chapitre felt little apparent concern for its future in early 1789.

Notre-Dame expected the imminent reforms of the forthcoming Estates-General to follow the precedent of the provincial assembly. The chapitre had acted as an ideal proprietor by the standards of physiocrats and of agronomists, spending its net product on improvements and charging rents that enabled fermiers to make a decent income and improve their tenancies, and it had applied and disseminated new technology. The chapitre anticipated a leading role in delegated "representative" government by what it considered to be the natural ruling class, "the order of proprietors."[94] Successive ministers of the Crown such as Turgot, Necker, and Calonne, had absorbed the physiocratic-inspired view that landowners should direct administration as they alone contributed the net product of all economic activity and they alone could persuade other landowners to pay their taxes. Nominations by the Crown to the provincial assemblies had worked on the basis of familiarity with governance, improvement, and above all proportionality

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[93] Duhamel, *Eléments* (1762), 1: viii; Henri-Louis Duhamel du Monceau, *L'école d'agriculture* (Paris: 1759), 19, 25-7, 10-18, 33-4, 41.

[94] AN L540 ND, "Protestation," 11-2.

of representation to ownership of net product.[95] Timothy Tackett has demonstrated how, in 1789, the "process and experience" of collective decision-making experienced by the deputies of the nascent National Assembly rapidly generated in many of them a "group confidence and self confidence" that gave them an unprecedented - and revolutionary - feeling of ownership over governance.[96] A similar, if much milder belief in a group entitlement to power is evident in the reforms proposed by the members of the société royale d'agriculture and the provincial assembly, including the busy and prominent reformers from Notre-Dame, reinforcing the optimism the chapitre would have felt in the future of its temporal position given the extent of its landholdings, annual income from rents, and its record of improvement.

Notre-Dame's fears and its vision of the chapitre's role in a regenerated France are visible in the *cahier de doléances* and other documents it presented to the Crown before the meeting of the Estates-General in 1789. Historically familiar ecclesiastical concerns were voiced, as the chapitre urged action against bad books that attacked "faith, decency, reason, throne, [and] altar," displaying the dread of unchecked subversive agitation that McMahon calls the "anti-*philosophe* discourse" of the Catholic Counter-Enlightenment.[97] But it was possible to speak more than one political discourse, depending on the particular Enlightenment in question.[98] The canons shrank from the anticlerical philosophes, but embraced agrarian and, to an extent, political reformers, for they had their own complaints against ministerial demands, most notably the obligation on the clergy, since 1785, to have all building contracts and leases approved by the intendant. Notre-Dame declared that it

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[95] Kwass, *Privilege and Politics*, 257-9.

[96] Timothy Tackett, *Becoming a Revolutionary: The Deputies of the French National Assembly and the Emergence of a Revolutionary Culture (1789-1790)* (Princeton, N.J.: Princeton University Press, 1996), 101-4, 112-3, 120, 138-43, 146-8.

[97] AN LL232 412 ND, AC, 4 mars 1789; McMahon, *Enemies of the Enlightenment*, 13-4, 18-9, 21.

[98] Peter Campbell, *Power and Politics in Old Régime France, 1720-1745* (London; New York: Routledge, 1996), 302.

> Deeply felt the necessity of the Estates-General… It joins with all good citizens in desiring it; it is ready to make all the efforts and all the pecuniary sacrifices that may be required by the necessity of public affairs, in voluntarily contributing to the costs of the state the correct proportion of its goods and its abilities, together with the proprietors of the two other orders.[99]

Those hopes were very soon disappointed. The canons' political position was undermined before the Estates-General even met, for the election regulations for the First Estate gave them one vote for ten members (the same as monks), whereas parish clergy received one vote each. As a result, canons were underrepresented among the deputies of the Estates-General and National Assembly, where they had little impact.[100] Lucas was still active in the chapitre, whose dependence on his political experience and connections is evident in his election of 1790 as one of three senior canons of a permanently sitting committee that was empowered to monitor the evolving emergency and make whatever provisional decisions they thought fit.[101] But it was by then too late for that to matter.

The old, familiar networks of access to power through the court and academic societies had become politically irrelevant. The National Assembly's adoption of the Civil Constitution of the Clergy entailed the abolition of all cathedral chapters, and the canons were expelled from the cathedral of Notre-Dame on November 22, 1790. Their farms were rapidly sold off, Belloy going in January 1791. Lucas went back to his house near Notre-Dame, where he died in 1802. Among the multitude of belongings listed there after his death were his many vestments and 13 multi-volume works of theological literature. Books on agronomy were conspicuously absent.[102] The nearby and sizeable library of the chapitre contained very few agronomic works when it was inventoried in 1790, so Lucas presumably once had his own substantial collection. If so, he had

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[99] AN L540 ND, États-Généraux 1789, "Protestation du chapitre de l'église de Paris, contre le règlement fait par le roi, pour l'exercice des Lettres de Convocation aux États-Généraux, du 24 janvier 1789" (Paris: 1789), 19.

[100] Bourdin, "Chapitres cathédraux," 32-4.

[101] AN LL232 42 ND, AC, 23 août 1790.

[102] AN MC ET LXXIII 1172, Inventaire après décès Lucas, 23 messidor an X [12 July 1802].

disposed of it sometime during his enforced retirement, agronomy being irrelevant to him once Notre-Dame and the improving church landlords had lost their bet on agricultural improvement.[103]

Conclusion

That Lucas and Saint-Simon completely failed in their bid to save church landownership should not obscure the scale of their ambition to adapt church landownership to the challenges of the late ancien régime. Both reinvented the practices of church landownership to match and exceed the expectations of enlightened agronomists. Saint-Simon did it in five hectic years in the 1780s, when he improved his lands, moved from politically incorrect pisciculture to arable, and attempted to foster emulation of good (i.e., elite-approved) practices among local fermiers. Forty years before, the seminarian Lucas had seen the outcry when the clergy rejected the Crown's attempt to tax the church in 1749. In the 1750s, he read and helped produce a nascent enlightened agronomy. In the 1760s, he began a long-lasting program of built infrastructure improvement that was at least twenty years ahead of agronomic literature and seventy ahead of actual practice by secular landlords, and he applied expensive, agronomist-developed grain conservation technology that within a decade increased the net produce of the harvest by a significant amount. In the 1780s, he extended his reach across the kingdom, and Notre-Dame entered the first stage of the reform of France. Belonging to a church corporation gave Lucas scope for improvement on a scale and consistency open to few secular landlords. That scope encompassed highly visible public interventions as well as obscure, but possibly more far-reaching investments in technology. The behavior of Lucas and the chapitre reveals how improved technology was disseminated by the elite, notably by providing very rare quantifiable

[103] AN L553A ND, Catalogue des Livres, 1790.

evidence of the practical effect that technological innovations could have in magnifying the slowly accelerating increases in agricultural output achieved in the mid to late eighteenth century. The power of such improving church landlords was increased, rather than diminished, by Enlightenment agrarianism and bienfaisance, until it was snuffed out by the Revolution.

Clerical reinvestment was not inevitable, but arose from agronomically minded individuals who induced fellow clerics to adopt improvement as a strategy to achieve new power. The form of investment policies depended on financial resources and autonomy, and for wealthy, independent church landlords it involved direct reconstruction of the landscape and farmsteads to meet new, widely disseminated ideals of good proprietorship. Wealthy church landlords also invested in practices, displays, and scientific, authoritative knowledge intended to improve rural behavior for the public good. Improving landlords moved among small, elite networks of mostly secular experts whose members overlapped in their disciplines, interests, functions, and ambitions, and ecclesiastics used these investments and networks to align themselves with secular reformers who sought a role in the regeneration of France.

Church landlords and the clergy should not be defined solely by their participation in the "Catholic Counter-Enlightenment," or ignored because they did not survive the Revolution. Like parts of the reforming nobility (Bertin or Guerchy, for example) with which the clergy was in regular contact, church landlords' continued and growing roles in agricultural improvement, scientific advancement, and government were recognized more by contemporaries than by subsequent historians, who have largely ignored the adaptability of church corporations to the intellectual, institutional, and political environment of the late ancien régime.[104] These supposed obstacles to progress and enemies of the Enlightenment were among France's most active

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[104] Guy Chaussinand-Nogaret, *The French Nobility in the Eighteenth Century: From Feudalism to Enlightenment* (Cambridge; New York: Cambridge University Press, 1985), 37, 40, 73, 86-7, 148-9, 164.

innovators, improvers, and investors, and, this mattered, given the extent of their land and wealth. In trying to reinvent their landownership practices and performance to protect their privileges, they applied powerful support to agricultural and political reform and demonstrated the dynamism of France in the very late ancien régime.

Chapter Five

Accounting for Improvement

The unique manner, scale, and sustained nature of church landlords' investment in fermiers depended on more than the improving culture and financial resources of those corporations, the busy rounds of their managers and architects, and their interaction with other improving landowners and agronomists. Notre-Dame could not have survived and prospered through three decades of massive, sustained agricultural investment if its decision makers worked alone or by hunch. Investment required skilled and adaptable comptables (in effect, accountants), whose mastery of quantitative information was available to few other large organizations, and certainly not to secular landlords. Church comptables methodically collected data from fermes to generate management information whose effect was to focus church landlords' attention on investments that increased the productivity and profitability of fermiers. The accounting techniques developed by church landlords' comptables gave church corporations a competitive advantage in knowledge that assured their financial future in the late ancien régime. As firms, landowning church corporations were far from archaic: their capacity to process information enabled them to successfully adapt to accelerating economic change, and the justification for their eventual extinction is a matter of politics, rather than economics.

While most ecclesiastical members of large church landlords would have considered themselves culturally and socially distant from sordid trade and manufacturing, their comptables were obliged, like their secular counterparts, to develop new business attitudes and accounting techniques to manage the income on which their corporations depended. Those accounting innovations can be likened to the application of scientific, engineering, and artisanal "useful knowledge" that Simon Kuznets and subsequent economists and economic historians argue was

essential to the expansion of economic growth after 1800.[1] Improved quantitative information made for better management and investment practices that enabled larger, highly capitalized, enterprises with delegated, professional management to be controlled and made sustainable. Comptables managed the great capital investment programs of complex, professionally managed church corporations (thereby helping tenants increase their productivity) by developing particular accounting techniques. More importantly, however, church comptables had an unusually flexible ability to adapt accounts to provide the information required for evolving management needs, not least those of the hard-pressed comptables themselves. Church landlord accounting evolved in response to the need to remain solvent amid difficult financial circumstances, fluctuations in investment volume, and economic expansion, and it produced information on tenant productivity, funds flow reporting, and accruals accounting that made agricultural investment informed, institutionalized, and sustainable. This chapter shows how accounting facilitated, helped shape, and explains investment decisions. Notre-Dame's Lucas could not have built Belloy without the comptable who worked with him in the chapterhouse on the Ile de la Cité.

To any historian familiar with current-day accounting, eighteenth-century French church comptables might seem an unlikely source of outstanding organizational strength. Like the vast majority of contemporary French bookkeepers for large organization, church comptables recorded transactions using a Single rather than Double Entry based system, they reported in a Charge and Discharge rather than a Profit and Loss format, and they produced nothing resembling a balance sheet, or even a cash balance. Because they used Single Entry accounting, payments and receipts were added to their category without the corresponding transaction to a bank account, say, that would arise under Double Entry. As a result, items would occasionally be

[1] Simon Kuznets, *Economic Growth and Structure: Selected Essays* (New York: Norton, 1965), 85-7; Joel Mokyr, *The Enlightened Economy: An Economic History of Britain, 1700-1850* (New Haven: Yale University Press, 2009), 43, 54-7, 83, 87-9, 116-7; Mokyr, *Gifts of Athena*, 8.

omitted and only come to light after accounts had been prepared, which undermined their usefulness for decision makers. Further, Charge and Discharge accounts were designed not to measure the financial performance of the organization but to verify the stewardship of the comptable.[2] A simplified annual Charge and Discharge account might read: The comptable was charged with responsibility for cash at the start of the year of 10lt, plus revenues receivable of 90lt, total 100lt. The comptable paid 50lt for food, 30lt for repairs, and 10lt for charity, total 90lt, leaving 10lt in cash, which discharges the comptable of his responsibility. In short, church landlord accounts would seem to be archaic and utterly ineffective as a management tool.

Whether Single Entry, Charge and Discharge accounting really was useless for decision makers is another question. In recent decades, historical research into accounting has expanded beyond its industrialized, Anglo-Saxon origins with the result that Early Modern economic organizations, such as royal monopolies, are now thought to have developed management accounting systems that rival those of British manufacturers, such as Josiah Wedgewood.[3] French historians have shown little interest in accounting, in some cases arguing, for example, that agricultural accounts are so murky that they invite over interpretation.[4] There is some justice

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[2] [Boucher d'Argis], "Comptable," in *Encyclopédie*, 3: 779.

[3] For the claim that management (as opposed to financial) accounting was a twentieth-century, industrialized, American and British phenomenon, see Sydney Pollard, *The Genesis of Modern Management: A Study of the Industrial Revolution in Great Britain* (Cambridge, MA: Harvard University Press, 1965). For reaction to Pollard that pushes management accounting into the eighteenth century and earlier and beyond the Anglo-Saxon zone, see Neil McKendrick, "Josiah Wedgwood and Cost Accounting in the Industrial Revolution," *The Economic History Review* 23, no. 1 (Apr., 1970); Richard K. Fleischman and Thomas N. Tyson, "Cost Accounting during the Industrial Revolution: The Present State of Historical Knowledge," *The Economic History Review* 46, no. 3 (Aug., 1993); John Richard Edwards, George Hammersley and Edmund Newell, "Cost Accounting at Keswick, England, C. 1598-1615: The German Connection," *The Accounting Historians Journal* 17, no. 1 (June, 1990); Fernando Gutierrez, Carlos Larrinaga and Miriam Núñez, "Cost And Management Accounting in Pre-Industrial Revolution Spain," *The Accounting Historians Journal* 32, no. 1 (June, 2005), 121, 131, 140-1. "Management accounts" provide information that is intended to be used as a basis for managers' decisions. The information in "financial" accounts is intended to inform external stakeholders of the state of the enterprise.

[4] For ancien régime French accounting see Marie-Claude Dinet-Lecomte, "Les hôpitaux sous l'ancien régime: Des entreprises difficiles à gérer?," *Histoire, Economie et Société* 18, no. 3 (Juillet-septembre, 1999); Annie Antoine, "Entre macro et micro. Les comptabilités agricoles du XVIII siècle," *Histoire & Mesure* 15, no. 3/4, (2000); Pierre Labardin and Marc Nikitin, "Accounting and the Words to Tell It: An Historical Perspective," in *French Accounting History: New Contributions*, ed. Yves Levant and Olivier de la Vilarmois (New York:

in that argument, but merely shying away from church accounts would mean that some singular and precocious innovations in French business practices would never come to light.

Discovering Land Yields

Church landlords' focus on increasing the productivity and profitability of their tenants is something of a puzzle. Whatever knowledge clerics had of tenant productivity did not come from the agronomists. Instead, it will be argued, church comptables generated information that revealed that the yields "enjoyed" by fermiers were so appallingly bad that decision-makers such as Lucas were prompted to set rents at levels appropriate to their medium-term plans for tenants' development, as outlined in chapter two, and to invest in farmyards in order to cut the cost of operations for fermiers.

Information on the yields of land and the profitability of tenants was quite beyond the capacity or purpose of the deliberately standardized financial accounts that church landlords prepared to evaluate the actions of their comptable or to summarize payments and receipts for an external authority, such as the Crown, or the Agence générale du clergé. Information on tenants' yields and profitability required ad-hoc, management accounts, whose purpose was to examine the cost and revenue basis of parts of the operation, so that managers could make the best decision for the organization. Finding evidence of such costings is harder than this rationalization would suggest, not least because for tax evasion reasons church landlords' financial accounts systematically understated how much they knew about their lands. That said, a costing exercise

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Routledge, 2012); Ronald S. Edwards, "A Survey of French Contributions to the Story of Cost Accounting during the 19th Century," in *Accounting in France: Historical Essays*, ed. Yannick Lemarchand and Robert Henry Parke (New York; London: Taylor and Francis, 1996); Peter H. Holzer and Wade Rogers, "The Origins and Developments of French Costing Systems (as Reflected In Published Literature)," *The Accounting Historians Journal* 17, no. 2 (Dec., 1990); Juan Baños-Sánchez-Matamoros and Fernando Gutiérrez-Hidalgo, "Patterns of Accounting History Literature: Movements at the Beginning of the 21st Century," *The Accounting Historians Journal* 37, no. 2 (Dec., 2010), 123-144; Antoine, "Comptabilités agricoles," 260-2. In 2000-2008, Latin American, Spanish, Italian, and French historians published 20%, 8%, 7%, and 2% of the worldwide total of accounting history articles, respectively. The quantitative history journal *Histoire & Mesure* only occasionally and warily addresses accounting.

by one self-declared, supposed accounting mediocrity, the Lazarists, does reveal the quantitative techniques and knowledge that were not only available to, but forced upon church landlords.

The Lazarists were unusual in often working their lands themselves and for having, so they claimed, no accounting records of their agricultural output.[5] Almost all their archives were lost when Saint-Lazare was pillaged on July 13 1789, but the claim is improbable.[6] Given the enormous area worked by the Lazarists - 1,278 arpents in five fermes around Paris and 108 arpents in the clos Saint-Lazare, on the edge of the city, their comptables were unlikely to have kept fewer records than other clerics thought necessary to prevent fraud and waste, particularly as the Lazarists' founder, Vincent de Paul, had extolled and practiced estate management and development.[7] Notre-Dame and the Maurists recorded changes in inventory from receipts, consumption, sales, and spoilage. Saint-Germain-des-Prés produced tables of movements in physical stocks of wheat, oats, barley, rye, wine, vegetables, butter and cheeses, poultry, cattle, pigs, sheep, horses, hay, firewood, timber, and many other items.[8] The Lazarists probably kept similar records, and for the purposes of tax evasion denied having them. Even so, they were forced by the church taxation system to report their agricultural income and cost of production.

The Crown and the church had a tacit but firmly structured arrangement whereby the king defended the First Estate's spiritual monopoly and fiscal and legal privileges in return for the don gratuit, a nominally voluntary monetary grant. To fund this payment, the Agence générale du

[5] AN S6590 CM, Déclaration des prêtres du congrégation de la mission de la maison St Lazare, 1790, Déclaration…des fermes d'Orsigny, 1790, Déclaration contenant l'augmentation des revenues des biens non à fermés de la maison de St Lazare a paris pour l'addition à celle fournie au bureau de gens de main morte du diocèse de Paris le 22 may 1762, 1782.

[6] [Antoine-Adrien Lamourette], *Désastre de la maison de Saint-Lazare* (Paris: 1789), 22; Odon Jean-Marie Declarc, *L'église de Paris pendant la révolution française, 1789-1801* (Paris: 1896), 1: 150; Paul Biver and Marie-Louise Biver, *Abbayes, monastères et couvents de Paris: Des origines à la fin du XVIIIe siècle* (Paris: Editions d'histoire et d'art, 1970), 528.

[7] *Petites annales de St. Vincent de Paul* (jan., 1903), 23; Jacquart, "La politique foncière," 290-6. To give an idea of the scale of the clos Saint-Lazare in Paris, the site of its farmyard, potager and windmill, which together took up approximately one sixth of the clos, encompasses the Gare du Nord terminus and its marshalling yards.

[8] AN H4281 SG, Comptes, 1730.

clergé de France levied a 10% charge, the *décime*, on the declared net revenues of ecclesiastic individuals and corporations.[9] To reduce what amounted to rampant and unashamed tax evasion by ecclesiastics, the agence prescribed the information the clergy had to supply as evidence for their declared liability, which included the area, use, revenues, and costs of each property. Benefice holders were obliged to make returns every five years, and the clergy became accustomed to reporting their income in this analytical format.[10] In some cases, self-interest drove them to examine empirical evidence of the interplay of costs and revenues over time, which led some church landlords to see their land and fermiers in an abstract, quantitative way.

The single, Lazarist, surviving example of supporting workings for a décime declaration reveals what these supposedly negligent bookkeepers knew of the yields of their lands.[11] In 1728, the Lazarists calculated the revenue and cost of production of their priory of Saint-Martin de Coudres in Normandy, 60 miles west of Paris. The revenues of Coudres derived from tithes on 504 *acres de Normandie*, seigneurial *champarts* on 1,400 acres, and the profits of the 192 acres that the Lazarists worked directly.[12] The Lazarists' comptable described the estate using, in effect, a mathematical model of its revenues, costs, physical output, labor, consumption, prices, and crop rotation regime, and this model reveals what skilled church comptables could learn from readily available data.

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[9] McManners, *Clerical Establishment*, 141-5; Louis S. Greenbaum, "Talleyrand and the Temporal Problems of the French Church from 1780 to 1785," *French Historical Studies* 3, no. 1 (Spring, 1963), 43-4.

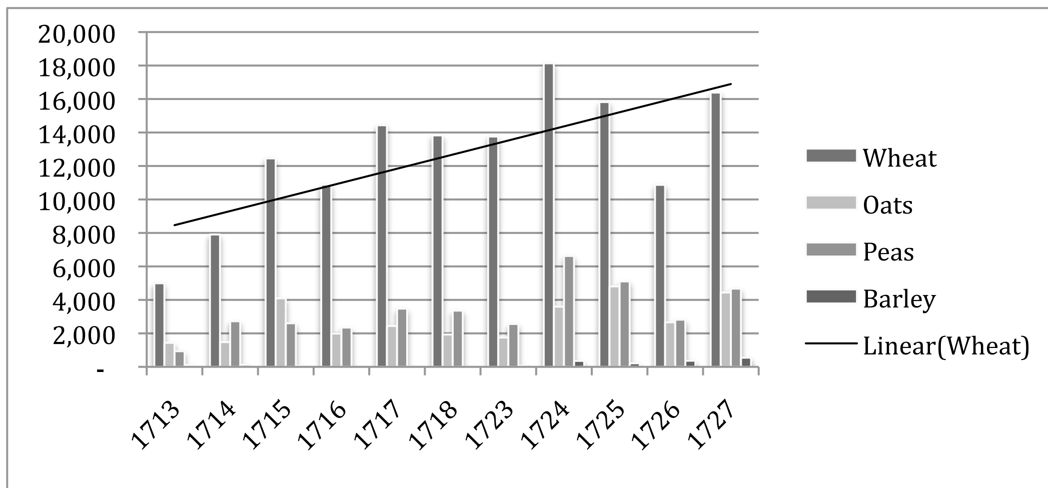
[10] AN S2381B SD, Déclaration, 1723, 1729, 1750, 1757; S6590 CM, Déclaration contenant les domaines et biens appartenants aux prestres de la congrégation de la mission…, 1713, Déclaration que donne devant vous…, 1736, Déclaration contenant les domaines et biens appartenants aux prestres de la congrégation de la mission…, 1740; AN S6590 CM, Déclaration…, 1756, Déclaration contenant les domaines et biens…, 1762, Déclaration contenant l'augmentation des revenues des biens non affermés 1782, Déclaration…, 1788; Agence générale du clergé de France, *Recueil des actes, titres et mémoires concernant les affaires du clergé de France…* (Paris: 1771), 1: 544-5; Louis d'Héricourt du Vatier, *Les loix ecclésiastiques dans leur ordre naturel...* (Paris: 1730), 228.

[11] AN S6660 CM, Déclaration des biens & revenus de Coudres, 1728.

[12] J.-L. Suret, *Le prompt calculateur… pour abréger et faciliter toute espèce de calcul* (Paris: 1837), 21.

The first section of the workings detailed tithe and champart revenues. The comptable divided the wildly fluctuating quantities of wheat, oats, peas, and barley collected during 1713-1718 and 1723-1727 (Chart 9) by eleven to generate the "année commune" physical product.[13]

Chart 9 Combined Tithe and Champart Receipts in Setiers for the Lazarist Ferme of Coudres, Normandy



He multiplied the yearly average quantities by yearly average prices to calculate the average monetary revenue, and deducted direct (e.g., tithe collectors, cartage, thrashing) and indirect costs (e.g., repairs) to calculate the surplus generated by these revenues. It would have been easy to gross up these income figures to arrive at the revenues earned by tenants on a given piece of land, and that is precisely what the comptable did next.

The comptable used the yields of the laity to calculate the année commune cash outcome for the 192 acres worked by the Lazarists. Grossing up tithe and champart returns revealed the total physical yield of the secular producers of Coudres. Dividing the total lay output for the parish by its productive area gave the lay output per acre, which the comptable then multiplied by the Lazarists' own productive acreage to generate their estimated output and revenue.[14]

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[13] The agence générale ordered data from the John Law years to be excluded from the survey.
[14] Clerics who worked fermes of more than 400 arpents were liable for the taille.

The Coudres workings demonstrate the ability of church comptables to discover the yields and to value the output and rental potential of fermes. With année commune costings that could be flexed for varying output levels, the Lazarists could see past the gyrations in annual yields over the years 1690-1740 to the likely net product of a ferme for a tenant.[15] Any skilled church comptable with tithe and champart records – and the key moment of their collection during the harvest was *always* supervised and the quantities recorded by clerics or their agents – could calculate a rent that allowed a fermier make a profit over the lease period. As shown in chapter one, setting viable rents for fermiers was a fundamental concern for church landowners. Chapter two demonstrates that Notre-Dame set rents at a level that ensured that favored tenant families were protected and nurtured, so that rents could later be raised substantially and safely over the medium term. The Coudres workings demonstrate how such rents could have been set using yield, operational, and cost information readily available to these proprietors.

The author of the Coudres document has so far been referred to as a comptable because of the accounting skill evident in the workings, which were unlikely to have been produced by the menial Lazarist brothers of Coudres. It is probable that the document originated at the Lazarist motherhouse in Paris, and that it is evidence of the widespread application of management accounting skills among the Lazarists. The comptables of Saint-Lazare liked to cite dismal secular yields in place of their own records. In 1762, the declaration for the ferme of Rougemont was based on an "evaluation of the [production of the] lands of the parish," which, like the Lazarists' fields, were sandy and burnt by the heat one year and rotten with water the next, and so were rented only occasionally and at a sadly low price.[16] The influence of Saint-Lazare is most noticeable, however, in the Cartesian logic and rhetoric of searching for and

[15] Michelle Lutfalla, "L'année stérile chez Boisguilbert," in *Boisguilbert parmi nous: actes du colloque international de Rouen, 22-23 mai 1975*, ed. Jacqueline Hecht (Paris: INED, 1989), 111.

[16] AN S6590 CM, Déclaration, 1762.

demonstrating truth through irrefutable mathematical deduction that runs through the Coudres workings.

By the 1720s, the Cartesian *esprit géométrique* was widespread among the educated French, who considered it the sole method of conclusive argumentation. A century before, René Descartes and Blaise Pascale had proposed that the only incontrovertible proofs were mathematical, and derived from self-evidently true principles that were developed in a logical chain of steps until all of their hidden relationships were made intelligible to any reasoning, and not necessarily expert, person. In place of unreliable emotion and human error came rationality and certainty.[17] Instead of citing questionable financial accounts for Coudres, the Lazarist comptable presented (in effect) an algorithm that led the reader from revenues in kind substantiated by harvest dockets, through the equally undeniable measurements of surveyors, to a long series of calculations.[18] Debatable assumptions (notably that two thirds of productive land was used for fallowing and in-farm consumption) were downplayed and the assent of the reader was won through a phrasing reminiscent of geometrical proofs:

> It is a question of proving that année commune, the priory of Coudres collects in tithes and champarts only 234 setiers of wheat to verify [steps] 7 & 8 above… It is firstly necessary to take as constant that a third of the lands of the parish of Coudres are sown for wheat, the other third in mars [spring wheat], and the other third in fallow… This quantity of the lands in champart I prove from the plan of the said seigneurie… It follows as a necessary consequence…

Lest the reader fail to recognize that this was a mathematical argument deserving of respect, the comptable also introduced an algebraic formula to calculate the output of the ferme's productive acreage pro-rata to that of the parish:

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[17] George A. Kennedy, *Classical Rhetoric & its Christian & Secular Tradition from Ancient to Modern Times*, 2nd ed. (Chapel Hill: University of North Carolina Press, 1999), 261; Aram Vartanian, *Science and Humanism in the French Enlightenment* (Charlottesville, VA: Rockwood Press, 1999), 1, 7; Richard Olson, *Science Deified & Science Defied: The Historical Significance of Science in Western Culture* (Berkeley: University of California Press, 1995), 2: 18.

[18] Paul Cheney diagnosed the algorithmic character of the Coudres presentation.

$$\frac{B.C}{A} = X$$

Where

A = Number of sheaves collected in tithes and champarts from the parish
B = Acres under wheat at the Lazarist ferme
C = Sheaves of wheat collected in tithes and champarts année commune
X = unknown number of sheaves produced by the Lazarist ferme

This formula epitomizes the Coudres workings' dependence on third-party yield data, which would have made sense to a central administrator. It was considered good practice for a landlord to know local and regional yields. In 1759, the first French treatise to address agricultural accounting emphasized how useful such information was.

> A capable steward foresees revolutions in grains, above all if he operates tithes, because by the number of sheaves he knows the most and the least of the harvest, & by having a hundredth of the sheaves thrashed, he sees if they give as much grains as in previous years. After that he has ground a part of this new grain, & he sees if it gives a lot or a little bread. There are some years when the measure of a setier of flour, measure of Paris, weighs up to 248 livres, while in other years it only weighs 230 livres… It is by these stratagems and by the examination of the most or least of the harvest of his province, that the attentive merchant learns if he ought to sell his grain or buy some.[19]

The Lazarists had the skill and data to systematically learn far more about the yields of their tenants than the good merchant-steward (i.e., tenant) of 1759. The Coudres working of 1728 demonstrates a fiscalist mentality that was rational, quantifying, and apparently unconcerned with improving output. However, it also demonstrates an awareness of secular accounting innovations that would later be a feature of church comptables' accounting for improvement.

Church comptables did not work in an intellectual vacuum, and at least one externally developed quantitative model seems to have provided the template for Coudres. Sébastien le Prestre de Vauban's widely disseminated *Projet d'une dîme royale* of 1707 shows similarities with the Coudres workings' location, sources, and methodology, as well as illustrating the

[19] [Bellial des Vertus], *Essai sur l'administration des terres* (Paris: 1759), 158-9.

contemporary appreciation for using tithe data to estimate agricultural output.[20] Both Vauban and the Lazarist comptable saw territory not in terms of privilege or social standing, but in economic relationships, which they supported by copious and apparently irrefutable statistics. Both studies focused on small areas of Normandy and both deducted non-productive heaths, woods, buildings, and roads from their sample area to calculate the area of productive land. Both studies' années communes data were based on 11-year averages (whereas the agence générale called for a 10-year average), both used tithe data to measure land productivity, both ignored yields from animals and grains other than wheat (as Quesnay would later do), and both ignored investment.[21] Managing that would require church comptables to reform financial accounts to better understand and influence the performance of their organizations.

Breaking Open the Black Box of Agricultural Profitability

Chapters one and two demonstrate that church landlords directed the majority of their investment into cost reduction for their tenants through physical infrastructural improvements that reduced the human and animal labor and inventory losses required for production. The Coudres case indicates that church comptables were capable of ad-hoc exercises that revealed the broad structures of fermiers' yield and profitability, but it might seem unlikely that more systematic yield information systems were in place, as they existed almost nowhere else. While little is known of French agricultural accounting, the accounts of England's landlords remained essentially medieval until the late nineteenth century.[22] Very few British manufacturers used

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[20] Kwass, *Politics of Taxation*, 223; Judith A. Merkle, *Management and Ideology: The Legacy of the International Scientific Management Movement* (Berkeley: University of California Press, 1980), 140-1.

[21] Sébastien le Prestre de Vauban, *Projet d'une dixme royale... Par Monsr. le Maréchal de Vauban...* (Paris: 1707), 47-8, 50-2, 193-4; Catherine Larrère, "Arithmétique des physiocrates: La mesure de l'évidence," *Histoire & Mesure* 7 (1/2) (1992), 16.

[22] Haydn Jones, *Accounting, Costing, and Cost Estimation: Welsh Industry, 1700-1830* (Cardiff: University of Wales Press, 1985); Rob. Bryer, "The Roots of Modern Capitalism: A Marxist Accounting History of the Origins and Consequences of Capitalist Landlords in England," *The Accounting Historians Journal* 31, no. 1 (June, 2004); John Richard Edwards, "Accounting on English Landed Estates during the Agricultural Revolution — A Textbook

Double Entry bookkeeping. Most manufacturing and all agricultural accounts used Single Entry, which meant that separate accounts were kept for physical and cash transactions; while physical production, consumption, and inventory were vouched for and analyzed against expected results, goods were not given a monetary value until sold. As a result, agricultural accounts, and even the accounts of the biggest manufacturers in France (and many in Britain) were of limited use in revealing the profitability of processes, as opposed to the entire enterprise.[23] Accounts were not integrated at the royal foundry at La Chaussade until 1781, for example.[24] Yet while lay producers had little idea of the drivers and locations of costs and profitability, at least one church comptable devised an accounting system that revealed those very factors.

The Benedictine abbey of Saint-Martin-des-Champs in Paris developed integrated accounting practices that, by measuring operational and asset efficiency, enabled comptables to understand and control their large, complex organization, its stewards, and much of its capital. At Saint-Martin, organizational reporting responded to functional necessity, and its integrated accounting model was abandoned due to an improvement in agricultural prospects around 1750 that made it unnecessary. That does not diminish the technique's value for demonstrating the capacity of church comptables to understand production during the economic depression of the early eighteenth century, and for revealing why church landlords were encouraged to invest in increased productivity.

Perspective," *The Accounting Historians Journal* 38, no. 2 (December, 2011), 25, 33; Napier, "Aristocratic Accounting," 64-5, 173.

[23] Michael Chatfield, *A History of Accounting Thought* (Huntington, NY: R. E. Krieger, 1977), 26; Robert B. Williams, *Accounting for Steam and Cotton: Two Eighteenth Century Case Studies* (New York: Garland, 1997), 14; Lemarchand, *L'amortissement*, 171-4; Antoine, "Comptabilités agricoles," 260; José Oliveira and Maria de Fátima Brandão, "Account Books and the Use of Accounting in the Monastery of Arouca, 1786-1825," in *The Economics of Providence: Management, Finances and Patrimony of Religious Orders and Congregations in Europe, 1773- c 1930*, ed. Maarten van Dijck et al (Leuven: Leuven University Press, 2012), 282.

[24] Lemarchand, *L'amortissement*, 172-5.

Saint-Martin's accounting system became integrated in the sense of combining physical and monetary measures for all production and revenue activities, valuing inventory monetarily, and applying throughout the properties of Saint-Martin-des-Champs. The workload this extra bookkeeping required of its Benedictine *père comptable*, Jean Martin, was worthwhile because in monetary terms the priory's *revenu en espèces* came to 17.5% of cash rents in 1729. The cash value of revenues as diverse as wheat, rye, butter, eggs, pigeons, and a "barrel of absinthe" was "estimated" by multiplying their quantity by the market price for the year. Integrated accounting meant that inventory had to be valued too. Quantitative and monetary values were calculated for consumables that were purchased and held in inventory at year-end, from grain to wine, to carp, and tablecloths. That revealed the value of inventory, helped allocate costs to the year in which goods were consumed, and was useful for evaluating the management of a troublesome ferme.[25]

Saint-Martin's integrated accounts proved their worth when used to analyze the performance of the 400 arpent ferme of Noisy-le-Grand, ten miles east of the city. By the 1730s, the ferme had staggered through 40 years of agricultural depression.[26] The monks had been forced to work the ferme directly since 1691, when the last secular tenant defaulted after four years of disastrous harvests led to high prices that raised the cost of the ferme's internal consumption to an unsustainable level. Monks had to be appointed as *régisseur* (steward) to run Noisy, including frère Pierre La Bruyère in 1732. By 1735, La Bruyère too was in trouble, having built up a deficit of 4,000lt.[27] He blamed comptable Martin for draining the ferme of cash and preventing the régisseur from running the ferme as he wished, but his ostensibly persuasive

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[25] AN H3616 SM, Etat du Dom Cellérier de Saint Martin des Champs pours les années 1729, 1730 & 1731.

[26] Jean Lebeuf, *Histoire de la ville et de tout le diocèse de Paris…* (Paris: 1758), 15: 284.

[27] Émile Mireaux, *Une province française au temps du grand roi: La Brie* (Paris: Hachette, 1958), 140, 149.

case was demolished by père procureur Martin's innovative analysis of funds flow operations at the ferme.[28]

Martin used Noisy's integrated physical and monetary accounts for the years 1732-1735 to reveal where the produce of its fields and basse cour ended up. The ferme produced grains, fodders, wine, fruits and vegetables, firewood, milk, sheep, and pigs. For each, the comptable calculated the quantity harvested, sold, sent to the priory, used as seed, held in inventory, or consumed by laborers and animals, before valuing each category of usage at the year's sale price. With this information he showed that Noisy generated surplus produce worth 28,681lt over four years, before he turned to the intangible funds available to La Bruyère.

Comptable Martin's innovations created a clearer understanding of the financial flows of a ferme (or any other enterprise for that matter) than those available to virtually any French eighteenth-century comptable. His integrated physical and financial accounts, with inventory valued at recent sale prices, were essential for this insight. He saw these flows as encompassing not only receipts in coin and notes or in kind, but also movements in credit and inventory. He read amounts owed and owing, and inventory, as cash gained or lost from funds available for operations. To show La Bruyère the flow of funds into Noisy during the régisseur's administration, Martin compared non-cash items (*dettes passives*, owed to suppliers; *dettes actives*, owed by customers; and inventory) when La Bruyère took over in 1732 to when his tenure was investigated in 1735 (Table 8), to demonstrate the "augmentation" or "diminution" in the ferme's funds.[29]

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[28] AN S1407 SM, Mémoire servant d'état instructif sur l'administration pendant les années de 1732, 1733, 1734, 1735 jusqu'au 11 mars 1736.

[29] Ibid.

Table 8 Movement in Account Balances at the ferme of Noisy-le-Grand, 1732-1735

Accounts	Measure	1732	1735	Physical Aug./-Dim.	Monetary Aug./-Dim.
Dettes actives	Lt	1195lt	259lt		936lt
Dettes passives	Lt	2575lt	4438lt		1863lt
Wheat	Muid, Setier	9m 6s	5m 0s	4m 6s	755lt
Rye	Muid, Setier	4m 11s	0m 3s	4m 8s	336lt
Barley	Muid, Setier	1m 9s	2m 10	-1m 1s	-65lt
Oats	Muid, Setier	7m 6s	7m 0s	0m 6s	57lt
Peas	Muid, Setier	0m 2s	0m 0s	0m 2s	15lt
Hay	Botte	7000b	8000b	-1000b	-160lt
Alfalfa	Botte	400b	0b	400b	48lt
Long Hay	Botte	515b	30b	485b	582lt
Wine	Pièce	42p	6p	36p	1260lt
Augmentation	Lt				5628lt

Martin then added this overall "augmentation" of 5,628lt to the 28,681lt received from the sale of crops and animal produce to show that the cumulative cash generated for the years 1732-1735 was 34,309lt, which, he claimed, was enough to cover overheads and leave an overall surplus. The comptable presented two further ways of looking at revenues and costs to show that La Bruyère ought to have had sufficient income to break even on operations at the ferme, before concluding that

> He cannot claim that he did not have enough money or that revenues were insufficient. The [financial] state of the ferme is solely due to its administrator [La Bruyère]… Only an ass would claim that the comptable [Martin] had control and then expect the trust of the public.[30]

Despite Martin's antipathy to La Bruyère, the comptable's accounting innovations did not originate in their quarrel, or in the régisseur's alleged incompetence or his (possibly) implied fraud, as Martin had implemented integrated accounting to understand the functioning of activities at Noisy several years before La Bruyère took over the ferme.[31] The implications of the

[30] Ibid.
[31] AN H3616 SM, Compte général ferme de Noisy la Grand, 1730, 1731.

comptable's techniques for understanding the processes and outcome of economic activities are more important than his bitter dispute with La Bruyère, because Martin's genius was to translate the long-established physical monitoring of productivity into financial terms that enabled managers not only to understand but also to control operations in ways that were hitherto impossible.

Like the anonymous Lazarist of the Coudres declaration, comptable Martin knew the gross and net output of his ferme's production in physical and in monetary terms, and as at Coudres, the figures were sobering. Once again, the physical accounts revealed wild annual fluctuations in production. Over the years 1732-1735, the standard deviations of yield (which were unavailable to comptable Martin, of course) varied from a *minimum* of 50% (wheat and hay & sainfoin), to 70% for wine, and a maximum of 80% for oats.

The net physical productivity of Noisy was even less encouraging. Martin traced the output – or yield - of the ferme, by product, from seed, to harvest, to internal consumption, sale, and inventory. He calculated the "consumption" in quantitative and monetary terms of Noisy's crops by the ferme's laborers and animals by deducting the quantity of seeds, crops sold or transferred to Saint-Martin or left in the granaries at year-end from the quantities harvested, and then valued the remainder. Even in Early Modern terms, Noisy's productivity values must have been appalling. In 1730, 67% of the monetary value of gross production was consumed within the ferme; in 1731 it was 65%. With his accounts Martin could see where the problem lay, and it was not in the gross productivity of the land. As Table 9 shows, each grain of wheat sown yielded five at harvest, which, though not as good as the 7 to 10 returned in the breadbasket area

north of Paris, was comparable to returns from other areas around the city, and far better than results in the Beauce or at Lazarist Coudres.[32]

Table 9 Destinations of Harvested Crops at the ferme of Noisy, 1731-1735

Crop	Seeds for the next crop	Consumed in the ferme	Disposable surplus
Wheat	19%	28%	53%
Rye	10%	55%	35%
Oats	14%	44%	43%
Barley	20%	54%	26%
Peas	53%	2%	45%
Hay & Sainfoin*	0%	33%	67%
Alfalfa	0%	41%	59%
Wine	0%	70%	30%

* Sainfoin is a highly nutritious, perennial legume that generates higher weight gain in animals than grass and clover.

The problem lay in costs. Noisy consumed 47% of its wheat, 57% of its oats, 65% of its rye, and 70% of its wine over the five harvests from 1731 to 1735. For every five grains of wheat harvested, one was kept for seed, the human and animal population of the ferme ate two, and just two out of five remained to be sold to pay for overheads and, by some miracle, a surplus. The ferme was caught in an excruciating financial bind. In high production years, physical sales were good but prices were poor and the ferme earned little: in 1727, the price of grain fell by a third and remained low, reaching its nadir in 1733, and it did not recover until 1738.[33] High price years were even worse. Running a ferme required high fixed operating costs in labor and animals, not to mention rent. When production was poor and revenues collapsed, régisseurs or fermiers went bankrupt trying to feed laborers and animals and pay for overheads, as comptables knew from the upsurge in tenant failures in the catastrophic years from 1690 to 1710. There was little chance to make windfall profits in high price years, as the climatic conditions that

[32] Moriceau, *Fermiers*, 461.
[33] AN L530 1 ND, Prix des grains vendus à Paris, Table 2.

determined output drove down the harvest just when the regional price rose.[34] Given such figures, it was obvious that running a farm was not the road to riches in the 1730s.

Martin's integrated accounting system made clear where Noisy's funds originated from and ended up, and in doing broke the agricultural black box between inputs and products. One could read this in Foucauldian terms, as a power shift over the ferme from the régisseur to the comptable, who could produce seemingly incontrovertible figures in response to excuses for the many possible outcomes of a complex farm unit, yet it could be argued that for all his knowledge, comptable Martin felt powerless to change the practice and outcome of farming at Noisy. His only concern in looking at the accounts of the ferme seems to be the net outcome in cash terms. He makes no comment on the yields and costs achieved by La Bruyère, which may indicate that he did not feel competent to comment on them, or that he believed that they were beyond the control of any manager.

Acceptance of large operational losses as an unavoidable cost of farming was not unknown in clerical accounts. In an echo of the endless and almost hopeless task of grain conservation detailed in chapter four, the accounts of Saint-Germain-des-Prés invariably preceded the disclosure of physical losses from the inventory of grain and wine with the statement that the comptable could not

> conserve all the product during the year without a loss… notably [and] above all for wheat, which one cannot conserve healthily and cleanly… without moving it and returning it by shovel, or by passing it through large and small sieves, from one week to the other, above all when it is newly arrived, as [also] for wine, which it is necessary to decant during the winter and the month of March to keep it from risk all summer… which requires it to be topped up from time to time.[35]

Yet such passivity regarding losses may be more apparent than real. It seems reasonable to consider whether an analytical comptable like Martin, who (it will be shown) acted to reduce

[34] Moriceau, *Fermiers*, 583, 531.
[35] AN H4284 SG, Journal de la Recette, 1735.

underused inventory, might have turned his attention to costs, given that later clerics such as Lucas at Notre-Dame were obsessed with both grain conservation and cost reduction.

As demonstrated in chapters one, three, and four, from 1750 agronomist writers inspired clerical landlords to invest in improvement in their fermes. Church landlords' improvements took peculiarly ecclesiastic forms, i.e., commodité and cost-reduction for the fermier, rather than the usual agronomist goals of improved land, cultivation, and livestock. The effect of these investments was to reduce the expense of labor-intensive operations such as harvesting, moving animals, manures, forage and produce, and also to reduce losses by protecting inventory, the cost of which would have been painfully evident to comptables able to produce information like Martin's. This may have led to church landlords' high and sustained rates of investment in labor-saving and inventory-conserving farm equipment, farmyard layouts, and buildings.

There is no evidence that other church landlords had access to information on yields and costs that was similar to comptable Martin's accounts. The Lazarists produced a basic version for their small operation at Coudres, and one could speculate that there was a functional necessity for management accounting information for their other, much larger, directly-worked lands. Martin's accounts might also have leaked out via the *chambre ecclésiastique* of Paris, to which all clerics had to send declarations of their liability for décimes, with backup (like the Lazarists' workings for Coudres) for suspiciously low output fermes. Notre-Dame supplied three of that court's seven members, and the comptable's information would have had some interest for them.[36] Saint-Martin stopped producing integrated accounting information in the 1750s, when Noisy was rented out, but clerical improvers – such as Lucas of Notre-Dame - who were later to control their corporations' investment policies, received their formative training in the 1740s,

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[36] *Almanach royal* (Paris: 1721), 43; Claude-Joseph de Ferrière, *Dictionnaire de droit et de pratique...* (Paris: 1740), 1: 351; McManners, *Clerical Establishment*, 145.

when the lessons and relevance of earlier accounting exercises were still powerful. The information and techniques generated at Saint-Martin may have encouraged Lucas in his later investments in cost reduction, produce conservation, and fermier support. There is no evidence for these speculations, but the case of comptable Martin's integrated accounting, like Coudres, does at least demonstrate that church landlords' capacity to develop innovative accounting solutions was not the trait of a superannuated firm.

Asset Efficiency and Survival

The yield information for Noisy generated by comptable Martin's integrated accounting techniques had its origins in his frantic efforts to cope with the repercussions of the aggressive building investments of Saint-Martin-des-Champs. Noisy's failure as a ferme was a sideshow in the life or death drama of the priory's solvency, and the comptable imposed his new accounting techniques on Noisy to be consistent with those he applied to Saint-Martin-des-Champs itself. If he accepted the poor yields of Noisy with passivity, or even fatalism, he designed the information produced for Saint-Martin to pull the priory back from imminent financial ruin.

Organizations with limited surplus capital and ambitious infrastructural investment programs frequently flounder during the time lag between the outlay of funds and their repayment in increased revenues. Maurist audit reports and the accounts of Notre-Dame suggest that during the prosperous decades after 1760 the capacity to spend on improvements was inversely proportional to indebtedness. The question is, how did cash-strapped church landlords manage to pay for, if not improvements, then at least the urgent replacement of farm buildings, such as burnt-out barns, during the lean early decades of the century? Further, what impact (if any) did investment have on their accounts, and vice versa? If investment required the generation of funds internally, how might this have been institutionalized by organizations shifting to

surplus-cash creation modes so that investment became self-perpetuating? Lastly, what do accounting innovations reveal about church landlords as firms? Answers can be found in the integrated accounts of Saint-Martin-des-Champs in the 1730s, which reveal how church comptables excelled in the long effort by secular French comptables to produce accounting information that was useful for the management of large commercial and manufacturing enterprises.

Like the Lazarists, comptable Martin did not work in a social and technical vacuum. His agricultural focus and integrated accounting innovations seem unprecedented, but they were coeval with efforts by secular comptables in large French businesses to combine the best elements of Charge and Discharge and Double Entry accounting. Double Entry accounting is inherently more suitable for Profit and Loss and Balance Sheet accounting than Single Entry, Charge and Discharge accounting. Before the nineteenth century, however, Double Entry accounting was mainly used to calculate balances owed and receivable. While useful for settling debts, it was rarely used and barely developed as a means of measuring profit or performance. The predominantly merchant users of Double Entry produced balance sheets of current assets and liabilities and owners' profit only very occasionally, and certainly not annually, and their accounts were neither intended nor suitable for strategic decision-making. Charge and Discharge accounting, on the other hand, lacked the capacity of Double Entry to value assets such as inventory. Some hybrid system was needed, though Yannick Lemarchand has shown that large French manufacturing, mining, and trading enterprises' repeated attempts to combine the funds flow and responsibility information generated by Charge and Discharge accounting with the asset and liability information possible with Double Entry were not complete by 1800.[37]

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[37] Pierre Gervais, "Why Profit and Loss Didn't Matter: The Historicized Reality of Early Modern Merchant Accounting," in *Merchants and Profit in the Age of Commerce, 1680-1830*, ed. Pierre Gervais, Yannick

Functional necessity forced Saint-Martin-des-Champs to develop its hybrid accounting system, not as a follower but a desperate leader.

According to an architectural inquiry of the 1740s, Saint-Martin-des-Champs built "not for a certain number of years but for centuries."[38] Buildings of that quality did not come cheap, and when comptable Martin became père procureur in 1729 he found the priory drowning under debt incurred to pay for investments in residential buildings in Paris. In 1712, the monks had been ordered by Louis XIV to build houses on their property around the enlarged, realigned rue Saint-Martin. As mentioned in chapter two, urban improvements were costly for the clergy, as the Crown imposed onerous droit d'amortissement charges on the extra rental income they generated. In 1715, the priory was duly forced to pay an amortissement charge of 43,222lt, and when a further 117,388lt was demanded Saint-Martin was unable to pay its anxious building contractor, despite his "pressing [the comptable] a lot."[39] Faced with the threats and pleas of construction entrepreneurs, comptables had a personal interest in better financial planning.

In 1728, Saint-Martin again developed the periphery of its Parisian property by building residential apartments over shops, again incurred an amortissement charge, and again could not pay the entrepreneur, who had to agree to wait for payments until expected future rents were realized.[40] To fund its property investments the priory had sold land, including the seigneurie (but not the ferme) of Noisy for 100,000lt in 1706-1708.[41] Mostly, however, it borrowed. By

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Lemarchand, and Dominique Margairaz (London: Pickering & Chatto, 2014), 212-3; Lemarchand, *L'amortissement*, 145, 148-52, 160-2, 169-70, 177, 179-86, 236.

[38] Quoted in Alain Mercier, *La deuxième fille de Cluny: Grandeurs et misères de Saint-Martin-des-Champs* (Paris: CNAM, 2012), 419.

[39] AN H5 3403 ND, Comptes, 1778, 1779; Mercier, *Saint-Martin-des-Champs*, 373-4. Droit d'amortissement charges were calculated by dividing the increased rent on rebuilt or improved houses by 1/22 or 4.5% and multiplying that product by 28%.

[40] Mercier, *Saint-Martin-des-Champs*, 390-1.

[41] Biver and Biver, *Abbayes, monastères et couvents*, 33-5; Conservatoire national des arts et métiers, *Notice historique sur l'ancien prieure de Saint-Martin des Champs et sur le Conservatoire national des arts et métiers* (Paris: 1882), 24; "Arrest de conceil. qui condamne les Religieux de Saint Martin des Champs, à payer le

1732, even though the entrepreneur was only partly paid for works completed, the priory's borrowings had reached 189,912lt, before falling back by 50,200lt (26%) by 1738.[42] As at Noisy, Saint-Martin's integrated accounts were more than passive records of this achievement: they revealed the true value of its income and consumption so that cash could be released from idle assets to repay debts.

Comptable Martin's response to the crisis of Saint-Martin's insolvency was to integrate the monetary with the physical value of all revenues, consumption, and inventory in his accounts. In this way he focused attention on inventory, particularly wines, whose stocks were driven down in value during the 1730s, thus liberating cash for debt servicing. Cash tied up in Saint-Martin's grain inventory was also reduced to a minimum.[43] Seeing inventory as allocated but potentially available cash was a departure from Maurist accounting culture, which saw *provisions* as a good thing, a prudent reserve that guaranteed independence through what was generally described in Benedictine accounts as a year's supply of wheat, wine, fodder, or firewood.[44] That positive, precautionary opinion of inventory was widely shared: the *Encyclopédie* later defined provision as "an accumulation by good or poor economy in a time of abundance and cheapness for a time of dearth and expense."[45] Martin's treatment of inventory as a cash equivalent, to be monitored as a prelude to action, was virtually unknown among even the largest French businesses, whose comptables ignored the monetary value of stock until it was sold.[46] For Martin, the priory's inventory, like Noisy's, represented idle cash needed and accessible for more urgent purposes. Saint-Martin's wine stock duly fell in value from 9,614lt in

droit d'amortissement de plusieurs maisons construites…," in *Recueil des règlemens rendus jusqu'à présent concernant les droits d'amortissemens, franc-fiefs, nouveaux acquests et usages...* (Paris: 1729), 2: 593-5; Lebeuf, *Diocèse de Paris*, 15: 284.

[42] AN H3616 SM, Compte général du procureur de Saint Martin des Champs pour l'année 1737.

[43] Mercier, *Saint-Martin-des-Champs*, 391.

[44] AN L818 CSM, États du temporel.

[45] "Provision," *Encyclopédie*, 13: 523.

[46] Lemarchand, *L'amortissement*, 173-4.

1732, to 4,553lt in 1734, and 2,392lt in 1735, though it rose again to 8,500lt in 1736 and 9,600lt in 1737, when, given that borrowings had been cut, the financial emergency was easing.

Comptable Martin's experiments in hybrid asset and flow accounting were ambitious but not always carried to fruition, which is another similarity with his secular accounting peers. Eighteenth-century comptables and (latterly) economic writers such as Quesnay long struggled over how to charge operations with fixed asset costs, for example by charging a notional interest charge for the cost of capital, but depreciation charging was not introduced until the nineteenth century.[47] Martin's solution was to insert notes into the accounts to divulge ongoing costs of investment. Annual revenue of 2,200lt from the ferme of Chatenay, for example, was qualified by the "observation" that the 28,000lt spent replacing its dilapidated buildings would eat up the current lease and seven years of the next one. For Paris, he noted that an increase of 5,400lt in rents from new houses was more than offset by rents foregone from demolished houses, the priory's seigneurial prison (whose demolition provided the site), lands sold to help fund the project, and interest payable on borrowings.[48] Martin's observations were literally marginal, and he did not systemize their introduction as costs. He would be far bolder with cash flow reporting.

Martin replaced the cumbersome, traditional Charge and Discharge calculation of revenue and expenditure with a clearer statement of net cash flows, which he constructed using a blend of cash and accruals accounting. Traditional Charge and Discharge accounts aimed to demonstrate correct stewardship, rather than cash flows, by including rents receivable from last year with all of the current year's receivable rents in "receipts." This obviously overstated the

[47] Lemarchand, *L'amortissement*, 176, 199-200, 222-5.

[48] AN S1427 SM, Déclaration des biens et revenus de la manse conventionnelle du prieure de St. Martin des champs, 1733.

actual cash receipts and net movement in cash for the year, so rents not yet received (including from bankrupts) were included in "expenditure" as a reconciliation adjustment.[49]

Here is a simplified example Of a Charge and Discharge Accounting Statement:

Receivable Debts outstanding at Jan 1	10	
Receivable Revenue this year	100	
Total Revenues	___	110
Payments this year	90	
Receivable Revenue this year not yet received	10	
	___	100
Net Movement in Cash		+10

Martin's hybrid funds statement (Table 10) included only cash rent received, which he calculated by deducting irretrievably lost rents (e.g., from bankrupt and dead tenants) from rents theoretically receivable in the current year, along with "doubtful debts." As he had valued the priory's inventory, Martin could also treat it as receivable (or at least as a cash depot). To integrate this notional cash balance with cash accounting, Martin added opening inventory to both receipts and to expenditure so they cancelled out. To the resulting net cash position he then added dettes actives (debtors) and deducted dettes passives (creditors, including a provision for construction costs), before adding closing inventory to show the overall financial outcome of the priory at year-end.

[49] Lemarchand, *L'amortissement*, 236.

Table 10 Compte Générale of Saint-Martin-des-Champs y/e March 31 1738

Receipts		Lt.	Lt.
Receivables 1 April 1737		46743	
Provisions 1 April 1737	[1+2 below]	13023	
Receipts in Cash during 1737		44802	
Receipts in Kind during 1737		2994	
Total Receivable during 1737		107562	
Less Receivables still due 31 March 1738		48069	
Comptable is Only Responsible for		59493	
Add Cash Balance 1 April 1737		1362	
Total Revenues			60855
Charges and Payments			
Dettes Passives 1 April 1737 paid during year		22393	
Provisions Grain 1 April 1737	[1]	3423	
Payments for Purchases originating in current year		14974	
Rentes & Pensions		9792	
Total Charges			50582
Total Revenue Less Total Charges			10273
Less Provisions Wine 1 April 1737	[2]		9600
			673
Add Dettes Actives (receivables) 31 March 1738			47695
Less Dettes Passives (payable) 31 March 1738			41443
Add Provisions Wine & Grain 31 March 1738			13153
[Net Surplus in Funds]*			19405

SOURCE: AN H3616 SM, Comte générale Saint-Martin-des-Champs année finissant le 31 mars 1738.

* Martin does not give a title for the grand total.

Comptable Martin's initiatives *worked* in the difficult economic climate of the 1730s. His experiment in hybrid accounts revealed the assets from where idle cash was released to pay down the priory's dangerously high borrowings, and his cash flow statements revealed how much could be spent safely. As a result, borrowings fell and the priory survived its investment

crisis. Martin's apparently awkward treatment of inventory should not distract from the achievement of a conceptually daring and accomplished accountant who overcame the limits of contemporary accounting to generate a useful statement of cash flows. Martin's new hybrid accounting format was far more informative, accessible, and useful for managers, including presumably himself. The reader could see at a glance the values of cash received and overdue, opening and closing inventory, and creditors, and income in kind. This would have helped both comptable and managers more quickly and accurately understand and control their complex organization when that was an urgent necessity.

Martin's success becomes apparent when compared to other attempts to improve cash accounting for Early Modern and somewhat more recent organizations. Martin was not alone in seeing it as worthwhile, then or now. Some large French secular eighteenth-century enterprises took to including accruals in their cash-based accounts, and in 1728, Benedictine comptable Dom François Roy of the abbey of Saint-Germain-des-Prés, too, had tried to reform its revenue figures. He complained (in effect) that because of the conventions of Charge and Discharge accounting, "the length of accounts is always repellant [which] makes the [accounting] officers lazy in preparing them," led to "errors and confusions" in the accounts, and made them more "difficult and lengthy to discuss in detail by those who study them." Roy switched to reporting only cash received, claiming that it would produce figures that were "stronger, clearer, and less long," and would make the cash collecting performance of the comptables immediately visible.[50] His initiative was short-lived, and within a couple of years Roy's successor had reverted to the traditional method, which was not challenged again.[51] Accountants' conservatism in adhering to familiar systems has proven hard to overcome, even for the most useful of reforms. Double

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[50] Lemarchand, *L'amortissement*, 148-51, 160-2; AN H4283 SG, Compte générale Instructions sur le présent compte générale, 1728.

[51] AN H4281 SG, Compte générale du père cellérier pour l'année 1730.

Entry, once accepted, was seen by accountants as precluding the type of life or death cash reporting that was the strength of Single Entry accounting, and accountants' reports, though technically much improved, often missed approaching insolvency in supposedly profitable firms. Reporting flows into and out of assets and liabilities – now seen as a "firm's lifeblood" – did not become mandatory in published accounts in the USA in 1971, and in Britain in 1991.[52]

In summary, during the depression of the 1730s, comptable Martin and other church comptables criticized existing accounts in the light of organizational necessity and attempted to reform them to provide more useful information for decision makers. These reforms facilitated financial investment by revealing where cash could be generated from idle assets in a time of stagnant revenues, and they were abandoned when economic growth led to rising cash receipts in the 1750s.[53] More important was the continuity in comptables' desire to reshape the information they provided to address the evolving issues that determined the survival of their organization. From 1760 to 1789, the perennial needs of solvency and prosperity would again require new forms of accounting, again shaped by and this time enabling expenditure on construction.

Understanding and Controlling Investment

The improvement in economic conditions and revenues and the renewed expansion in investment in buildings after 1750 saw a further evolution of accounting that enabled church landlords to make expenditure on improvement sustainable and integral to the management of these firms. Chapters one to four repeatedly address the question of why church landlords' high investment levels in agricultural improvement from 1760 to 1790 secured relatively modest

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[52] Charles H. Gibson, *Financial Reporting and Analysis: Using Financial Accounting Information*, 11th ed. (Mason, OH: South Western Cengage Learning, 2008), 365-6, 375-80; Charles W. Mulford and Eugene E. Comiskey, *Creative Cash Flow Reporting: Uncovering Sustainable Financial Performance* (Hoboken: John Wiley and Sons, 2005), 38, 40, 47; John Stittle and Robert Wearing, *Financial Accounting* (Los Angeles; London: Sage, 2008), 69.

[53] AN S1427 SM, Etat des revenus, charges, dettes actives & passives… 1753.

increases in rents on their lands. While evidence from those chapters indicates that this was a culturally, politically, and intellectually driven outcome, the possibility that it arose from out-of-control or ill-informed managerial decisions inherent to the structure and practices of religious firms needs to be addressed.

This final section of this chapter investigates the capacity of church managers to understand the investment process, and particularly whether they were helped or hindered by the treatment of fixed assets in their accounts. Evidence from the accounts of Maurist abbeys, Saint-Martin-des-Champs, and Notre-Dame indicates that their accounting practices were shaped by whether their imperative was surviving indebtedness or expansion through investment. The accounts of highly indebted, low investment church landlords were very different from those of their cash-rich, expansionary brethren, whose accounting practices ensured they could safely manage their great expenditure on improvement.

Church comptables' experimentation in integrated and balance accounting was mostly abandoned after 1750, and the traditional format of Charge and Discharge accounting continued to be used, with all its failings. True to their focus on stewardship, Notre-Dame's 200-page annual accounts included masses of detail but lacked a summary of revenue and expenditure headings. It would have required determined examination by Lucas to calculate cash received during the year and bad debts. It might seem unlikely, then, that the managers who approved the chapitre's expensive and sustained investment program understood the financial implications of that policy, and even more unlikely that this spending did not end in insolvency. Yet the latter was not the case, thanks to the one element of comptable Martin's innovations that was retained and developed by church landlords, accruals accounting.

Martin's method of converting from cash reporting to funds flow statements was universally practiced by Benedictine comptables by the 1760s. The conceptual leap required to incorporate accruals into cash-based accounts was not noticeably difficult for the 152 Maurist comptables who calculated the net movement of their abbey's receipts and payments and then added total dettes actives and total dettes passives to arrive at their financial position after foreseeable payments and receipts were taken into account.[54] Informative though this type of accruals accounting was for financial planning and control, it was of limited use for analyzing economy or efficiency. It improved cash flow information, but because it added income and expenditure accruals into the accounts as totals, it was impossible for a reader to work out categories of revenues earned and particularly of costs incurred as opposed to paid for during the year. Yet even this crude hybridization of Single Entry Charge and Discharge accounting with aspects of Double Entry (such as accruals) differentiated the Maurists from almost all secular landlords in France and in Britain, who avoided accruals entirely. Instead, it puts Benedictine comptables in the company of the few large lay manufacturers in France who experimented with accrual techniques.[55]

There is a noticeable correlation between the development of accruals accounting and church landlords' rate of reinvestment. This relationship reflects the sheer size and financial risk of expenditure on construction compared to all other spending, and it also applied within organizations whose investment rate varied over time, again demonstrating the relationship between organizational necessity and accounting practice. In the 1750s, Saint-Martin spent the

[54] AN L818 CSM, Congrégation de Saint Maur État du temporal du province de France, chapitre 1772, 85, 127.

[55] Christopher J. Napier, "Aristocratic Accounting: The Bute Estate in Glamorgan 1814-1880," *Accounting and Business Research* 21, no. 82 (Spring, 1991), 165; Oliveira and Brandão, "Monastery of Arouca," 288; John Richard Edwards, "Accounting on English Landed Estates during the Agricultural Revolution — A Textbook Perspective," *The Accounting Historians Journal* 38, no. 2 (December, 2011), 25; Lemarchand, *L'amortissement*, 152.

relatively modest sum of 51,823lt on repairs to agricultural and Parisian buildings, and would have spent 31,211lt less had the barn of the ferme of Chatenay not burnt down.[56] Amid this financial calm, the then comptable reported the outturn of receipts and payments without accruals.

Accounting practices were very different during Saint-Martin's previous and subsequent investment sprees. In the 1730s, comptable Martin had included many substantial post year-end payments for construction costs in dettes passives (creditors). That unpaid construction costs constituted 70% of dettes passives was obscured, however, by being included with many other (admittedly impressive) debts, such as those due to Mme. Cochon the fishmonger, or M. Picard the *maître beurrier*, but the sophistication of accruals reporting improved over time. In 1768, thirty-three years later, construction accruals and the debt they represented had grown by 300%, and Martin's successor made obvious those provisions' financial importance by dividing dettes passives between non-construction (14,788lt) and construction costs (225,788lt). The comptable of 1768 also captured more elusive costs than Martin had. In 1735, Martin had booked just one estimated (as opposed to post-year end payment) provision of 16,000lt, for building work at a ferme. Part of the reason for the increased value of construction accruals in 1768 was that many estimated costs were now included, such as debts owed to "*S*^r.^ *Dobilly m*^r.^ *maçon, environ*" 27,000lt, and "environ" 60,000lt for "*S*^r.^ *Rolland m*^r.^ *charpentier*."[57]

The increased focus in 1768 on the completeness and visibility of accruals – or the development of accruals accounting – occurred because it was a matter of urgent self-interest, given that the comptable had to find funds to pay for such enormous expenditure. Good

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[56] AN S1427 SM, Etat des revenus charges dettes actives et passives du monastère de Saint Martin des Champs au 1er avril 1753.

[57] AN H3616 SM, Compte général du monastère de Saint Martin des Champs 1732, 1733, 1734; AN S1427 SM, Etat des revenus et des charges de la communauté de Saint-Martin des Champs pour être présenté au chapitre de 1768.

comptables at Saint-Martin created information to understand, anticipate, and prepare for the financial flows generated by investment decisions. The comptable of 1768 highlighted revenue problems, such as the failure of the newly constructed, enormously expensive marché Saint-Martin to generate more than 25% of its anticipated 40,000lt value in annual rents.[58] Such ad-hoc but capable accruals accounting, driven by the need for individual and institutional survival, kept decision-makers in intermittently high-investing church enterprises fully informed of the cash cost of improvements.

Where investment was both substantial and regular, however, accruals accounting became institutionalized. The enthusiastically investing canons of Notre-Dame were the first to permanently benefit from full accruals accounting. This development explains much of the ostensible conservatism and underperformance of the chapitre's accounts, such as presenting notional and not actual cash income. Those accounts were designed to reveal not cash receipts and payments, but revenue and costs generated during the accounting period. Instead of recording repairs paid for in a particular year, the *incurred* cost of repairs undertaken was disclosed for that year. Notre-Dame's most expensive construction project - the full reconstruction of the ferme of Belloy-en-France - provides a good illustration of this practice. All of the 26,989lt in repairs charged for Belloy in the accounts of the year ended October 31 1768, for example, was paid for after the accounting year-end: 21,828lt in 1769 and 5,161lt in 1770.[59]

Notre-Dame's accrual practices were not perfect, but they worked and they were entrenched. Costs were booked if they were paid before the accounts were completed. Unlike at Saint-Martin, no provision was made for estimated bills. If it took several years for the chapitre to approve payment for disputed work, then a charge would pop up long after it was incurred. In

[58] AN H3616 SM, Compte général 1732, 1733, 1734; AN S1427 SM, Etat 1768; Mercier, *Saint-Martin-des-Champs*, 425. The market's total building cost came to almost 365,000lt.

[59] AN H5 3388-3393 ND, Comptes, 1763-1768.

the early 1760s in particular, costs from two or three years before would appear in the accounts.[60] Such surprises were of small value, however, and they did not materially distort the accounts. The system seems to have worked to the satisfaction of the canons and their comptables, given its longevity. It existed by 1759, the earliest date of the chapter's surviving accounts, and it survived successive changes of comptable in 1763 and 1781, and so it was part of the organizational routine rather than the precarious project of one gifted and ambitious reformer, like Martin or Roy.[61] Notre-Dame's accounts thus provided almost full information to managers and decision-makers on costs incurred for construction throughout the three decades of its sustained investment in farm buildings.[62]

Notre-Dame's accounts provided no information, however, on the mounting and mountainous historic cost of projects such as Belloy, which vanished from the books once paid in full, and there is no evidence that the chapter thought of matching income from improved fermes to expenditure that generated greater productivity or value.[63] That was a weakness, but the criticism is anachronistic. There is almost no evidence in eighteenth-century French and British accountancy of the depreciation of fixed assets, outside of charging a notional interest charge.[64] Moreover, balance sheets, on the few occasions when they were prepared, never showed fixed assets.[65] Neglecting fixed assets in accounting terms made sense for merchants,

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[60] Ibid., Comptes 1763-1765.

[61] AN H5 3388 ND, Receveur Marin Contract, 1763; AN L232 38 1-2 ND, Receveur Barbie Contract, 7 janvier 1782.

[62] The investment and accounting practices of the chapitre before 1759 are largely unknown, owing to the absence of pre-1759 accounts from the surviving archives.

[63] AN H5 3390-7 ND, Comptes, 1766-1772.

[64] Introduction to Pierre Gervais, Yannick Lemarchand, and Dominique Margairaz, *Merchants and Profit in the Age of Commerce, 1680-1830*, ed. Pierre Gervais, Yannick Lemarchand, and Dominique Margairaz (London: Pickering & Chatto, 2014), 7; G. A. Lee, "The Concept of Profit in British Accounting, 1760-1900," *The Business History Review* 49, no. 1 (Spring, 1975), 16; Lemarchand, *L'amortissement*, 140.

[65] H. Thomas Johnson and Robert S. Kaplan, *Relevance Lost: The Rise and Fall of Management Accounting* (Boston: Harvard Business School Press, 1991), 42-3; Richard K. Fleischman and Thomas N. Tyson, "Cost Accounting during the Industrial Revolution: The Present State of Historical Knowledge," *The Economic History Review* 46, no. 3 (Aug., 1993), 505, 514.

whose fixed investments were insignificant compared to their exposure to inventory and debtors, but proprietors with long-term investments, including landowners, behaved no differently. Even in the "the most complete and advanced system of landed estates accounts then in use" in 1760s Britain, the balance sheet was unknown.[66] Yet, if it would be anachronistic to expect fixed asset amortization at Notre-Dame, it is still reasonable to ask whether the inclusion of historic investment costs and depreciation in the chapitre's accounts would have changed its investment and rental policies.

Given the longevity of the improvements of Notre-Dame it seems doubtful that fixed asset amortization would have made the chapitre's decision-makers better informed on investment decisions than they were in practice. Current-day accountants claim (and to an extent, believe) that the depreciation of fixed assets matches the cost of productive assets with the revenues they generate over different accounting periods, thus enabling the profit on activity in each period to be calculated, that it retains cash from profits for the replacement of assets, and that it reveals the value of fixed assets, which can highlight overinvestment. None of these advantages seem likely to have produced a different investment policy at Notre-Dame, as most of its fixed asset additions were in buildings, such as Belloy, which survive in a functioning state to this day. Even if it were possible to predict such longevity, one to two hundred year write-off periods (and counting) would have produced minute depreciation rates (0.5 to 1%) that removed the charge from costs, thus overstating the financial strength of the enterprise and making over-investment more likely rather than less.[67]

An opportunity cost, such as a notional charge for the interest payable on funds borrowed or not placed on loan would have been more meaningful. Such a charge does not appear to have

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[66] Haydn Jones, *Accounting, Costing, and Cost Estimation: Welsh Industry, 1700-1830* (Cardiff: University of Wales Press, 1985), 63, 58-9, 72.

[67] Napier, "Aristocratic Accounting," 173.

been considered at Notre-Dame, even though its borrowing rose sharply during the 1760s as a result of the building program, perhaps because the loans were already generating a real interest cost.[68] Yet many large secular businesses incorporated notional interest charges into their accounts, and the practice was given theoretical validation in the 1760s through the widely disseminated economic writings of physiocrat authors such as Quesnay.[69] It was not as though the clergy were unaware of the concept. Thirty years before the *économiste* laid down his natural laws, the ever-innovative Roy of Saint-Germain-des-Prés included an actual interest charge in his costing for buying, maintaining, and storing the wheat that the abbey was obliged to hold by the Crown as a reserve against public dearth.[70] Yet, notional interest charges are otherwise absent from surviving church accounts. Given the tendency of church landlords to heavily invest in projects where there was little hope of recovering the investment in increased rents even over many decades, the failure to adopt this established accounting innovation may indeed have led to poor decision-making and over-investment in improvements with a low financial return.

That said, focusing on the lack of opportunity costs in accounts might be a distraction from the real moment for decision-making on investments, which was before they entered the books as costs. Reviews would have been of little use once a project was begun to the specification of the extensive *devis* prescribing the work to be done by the building contractor. (The devis for the marché Saint-Martin, for example, ran to 496 pages.[71]) The moment for analysis and control of investment occurred not in the accounts, but in the lengthy, vigorous discussion and vote by the religious corporation on the costed devis. Such discussions involved

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[68] AN H5 3384-3396 ND, Comptes, 1759-1771.

[69] Lemarchand, *L'amortissement*, 187, 199-200, 225; R.A. Bryer, "The History of Accounting and the Transition to Capitalism in England. Part Two: Evidence," *Accounting, Organizations and Society* 25 (2000), 373; [Quesnay], "Fermiers," *Encyclopédie*, 5: 634-5.

[70] AN H5 4282 SG, Compte de la recette en argent faite par emprunt de cent muids de bled achetés par ordre de sa majesté, 1728.

[71] Mercier, *Saint-Martin-des-Champs*, 425.

well-informed, expert officers and members of the church corporation who revealed the opportunity cost of revenues foregone while pursuing such projects, but not their interest cost. For example (as described in chapter one), a monk of Saint-Denis prepared the devis for the bridge and road to be built at the abbey's ferme of Merville by its tenant, and the project was approved after the alternatives (in terms of rent and investment costs) were explained in detail to the assembled monks.[72]

Notre-Dame's main check on investment was the division of responsibility between the inspecteur des bâtiments (or architect, i.e., Parvy) who was responsible for plans and materials, for presenting contractors' bills for approval by canons serving as intendants des bâtiments, and for inspecting building works, and the chambrier (Lucas), responsible for the chapitre's temporal well-being.[73] The ultimate test of that system was arguably the decision to expand the cost of work undertaken at Belloy from an initial estimate of 40,000lt in 1761 to a project that ended up costing 99,000lt by 1770. Was this a case of uncontrolled and financially dangerous megalomania by Lucas, the agronomist chambrier? Probably not. As chapter two demonstrates, the increase in the cost of Belloy was covered by the windfall rent-in-kind earned by the chapter over the years of its construction. When grain prices fell and the windfall evaporated, subsequent projects became much less ambitious. Notre-Dame's many farm improvements subsequent to Belloy, though substantial, never exceeded half of its cost, and involved the reconstruction of part rather than the whole of each ferme – a barn, cowshed, or stables. The canons' decision to invest as they did in Belloy and their other investment and rent decisions were undertaken with good financial information on the consequences.

[72] AN S2244 SD, Devis de la Chaussée, des ponts et du pavé que Mr Courtier fermier de Marville devise faire…, 1776; Chapter meeting, 14 janvier 1776.

[73] AN H3682 1 ND, Gages, Obligation de m. l'inspecteur des bâtiments et bois du chapitre, 1781.

One last question is whether the very basis of church landlords' accounting systems – Single entry, Charge and Discharge accounting - might have undermined their focus on profitability and return on investment. Those practices have been shown to be fully compatible with the pursuit of efficiency and profit in the largest, most complex, and highly capitalized French industrial enterprises, at a time when Double Entry, Profit and Loss accounting as it then existed was plainly unsuited as a management tool.[74] A comparison of church accounting practices with those of high-investing English landlords is also useful. Marxist accounting historian Rob Bryer argues that English capitalist landlords "would have" used Double Entry bookkeeping to measure profit earned on capital invested in an expression of a "calculative" and "capitalist mentality" that made rational investment the central focus of economic life.[75] That seems improbable, given that contemporary Double Entry accounting was neither adapted to the needs of producers, as opposed to merchants, nor was it suitable for operational and strategic decision-making.[76] Unsurprisingly, Bryer produces no evidence that English landlord improvers exploited the potential benefits of Double Entry. His sole example, an article by the proselytizing agronomist Arthur Young on the hypothetical accounts of "a friend," uses Single Entry and concerns a tenant-farmer rather than a landlord.[77] Neither is there any evidence that church landlords such as Notre-Dame lacked a "calculative" or "capitalist mentality," given their record of rent-setting and investment. Bryer's argument may however provide a useful insight into the behavior of church landlords that differentiates them from the primarily short-term transactional culture of merchants and secular landlords. The calculative horizon of church landlords, if not

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[74] Lemarchand, *L'amortissement,* 127, 141, 160, 169-70.

[75] Rob. Bryer, "The Roots of Modern Capitalism: A Marxist Accounting History of the Origins and Consequences of Capitalist Landlords in England," *The Accounting Historians Journal* 31, no. 1 (June, 2004), 19l; Bryer, "Transition to Capitalism," 326-7.

[76] Lemarchand, *L'amortissement,* 186; Gervais, "Profit and Loss Didn't Matter," 212-3.

[77] Bryer, "Transition to Capitalism," 370-1, 376-7.

centuries, was at least medium term (10 years) to long term (generational). That is evident from Notre-Dame's relationship with its tenants, though it was a relationship that cannot be reduced to purely financial rationality.

Thanks to their accounts, church landlords were perhaps uniquely capable among contemporary firms at controlling the financial costs of improvement and ensuring they had the cash to pay for it, though their investment decisions might not appear rational in the sense of always aspiring to generate enough extra revenue to recoup those costs within several decades. However, as chapters three and six demonstrate, church landlords considered not only the financial costs and benefits of improvement but their political, social, and intellectual stakes as well. They were not alone in juggling sometimes-contradictory management imperatives. The noble owners and directors of large firms and corporations, and even Revolutionary administrators, were prepared to sacrifice accounting convenience and efficiency to preserve their cultural and social distinction vis-à-vis low-status commerce. An attempt to introduce Double Entry accounting in the Ferme-Générale in 1716-1726 was abandoned because its mercantile associations were unacceptable to noble investors; in 1800, Double Entry was thought to be beneath the dignity of the republican régime.[78] Economic management was even more imbued with non-financial values for church landlords, whose return on capital cannot be defined solely in monetary terms. Their capital was social and symbolic as well as economic, and their investments were undertaken to preserve this capital from agronomic and anti-clerical criticism by presenting church landlords as exemplary improving proprietors, as much it was intended to increase their monetary income. Church landlords' accounts enabled them to understand and control their improvement expenditure and its financial returns, but its true payoff, their survival and prosperity, was beyond solely financial reckoning, as the final chapter will show.

[78] Lemarchand, *L'amortissement*, 178-9.

Conclusion

Behind the leaders of church landlord organizations was a group of data gatherers and information producers, the comptables, whose influence on the practices and extent of agricultural improvement was arguably as important as that of the ecclesiastical agronomists' they served. Throughout the century, church comptables struggled to overcome serious deficiencies in church accounting practices (notably in revenue recognition, the format of accounts, and in accruals of costs), which made it difficult for managers to sustain and control investments in agricultural infrastructure. These problems, and comptables' efforts to improve existing information systems (such combining elements of Double Entry Bookkeeping with Charge and Discharge flow accounts) were similar to those of large scale contemporary French commercial and manufacturing enterprises. That said, church comptable were exceptional in their consistent and often successful efforts to find accounting policies that were right for the their organizations.

Church comptables periodically recast their practices to provide information appropriate to the changing needs of their corporation. In the economically tough first half of the century, a major investor, the priory of Saint-Martin-des-Champs, developed integrated accounting to release cash to pay down debts, thus enabling it to survive until costs were recouped. This model was still attractive to indebted (and low investing) church landlords in the boom years after 1760, but prosperous church landlords (including Saint-Martin and Notre-Dame) shifted attention to accruing for building costs in order to plan for the cash needed for investments in improvement. Even with poor accounts, all church comptables had the data, from tithe records, the incentive, from royal taxation reporting, and the example, from Vauban's statistical model, to work out the yields of their land and the maximum rents payable by tenants, which helps explain their caution

in maximizing rents from improved properties and their efforts to reduce the costs of operations of their tenants.

Seeing church landlords' improvement projects through the evolving capacities and practices of church comptables situates ecclesiastical investment as a business and economic phenomenon. In that sense, ecclesiastical investment depended on and fostered the development of business technology (i.e., accounting) by large, complex, highly capitalized corporations with a professional management staff that reported to many stakeholders (monks and canons). If the heavy and sustained investment of religious corporations in improvement points to the capacity for growth of the large portion of the French agricultural economy that they controlled, the managerial skills and adaptability of church landlords' comptables and their partnership with management explains the capacity for criticism, change, and development of an historically neglected part of French business in the last century of the ancien régime. The accounting skills and, more importantly, the flexibility and technical ambition of church comptables played a key role in ensuring that the most effective church investors, such as Notre-Dame, were at least as able to compete in their financial environment as were the most innovative large, secular firms, and helped ensure that in 1789 the real challenges facing this ultimately doomed type of firm were political rather than economic.

Chapter Six

The Indispensible Proprietor

The inside cover of the mid eighteenth-century lease book of the abbey of Saint-Denis (Fig. 5) bears a full-page, rococo illustration of vegetation, surmounted by an image of Jesus Christ blessing a bountiful harvest of wheat. When the paper supplier Leleu delivered the accounts book in 1750, he could have expected that Christian motif to appeal to the many church landlords based in and around Paris, given its recurrence in the Gospels. But the image was also part of a widespread, sustained, and generally successful polemical campaign to protect the suddenly contested legitimacy of the church's role as the greatest proprietor in France after the Crown.

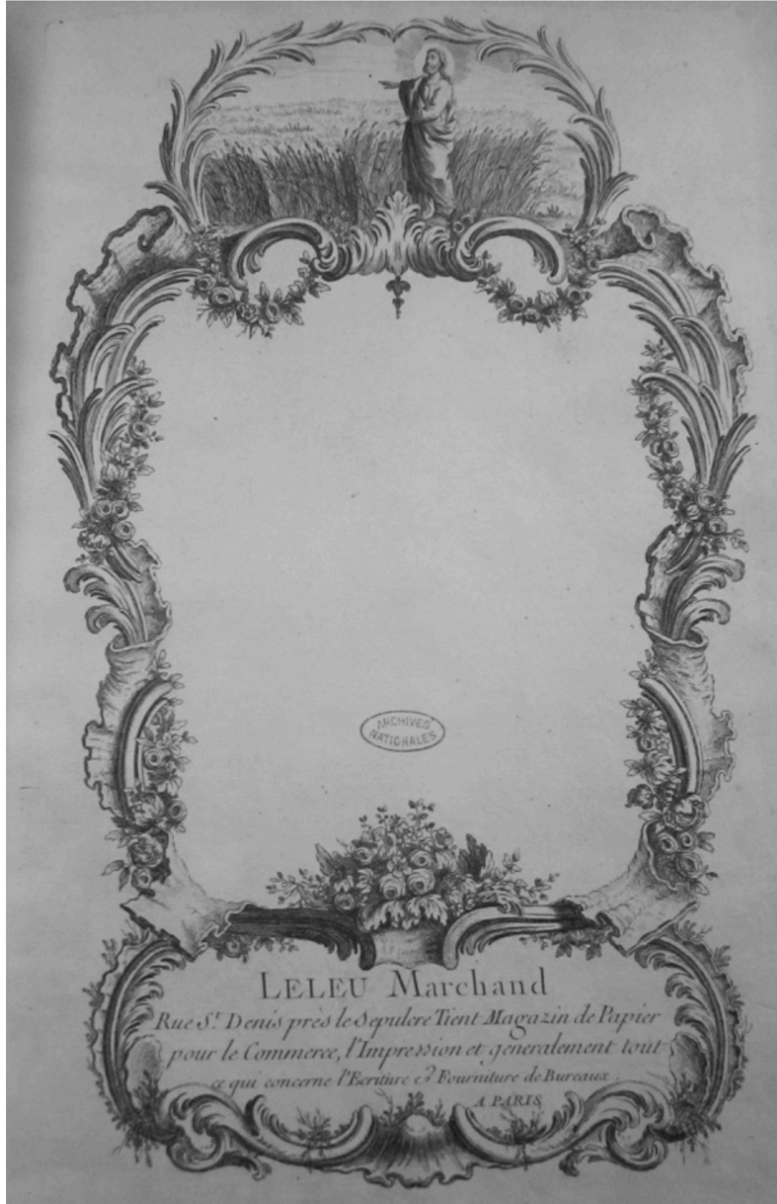

Fig. 5 Inside cover of Saint-Denis' lease book for 1752-1775.

SOURCE: AN H5 4265 SD, Baux et redevances des fermiers, 1752-1775.

This chapter reveals how, between the years 1749 and 1789, the landowning clergy developed an historically ignored self-image in a political and intellectual campaign that was as important to their survival as the familiar, defensive Counter-Enlightenment and Jansenist struggles. Church landlords responded to unprecedented and mounting criticism of their privileges with a confident, specifically ecclesiastical narrative of utility that positioned them for survival and prosperity in the late ancien régime, that shaped and encouraged the rural investment and management practices described in chapters one to five, and that explains the strong relationship between political and economic ideologies and action that underlay their particularly dynamic role in the development of eighteenth-century agriculture.

The unusually high level of clerical investment in agricultural improvements in the second half of the eighteenth century and the sometimes low payback it generated are inexplicable without an understanding of how church landlords saw their social, economic, and political place in Enlightenment France. From the *vingtième* tax crisis of 1749 to the expropriation of church property in 1789, powerful critics denigrated the clergy as enemies of the state and of society and denounced corporate church proprietorship as illegitimate and an impediment to agriculture. The property-owning clergy's polemical response to this threat to their existence relied on a narrative of the superiority of church land stewardship that used ostensibly unfavorable Enlightenment ideas on religion, property, citizenship, and governance to present a utilitarian image of themselves that was successful politically up until 1789.

Church landlords justified their right to property by presenting themselves as far better and more socially responsible proprietors than the laity. Both wealthy and poor ecclesiastical landlords endorsed this utilitarian narrative, whether they were comfortable with the ancien régime church system or frustrated and radicalized by it. This narrative made church landlords

useful to the Crown, which encouraged it, and it was original and distinctly religious, predating the elite ideologies of liberalism, agronomy, and physiocracy. It enabled the clergy to criticize these economic ideas, to offer itself as a socially necessary palliative to the problems caused by the distribution and dynamics of landed property, and to claim a key role in the regeneration of France.

To explain the form, evolution, and political significance of the indispensability narrative, this chapter first explains criticism of the role of church proprietorship between 1698 and 1756. Then, the explosive growth of pamphlets attacking church proprietorship literature that arose from the *Vingtième* crisis of 1749-1750 is used to demonstrate the sudden ratcheting up of political pressures on church landlords, along with their response, which was a narrative of the comparative utility of church versus secular proprietors. That narrative, which flattered the clergy, is shown to have found influential adherents among royal officials at Versailles, which had the effect of protecting church landlords. Subsequent physiocratic critiques of church landownership are then analyzed, along with church landlord responses that rejected foundational tenets of physiocratic and liberal economic ideas. Lastly, the prevalence of the indispensability narrative among church landlords is revealed during their climactic struggle for survival in 1789-1790.

Church Property in Question, 1698-1756

The landownership of the clergy came under sustained public criticism by economic writers in the first half of the eighteenth century. It began at the turn of the century with attacks on the fiscal privileges of church landowners, when would-be reformers such as Sébastien Le Prestre de Vauban and Pierre Le Pesant de Boisguilbert began publishing proposals for the material salvation of France in which an implicit social contract of fair tax contribution became

commonplace.[1] As the reign of Louis XIV had ground on into defeat, high taxes, famine, and population decline, Vauban and Boisguilbert blamed the fiscal privileges of the nobility and especially the clergy for crushing the peasantry and undermining the military power of the king.[2] Vauban's *Projet d'une dîme royale* was especially influential and widely disseminated. Notre-Dame held a copy in its library in the 1750s, for instance, and in that book the young Lucas could have seen the clergy listed among likely opponents of the tax reform required to save France. He might also have noticed Vauban's warning that any "exemption from this contribution is unjust and abusive, and neither can nor must prevail to the prejudice of the public," an idea revived in an explosive clash between church and Crown in 1750, when the "gangrene" of clerical exemption was again depicted as harming king, people, and body politic.[3]

As an apprentice manager of church property, Lucas would have found little reassurance in contemporary polemical opinions of the clergy's temporal role in France. Emerging French public opinion was well aware that the church was a dangerous landowner, for the Crown repeatedly told them so. In 1749, for example, Louis XV justified tightening Louis XIV's legal constraints on land acquisitions by the contemplative religious orders and cathedral chapitres, on the basis that their lands put a "very large part" of France beyond commerce, the support of families, and taxation.[4] Amplifying this royal rhetoric, a pamphleteer warned that "incredibly, for an enlightened century," the church held a virtual kingdom within the third of France it owned, which - because the clergy bought but never sold land - threatened to swallow the rest, making

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[1] Kwass, *Politics of Taxation*, 231, 224-5, 227-8.

[2] Sébastien Le Prestre de Vauban and Georges Michel, *Vauban. Dîme Royale* (Paris: 1888), 3-4, 15; Kwass, *Politics of Taxation*, 224-5, 227-8; Pierre Le Pesant de Boisguilbert, *Le détail de la France, la cause de la diminution de ses biens et la facilité du remède...* (N.l.: 1696), 28, 56, 235, 53.

[3] AN L553A ND, "Catalogue des Livres," 67; Kwass, *Politics of Taxation*, 229; Vauban, *Dîme royale*, 107, 17-8, 47-8, 20, 31-2, 174, 191-2.

[4] "Edit du mois d'aout 1749," 13: 62-4.

the laity its tenants.[5] (The church's not very tactful retort was that it owned only one tenth of France.[6]) Another pamphlet complained that the 1749 restrictions were half of what was necessary, which was the severe retrenchment of the property of lazy, dishonest, and loathed monks.[7] Given public awareness of the supposedly dangerous nature, scale, and trajectory of church landownership, it is unsurprising that the clergy caught critics' attention in the unprecedented expansion of publications on political economy in the 1750s.[8]

Ecclesiastical productivity or the lack of it, beginning with the impact of clerical celibacy on France's population, provided the first and most easily comprehended target for a wave of administrators and writers who sought to reform France. Amid a misplaced and sometimes cynical consensus that France's population was declining, Melon, Voltaire, and Diderot lamented the children lost to France through clerical celibacy.[9] The family was praised as the font of population and sociability; celibacy was denounced as their enemy. The productivity of clerics became a target for those determined to make France prosperous and militarily strong through transforming "idle" consumers into producers of wealth, which threw into question the place of the church in the state and in society, starting with its fiscal privileges and the control of its wealth.[10]

The debate on clerical productivity within government and the public sphere was not kind to landlords like Notre-Dame and its 100 celibate officers, including Lucas. Prompted by English

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[5] [François-Vincent Toussaint], "Essai, sur le rachat des rentes et redevances foncières" (Londres: 1751), in BN L3 D159, *Recueil des Pièces Concernant les affaires du clergé au sujet du XXe & autres impositions* (N.l.: n.d.), 8: 151-5.

[6] Jean-François Chatillard de Montillet, "Lettre de Monseigneur l'Archevêque d'Auch, à s. e. Monseigneur le Cardinal de Tencin" (N.l.: 1751), in *Pièces concernant les affaires du clergé*, 8: 61.

[7] Louis-Etienne Arcère, *Mémoire sur la nécessité de diminuer le nombre et de changer le système des maisons religieuses* (N.l.: 1755), 4.

[8] Kwass, *Politics of Taxation*, 218-9.

[9] Blum, *Strength in Numbers*, 30-8.

[10] Henry C. Clark, *Compass of Society: Commerce and Absolutism in Old-Regime France* (Lanham, MD: Lexington Books, 2007), 131-3; Shovlin, *Political Economy of Virtue*, 44-5; Eric Walter, "Le complexe d'Abélard ou le célibat des gens de lettres," *Dix-huitième Siècle*, no. 12 (1980), 143-7.

diagnoses that in part ascribed the military weakness and poverty of France to the lost labor of its 300,000 clerics, the influential liberal economic thinker and royal administrator Jean-Claude Vincent de Gournay affirmed in 1755 that religious life removed people from agriculture, made them idle, aggravated population losses, and magnified the competitive advantage of Britain and Holland, France's greatest military, commercial, and religious enemies.[11] Restraint of church property, even dispossession, was already in the air. Privately, Montesquieu observed in the 1740s that "one ought to suppress useless monasteries, which is to say, all of them."[12] His published writings were only a little less damning, with their claim that it was incontrovertible that a state's prosperity was inversely proportional to the extent of church property, because the clergy's "endless acquisitions appear so unreasonable… that anyone defending it would be regarded as an imbecile."[13]

As an enthusiastic participant in the nascent science of agronomy, Lucas cannot have drawn much comfort from the fact that in the 1750s the new association of agriculture with patriotism, virtue, and national regeneration led to alarming attacks on clerical landownership.[14] The prolific pamphleteer Ange Goudar contrasted the prosperity and power generated by Britain's new agriculture "with the invincible obstacle to the progress of our agriculture" posed by church lands. According to Goudar, the problem was that celibate church landlords - unlike fathers of families - had no thought of tomorrow or the common good. They planted for immediate profit, and the result was reduced harvests, higher prices, less consumption, and a

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[11] Josiah Tucker, *A Brief Essay on the Advantages and Disadvantages which respectively attend France and Great Britain, with regard to Trade* (London: 1756), 32; Clark, *Compass of Society*, 130; Richard Cantillon, *Essai sur la nature de commerce en général* (London: 1755), 124-6, 113; Jacques-Claude Vincent de Gournay, "Question: si le travail des gens de mainmorte et la faculté qui leur serait accordée d'en mettre les productions dans le commerce serait utile ou préjudiciable à l'état," 1755, in Vincent de Gournay and Takumi Tsuda, *Mémoires et lettres de Vincent de Gournay* (Tokyo: Kinokuniya, 1993), 64-5.

[12] Charles-Louis de Secondat de Montesquieu and Gaston de Montesquieu, *Pensées et fragments inédits de Montesquieu* (Bordeaux: 1901), 2: 445-6.

[13] Montesquieu, *Esprit des lois*, 2: 836-7.

[14] Shovlin, *Political Economy of Virtue*, 53-5, 72-8, 92.

lower population. The solution, suggested Goudar, was to follow the example of England, whose return of monastic lands to the "Etat politique" had been the basis of its ever-growing power.[15]

The article "*Fondation*" in the *Encyclopédie* by Gournay's friend, Robert-Jacques Turgot, demonstrates the degree to which criticisms of clerical utility were propagated and shared among an intellectually influential and bureaucratically powerful elite. Turgot praised the edict of 1749 and went further. Claiming that "public utility is the supreme law" which must prevail over the "so-called rights of certain corporations," he argued that "private corporations do not exist for themselves, but for society," and "must cease the moment they cease to be useful." Turgot did not explicitly refer to church corporations in his conclusion that the public utility of perpetual foundations was invariably negligible, but the challenge was clear for informed church landowners like Notre-Dame, which had a copy of the *Encyclopédie* in its library.[16]

A review in the widely read Jesuit *Journal de Trévoux* of the bestselling *L'ami des hommes ou Traité de la population* by the marquis de Mirabeau in 1757 shows how uncomfortable church apologists felt about such criticisms, and hints at the rhetorical strategy of their response. The review praised Mirabeau for defending the property of the celibate clergy that, it claimed, was so popular to attack. The clergy's conception of the stakes of criticisms such as those of Goudar and Turgot is clear in the reviewer's commendation of Mirabeau for declaring that whatever reforms were necessary in church property *there was no question of destroying it* [my italics]. Mirabeau was praised for "revenging" the clergy by revealing that France owed them a debt for their "innumerable and immense works" of improvement, whereas

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[15] Ange Goudar, "*Les intérêts de la France mal entendus, dans les branches de l'agriculture, de la population, des finances, du commerce, de la marine, & de l'industrie…*" (Amsterdam; Avignon: 1756), 1: 47-56, 2: 38; Joseph J. Spengler, *French Predecessors of Malthus* (1942; reprint, Durham, NC: Duke University Press, 1965), 56-7; Shovlin, *Political Economy of Virtue*, 53.

[16] [Robert-Jacques Turgot], "Fondation," in *Encyclopédie*, 7: 73-5; AN L553A ND, Catalogue des livres, 1790.

the luxury and greed of lay proprietors had caused the decline in the kingdom's true wealth, its population, and agriculture.[17] The concept of comparative utility would enable church apologists to turn anti-clerical criticism back onto secular landowners. That was as well. In the 1750s, the landowning clergy desperately needed a positive narrative for their social role.

The Vingtième Crisis: The Church versus Everybody

In 1749-1750, the church came close to losing its fiscal privileges in a bitter and highly publicized dispute with the Crown that led to church proprietors being denounced as the enemies of the state and of the people. Jean-Baptiste de Machault d'Arnouville, Louis XV's controller of finances, was hard-pressed by the fiscal repercussions of the War of the Austrian Succession. In a move that owed something to Vauban's prescription of forty years before, Machault attempted to resolve the fiscal and economic crisis through tax reforms that would increase government revenue but reduce the burden on most taxpayers. He replaced a tax of 10% of revenues that exempted the nobility and clergy with a 5% universal tax, the vingtième. The nobility acquiesced, but the clergy asserted its immunity through its representative corporation, the Assemblée générale du clergé de France. For two centuries, the Crown and the assembly had negotiated "free gifts" for concessions such as the repression of heresy, and more recently the church had bought itself out of Louis XIV's universal taxes.[18] Machault rejected these deals. Supported by the king and public acclaim, the controller-general launched a proxy pamphlet campaign to bring the church to heel. It failed because the church's vigorous defense - including a threat to agitate for the summoning of the Estates-General – intimidated the king, who admitted

[17] McManners, *Religion of the People*, 519; "Article LXXXI," *Mémoires pour l'histoire des sciences et beaux arts* [*Journal de Trévoux*] (juillet, 1757), 1857, 1875-8.

[18] Robin Briggs, *Communities of Belief: Cultural and Social Tension in Early Modern France* (Oxford: Clarendon Press, 1989), 195-6.

defeat in 1751.[19] The free gifts resumed and the pamphlets were suppressed, but it was too late. The affair marked the first great fissure in the church's partnership with the Crown, and it exposed church landowners to a resentful public opinion and alarming economic critiques.[20]

The vingtième controversy arose from Louis XV's attempt to enforce the old royal claim to tax the wealth of the clergy to support the protecting state. The polemical support that this claim attracted in 1750 was far more public, widespread, and critical of the church than ever before.[21] The clergy's alienation from king and public was emphasized by intellectually complex and persuasive pamphlets attacking the church's refusal to pay the vingtième, which were supposedly published in London or Amsterdam but were in fact directed from Versailles.[22] Machault's correspondence with the campaign's key author, the senior barrister Daniel Bargeton, reveal how Louis XV impatiently awaited, suggested amendments, and finally read with satisfaction the anonymous "*Letters: Do not Refuse your Goods*," which a report to the assembly of the clergy immediately denounced for depicting clerics as "indifferent to the public… [and the] least useful group for society," because they "depopulated the state."[23] Machault fully

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[19] Louis S. Greenbaum, *Talleyrand, Statesman-Priest: The Agent-General of the Clergy and the Church of France at the End of the Old Regime* (Washington, DC: Catholic University of America Press, 1970), 84; Emmanuel Le Roy Ladurie, *The Ancien Régime: A History of France, 1610-1774*, trans. Mark Greengrass (Oxford: Blackwell Publishers, 1996), 383-6.

[20] Edgard Testu Balincourt, *Daniel Bargeton, avocat au parlement, 1678-1757, d'après sa correspondance et des documents inédits* (Nîmes: 1887), 18, 22; "Lettre de l'assemblée aux archevêques & évêques de France… (N.l.: n.d)," in BN L3 D159, *Recueil des pièces concernant les affaires du clergé au sujet du XXe & autres impositions*, 2: 438-40; Kwass, *Politics of Taxation*, 41-2, 110-2; Marcel Marion, *Machault d'Arnouville. Étude sur l'histoire du contrôle général des finances de 1749 à 1754* (1891; reprint, Geneva: Slatkine Megariotis, 1978), 400; Roche, *France in the Enlightenment*, 356, 359-361.

[21] Louis XIV and Charles Dreyss, *Mémoires de Louis XIV pour l'instruction du dauphin…* (Paris: 1860), 209; Denis Tolan, *Traité de l'autorité des rois, touchant l'administration de l'Eglise…* (Amsterdam: 1700), 278, 298, 303-4.

[22] Antoin E. Murphy, *The Genesis of Macroeconomics: New Ideas from Sir William Petty to Henry Thornton* (Oxford: Oxford University Press, 2009), 120; Vardi, *The Physiocrats*, 67.

[23] Balincourt, *Daniel Bargeton*, 4, 14-5; Machault to Bargeton, 18 & 20 mars, 14, 18, & 21 avril 1750, in Balincourt, *Daniel Bargeton*, 15-7; "Rapport de Monseigneur l'Évêque de Sens fait à l'assemblée générale du clergé de France, au sujet du livre intitulé: Lettres, avec mots: Ne repugnate &c. …," in BN L3 D159 *Recueil des pièces concernant les affaires du clergé au sujet du XXe & autres impositions*, 2: 422-3. Bargeton came from a Huguenot family. It is possible that this was Louis' first venture in publishing, rather than his alleged help in printing Quesnay's *Tableau économique in* 1758.

expected the clergy to feel uneasy about the pamphlet's effect on public opinion. The "true principles of the matter must make a great impression," he assured Bargeton. "I am very content with it, and it will be very useful to me." The king sent Bargeton 3,000lt for his trouble.[24]

Unsurprisingly, Bargeton's pamphlet urges compliance with the instructions of the state, which he presents as the sole refuge of humanity. Despite its professed debt to Montesquieu's *De l'esprit des Loix*, the pamphlet's ideology of natural law, social contract, and the innate rights to property owes more to the social contract theories of Thomas Hobbes and Vauban, along with a surprising element of John Locke.[25] For Bargeton (and perhaps Louis), the state is and always was society: when "our ancestors realized the weakness of every man as an individual… they felt that the conservation and happiness of each individual depended on the conservation and happiness of all…. These ideas were united in the word État." The state arises from "the feeling of needing help, it is the place of one's happiness, the need for the union of private forces is the First Natural Law of Man and part of man's essence." But this refuge (from which the church is absent) is fragile: "the Etat politique is formed of all men, if any are exempt the links between them are broken." The church's claim to exemption from taxation was thus an attack on the state and on society and its members, in contravention of social and political duty. All societies and their members have the "natural right to be ruled in equity for their common defense and general and private happiness," and privileges are revocable "if they considerably reduce the distributive justice due to others."[26] Such comments were calculated to have not only an intellectual, but also a resonant political basis.

Distributive justice was the demand of Louis XV's frightened, wealthy secular subjects

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[24] Machault to Bargeton, 21 & 25 avril, 14 & 19 mai 1750, in Balincourt, *Daniel Bargeton*, 17-8.

[25] Maurice Cranston, *Philosophers and Pamphleteers: Political Theorists of the Enlightenment* (Oxford: Oxford University Press, 1986), 34.

[26] [Daniel Bargeton], "Lettres: Ne repugnate vestro bono" (Londres: 1750), 6-7, 17-8, 2-4, in BN L3 D159, *Pièces Concernant les Affaires du Clergé*, vol. 3.

who were loudly jealous and suspicious of their increasing tax liability compared to that of others. Thanks to Machault's fiscal reforms, there were now more taxpayers and they were paying more. Even the privileged laity now paid 7% to 10% of revenues from land and house rents, pensions, and offices. By comparison, the 2% to 5% paid via the clergy's free gift looked increasingly modest, aggravating criticism of the church's temporal role just when the newly vocal public claimed patriotism and citizenship as the prerogative of oppressed taxpayers.[27]

A "London Printer" (Bargeton again) made the point explicit, complaining that exemptions for rich clerics transferred liability to poor grain producers most of all, inverting "the principles of equity, and at the same time of economy and of order."[28] A conceptually ambitious pamphlet from 1753 warned that exemptions disturbed the equilibrium between the orders that was "essential to the maintenance of the monarchy." Favoring one meant punishing the others, "which may ruin the State." The author supported his claim by calculating the revenue of the church and its liability under universal taxation, and concluded that the clergy paid only a quarter of its share, with the underpayment falling on the people and the Third Estate. The result was "an almost irremediable disruption of the true economy of the kingdom, and in the good order of finances, which are its principal strength." The clergy would become a "despotic kingdom," the pamphlet warned, "a type of aristocratic State, if kings allowed them."[29]

In the wake of unprecedented public and state-sponsored criticism, the clergy became increasingly concerned about the future of its relationship with the Crown. The assembly quickly denounced the anonymous Bargeton as "the enemy of all authority… he announces pacts and

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[27] Kwass, *Politics of Taxation*, 92-5, 103-7, 110-2, 95, 129, 168-9.

[28] [Daniel Bargeton], "Lettre d'un imprimeur de Londres au Défendeur du Clergé de France, au sujet de la réponse aux Lettres contre l'Immunité des biens Ecclésiastiques" (Londres: 1750), 20-1.

[29] "Mémoire concernant le clergé, et le déclaration du roi du mois d'aout 1750, pour l'imposition du vingtième du revenu des biens-fonds, tant ecclésiastiques que laïcs" (N.l.: 1753), in BN L3 D159, *Pièces concernant les affaires du clergé*, 10: 382-5, 557-8, 581.

conventions between Prince and subjects that make the people see its obedience as essentially conditional."[30] The following quarter century provided little relief for the church, which was afflicted by the flood of "bad books," further tussles with the Jansenist parlement of Paris, and parlement's astounding revenge, the expulsion of the Jesuits from France. In 1775, a rattled assembly felt obliged to remind France of the church's utility in making virtuous citizens.[31] Such examples of the clergy's response to the Vingtième crisis and its polemical aftermath are consistent with McMahon's depiction of the Catholic Counter-Enlightenment, which attributed criticisms to subversive philosophe plots that threatened altar and throne.[32] But there was another, older, and deeply entrenched aspect to the church's self-conception and defense of its utility, which included a critical and at least partly accurate social and economic interpretation of contemporary France, and which was intimately connected to church landlords' vision of their own, very particular model of proprietorship.

The Narrative of Comparative Utility

The culture and practice of tenant nurturing and improvement by church landlords had an urgent, consciously political importance for managers such as Lucas, as is revealed by a mémoire read to the clergy's assembly three weeks after the publication of Bargeton's inflammatory "Letters." The anonymous manuscript rejected Bargeton's criticisms of church landownership, and those contained in the edict of 1749 and in subsequent commentary. The mémoire reveals the rationale behind church landowners' investment culture and their vision of the relationship between religion, agriculture, the state, and society in a time of unprecedented public, legal, and crown criticism. This rationale was significant because it coalesced into a narrative that exalted

[30] "Lettre de l'assemblée aux archevêques & évêques de France… (N.l. : n.d.)," 438-40, in BN L3 D159, *Recueil des pièces concernant les affaires du clergé au sujet du XXe & autres impositions,* vol 2.

[31] Julia, "Les Deux Puissances," 307.

[32] McMahon, *Enemies of the Enlightenment*, 5, 10, 18-9, 21, 26, 28.

the utility of church landownership over that of the laity, which became the lasting justification for church proprietors' privileges and existence, and helped protect them politically during the decades of dangerous criticism and agricultural investment after 1760.

The mémoire had the imprimatur of a prestigious reader, abbé Aymard-Chretien-François de Nicolay, a well-connected cleric with political ambitions. He was close to the dauphin, and hoped to become his chief minister on his accession as king. Nicolay was also currently one of the two agents généraux du clergé, whose primary duty was to defend the temporal property and privileges of the 130,000 members of the First Estate through lobbying and legal action, which he did with the aid of the assembly and its highly effective secretariat from 1745 to 1750.[33] Nicolay may or may not have written or commissioned the mémoire, but he understood the need to attune its arguments to the evolving economic discourse of the powerful at Versailles.

Whether Nicolay was also familiar with the land practices of the church is unknowable. He was a canon of Notre-Dame de Paris, like his close contemporary Lucas, but in an honorary capacity that did not entail the usual, strictly enforced obligation to reside in the cathedral close, attend all ceremonies, and participate in managing the chapitre's property.[34] Yet from his work as agent général this political operator would have known how well the narrative of comparative utility would play with the ministers at Versailles. After all, the memoire was conveniently framed for that purpose:

> The sure and widest interest of the State relative to property can be reduced to three points: First, that lands are made as productive as can be. Second, that they provide subsistence for the greatest number of citizens that they can. Third, that they carry public costs according to their proportion.

[33] Louis S. Greenbaum, "Talleyrand as Agent-General of the Clergy of France: A Study in Comparative Influence," *The Catholic Historical Review* 48, no. 4 (1963), 474.

[34] McManners, *Clerical Establishment*, 414-5. Nicolay lived on the Place Royale (now the Place des Vosges).

Nicolay told the assembly that by these criteria the performance of church landowners surpassed that of the laity: the productivity of the clergy's land was embarrassingly good, feeding more people and contributing more taxes than the land of any secular proprietor.[35] This was the result of the "fortunate talent" of clerics who "sometimes find utilities in their acquisitions that the former proprietors could not." Sensitive to the criticism that clerical acquisitions and improvements were driven by greed, the mémoire presented the desire to increase wealth through productivity as a universal feeling that was particularly strong among the clergy. "It is very honorable and advantageous to them… the hope of making more from lands than other possessors. It is a very common hope among buyers, so legitimate that one cannot make it a crime." It was honorable because it arose from their industry, and "is it not [best] for the *bien public* that lands be made as productive as possible?"[36] This proved to be the core claim of clerical improvement culture up to dispossession in 1790: church landlords were industrious and talented investors without being greedy for excessive returns, which made them superior to the laity and ideal for the public welfare.

While the edict of 1749 depicted clerics' improving ambition as a danger to families who were crowded out of a fixed quantity of revenues, the mémoire presented church landowners as families like the other families of the state, albeit ones that could increase the revenues of France. What mattered was not whether someone gained or lost, the memoire argued, but

> The total. … One could not call it a real loss if an individual suffered, but growth profited a greater number of people. The only loss to be feared is to see faculties that would be more profitable for another [proprietor] dissipated, or fall into bad hands.[37]

The state needed to ignore calls for distributive justice, and focus on the position of society.

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[35] AN G8* 2485 AG, [Aymard-Chrétien-François-Michel de Nicolay?], "Remarques sur l'édit du mois d'Aout 1749, concernant les établissements et acquisitions des gens de main-morte," in Assemblée générale*, Edit sur les acquisitions des gens du mainmorte*, 18: 471. As authors of mémoires are usually cited in these reports, perhaps it was assumed that the reader, Nicolay, would be recognized as the author.

[36] [Nicolay?], "Remarques sur l'édit," 451, 468.

[37] Ibid., 451, 467.

According to the mémoire, church landowners had an unparalleled ability to generate wealth through improving the productivity of land, which then passed through to secular fermier families and so into society. The clergy's "leases are in general more advantageous, and give more facility [*aisance*] to fermiers to advance their fortunes through commerce." The systematic phenomenon of leniently priced ecclesiastical leases explains why

> There is nothing more useful for the state than to improve land… In general, the clergy and religious communities take less from their lands than any [lay] individual whatsoever, but their fermiers … take more. The loss is for them; the gain in value is for citizens and society.[38]

Chapters one, two, and three provided evidence of the high rate of reinvestment by church landlords in farm buildings that often generated returns in rents charged to tenants that were lower than those secured by secular proprietors. Yet the clergy were not landowners for whom investment payback was unimportant. Church property managers justified investments as reducing fermiers' operating costs in order to increase their profits and thus their ability to pay higher rents in the longer term, a hope borne out in practice at Notre-Dame (see chapter two). The mémoire suggests that church landlords' low payback only appears puzzling when judged by an inappropriate, ideal, perhaps impossible standard of economic behavior. The clergy were not profit maximizing, they were profit satisficing. Their aim was a satisfactory level of return – social and as well as monetary – in the short to medium term, in order to maximize long term returns.

The mémoire presents the clergy's rent leniency as a product of their corporate nature and politically constrained financial options rather than social pressure or Christian morality. In reality, rural dwellers expected clerical rental terms to be more lenient than those of the laity, and they often were. Clerics may have retained the medieval Aristotelian view that it was sinful to

[38] Ibid., 463, 468.

profit excessively from a person (e.g., the fermier) who had to pay even a ruinous price to live.[39] However, the mémoire claimed the clergy were satisfied with lower returns than any lay individual because

> a perpetual company … is never perfectly secure, until at least part of its perpetual faculties are protected from the accidents that can happen to all other types of property… Because wholesale trading is forbidden to them, along with all the other lucrative employments that are the preserve of other citizens, because the assurance of a mediocre revenue is more necessary to them than the hope of a greater one that they have learned to live without. Finally, because they work for their successors who need to subsist, and not to make a fortune.[40]

The mémoire thus reconciles celibate corporate property holding with improvement and private and public welfare and gives it an inherent advantage over secular proprietorship from the point of view of the state, the fermier, and society. If the state's interest was in making land productive, stimulating commerce, and feeding the population, it should not assume, as the edict did, that lay proprietors could best take on those tasks: private landowners' high rents left less for the fermier and other citizens; rich merchants would divert their funds from commerce to land if the church did not hold it. The mémoire even proposed another scapegoat for France's ills, claiming that the state would do better to investigate the vast lands "accumulated by the privileged [i.e., financiers] every day."[41]

The mémoire is grounded by evidence from around France, and careful to demonstrate the compatibility of church landownership with "commerce," which included agriculture.[42] In an indicator of the familiarity of ecclesiastical apologists with contemporary polemics that attacked the economic effects of church landownership, the mémoire claims that the church is not only good for "commerce" but wants it freed.

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[39] McManners, *Clerical Establishment*, 101-2; Saint Jacob, *Paysans*, 254; Odd Langholm, "Voluntary Exchange and Coercion in Scholastic Economics," in *The Oxford Handbook of Christianity and Economics*, ed. Paul Oslington (Oxford; New York: Oxford University Press, 2014), 51.

[40] [Nicolay?], "Remarques sur l'édit," 468.

[41] Ibid., 471.

[42] [François Véron Duverger de Forbonnais], "Commerce," *Encyclopédie*, 3: 695-7.

> Nobody doubts that it is of great importance to the state, that it merits every favor, that one should use the most effective means, the most just measures, to support and augment it, to prevent anything that would cause it trouble or diminution."[43]

For the church is good for commerce in good ways for the state: the provinces with the highest proportion of ecclesiastical property are also the richest and most populous, have the best agriculture, and pay the most taxes.[44] The claim that church landownership was good for commerce was more audacious in its scope, political significance, and as an intellectual signal to powerful readers than it might seem, as contemporary economic commentators understood "commerce" to mean something similar to the current day term "economy," that encompassed all forms of economic activity.[45]

The mémoire just predated the explosion in the 1750s of publications on "commerce," work, population, and agronomy, but it used concepts from that nascent literature to defend the good citizenship of church landlords in the vingtième crisis. If the assembly wanted to impress the up and coming group of administrative reformers and economic thinkers around Gournay it could not have done better. The helpful definition of commerce it gave even has some remarkable similarities to that of Gournay's colleague, Forbonnais, in the article "*Commerce*" in the *Encyclopédie* in 1753. For both clerics and reformer, the aim was to keep as many as possible in aisance through work.[46]

In 1750, the polemical spokesmen and corporate representatives of the French clergy portrayed their rural investment practices and culture as justifying their proprietorship, a narrative that could only have been encouraged by the subsequent widespread public interest in the practice and economic role of agriculture. This narrative makes it easier to understand the

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[43] [Nicolay?], "Remarques sur l'édit," 471.
[44] Ibid., 463.
[45] Antoin Murphy, "Le développement des idées économiques en France (1750-1756), par Antoin Murphy," *Revue d'histoire moderne et contemporaine* 33, no. 4 (octobre-décembre, 1986), 532.
[46] Forbonnais, "Commerce," 3: 695-7.

agricultural focus of Notre-Dame. It resulted in the active participation of Lucas (who managed its vast properties) in the Société royale d'agriculture de Paris and in the great program of investment he initiated. It may be no coincidence that the economic concepts in Nicolay's mémoire were similar to those then being discussed by the circle of Gournay. Lucas' actions were part of an applied Agricultural Enlightenment that would connect him, at least ideologically, to government ministers and to political economists who believed that harnessing institutional religious life offered unequalled opportunities to develop the economic power of France.

The Church and Commerce

Given the investment resources and practices of ecclesiastical landlords, and the narrative portrayed in Nicolay's mémoire, it is not surprising that crown administrators and economic reformers, most notably Gournay, hoped to encourage this aspect of religious life to benefit society and the Crown. Like Turgot, Gournay was critical of monasteries. He welcomed the edict of 1749, as "nothing is more suitable for the interests of society than to protect the property that the clergy take from it daily… to live in greater idleness."[47] This was consistent with Turgot's demand that useless foundations be suppressed, for Gournay thought that monasteries would now be forced to play an essential role in France's economic and thus military revival.

In effect, Gournay aimed to increase employment in valued-added products, and to do so he led a group of intellectuals and crown administrators dedicated to lifting royal and guild regulations (impediments, as they saw them) of manufacturing and trade. As *intendant du commerce*, he advised the Crown on trade and industry in western France, where an attempt was made in 1755 prevent the Jesuits from building a sugar refinery in Angers by the merchants of

[47]Gournay, "Question," 65.

the city and the guilds of Paris. Gournay's response was characteristic of his habit of acting not as an uninformed pamphleteer, but as a commercial and government insider, critical of the way business functioned but knowing its limits and possibilities.[48] He advised that unleashing the investment capacity of the clergy would benefit society and the state.[49]

Gournay's comparison of the value to France of the investment capacity of the monasteries versus that of the laity largely corroborated the argument of Nicolay's mémoire. Gournay asserted that the "speculative" days of monks contributed nothing to the state, and he wanted them set to work, thinking they would then be exemplary due to their discipline and frugality.[50] Otherwise, however, the parallels are remarkable. For example, Gournay saw the clergy forced by the edict of 1749 to invest in value-adding improvements to the productivity of their existing property, because

> They will be forced to employ their money to improve land that they already own, that is to say, that they are necessarily constrained to give society more from the same quantity of land; it matters little by whom more is produced, it enriches continually the land that generates it.[51]

The edict would force the clergy to make the essential and expensive investments in value-adding mills, refineries, and the "infinity of other inventions" (such as the series of expensive and technologically advanced grain sieves purchased by Lucas in the 1760s and described in chapter four) that gave Britain and Holland the economic resources to compete with France militarily. The benefit in added value would flow to society through extra employment, as the wealth of the clergy would allow them to fund investments whose long payback term would deter or bankrupt secular entrepreneurs. Allowing the clergy to invest and then rent out improved

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[48] Murphy, "Idées économiques," 523.

[49] *A Companion to the History of Economic Thought,* ed. Jeff Biddle, Warren J. Samuels, and John B. Davis, (Malden, MA; Oxford: Blackwell, 2003), 56; Takumi Tsuda, *Mémoires et lettres de Vincent de Gournay* (Tokyo: Kinokuniya, 1993), xxvi.

[50] Gournay, "Question," 75-7.

[51] Ibid., 65.

property to the laity would enable manufacturers and traders with little capital to operate safely from those premises immediately, accelerating development that would otherwise be impossible.[52]

Gournay's comparison of the investment capacity and culture of the clergy and of the laity echoes Nicolay's mémoire. Gournay mentions places where monks have reclaimed and developed land "that would still be waste and not produce any value for the state, if it belonged to the laity." Why? Because the clergy's "great lands, their economy, and the small profits with which they are contented put them in a state to form enterprises that always exceeds the strength of the capital of the laity." The laity's financial deficiencies had a cultural root, however: merchants were not interested in small profits. In current day economic terms, they were rent seeking, and required supernormal profits, which depended on keeping prices high by restricting supply through regulation. As a result, the loss in value, to paraphrase Nicolay, fell on citizens and society. Allowing the church into the market suited Gournay's (mostly) laissez-faire principles more, because "it is necessary to allow commerce the freedom to flow in the channels that it finds best and towards the people who can practice it for the least profit."[53]

Again repeating Nicolay's claim, Gournay further argued that secular investors withdraw their funds from commerce as soon as possible, and so they would never create make durable investments or employment. Those with large capital "will continue to remove their children from commerce rather than raise them for it."[54] Only the clergy could and would provide productive and sustained investment capital:

> …we can never, I repeat, expect [such] faculties from our laymen, while the son of a very rich wholesale merchant finds it less agreeable to use his great capital to follow the

[52] Ibid., 65-6.
[53] Ibid., 72, 75.
[54] Ibid., 72-3.

> profession of his father, than to make it a means to abandon his station to pass into another that appears more preferable to him.[55]

Coming from a merchant family and having himself been a successful merchant, Gournay's knowledge of wealthy traders' behavior was exceptional for a senior royal administrator.[56] He was not merely speculating about the flight of merchant capital from low-status commerce to prestigious land and offices. Between 1705 and 1730, 11 out of 12 merchants' sons from Gournay's home port of Saint-Malo went into more prestigious careers in law or the army. His own wealth proved no more productive, for he abandoned trade to purchase the office of intendant du commerce for 100,000lt, which, coincidentally, was the cost of Lucas' most expensive agricultural investment at the reconstructed ferme of Belloy-en-France, a decade later.[57]

Harnessing and exploiting lasting, deep-pocketed ecclesiastical investment was central to Gournay's vision of a more prosperous France. He urged his powerful superior at Versailles, Daniel-Charles Trudaine, to be open-minded on the clergy's utility:

> It is much less by holding narrowly to what was done in the time that preceded us that we can contribute to the present and future happiness of our country, than by keeping our eyes open to the advantages that they can offer us, and above all in making all the men we possess contribute to the public utility.[58]

Such was the ideological environment in which Lucas trained as an inspector of buildings, and, once promoted, launched his rural investment program. Given the similarity between Nicolay's and Gournay's vision of the ecclesiastical investor, it seems reasonable to speculate that they were linked through Gournay's varied and porous circle of reforming administrators and

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[55] Ibid., 76.

[56] Gillispie, *Science and Polity*, 9.

[57] Loïc Charles, "Le cercle de Gournay: Usages culturels et pratiques savantes," in *Le cercle de Vincent de Gournay: Savoirs économiques et pratiques administratives en France au milieu du XVIIIe siècle*, ed. Charles Loïc, Frédéric Lefebvre, and Christine Théré (Paris: INED, 2011), 66, 69-70.

[58] Gournay, "Question," 77; Charles, "Cercle de Gournay," 14-5.

intellectuals, who were implementing their shared liberal economic ideology in a myriad of minor administrative decisions.[59]

The Crown had some success in nudging the clergy into investment and improvement acts that were consistent with Nicolay's narrative. The connection between Nicolay (an ex-officio member of the royal administration via the Conseil d'état) and Gournay may be Trudaine, who brought many of Gournay's associates together, and who, as director of the Crown's very active department of road and bridges, proved useful in releasing large funds for Lucas' new road at Rosay-en-Brie in 1758. The wording of the surviving documents suggests that Notre-Dame (perhaps Lucas) initiated that venture, and there is no evidence that Trudaine prompted it, though extending the road network was his life-long objective. But Notre-Dame must have expected that the director would support the initiative in the name of public utility, which is how the chapitre framed the application to Trudaine.[60] The small, overlapping world of the administrative, economic, and intellectual elites would have facilitated such contacts and lobbying. The canons were received at Versailles for royal births and deaths and the royal family visited Notre-Dame for Te Deums. Trudaine and Lucas were both members of the Société royale d'agriculture de Paris, as was the Crown's chief minister, controller-general Bertin, who, in 1761, was gratified that Lucas complied with his request to set an example (swiftly imitated) to the great abbeys by quickly pledging its support for the Crown's land reclamation campaign.[61]

In the 1760s, the claim that church landlords were the Crown's only sure allies in ensuring the expansion of French agricultural output became a core element in the church's defense of its property privileges. During the clergy's general assembly of 1765, Bertin asked the

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[59] Charles, "Cercle de Gournay," 68-71.

[60] Ibid., 15-6; AN LL343-344 ND.

[61] *Almanach Royal* (Paris: 1762), 488-9; Société d'agriculture, *Délibérations*, 8, 21; Bourde, *Agronomie et agronomes*, 2: 1124; McManners, *Clerical Establishment*, 416.

church to imitate Notre-Dame and the abbeys of Saint Germain-des-Prés and Saint-Denis, "who brought glory on themselves by contributing to the growth of agriculture," by foregoing tithes for ten years on newly reclaimed arable lands. The worldly archbishop of Narbonne, Arthur de Dillon, knew something of agricultural improvements, and was acclaimed for organizing the drainage of marshes and the provision of canals and roads as outlets for agriculture.[62] Although Dillon urged the assembly to reject Bertin's request, he proposed that monasteries be allowed to purchase uncultivated lands. They would then divert their funds from the scandalously luxurious and grand residential building program they had adopted since the edict of 1749 to create "immense districts [that] would today be fertile that perhaps would [otherwise] languish uncultivated for several centuries."

Dillon's audacious argument (the abbeys' palatial rebuilding projects long predated the edict of 1749) relied on the now familiar premise that church landlords were better than the laity at land reclamation because private individuals had little interest in slow and uncertain returns from expensive rural enterprises, whereas monks would patiently improve the new lands, year after year, "to the great advantage of grain growing in general," increasing the tax yield and the strength of the state.[63] The assembly tactfully accepted Bertin's proposal, though they added Dillon's suggestion that abbeys be allowed to purchase uncultivated land provided they reclaimed it.[64] However, powerful though these clerics' political connections were, new and more sophisticated ideas for reform were circulating that, once again, targeted the legitimacy of church proprietorship.

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[62] Jean Albisson, *Lois municipales et économiques du Languedoc* (Montpellier: 1782), 3: 398; *Mémoires secrets pour servir à l'histoire de la république des lettres, en France...* (Londres: 1784), 16: 25-6.

[63] Assemblée générale du clergé de France, *Procès-verbal de l'Assemblée générale du clergé de France tenue en 1765 continuée en 1766* (Paris: 1773), 844-5, 848-50.

[64] Ibid., 851-2.

Alternative Natures of Things

In the 1760s, attacks grew on the clergy's right to own property. Some were familiar, if irritating, Jansenist and Richerist critiques pointing to the incompatibility of the clergy's spiritual origins and mission with its current distance from the true church, all of the faithful, and poverty.[65] It was the rise of physiocracy, however, that heralded some of the fiercest opponents of monastic "despots… in open war with their compatriots" who were supposedly destroying the secular proprietors who, alone, felt the desire and necessity to improve the land. Such criticisms were particularly dangerous, as they coincided with attempts by the Crown from the late 1760s to investigate and reform the finances of the abbeys.

Given the tacit approval of the lieutenant général de police of Paris for the publication of such views, it seems reasonable to suspect that church landlords would have been worried to read that the nature of church property differed from that of secular proprietors. It was claimed that while the king could merely tax secular individuals as "co-proprietor," he – or the Nation - was the full proprietor of clerical lands and could sell them, making rich rentiers redundant, liberating commerce, and making a "truly citizen clergy" from those enemies of the public good. This view was echoed by Turgot's protégé, the political theorist and administrator Condorcet, who argued that communal church property was against the laws of nature and inherently unproductive. Better to sell it to pay down the Crown debt and buy out impediments to agriculture, such as seigneurial tolls and tithes.[66] Dale Van Kley describes the response of the clergy to anti-clerical

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[65] Dale K. Van Kley, *The Damiens Affair and the Unraveling of the Ancien Régime 1750-1770* (Princeton; Guildford: Princeton University Press, 1984), 210-1; ["Chevalier de Cerfvol"], *Du droit du souverain sur les biens fonds du clergé et des moines* (Naples: 1770), 5, 16, 39, 133-8, 158.

[66] Jacques-François-Maxime de Chastenet de Puységur, "Mémoire sur le remboursement des dettes de l'Etat & sur l'augmentation des ses revenus…," "Suite du mémoire. et motifs de l'auteur… ," "Discussion intéressant sur le prétention du clergé d'être le premier ordre d'un Etat," in François-Jacques de Chastenet de Puységur, *Pièces détachées relatives au clergé séculier et régulier* (Amsterdam: 1771), 1: 16-7, 30-1, 37, 44-49, 91, 98; Jean-Antoine-Nicolas de Caritat de Condorcet, *Vie de Turgot*, 156; Condorcet, *Oeuvres complètes*, 14: 247, 501. Puységur helpfully laid out the stakes of his pamphlet when seeking the permission to publish of Antoine de Sartine,

criticism as uninspiring and legalistic, perhaps because he focuses on the evolution of Jansenist ideology into a political doctrine in the Paris parlement. The ecclesiastical response was far more energetic and novel, however, in its use of empirical evidence to defend the utility of church landlords.[67]

Many commentators, lay and clerical, doubted that landowners as a class lived up to the high investment level expected of them by physiocracy and the new agronomy. Gournay's associate the abbé Coyer claimed that most uncultivated land belonged to the nobility, which, he added, had neither the concern nor the capital for improvements.[68] Quesnay's theory of the circulation of the all-important "net product" depended on rents being spent locally by landlords through reinvestment and consumption so that it was redistributed to the rest of society. Quesnay, however, appears to have doubted that landlords would do so. He barely mentioned proprietors as improvers, and he thought their responsibility to reinvest and spend would have to be enforced through taxation.[69] This gap between discourse and practice was problematic for the physiocratic defense of property, which claimed that rents were interest on original and subsequent investments that made proprietors a productive class and their property inviolable from the cultivators of the land. In reality, many commentators thought landlords' investments were derisory. Turgot believed grain prices generated land revenues, not ancient improvements, and that proprietors lived on unearned income, while Henry Patullo, the influential early agronomist (and publishing collaborator of young Lucas in 1750), criticized all landowners - including clerics - for ignoring their lands.[70]

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lieutenant général de police for Paris.

[67] Van Kley, *The Damiens Affair*, 211.

[68] Gabriel-François Coyer, *La noblesse commerçante* (Paris: 1756), 28, 30-1, 35, 42-5, 47.

[69] Elizabeth Fox-Genovese, *The Origins of Physiocracy: Economic Revolution and Social Order in Eighteenth-Century France* (Ithaca; London: Cornell University Press, 1976), 131-2.

[70] *Éphémérides du citoyen…*(décembre, 1768), 17-19; *Éphémérides* (Avril, 1767), 147, 172-3; Weulersse, *Mouvement*, 1: 642, 644-5, 626-39, 381; Passy, *Société nationale*, 1: 5-6.

Once again, apologists defended the clergy's landownership performance by highlighting its superior productivity and investment and lenient land pricing. The *académicien* Jean-Jacques Le Franc de Pompignan claimed that no land was better cultivated than that of the Benedictines, Carthusians, and Cistercians.[71] More usefully in terms of influencing public opinion, Mirabeau's celebrated *L'ami des hommes* claimed that monks had initiated the cultivation of half of France, that it was proverbial that the Benedictines "put 100 into their land to make it produce 1," and that long and expensive works were the "ambition and joy for corporations who regard themselves as eternal, always minors for selling [property], always adults for conservation." According to Mirabeau, the clergy's large improving projects were beyond the means of individuals.[72]

The narrative endured, even among clerics who were critical of the corruption of the ancien régime church and state. In 1789, the abbé Grégoire claimed in the National Assembly that the fermiers of lay proprietors were often reluctant to make improvements due to landlords' neglect during periods of sale, minority, or probate, whereas church lands were "always well-maintained, always in use, always productive."[73] In 1784, the Cistercian prior Léon-Christophe Féroux published *Vues d'une solitaire patriote* (Fig. 6), which claimed that church landlords had been forced by the edict of 1749 to be less risk averse than the laity, and that they "know how to give to rural objects a value that nature seems to have refused them since Creation."

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[71] Jean-Jacques Le Franc de Pompignan, *Oeuvres de m. le marquis de Pompignan* (Paris: 1784) 4: 66-8.

[72] Victor de Riqueti de Mirabeau, *L'ami des hommes, ou, traité de la population* (Avignon: 1756), 1: 18-21, 23-4. Mirabeau had not yet converted to physiocracy when he wrote this book.

[73] Henri Grégoire, "Mémoire sur la dotation des curés en fonds territoriaux, lu à la séance du 11 avril 1790, par M. Grégoire, curé d'Emberménil, député de Lorraine, correspondant de la société royale d'agriculture" (Paris: Assemblée Nationale Constituante, 1790), 12-3.

Fig. 6. Frontispiece, Léon-Christophe Féroux, *Vues d'un solitaire patriote* (1784).

Less conventionally, Féroux addressed the glaringly obvious fact (ignored by Nicolay, Gournay, Mirabeau, and even by critics of church landownership) that church property was largely used to pay for the welfare of a few rather than "the multitude of citizens" he believed it should serve.[74] Féroux condemned the embarrassing truth about church landownership, which was that no matter how productive the clergy was, the majority of ecclesiastical income went to the parasitical nobility. Despite the abbeys' great wealth, many monks could barely feed themselves or make repairs, let alone investments, because most abbeys were held *en commende*.

[74] [Christophe-Léon Féroux], *Vues d'un solitaire patriote. (par Férou, bernardin)* (La Haye; Paris: 1784), 1: vi, viii, 75, 90-2, 94.

A central, and jealously guarded part of royal power was the king's right to award the incomes of lucrative abbeys to the junior sons of the great court nobility. Titular abbots took between one half and two thirds of their abbeys' revenues, in return for a religious commitment that was limited to enduring a token tonsure (a small clip of hair) at age seven, rather than celibacy or holy orders.[75] Féroux knew all too well what such noble parasitism entailed for the abbeys.

Féroux's experience of church landownership was nothing like the well-financed and productive life enjoyed by his contemporary, Lucas, at Notre-Dame.[76] Féroux' abbey, Chaalis, had been virtually bankrupted in the 1730s by its palatial rebuilding under its titular abbot Louis de Bourbon Condé, comte de Clermont and cousin of Louis XV.[77] Clermont took 600,000lt per year from various abbeys, served (and was defeated) as a general in the Seven Years War, and lived openly in Paris with a series of ex-dancers from the opera.[78] One of the latter, a Mlle Le Duc,

> was notorious for her parade down the Bois de Boulogne in Holy Week, glittering with diamonds and in a blue and gold carriage drawn by six tiny horses. The nearest he [Clermont] came to his ecclesiastical functions was to build a marble mausoleum to his pet monkey McCarthy.[79]

Such entertaining scenes would presumably not have charmed Féroux, who served as prior (with the spiritual and administrative duties of a true abbot) of several indebted monasteries in turn. He increased their revenues through afforestation and artificial meadows, before reluctantly accepting the position of prior of debt-ridden Chaalis in 1770. He struggled for the next 16 years

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[75] McManners, *Clerical Establishment*, 476-81.

[76] Jean-Lucien Lucas, born 1720, canon 1750, chambrier 1761, died 1802; Féroux born 1730, prior 1757, died 1803.

[77] A. Driard, "Les derniers jours de l'abbaye de Chaalis," *Compte rendu et mémoires. La société d'histoire et d'archéologie de Senlis* 4, no. 3 (1900), 35. The architect was Jean Aubert, designer of the great stables at Chantilly.

[78] Frank McLynn, *1759: The Year Britain Became Master of the World* (New York: Grove Press, 2004), 261; Jules Cousin, *Le comte de Clermont, sa cour et ses maîtresses: Lettres familières recherches et documents inédits* (Paris: 1867), 2: 66-7. Clermont ("*Général des bénédictines*" to his troops) was defeated at Krefeld in 1758.

[79] McManners, *Clerical Establishment*, 477-8.

to improve its finances through retrenchment and improvements, replacing loans as best he could, but the abbey was declared bankrupt in 1786 and closed with the permission of the king, an unprecedented humiliation for the church, whose reputation as a debtor had long been the best in France.[80]

Unsurprisingly then, Féroux's book lambasted the parasitic nobility that had taken over both clerical and lay France. He was not the first to compare the condition of monasteries under ecclesiastical as opposed to lay abbots. Pompignan claimed that lands en commende were as desolate as Troy, whereas those of true abbots were "like an inheritance on which one spares nothing for improvement."[81] Just as Nicolay reversed the conventional critique that the church impoverished France whereas the laity was the nation's salvation, so Féroux presented the church as needing protection from rapacious and destructive lay seigneurs. He equated the nobles' takeover of the church with the devouring of small secular properties by rich secular landowners, a practice forbidden to the church by "a wise law" of 1749.[82] The junior nobility "fall on the church, which the monarch settles on them like an annuity, and ¾ of the wealth of the church falls under the same class of citizens as lay property." This "wealthy class" of the nobility, financiers, and the [noble] clergy, two out of France's 20 million people, shared the land, and wealth "passed and re-passed in their hands," though they played little part in "agriculture, the arts, or commerce," while the 18 million others got the crumbs.[83] According to Féroux, wealth stayed with the rich. In current day terms, trickle down was an economist's myth.

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[80] Christophe-Léon Féroux, "Compte rendu par le prieur de Chaâlis à ses supérieurs" (Senlis: 1786), quoted in A. Driard, "Les derniers jours de l'abbaye de Chaalis," *Compte rendu et mémoires. La société d'histoire et d'archéologie de Senlis* 4, no. 3 (1900), 33-4, 36-42; Joseph-François Michaud and Louis-Gabriel Michaud, *Biographie universelle, ancienne et moderne*... (Paris: 1838), 64: 99-100.

[81] Pompignan, *Oeuvres*, 4: 66-8.

[82] [Féroux], *Solitaire patriote*, 1: 40-1.

[83] Ibid., 1: 27-32, 22.

Church landlords' (at least partly) empirically based narrative of ecclesiastical land management and improvement put them in conflict with the zealous advocates of Quesnay's economic prescriptions for France, which were presented as irrefutable truths based on natural and verifiable principles.[84] For the self-declared *économistes* (widely known as *économistes-philosophes*), physiocracy was the application of natural laws to human affairs. The liberation of property would inevitably transform the only real wealth, agricultural output, from precarious, immemorial subsistence to lasting abundance. Dearth and poor agricultural output were not natural but the inevitable result of restrictions on the price and export of grain that deprived large fermiers of the profits necessary for investment in increased output, and removing those restrictions in order to increase agricultural output ought to be the prime duty of government. Once fermiers' profits rose, so would rents payable to landlords, which were the only real surplus available for taxation by government, and so the new (or as the physiocrats put it, restored) economic system would result in a well-fed populace that would be sheltered from all taxation by a strong government. Higher rents would also generate funds for landlords to reinvest in search of still greater rents, and so their interests would naturally lead them to actions that maximized the bien public. Government's responsibility was to remove the impediments to secular landlords' interests, which were those of society.[85]

Church landlords were skeptical of physiocrats' confidence in economic laws because they recognized in the économistes' rhetoric, absolute faith in opaque "truths," and search for ideological orthodoxy something of a rival priesthood, or even religion. The physiocrats agreed with Linnaeus that the economy of nature was the "wise disposition of natural beings,

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[84] Vardi, *The Physiocrats*, 52-3.

[85] Catherine Larrère, *L'invention de l'économie au XVIIIe siècle: Du droit naturel à la physiocratie* (Paris: Presses Universitaires de France, 1992), 183, 186-9, 193-5; Skornicki, *L'économiste*, 185-9, 193, 234; Anoush Fraser Terjanian, *Commerce and its Discontents in Eighteenth-Century French Political Thought* (Cambridge: Cambridge University Press, 2013), 5.

established by the Sovereign Creator, according to which they tend towards common ends and establish reciprocal actions."[86] According to one physiocrat,

> There exists a *natural, immutable, and essential order*, instituted by God to govern civil societies in the most advantageous manner for sovereigns and subjects... this order has … a physical base, and flows from a chain of necessary relationships, through which one obtains growth in food, in riches, and in population, and consequently in the prosperity of empires, and the degree of happiness brought by the social state; *a physical base*, never before known to man… is now known and demonstrated in an evident and explicit manner… a science which regulates through certain principles all the relationships of men united in society.[87]

Ecclesiastical commentators were alarmed by the claims of this "sect" (as they termed it) to describe, "the nature of things," how people are, how they act, and the consequences of the freeing of property.[88] Canon Le Gros of the chapitre of the Saint-Chapelle in Paris mocked the physiocrats for their utopian promises of prosperity, "universal peace, innocence, concord, kind fraternity… the veritable age of gold renewed," in which war and disease would cease. Le Gros claimed his real target was the vacuity of the evidence and first principles the physiocrats enunciated so firmly, and he was not alone in rejecting the physiocratic premise than unrestricted, individual proprietorship was not only the best but the only natural economic course for society.[89]

For Féroux, history revealed that the untrammeled "natural order" of individual proprietorship was a systemic social disaster. The channels of wealth inevitably flowed to ever fewer and richer individuals, leaving the rest destitute, as "it is in the nature of things that secular

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[86] Giorgio Agamben, *The Kingdom and the Glory: For a Theological Genealogy of Economy and Government*, trans. Lorenzo Chiesa and Matteo Mandarini (Stanford, California: Stanford University Press, 2011), 278, 280-2.

[87] Guillaume-François Le Trosne, *De l'ordre social, ouvrage suivi d'un traité élémentaire sur la valeur, l'argent, la circulation, l'industrie et le commerce intérieur et extérieur…* (Paris: 1777), 301-3.

[88] Skornicki, *L'économiste*, 185-9, 193, 234; Pierre-Samuel Dupont de Nemours and François Quesnay, *Physiocratie, ou constitution naturelle du gouvernement le plus avantageux au genre humain…* (Leyde: 1768), xliv, 32; *Éphémérides du citoyen* 6, (1772), 9; Pierre-Paul Mercier de La Rivière, *L'ordre naturel et essentiel des sociétés politiques* (London: 1767), 11, 405, 441; Pierre-Paul Le Mercier de La Rivière, *L'intérêt général de l'état, ou la liberté du commerce des blés démontrée conforme au droit naturel…* (Amsterdam; Paris: 1770), 99, 136.

[89] Jean-Charles-François Le Gros, *Analyse et examen du système des philosophes économistes, par un solitaire* (Paris: 1787), 5, 220, 254, 263.

properties are united and become the prerogative of a small number of citizens."[90] Small, improving proprietors had no defense against

> a natural tendency that reunites small properties with large ones, sooner or later they are reunited with the domains of Seigneurs… by a feudal seizure or by repurchase. No property can withstand the system of reunion, against the insatiable desire to extend possessions. Seigneuries which are so well rounded off by a mass of small properties, are themselves united with the larger lands of a richer proprietor. Thus do streams flow into rivers, and rivers into the sea.[91]

Féroux argued that it was illusory to claim that the interests of secular landlords and tenants were in harmony, while landless peasants were starving or turning to crime, and absentee or unconcerned secular landlords ignored their duties, threatening the "ruin of the empire."[92] Landlords had broken the social – which for Féroux meant economic – contract:

> Poor tenants! You call in vain to the chief of your tribe, the Seigneur of your village. He is far from you, he no longer hears you. It is in vain that you raise your voice, and say to him: Have you forgotten the contract that you made with me? I moved to your territory, I consecrated my arms to you, and you promised me in exchange the means to subsist. But you give me neither work nor bread, and death would not afflict me if, through tears and groans, my tender and unfortunate children did not fill my soul with bitterness… I would be better off as a slave, I would be fed, or among the savages, at least I could share the fruits nature offers in the forests.[93]

Féroux was playing for high stakes with his argument. It appears to attack the physiocratic ideal of the rich, secular proprietor using Rousseau's condemnation of inequality as the cause of a human misery that was infinitely worse than the easy life open to humanity before the invention of property and society.

Féroux's critique had some force as it explained the long process of rural proletarianization that concentrated land among rich fermiers while impoverishing landless day laborers, who had reacted violently to the liberalized grain price rises of the 1760s and 1770s,

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[90] [Féroux], *Solitaire patriote*, 1: 25-31.
[91] Ibid., 1: 39.
[92] Ibid., 1: 66-7, viii, xi.
[93] Ibid., 1: 68-9.

particularly where seigneurial protection had been withdrawn.[94] He had no more confidence in the physiocrats' hero, the rich fermier, who alone, they claimed, could afford the capital-intensive, large-scale grain farming necessary for a large increase in output. The gros fermier's efficiencies in replacing workers with horses (obsessively recommended by Quesnay) decimated the rural population, Féroux claimed, and his profits would be sent to enrich the city.[95] The physiocrats had chosen the wrong heroes of agricultural and social regeneration. But so had Notre-Dame, by Féroux's reasoning, for the chapitre invested in the consolidation of farms to allow for greater efficiency, i.e., the reduction of labor needed to work the land. The clerics who adopted the narrative of superior ecclesiastical proprietorship were not homogeneous in their actions and their definition of good investment reflected their economic circumstances.

Church landowners' arguments against physiocracy were not solely negative. Reflecting the historical approach of Gournay and his associates, church apologists presented empirical evidence of viable ecclesiastical alternatives to individual property – in Paraguay.[96] While prominent secular anti-physiocrats, such as Louis XVI's *intendant des finances*, Jacques Necker, urged the state to defend the poor from "the laws of property" by maintaining price and export controls on grain, some clerics attacked landed property itself.[97] Canon Le Gros denounced it as a "Pandora's box for humanity, the source of all its woes."[98] Or at least he denounced the individual form of property fetishized by the physiocrats. In response to the claim that individual property was the sole, original, and natural basis of all societies and that communal church

[94] Bouton, *Flour War*, 179, 220; Saint Jacob, *Paysans*, 298, 312, 362, 400, 445, 547, 554.

[95] [Quesnay], "Fermiers," *Encyclopédie*, 6: 529-30, 533-8, 538; [Féroux], *Solitaire patriote*, 1: 54-8.

[96] Paul Cheney, "L'histoire de commerce. Genre littéraire et méthode en économie politique," in *Le cercle de Vincent de Gournay: Savoirs économiques et pratiques administratives en France au milieu du XVIIIe siècle*, ed. Charles Loïc, Frédéric Lefebvre, and Christine Théré (Paris: INED, 2011), 300.

[97] Gabriel de Mably, *Doutes proposés aux philosophes économistes, sur l'ordre naturel et essentiel des sociétés politiques, par m. l'abbé de Mably* (La Haye; Paris: 1768), 10-3; Jacques Necker, *Oeuvres complètes* (Paris: 1820), 5: 331.

[98] Le Gros, *Philosophes économistes*, 219-20.

property was an unnatural aberration, Le Gros and Féroux pointed to the lessons for Europe of the Jesuit "republics" of seventeenth and eighteenth-century Paraguay. The Guarani peoples would have "remained savages and their lands uncultivated" had religious proprietorship not supplied the necessary social and economic organization.[99] There were similarities between this portrayal of the Paraguayan Jesuits and the church landlord as indispensible economic actor portrayed by Nicolay and Gournay, but Le Gros and Féroux went further, rejecting the physiocratic idea that societies formed spontaneously to protect individual property. More importantly, both clerics believed individual property was unnecessary under an enlightened landowning theocracy that could create an admirable civilization where the state had utterly failed.

The Paraguay example originated in reports published in the Jesuits' *Lettres édifiantes et curieuses* that would have struck a chord with readers familiar with Lockean writings on the state of man in nature and in society, the origins and social role of private property, and the right ordering of society. In 1716, a Père Bouchet described the Jesuits' transformation of a nomadic people into a settled agricultural society. Before the mission arrived, he wrote, the Paraguayans were "barbaric, without religion, laws, society, a fixed abode or home," and they knew nothing of agriculture. To convert the people, the Jesuits made civilization attractive by providing domesticated animals, seeds, tools, and building materials, which they taught the Guarani to use. The Jesuits allocated land to be worked, created granaries, and distributed food according to family size, thereby discovering the means to banish poverty, and so begging was unknown. All had an "equal abundance of the necessities of life," guaranteed by the supervision of the Jesuits. These "colonies" were like "an immense family, or a well-regulated religious community,"

[99] [Féroux], *Solitaire patriote*, 1: 179-81.

concluded Bouchet.[100] They also provided social, economic, and political models that fascinated Enlightenment Europe.

Féroux and Le Gros intended the Paraguay example to convince even anti-clerical readers of the superior utility of church landownership for France. Knowledge of the theocratic and economically egalitarian nature of these Jesuit missions had been widely disseminated through the *Lettres édifiantes*, whose unmatched reportage was read even by avowed enemies of that congregation.[101] The Paraguayan missions were praised by Montesquieu, Georges-Louis Leclerc de Buffon (France's premier and best-selling naturalist, another acquaintance of Lucas), and even by Voltaire (though in *Candide* he satirized a Paraguay where "the Fathers are masters of everything, and the people have nothing at all").[102]

Le Gros used the image of Jesuit Paraguay to demonstrate the reality of a supposedly impossible, communal society where "everyone, following his talents, his strength and his age, has a useful function, and the state, proprietor of all, distributes the things they need."[103] The anti-physiocrat the abbé Mably declared that the condition of the Guarani under a Jesuit state that owned all property was preferable to the life of the wage-laborers of France.[104] For Féroux the unequal division of property in contemporary France mirrored the otherwise insurmountable obstacle to progress removed by the monasteries in the twelfth century, when "religion did what

[100] Lettre de Père Bouchet, 14 février 1716, Compagnie de Jésus, *Lettres édifiantes et curieuses écrites des missions étrangères* (Toulouse: 1810), 8: 311-7, 320.

[101] Isabelle Vissière, Jean-Louis Vissière, and Société française d'étude du XVIIIe siècle, *Lettres édifiantes et curieuses des jésuites de l'Inde au dix-huitième siècle* (Saint-Étienne: Publications de l'Université de Saint-Étienne, 2000), 14; Steven J. Harris, "Confession-Building, Long-Distance Networks, and the Organization of Jesuit Science," *Early Science and Medicine* 1, no. 3 (Oct., 1996), 306-8.

[102] Montesquieu, *Esprit des lois*, 1: 140-1; René-François Rohrbacher, Franz Hülskamp, and Hermann Rump, *Histoire universelle de l'église catholique: An 1605 – 1650* (Paris: 1847), 25: 87-8; Georges-Louis Leclerc de Buffon, "Discours sur les variétés de l'espèce humaine," in *Oeuvres choisies de Buffon: Contenant les discours académiques* (Paris: 1843), 1: 394-5; Joseph-Antoine-Joachim Cérutti, *Apologie générale de l'institut et de la doctrine des jésuites*, 2nd ed. (Soleure: 1763), 188-9; Miguel de Asúa, *Science in the Vanished Arcadia: Knowledge of Nature in the Jesuit Missions of Paraguay and Río de la Plata* (Leiden; Boston: Brill, 2014), 8-13.

[103] Le Gros, *Philosophes économistes*, 195.

[104] Mably, *Doutes*, 10-3.

politics did not dare to do." He claimed that by encouraging donations of land the monasteries had weakened the destructive nobles, allowing room for agriculture, many small property owners, and the state.[105] This claim was of more than academic interest for apologists of ecclesiastical proprietorship, for what church landowners had done once for France, they could do again.

Patriotic Proprietors in a Regenerated France

The years immediately preceding the Revolution saw a contradiction in the fortunes of church landlords. The dawning of Notre-Dame's political power seemed at hand, with its deputies busily proposing reforms in the Provincial Assembly of the Ile-de-France and the quasi-governmental Société royale d'agriculture. Féroux gave up defending the proprietorship of monasteries, though he continued to argue for the superiority of corporate bodies:

> It is a consequence of the natural order of things, that an enlightened and united corporation of men will acquire and conserve, over the centuries, an invincible ascendancy over men without a plan or a goal.

The disgraced though indomitable Cistercian instead argued that abbeys and their properties should become educational religious corporations that would patiently undertake the long lasting projects that "an individual would not dare to begin."[106] By the summer of 1789, however, there was no doubt that the direction of events was not favorable for the clerics, as the financial foundations of the ancien régime church began to fell apart.

The collapse began when a widespread withholding of tithes by producers during the harvest of 1789 was legitimized by the renunciation of those dues by the curés of the National Assembly on the night of August 4. Then, as the assembly sought to staunch the collapse of Crown revenues amid the withdrawal of credit financing, the deputies began to consider whether

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[105] [Féroux], *Solitaire patriote*, 1: 24, 63.

[106] Christophe-Léon Féroux, *Nouvelle Institution Nationale, par l'auteur des "Vues d'un Solitaire Patriote"* (Paris: 1788), 24, 82.

the state, as putative owner of church property, could dispose of church revenues to pay down the national debt.[107] On October 10, the former agent-général and diligent protector of the clergy, Charles-Maurice de Talleyrand-Périgord, bishop of Autun, offered the church's property to the Nation, which the assembly accepted. By December, the assembly had voted to sell all monastic lands, to which it added the lands of the chapitres and the knights of Malta in April, 1790, setting off one of the greatest economic changes of the Revolution.[108] The result of the debate that preceded the nationalization of church property was not a foregone conclusion, however, for it rested on the nature and utility of proprietorship under corporate church landowners, topics with which their apologists in the assembly were very familiar after almost fifty years of argument.

The ecclesiastical defense emphasized the old trope that because the clergy's administration of their lands and their effect on agriculture were so much better than those of the laity, expropriation would be calamitous for society and for France. The abbé Fauchet, who had been present at the storming of the Bastille (among the victors), argued that "property has to be useful if it is not to be bad," before denouncing the greed and lack of investment of secular landlords.[109] The abbé Gandin declared that the lands of the clergy were as well cultivated as any, before asking if private owners could afford to make improvements. Speaking of the demonstrably superb arable practices of the Nord (and echoing Nicolay's argument in the 1750s), the influential *monarchien* the abbé Maury asked whether there were "lands that are better cultivated than ours? … Compare the provinces where the clergy has the land, you will see

[107] Aston, *Religion and Revolution*, 126, 132; ["Cerfvol"], *Biens fonds du clergé*, 158, 162-3.

[108] Charles-Maurice de Talleyrand-Périgord and Assemblée nationale constituante, "Motion de M. l'évêque d'Autun, sur les biens ecclésiastiques, du 10 Octobre 1789" (Paris, 1789), 11-5, 2; Aston, *Religion and Revolution*, 133.

[109] Claude Fauchet, *De la religion nationale, par m. l'abbé Fauchet* (Paris: 1789), 220-1, 226-8.

which ones are the richest."[110] Stanislas-Jean de Boufflers, a knight of the Order of Malta, asked whether

> We shall deny the fields the care of their best cultivators? Shall we reject the help of those ancient riches, which, ever due and given to the land, never cease to care for and reanimate its fertility? And who can compensate this land of the assiduous presence of the clergy, for their direct and continual vigilance on even the most barren soils, either by themselves, or by the Fermiers they always treat with moderation, always helped as necessary and sagely advised.[111]

Outside the assembly the chapitre of Verdun published a pamphlet, which claimed that church landlords had reclaimed the land and enriched France.[112] An anonymous pamphlet whose arguments the chapitre of Notre-Dame approved of (it collected favorable polemics) rejected the claim that monks were "useless to the state," on the basis that if the monasteries' lands were confiscated, the marshes, sandy wastes, and sterile hillsides they had made fertile would soon return to

> A state of sterility, of devastation, of disuse, from which they have been taken by the great means furnished to them by this spirit of order, of intelligence, of economy, of wise and sustained enterprise that animates them, and of which they alone perhaps are capable.[113]

The main debate in the assembly would not now hinge on the agricultural ability of the clergy, however, but on their right to hold land at all.

The proponents of the seizure of church lands did so on the basis that for the sake of agriculture and of society it had to be given to "genuine proprietors" [i.e., individuals] "instead of leaving great estates to fictive proprietors [corporations], endlessly replaced by usufructuaries,

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[110] Marcel Marion, *La vente des biens nationaux pendant la révolution, avec étude spéciale des ventes dans les départements de la Gironde et du Cher* (Paris: Champlon, 1908), 4-6; France, *Archives parlementaires de 1787 à 1860: Recueil complet des débats législatifs et politiques des chambres françaises: Première série, 1789-1799* (Paris: 1862), 9: 611.

[111] Stanislas-Jean de Boufflers, France, and Assemblée nationale constituante, *Opinion de m. le chevalier de Boufflers, sur les affaires du clergé dans la circonstance présente* (Paris: 1790), 14-5.

[112] AN L543 ND, "Représentations que fait à sa Majesté le chapitre de l'Église cathédrale de Verdun" (N.l.: 1789), 5-6.

[113] AN L543 ND, "Observations adressées a mm. du comite de l'assemblée nationale pour les affaires ecclésiastiques. Par un habitant de la campagne" (N.l.: [1789?]), 3.

natural enemies of property, or uninterested administrators."[114] In a reprise of arguments dating back to the 1750s, the opponents of nationalization in the assembly replied that church landlords were the true proprietors. Gandin protested that corporations rather than individuals were true proprietors, because their care was eternal, capable, and useful to society.[115] The abbé Grégoire, though no supporter of large church landlords, argued that church-owned lands were far more productive, not just because of the care of the clergy, but because their tenants had more confidence to improve their lands. He claimed that confidence stemmed from the superiority of corporate over individual proprietorship: fermiers refused to invest during the long periods in which secular estates (and tenancies) languished under foreclosure and minorities, whereas "church properties are never afflicted by these scourges; commonly well-managed, they are always worked, always productive."[116] The abbé Sieyès (an employee of the chapitre of Notre-Dame de Chartres) pleasantly surprised the clergy by attacking the "so-called superiority" of secular proprietors, whose only distinction and concern was their property:

> The idle consumer of the net product is not, no matter what anyone says, the most necessary cause of its reproduction… a great private proprietor necessarily occupied by his personal enjoyment, honestly considers himself as the most important being, the precious object in whose favor the political machine runs, and for whom all the salaried classes of citizens must work. How many errors must be corrected before one can make a good constitution!

Since the 1760s most reforming political theorists (e.g., the physiocrats) and even royal ministers (e.g., Turgot) had considered that the harmony of landowners' interests with those of society earned them not only a say in political life but political dominance over the landless citizens of France, due to landlords' supposedly unique incentive to protect society from privilege and

[114] AN L541 ND, Etats Généraux de 1789: Correspondance du Chapitre et Mémoires, Gandin, "Observations sur la Motion de M. Thouet concernant les Propriétés du Clergé, & de tous les Etablissements de MAIN-MORTE, par M. l'Abbe Gandin, Rédacteur des actes du Clergé de France" (Paris: n.d.), 13; Charles Bournisien, "La vente des biens nationaux: La législation," *Revue Historique* 33 (septembre-décembre, 1908), 248.

[115] AN L541 ND, Gandin, "Observations," 14-5.

[116] Grégoire, "Fonds territoriaux," 12-3.

corporate interests. Sieyès' point was that the public welfare relied not on the merely propertied, but on the propertied that were charged with and that fulfilled a public service, among which he included church landlords.[117] Catholic apologists had no hesitation in arguing that unrestricted, let alone increased, secular landownership would be a disaster for French society and the state.

Féroux's structural argument that property inexorably flowed towards ever fewer, ever richer landowners was used to undermine the old claim that putting church lands into circulation would benefit either "commerce" (i.e., the economy) or society. Grégoire rejected the claim that selling monastic lands would put them in endless circulation among "a great number of individuals." Explicitly citing Féroux, Grégoire declared this reasoning to be illusory, because such nationalized properties would inevitably flow into the hands of great landowners.[118] Deputy Ruffo de Bonneval of Notre-Dame (who seems to have been the chapitre's main polemicist) argued that once sold, nationalized lands would flow "into the hands of a small number of rich men, who will be as law to the will of a nation reduced to being its waged labor."[119] The implication was that this structural effect would frustrate the reformers' hope of solidifying regenerated France by creating independent citizens who were allied by a common interest as citizen landowners. The claim by the Lazarist Antoine-Adrien Lamourette that communal property created incorruptible citizens had a profound influence on Grégoire, who warned that small proprietors and society could ill afford the withdrawal of discipline from at least some of France's landowners. For Lamourette, the edict of 1749 had meant that church landlords could

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[117] AN L541 ND, Etats Généraux de 1789: Correspondance du chapitre et mémoires, Emmanuel-Joseph Sieyès, "Observations sommaires sur les biens Ecclésiastiques du 10 aout 1789 par M. l'Abbé Sieyès, chanoine grand vicaire de Chartres, député aux Etats Généraux" (Paris: 1789), 18, 20; Keith Baker, "Representation," in vol. 1 of *The French Revolution and the Creation of Modern Political Culture*, ed. Keith Baker, Colin Lucas, François Furet, and Mona Ozouf (Oxford: Pergamon press, 1987), 482. For Sieyès' ecclesiastical life, see Nigel Aston, "The Abbé Sieyes Before 1789: The Progress of a Clerical Careerist," *Renaissance and Modern Studies* 33, 1 (1989): 41-52.

[118] Grégoire, "Fonds territoriaux," 12.

[119] Sixte-Louis-Constant Ruffo de Bonneval, *Troisième lettre de Bonneval, député du clergé de Paris aux États-Généraux* (Paris: 1791), 63.

not buy up small adjoining properties, which were then “sheltered from the invasion of the rich… and approached that equality from which social institutions distance us so often.”[120]

The cathedral chapitres, too, were all for equality, but it was an equality of landed wealth, which, they hoped, would ensure their power in the new France. Much to their surprise, the chapitres, like the monasteries, were effectively disenfranchised and disempowered from the period of the elections for the deputies of the First Estate of the Estates-General, when Necker allocated one vote for each curé and one tenth of a vote for every monk or canon. The curés thus dominated the clergy’s representatives in the First Estate and National Assembly, and the chapitres recognized the threat to their future.

The dangerous implications of the suffrage rules for elections to the Estates-General were a common theme in the flurry of pamphlets published by the chapitres of France in protest at the failure to grant them representation proportional to their property. The chapitre of Auxerre, for example, said that it would be an inequity to give a voice to those without property, while the chapitre of Dijon claimed that “interest has no other base than property.”[121] The chapitre of Fréjus explained that its protests arose from

> Fundamental principles that are the foundation of society. Equal representation, [is] not always mathematical, it is calculated on the respective interests of individuals, by which it confers different degrees of power. Social and political equality is established on this apparent inequality, for equal powers are necessary for citizens of equal importance. Why then have these powers been denied to us?[122]

Protests about the lack of representation on the basis of property were repeatedly included in the pamphlets of the chapitres, including Notre-Dame, which held that in elections to the First Estate the over-representation of the “governed” (the curés) at the cost of the governors (“the great

[120] Sorkin, *Religious Enlightenment*, 13.

[121] AN L543 ND, “Représentations du chapitre d’Auxerre au Roi” (Auxerre: 1789), 25; “Réclamations et protestations de l’Eglise de Dijon” (Dijon: 1789), 10-1.

[122] AN L542 ND, “Réclamations que fait devant sa Majesté & devant la Nation assemblée le chapitre de l’Eglise de Fréjus” (Aix: 1789), 5.

proprietors") had led to disorder, sedition, mistrust, hate, and the "violation of the most sacred rights of hierarchy & of property." The rights of property that Notre-Dame had in mind were "a noteworthy place in the order of proprietors," so it could "contribute voluntarily to the charges of the state… concurrently with the proprietors of the other two orders."[123]

The remarkable thematic unanimity in these protests may derive from coordination by Notre-Dame, which, being wealthy, organized, and near the center of political power became the acknowledged lobbyist and plenipotentiary of most of the chapitres of France as the threat to their power, and then their existence became increasingly clear in 1789 and 1790. It also reveals the manner in which politics worked for the chapitres in the late ancien régime, and to whom the indispensability narrative had been addressed for the previous forty years. Joseph-Nicolas Pavillet, the archivist of Notre-Dame, compiled a table listing chapitre after chapitre first endorsing the protests published by Notre-Dame, and then granting it power to act on their behalf as it thought necessary. That process began when Notre-Dame's protest pamphlet was sent to

> The king, the ministers, the principal magistrates, to all the archbishops and bishops, and to their chapitres, to diverse colleges and subject churches, to the seminaries, to the houses of the Sorbonne and of Navarre, to the university, to the public libraries, to the heads of the [religious] orders, etc.

Notre-Dame's leadership role is evident from Pavillet's notes on responses to its political stance received from the chapitres of France, which he described as "flattering" (Abbeville, Auch, Aurillac, Bar-le-Duc, Boulogne-sur-Mer, Bourg-en-Bresse, Condom, Coutances, and others) "full of esteem and confidence" (Angers), "full of praise" (Lille). Coutances wrote that Notre-Dame's protest deserved "general circulation. All the chapitres ought to unite as one with it."

[123] AN L540 ND, "Protestation du Chapitre de l'Eglise de Paris," (Paris: 1789), 15-7, 6, 11-2, 19.

The majority of chapitres agreed to "union with the chapitre de Paris," granting it plenipotentiary power on their behalf (see full list of the supporting chapitres in footnote).[124]

The powers delegated by distant chapitres to Notre-Dame increased as the emergency deepened. In December 1789, despite the entire clergy being obliged by the National Assembly to submit inventories of their possessions, revenues, and costs to civic authorities, it still seemed possible that the chapitres might escape the nationalization recently imposed on the abbeys. The chapitre of Noyon wrote to Notre-Dame that it was better not to protest for now, but that if this "coalition sought by the different chapitres took place, the chapitre de Noyon would not hesitate to join it for the common cause."[125] When, in April 1790, the draft Civil Constitution of the Clergy prescribed the suppression of the chapitres, Noyon wrote to endorse Notre-Dame's public protest, along with 60 other chapitres, which it declared to be "glorious." Pavillet notes that the dean immediately replied to Noyon, but as the archivist could have attested, by then the old political processes of networking and lobbying were both redundant and dangerous.[126]

The debate over the Civil Constitution of the Clergy made the chapitres' complaints over representation irrelevant, as the National Assembly moved on to the question of the relationship of religion to the state, which immediately alienated a significant section of the population and deprived the Revolution of much of its initial popular support, causing the advocates of reform to

[124] AN L542 ND, Relève de la correspondance des Chapitres du Royaume avec le Chapitre de l'Eglise de Paris relativement a l'assemblée des États Généraux. The chapitres formally adhering to Notre-Dame's leadership were: Abbeville, Aix-en-Provence, Albi, Aleth, Amiens, Angers, Angouleme, Avalon, Auch, Bar-le-Duc, Bayonne, Beaune, Beauvais, Beziers, Blois, St. Claude, Condom, Coutances, St. Diez, Digne, Dijon, Evreux, Caraman, Fréjus, St. Gilles, Grasse, Limoges, Lodève, Lombez, Mâcon, Meaux, Metz, Mirepoix, Montpellier, Narbonne, Orléans, St. Papoul, Perpignan, St. Pol de Léon, St. Quentin, Riez, Senez, Toul, Toulouse, and Tournus. Chapitres that applauded Notre-Dame's protests but did not grant it plenipotentiary power included Autun, Bordeaux, Caen, Cahors, Cambrai, Chartres, Laon, Lille, Lyon, St. Malo, Nancy, Nantes, Poitiers, Reims, Rennes, La Rochelle, Rouen, and Toulon.

[125] AN L543 ND, Chapitre de Noyon to Notre-Dame de Paris, 2 décembre 1789.

[126] "Expositions des provision de la constitution du clergé," in *École de politique, ou collection, par ordre de matières, des discours, des opinions, des déclarations et des protestations de la minorité de l'assemblée nationale, pendant les années 1789, 1790, et 1791* (Paris: 1791), 3: 75; AN L543 ND, Chapitre de Noyon to chapitre de Notre-Dame de Paris, 19 avril 1790.

feel increasingly insecure. On April 11 and 14 1790, Notre-Dame published a pamphlet which protested first against the nationalization of church property and then, at far greater length, against the imminent demotion of Catholicism from being the state religion, the suppression of monastic vows, and the state employment of parish priests, which, the chapitre claimed would lead to the "subversion, the ruin and the annihilation of religion." In a move that underlines the exponential increase in the stakes for the church of the latest reforms, the chapitre announced that it would endorse any necessary protest to the National Assembly, and it warned that each and every canon of Notre-Dame was willing "to give his blood for the maintenance and the defense of this religion."[127] This language was unprecedented for Notre-Dame, and it prompted a response that was probably instigated by a violent polemic by Marat and Danton.[128] As Pavillet noted in his files on the chapitre's political campaign, "five or six hundred persons left for Notre-Dame from the Palais-Royal in response to the chapitre's protest, and were only prevented from burning down the canons' houses by the archivist himself, who declared himself

> Their brother in arms, and neither canon nor priest, but the father of a family, [whereupon they] contented themselves with burning the [chapitre's] protest, dancing around the fire, and retired peacefully.[129]

This sobering incident marked the end of Notre-Dame's political campaign, though the chapitre continued to protest to municipal officers during the lead up to its expulsion from the cathedral on November 22, 1790. The final appeal by the canons to the arriving bailiffs of the mayor of Paris was not for their property, but to be allowed to continue the cycle of services that had gone on for over a thousand years. The bailiffs refused, and that was that.[130]

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[127] "Extrait des registres des conclusions du Chapitre de l'Eglise de Paris," in *Déclaration d'une partie de l'Assemblée nationale sur le décret rendu le 13 avril 1790 concernant la religion…* (Paris: 1790), 21-4.

[128] "Arrêt de la cour nationale du Palais-Royal de Paris… sous les peines de droit & de punition corporelle & exemplaire. Du jeudi 6 mai 1790" (Paris: 1790), 6.

[129] AN L542 ND, Relève de la correspondance des Chapitres du Royaume, 1790?.

[130] L'Arc, *Eglise de Paris*, 1: 254-5.

Conclusion

The recurring theme of the superiority of church landlords as proprietors that is visible in the chapitres' last, desperate political campaigns in 1789-1790 shows the pervasiveness of the indispensability narrative that became part of the ecclesiastical claim to power both in the last decades of the ancien régime and in the early Revolution. The chapitres' ultimate campaign was a fiasco because their arguments were designed to appeal to the beliefs of a now defunct royal administration, whose high opinion of the economic importance of the clergy was not shared by the majority of the deputies to the National Assembly. That should not obscure the success of the comparative utility argument over the previous forty years, when it helped church landlords preserve their self-confidence and build links to protectors and facilitators within the Crown.

The claim to agricultural utility was nothing if not political. After the near break with the Crown over its attempts to reform property and taxation in 1749-1750, the narrative enabled church landlords to recover their reputation as partners with Versailles, and particularly with influential royal officials such as Gournay, Bertin, and Trudaine. That paid off in the administration's approval of the release of ecclesiastical forestry reserves, which was useful at a time of heavy investment. The success of the narrative among royal officials also generated protection at a time when early eighteenth-century criticism of church privileges was greatly reinforced by new economic doctrines of liberalism and physiocracy. These ideologies were used to attack not just the land stewardship or the privileges of church landlords, but their legitimacy as proprietors. The indispensability narrative provided the consistent response that church landlords rather than the laity were the true proprietors: clerical proprietors alone respected the social contract and fostered the agricultural development upon which France's future depended.

In these circumstances, differentiating between the behavior of church and secular landlords became increasingly important to the survival of ecclesiastical proprietors. Catholic apologists rejected the optimistic, laissez-faire doctrine of the physiocrats as ignoring history and the reality of economic structures. Advocates of church landownership expressed pessimism about what they argued were the inherently toxic effects of the flow of property in French society, but they also claimed that church landlords' investment practices and tenant relations could help compensate for the deficiencies of secular landownership until political reform ended the concentration of property that was undermining the social contract. Contractualism was at the core of Catholic investment practices and culture, and a social contract based on reciprocal economic rights and duties made every new piece of agricultural infrastructure a tangible expression of the continued legitimacy of church property and of social Catholicism in French society.

To support their case, ecclesiastical apologists could and did point to the rural investment programs of church landlords and their nurturing of tenants. The political stakes of the indispensability narrative provide a further explanation for those actions, from reinvesting rents in farm buildings, to charging lenient rents to distressed tenants, to acting as bienfaisant improvers for village communities or royal agricultural societies. That these practices could be contrasted with what was generally acknowledged to be the (at best) mediocre land stewardship of the laity was useful not just in defense of church proprietorship. It put church landlords in a leadership position for a system of shared political rule by the enlightened, improving "order of proprietors," which clerics saw emerging as an additional center of power in the 1780s.

To a great extent, this political strategy worked. As shown in chapter four, the political power of improving church landlords seemed to be blossoming in the years immediately before

the Revolution, which explains the shock of the chapitres at their effective disenfranchisement even before the Estates-General was elected. That is not to deny the dissatisfaction of critics of church proprietorship within the clergy, who wanted it reformed and shorn of noble parasites so that it fulfilled its social and political role according to the narrative. While those reforming clerics did not share in the prosperity and security of Notre-Dame, they too believed in the narrative of indispensability. They argued forcefully, even during the key National Assembly debates of 1789-1790, that an egalitarian, socially just France was unthinkable without corporate church landowners, who alone could provide a bulwark against the greed, indifference, and management discontinuities that they claimed were inseparable from secular proprietorship.

The indispensability narrative reveals the adaptability of the culture of church landownership that was the foundation of this argument from the 1750s to 1789. It served the interests of those who were satisfied with the status quo, but it also accommodated and inspired revolutionary clerics who might have adapted church landownership to meet new national objectives, such as funding education, had this model of property not been swept away by the imperatives of the fiscal deficit in the early Revolution. The discourse of church landlord indispensability reinforced the behavior it described and provided its rationale. It made the improvement of the humblest cowshed into a political act that defended religion using independent versions of the agronomic and economic languages of the Enlightenment, and it prompted church landlords to become one of the premier agents of agricultural development.

Conclusion

The behavior and culture of the wealthy church landlords of the Ile-de-France provide a key to understanding how, in the last decades of the ancien régime, agricultural output and productivity began to grow at unprecedented rates, even as farming techniques remained essentially unchanged. Moreover, because of the ways and the extent to which they were driven to invest in improvement by a confluence of economic, intellectual, and political circumstances, the behavior of church landlords helps explain long-running historical questions. Through it, we see why French agricultural growth was uneven and weak compared to England's, how the two country's paths to growth compared, and who the agents of growth were in France. Church landlords' actions reveal new forms taken by the Agricultural Enlightenment, the manner and agents of its dissemination, its effect on practice, and its relationship to the Agricultural Revolution. The agricultural practices and culture of church landlords also show the capacity for growth of the ancien régime economy, how the state influenced economic change, how agricultural development was affected by the institutional reforms of the Revolution, and how new, Enlightenment ideas on the economy and on religion affected agricultural behavior and growth. Finally, they show how the church fitted into this new world.

Wealthy church landlords in the Ile-de-France behaved very differently than their lay counterparts, taking less rent from their fermiers' surplus, and reinvesting far more, not only in their fermes, but in their fermiers. This investment, direct (through expenditure) and indirect (through rents foregone), was the central means by which church landlords affected agriculture, and its stated goal was to improve the operating capacity and welfare of fermiers, whether through the physical infrastructure that made farming possible, or through providing more subtle, invisible supports that probably had a greater influence on development. Most church landlords

spent 10% of rural income on maintenance, while the ecclesiastical reinvestor *par excellence*, the chapitre of Notre-Dame de Paris, reinvested 33% of its rents over the years 1759-1788. Even the lower, 10% rate far exceeded the negligible expenditure of lay landlords, and it places church landlords in a similar reinvestment category to contemporary English proprietors. If Notre-Dame's reinvestment rate was matched anywhere it was in Scotland, where sustained landlord expenditure transformed the rural economy in about the same period.

Church landlords' direct expenditure on improvement took three main forms – improving the fertility of fields, providing roads to link fermiers to markets, and improving farm buildings – whose explicit objective was to increase the efficiency and profitability of fermiers. Marling increased fertility and output, while roads made higher price markets more accessible and reduced production and distribution costs. A myriad of farmyard improvements, from new equipment, to larger, better lit, more hygienic buildings, to the wholesale amalgamation, replacement, and reconstruction of dispersed farmsteads resulted in rationally laid out, secure, and easily supervised farmyards that reduced wastage of produce and animals along with the human labor required for operations, allowing that saved labor to be redirected to increase production. These additions to fixed capital stock generated substantial benefits for the fermier. Firstly, applying extra labor to production yielded strong gains in gross and value-added output; if labor saved was not diverted but merely saved, it still meant that less of the ferme's gross production was consumed in the course of operations. Secondly, improved shelter for produce and livestock meant that far more of the gross output of the ferme was not lost. In the absence of major technological gains from fertilizers, mechanization, altered crop rotation, or from more productive crops, these infrastructural gains alone had the potential to raise net output per ferme by 10%, given the proportion of gross output that was then consumed by laborers, livestock, and

the spoilage of stored harvests. That represents a considerable gain in contemporary agricultural terms, considering that yields in the Ile-de-France rose by just 15% in the years 1750-1789.[1]

Behind this investment lay a partnership arrangement between church landlords and fermiers that was peculiarly ecclesiastical and which had the potential to generate further, perhaps greater, increases in output. *Pace* Moriceau and Hoffman, fermiers did not act alone in making agriculture more productive. They needed and received the assent of church landlords to breach traditional lease terms in order to make the changes to fields, crops, and sales that were at the root of the substantial gains fermiers created in productivity and gross output. This partnership enabled heavily indebted abbeys with limited capital to supplement low direct expenditure with hidden transfers to fermiers (in the form of reduced rents and extended lease terms) in return for tenants undertaking improvements at their own expense. For trusted fermier families of proven agricultural ability, rent stability, or even reduction, provided substantial relief during family bereavements or from losses due to acts of God. These concessions, which were effectively subsidies, were remarkable for not being involuntary, as in earlier, depressed times in the century, but for occurring during times of rapidly rising rents, when alternative candidates were readily available.

At wealthy Notre-Dame, the practice of indirect subsidization of fermiers was applied in conjunction with heavy direct expenditure in an institutionalized, nurturing partnership with fermier families, which would have enabled and encouraged tenants to innovate and expand output and productivity. The rules of this partnership are discernable over several decades, rules that prescribed when help was given (between the death of the male fermier and the adulthood of the heir), when rents were returned to market rates (when heirs became adult and could assume the next renewed lease), and when farmyards were rebuilt (before a minor heir succeeded to the

[1] Hoffman, *Growth*, 149-50.

lease). The pattern of rent and investment shows that young fermiers were prioritized over older, and the landlord-tenant relationship, which can be characterized as monitoring, nurturing, and enabling, generated substantial gains for fermier families. When a fermier died leaving a very young heir, the rent subsidy for his widow could last for the best part of two leases (eighteen years). Once adults, young fermiers were given the best possible start. Just before their first lease began, Notre-Dame poured heavy investment into the physical infrastructure of their farms. Indirectly, its rent subsidies provided the large amount of working capital needed to operate the ferme more intensely than before, which historians have depicted as a key reason for the productivity growth achieved by tenants.

To understand how growth occurred in the productivity of church lands, it helps to consider fermier and landlord as a vertically integrated, informal organization that studied and fulfilled fermiers' interests and resource requirements, provided them with the cost saving/revenue increasing benefits of improvements, and enabled them to build up the working capital necessary to exploit new opportunities. In cases where church landlords were weak in expert knowledge of their fermes and local conditions, it could be argued that fermiers were directing and exploiting the sympathy and more importantly the resources of their putative masters to secure subsidized rents in an example of principal-agent moral hazard. Generally, however, church landlords were very much in control of the agenda of improvement, which they did not engage in for altruistic reasons, or in an absence of mind, but to increase rents payable by fermiers over the long term by increasing tenants' profitability and ability to pay rents. The partnership imposed discipline on fermiers: established tenants in improved farmyards were expected to pay the market rents upon which church landlords depended to fund their many expensive commitments, and, where possible, investment costs were off-loaded onto fermiers, as

became increasingly prevalent after 1750. Overall, however, the result of the partnership policy was that rents fell below the level charged by secular landlords. In part this stemmed from the rent foregone from supporting young fermiers, which would have corrected itself over time. But it also reflected the direct relationship between investment and rent increases. Small investments generated small rent increases; large investments resulted in large rent increases. Sometimes, the sequence was reversed, as windfall rent increases, such as those generated by the rising value of rent receivable in kind, were reinvested in improvements, or applied, where rent was paid in kind and in cash, to minimize the increase in cash rents borne by the fermier.

There are similarities between the behavior of French church landlords and the English landlords depicted by Brenner. In both cases rising rents from capitalist tenants were plowed back into improvements, and French tenants seem likely to have been forced, like their English counterparts, to innovate to survive the increased rents demanded for improved properties. Brenner's dynamic presents the relationship between landlord and tenant as a partnership that offered some support to tenants. The behavior of Notre-Dame and the response of its tenants is an example of partnership that seems likely to have resulted in a cycle of systematic, focused development. If it were available, direct evidence of the effect of church landlords' investments on the productivity of tenants would counter the possibility that investment such as Notre-Dame's was relatively unproductive, as were some contemporary English landlord enclosure projects. Yet the partnership model makes it less likely that church landlords overinvested, even if their building expenditure added less to productivity then they hoped. The cases of Notre-Dame and Saint-Denis show that a significant share of church landlord investment took the form of rents foregone, sometimes permanently, to fund improvements that tenants thought would have a large, immediate benefit in productivity.

Church landlords devoted their energy and capital to improving agricultural costs and profitability because they understood the factors that drove them. Continuous rounds of inspection by specially trained clerics and their lay experts (architects, entrepreneurs, craftsmen) put power very much in the hands of the clerics, as they worked in conjunction with many, widely dispersed fermiers to resolve impediments to operations. Less visibly, church landlords' power over investment was driven not only by the perennial woes of fermiers, but by numbers. Church comptables had an extensive archive of data on commodity prices, tithes, and seigneurial dues, along with labor and animal costs, which they were able to use to estimate the profitability of fermes, set rents that allowed a sufficient return for fermiers, and achieve the key aim of ensuring tenant prosperity. This skill was a prime reason why church landlords opted for the types of improvement they undertook, whereas the rudimentary quality of secular landlords' accounts perhaps explains why the modes chosen by clerics were almost entirely ignored by the vast majority of secular French landlords.

Through farm accounts that integrated physical with previously separate financial accounts, clerical comptables revealed the productivity of each commodity and put a cost on wasted inventory and consumption of output by the labor and animals required for operations. The preoccupations of secular landlords were reflected in the interests of agronomists, which were almost entirely concerned with output. Neither had any interest in farm buildings or in improving fermiers' productivity, and they understood little of agricultural profitability. By contrast, church landlords' far stronger accounting skills focused on productivity problems, and this concentration both formed their overwhelming interest in reducing the operating costs of agriculture and gave them the power to make rational, informed investment decisions to achieve that change in costs. Revealing the high fixed cost of production also exposed the precarious

profitability of fermiers. That knowledge would have dampened church landlords' rent expectations, while encouraging investment in the areas where church landlords focused it: reducing labor costs by speeding up operations, locating connected operations and stores together, and improving the conservation of stocks. These calculations produced insights that could be applied to many fermes operating to a similar scale and production mix, an application of uniformity that formed a particularly ecclesiastical form of the Agricultural Enlightenment.

At first glance, church landlords' interest in productivity and in the built infrastructure bears little connection to the Agricultural Enlightenment, at least as it has been defined by Jones. Church landlords showed little interest in promoting the diktats on the reorganization of fields, crops, or fallowing, or on the techniques, such as plowing, that filled the "how-to" manuals of the agronomists, and agronomists said little or nothing about the problems that church landlords' investments were designed to resolve. Church landlords' preoccupation and investments were, however, very much in the spirit of the Agricultural Enlightenment for being based on the empirical measurement and criticism of existing practices, and for the determination to reform them. Further, their partnership with tenants appears remarkably like an enactment of the ideal standard for landlord behavior that was central to the discourse of agronomists. Church landlords managed, independently, to convert this discourse into action, which seems likely to have generated strong positive gains in output and productivity, indicating that the Agricultural Enlightenment *did* influence practice and bring the Agricultural Revolution closer. Further, church landlords' investment and demonstrable success in improved grain conservation exemplifies how agronomic concerns were disseminated and proved significant. Agronomists' ideals were echoed in the many improved buildings constructed by church landlords, in a process that systematically disseminated technological advances in farm buildings, equipment, and

layout that were designed and built by the landlords' in-house architects and by entrepreneurs and craftsmen as they rebuilt fermes across a wide geographical area in sequence. The Agricultural Enlightenment was no more solely a matter of how to manuals than the intellectual Enlightenment can be equated with books, important though they were, that were filled with new criticism and opinions. It was a culture and a network of interested individuals, and that type of Agricultural Enlightenment had a key influence on church landlords' investment decisions, and thus on agricultural development.

The independence of church landlords' approach to examining and reforming traditional agricultural practices and techniques coexisted with, and was encouraged by, their integration into the social and intellectual networks and projects of the Agricultural Enlightenment. The same clerics who actively participated in agricultural societies' efforts to discover and cure diseases in grain also authorized effective investment in grain storage. The key cultural effect of the Agricultural Enlightenment may have been the habit of constant experimentation and innovation that connects agronomy with significant improvements in practice. Repeated and expensive investments in equipment designed and promoted by an agronomist to conserve grain increased the efficiency of conservation by a factor equivalent to one third of the percentage increase in gross output achieved in the region in the period. This example shows how sustained and focused church investment, as a vehicle for the Agricultural Enlightenment, helped end the agricultural old régime of limited output, even in the absence of chemical fertilizers and more efficient crops, such the potato. Church landlords' investments were not simply imitative of agronomists, given the independence of ecclesiastical modes of improvement. Yet it is possible to see church landlords' rural policies as being controlled by self-sustaining networks of agronomist clerics. Sometimes, the majority of clerics rejected those takeovers. Where

investment was strongest, however, this cultural infiltration seems to have been endemic, though whether it reflected a broader agronomic culture, or an endemic commitment to innovation, is open to debate.

Under church landlords, agricultural development was as numerate and technical as it was dependent on the hunches and calculations of the fermier. While church landlords' investment in agriculture was encouraged by (and was an example of) the Agricultural Enlightenment, its sustained extent and success derived from the dynamism and openness of what were, ostensibly, some of France's most archaic economic institutions. Church landlords' impact on agricultural growth was no accident, but derived from their ability to adapt to changing situations by producing new types of information, a quality that economic theory of the firm presents as a key determinant of competitive advantage and success for organizations. Church comptables' participation in and leadership of experiments in accounting for large businesses exemplified that advantage. These comptables could estimate farm income and productivity, and they created accounting systems that generated information that was a basis for action, e.g., on productivity. That focus on productivity made investment sustainable during the economic depression by providing better funds flow data than was available to secular businesses. During the boom after 1760, innovations in accruals (unknown among landlords in France or Britain and practiced by only the largest French businesses) made ever-growing investments manageable.

Church landlords' capacity for the repeated innovation in accounting that made their investment program possible, together with their unequalled role in the agricultural development of France, indicates the economic strength and limits of the ancien régime economy in a surprising way. One of its oldest institutions, the church landlord corporation, had qualities that

made it far more dynamic than either secular, individual landlords, or all but a few large businesses, which explains both the success of ecclesiastical agricultural investment, and the weakness of secular landlords' - and French businesses' - contribution to growth. The abrupt removal during the Revolution of church landlords from agriculture and their replacement by secular landlords thus helps explain, even allowing for the effects of chaos and war, the decline in the development of French agriculture between 1790 and 1820. Given their strengths, at least some church landlords would have remained competitive if they had been allowed to maintain their landownership in the 1790s. Whether they would have continued to invest at the same rate in a different cultural environment is far less likely, however.

Despite all their skills and organizational advantages, to a great degree, church landlords invested in agriculture for structural reasons that were as much political as economic. Excluded by the Crown from alternative avenues of investment, the surplus funds of landed religious communities went to the countryside, while those of secular landlords were attracted to rentes and Parisian real estate. These restrictions had an explicitly political, anticlerical purpose, for a political battle was being fought over the church's social and agricultural role, a battle that centered on Enlightenment ideas of citizenship and proprietorship that delegitimized the church as a landowner. Social and economic thinkers denied that church corporations could legitimately or usefully own property, on the basis that only individuals could act as true proprietors and perform the reinvestment in land upon which society depended. Given the integration of church landlords into the small, overlapping political, administrative, intellectual and social circles that governed France, these clerics were fully aware of the dangers to their position, though their response was far from the fear and rage that characterized much of the Catholic response to anticlericalism. The collapse of the ministry that organized the 1749 campaign against the church

led to the rise of administrators exhibiting a reformist anticlericalism who wanted to co-opt church landlords into improving agriculture. It was to them that clerics presented a new narrative of the social and economic indispensability of church landowners, an apologia that drew on Enlightenment ideals of good proprietorship to argue that church landlords were superior to their secular counterparts and a boon to society and the state, owing to their greater industry and their practice of leaving the fermier with more profit. Though the 1749 decree remained in place, the arguments and actions of Crown administrators indicate that they had abandoned its rationale in favor of an economic analysis of wealth in France that was strikingly similar to the narrative of church landlord indispensability, but which focused on an additional factor, the greater investment capacity and propensity of church landowners, that would become prominent in church proprietor practices and apologias in the following decades.

The state's ejection of church landlords from the French economy during the Revolution has obscured the fact that, during the ancien régime, ecclesiastics' economic power seemed necessary to Crown administrators and other reformers, who saw the property of clerics as an underused productive resource that could be harnessed for economic growth far more easily than the wealth of the laity. The indispensability narrative had its desired effect on these administrators, which encouraged church landlords in their investments and in behaving as ideal proprietors, thus earning them royal protection. Knowing and aiding the agricultural abilities and financial problems of respected fermiers then entered rent-setting calculations for the first time, and went beyond gestures to foregoing rent increases, even during periods of strong rent inflation, thus encouraging the emerging partnership between church landlords and fermiers that facilitated agricultural development.

Agricultural investment by church landlords was a political strategy that for decades defended vulnerable church landlord privileges and latterly provided a justification, based on the public utility of their landed wealth, for church corporations to claim a direct role in the political leadership of an emerging, reformed France. While not all church landlords were prepared to accept this costly new model of behavior, many did, because of the extent of their involvement with Enlightenment circles of sociability and agronomy in which they competed for honor based on their service to society. Clerics owed much of their motivation for their investment in improvements to working with formal and informal groups of accomplished secular agronomists that followed church landlords' plans and actions, praised their achievements, and who hoped, as clerics did, that their improving efforts would yield a political dividend. As a result of their immersion in this Enlightenment world, by the late 1780s, church landlords were aware that political change was imminent and likely to mean the loss of their fiscal privileges, and it is no coincidence that their agricultural investments accelerated at this time. That should not be read as a reaction of fear, however, but of confidence, as church landlords believed that their investment record entitled them to a prominent place among the order of proprietors that was about to rule France.

In the end, church landlords, as their narrative insisted, were a case onto themselves. They could be read as an expression of a Catholic Enlightenment, given that their project was intended to reconcile religion, in the organizational sense, with rationality, utility, and improvement. However, clerics themselves do not seem to have believed that they differed from their secular counterparts in Enlightenment institutions, and members of church landlord corporations actively participated in largely secular intellectual projects and groups. And yet it was their position within church corporations that allowed them to turn new ideas into practice

on a scale that was impossible for their secular colleagues. Church landlords deployed the organizational strengths of their corporations to successfully reform practices and yields across a large area of the Ile-de-France, and used agronomic ideals of good proprietorship to distinguish themselves from secular landlords. Their peculiarly religious capacity to turn ideas into effective action on a large and sustained scale, in a manner that was distinctive from secular improvement, but which was strongly influenced by agronomic ideas, makes it possible to speak of church landlords acting in a Catholic Agricultural Enlightenment.

The ultimate failure of the church landlords' political gamble should not obscure the fact that this campaign made church landlords not obstacles to economic progress and enemies of the Enlightenment, but some of France's most active and significant innovators, given the impact of their agricultural investment. Through them, religion, politics, and the Enlightenment came together to help break immemorial limitations on economic development. The dynamism of the late ancien régime owed a great deal to some of its most ancient institutions.

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AN S2378A. Baux Grande Loge de Maisoncelles en Brie, 1772, 1747, 1756; Contre-lettre 1772.

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Chapitre de Notre-Dame de Paris

AN S128. Baux Andrésy, 1745, 1753, 1762, 1763, 1771.

AN S182B. Belloy, Notre-Dame to Minister, 15 janvier 1772.

AN S33. Plans, Rue de la Ferronnerie, Paris.

AN S373. Devis pour le curage de la rivière de Rozay, par le S Parvy, 1739.

Ordre de Malte

These inspection reports offer a vast narrative, eyewitness resource, equivalent to a movie that moves through the mansions and lands of the commandeurs of Malta, somewhat like *inventaires après décès* but furnishings in place. Although there are almost no people in these "movies," they reveal a lot about the social attitudes of the commandeurs, and could be treated as a proxy sources for relatively small, but still wealthy secular estates of the rural nobility or the provincial bourgeoisie.

AN S4489A. Ivry le Temple, 1728, 1732, 1734, 1739, 1747, 1748.

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AN S5166. La Croix en Brie, 1772, 1788.

AN S5171A. Beauvais en Gâtinais, 1682.

AN S5178. Maisonneuve sur Coulommiers, 1766, c. 1770, 1772, 1788.

AN S5193. Bourgoult, 1773.

AN S5206. Sainte Vaubourg, 1763, 1773.

AN S5221A. Fontaines, 1729.

AN S5243. Auxerre, 1787.

AN S5258A. Villedieu le Bailleul, 1782.

AN S5259. Boncourt Bail général Claude de Saint-Simon to Charles Leblond, 1766; Procès verbal d'Ameliorissement de la Commanderie de Boncourt du 2 7bre 1776 Bailly de Saint Simon, Sous fermiers of Boncourt to commandeur Hubert-Louis de Culant, [1778?].

AN S6666. Grand et Petit Freneville, 1715.

Accounts Declared to the Agence du clergé de France
Congrégation de la Mission
Five yearly declarations of average revenues for all the revenue centers, with one back working that gets into the detail of yields, revenue, and consumption.

AN S6590. Déclaration des biens et revenus des Religieux de la Congrégation de la Mission de Saint Lazare, 1713, 1729, 1736, 1740, 1756, 1762, 1788; Déclaration contenant l'augmentation des revenues des biens non à fermés de la maison de St Lazare a paris pour l'addition à celle fournie au bureau de gens de main morte du diocèse de Paris le 22 may 1762, 1782.

AN S6660. Déclaration au Clergé des biens du Prieuré de Coudres, 1726.

Abbaye de Saint-Denis
Five yearly declarations of average revenues for all the revenue centers.

AN S2381B. Déclaration des biens et revenues des Religieux de Saint Denis, 1723, 1729, 1750, 1755, 1757; "Avis sur ce qu'il convient observer dans les Déclarations à fournir au Diocèse de Paris, en exécution de la Délibération de la Chambre Ecclésiastique du Diocèse, du douze aout 1756."

Congrégation de Saint-Maur
Audited accounts in summary form for approximately 40 Benedictine abbeys.

AN L817. États du temporel, 1730, 1731, 1752, 1758, 1768, 1772-1773, 1778-1779, 1782; Procès-verbal des Etats du temporel présentés au chapitre général de St Maur tenu à Marmoutier en 1769.

AN L818. État du temporal du province de France, chapitre 1772, 1782-1783.

AN LL998. Procès Verbal du Temporel des Maisons de la Province de France ordre de St Benoit Congrégation St Maur, 1767-1768.

Accounts Declared as Decreed by the National Assembly, 1790.
Congrégation de la Mission
AN S6590. Déclaration des prêtres du congrégation de la mission de la maison St Lazare, 1790; Déclaration…des fermes d'Orsigny, 1790.

Chapitre de Notre-Dame de Paris
AN S460. Déclaration Générale du Chapitre de l'Eglise de Paris.

Accounts For Internal Use
Congrégation de la Mission
AN S6650. Prieuré de St Germain de Salle, Comptes de Fermages, 1770-1789.

AN S6660. Ventes [land purchased from tenants in lieu of rent], Coudres, 1712-1713.

AN S6665. Grigny, 1712.

AN S6666. Acquisitions: Grand et Petit Freneville, 1630-1689.

AN S6698. Etat de ce que doit rapporter la terre de Draveil en mettant chaque chose à sa juste valeur, c. 1780.

Abbaye de Sainte-Geneviève
AN H5 3633. Recette et mises de la terre et seigneurie d'Avesnes en Maine, 1764-1768.

Prieuré de Saint-Martin-des-Champs
Saint-Martin's accounts are packed with exceptional amounts and types of information, including farm accounts over several years, with details of production of yields that could be the basis of deeper study. The "consolidated" accounts of the priory for the same period are equally full of information that allows for the operations of this operation to be understood, and perhaps the values and techniques of the comptable, too. The accounting skills demonstrated at Saint-Martin are unequalled among church accountants and are exceptional among secular comptables.

AN H3616. Etat 1729, 1730, 1731; Compte général, 1732-1738; Compte général ferme de Noisy la Grand 1730, 1731.

AN S1407. Mémoire servant d'état instructif sur l'administration pendant les années de 1732, 1733, 1734, 1735 jusqu'au 11 mars 1736 [Workings for Noisy-le-Grand].

AN S1427. Déclaration, 1733, Etat, 1753, 1768.

Chapitre de Notre-Dame de Paris
Notre-Dame's enormous accounts are unusual in having been prepared by secular comptables, not to mention their unbroken 30-year span. That, along with their coverage or rural and urban events, from rents on properties to payments for prosecutions for robbery in the

cathedral make them a basic structure for building a study or changes. Among the topics available are financial (loans and lodgments from named individuals, litigation), plus the events covered in this dissertation: revenues in kind and monetary, wages, repairs, charitable payments.

AN H5 3384-3408. Comptes, 1759-1788.

Abbaye de Saint-Germain-des-Prés
AN H4281. Compte générale, 1730.

AN H4282. Compte de la recette en argent faite par emprunt de cent muids de bled achetés par ordre de sa majesté, 1728.

AN H4283. Compte générale Instructions sur le présent compte générale, 1728.

AN H4284. Journal de Recette & Comptes Généraux St Germain des prés, 1735

Abbaye de Saint-Denis
AN H5 3691. Journal de la Depositairerie, 1786-1789.

AN H5 3699. Compte général de la Cellerie, 1785.

Prieuré des Célestins (Sainte-Croix de la Bretonnerie, Paris)
AN H5 3933. Comptes, 1757-1765.

Actes Capitulaires (Chapter Meetings)

Chapitre de Notre-Dame de Paris
AN LL232 29:1. 29 mars 1760.

AN LL232 30:1-2. 30 juillet 1762, 12 novembre 1763, fermes de Belloy, Larchant and Bagneux, 20. 29 octobre, 12 novembre, 14 décembre 1763.

AN LL232 31:1-2. Fermes de Louvres et de Damart, 23 juillet, 22 aout, 5 septembre, 17 décembre 1766, 4 mars 1767, 29 mai 1767.

AN LL232 33:1. 22 avril 1771.

AN LL232 33:2. 6 mars 1772, 23 décembre 1772.

AN LL232 38:1-2. 7 mars 1782, Contract of appointment Jean-Charles Barbié, 7 janvier 1782.

AN LL232 41:1. 9 janvier 1788, mai & 4 juin 1788.

AN LL232 41:2. 4 mars 1789, 21 mars 1789, 16 novembre 1789.

AN LL232 42. 23 août 1790.

AN LL320. Procès-verbal du Sr Parvy sur construction a neuf d'un auditorium dans l'enceinte de la ferme d'Andresy, 1748.

AN LL323-4. 26 février 1759, 1 mars 1762, 18 novembre 1762, 18 novembre 1762, 18 novembre 1762.

AN LL337. Orly, 1722, Orly, 25 octobre 1723, Outrebois, 25 octobre 1733.

AN LL343-344. 7 février 1759, procès-verbaux de marnage 1746, 1748, 1751, 19 mai 1758, 5 & 22 mai 1758, 5 mars 1759, 20 mars 1762.

AN LL349. Viercy, 12 novembre 1755, 18 avril 1757.

AN LL350. Wissous, 3 février, 11 décembre 1759.

Abbaye de Saint-Denis

Reports of chapter meetings that are most interesting in the 1770s, when disputes among monks were recorded, and the terminology used by the prior was more fully recorded and before.

AN LL1223A. Château & Etang Maisoncelles, 16 avril 1730; Château Maisoncelles, 28 décembre 1724; Concevreux, 2 septembre 1701, 24 avril 1737; Corneilles, 2 mai 1702 & 17 juillet 1702; Grande Loge Maisoncelles, 3 septembre 1714, 10 mars 1724, 7 juin 1724, 14 mars 1733; La Motte-en-Brie, 19 janvier 1722; Mainpincier, 3 février 1702; Tremblay, 23 mars 1703; Maisoncelles, 23 juillet 1714; Petite Loge Maisoncelles-en-Brie, 11 mai 1711, 8 novembre 1730; Pierrefitte, 7 décembre 1725, 23 novembre 1736, 2 novembre 1738; Torson, 7 juillet 1704, Carrières, 9 février 1705; Villeneuve, 20 septembre 1699, 20 février 1734.

AN LL1223B. Cergy, 3 janvier 1740; Champigny-sur-Marne, 13 décembre 1778; Chaourse en Thiérache, 8 janvier 1775; Etangs et Château Maisoncelles, 24 septembre 1741, 12 janvier 1777; Ferme and Étang Maisoncelles, 24 septembre 1741, 8 janvier 1769; Grand Loge Maisoncelles, 18 mars 1747, 5 février 1763, 1 décembre 1771; Grande & Petite Loge Maisoncelles, 15 octobre 1742; La Motte Maisoncelles, 23 novembre 1736, 6 août 1767, 19 février 1775; Mainpincier, 8 janvier 1775, Consentement de la communauté au transport d'une Borne seigneuriale qui sépare la terre de Mainpincier d'avec la seigneurie de Vert Saint Père, 12 mai 1776; Merville and La Courneuve, 26 mai 1740, 25 juillet 1746, 4 février 1770; Moinvilliers, 3 novembre 1743, 3 février 1762; Petite Loge and La Motte Maisoncelles, 2 novembre 1738; Petite Loge Maisoncelles, 30 décembre 1747, 3 septembre 1769, 11 mai 1777; Pierrefitte, 21 novembre 1746, 26 novembre 1769, 11 mars 1778; Torson 1763, 15 juin 1777; Tremblay, 10 avril 1774; Vert Saint Denis près Melun, décembre 1776; Villepinte, 8 janvier 1775.

Taille Rolls – Belloy-en-France

AN Z1G 451A. Taille Gonesse 1789.

AN Z 1G 376B. Taille Gonesse 1777.

Maps

AN N1 Seine-et-Oise 15. Belloy en France, c. 1780.

AN N2 Seine et Oise 26. Wissous.

Minutier-Central

AN MC ET CII 359. Baron, 18 juin 1749.

AN MC ET LXXIII 1172. Inventaire après décès Lucas, 23 messidor an X [12 July 1802].

AN MC/ET/CII/455. Bail Drancy Jean-Lucien Lucas, 22 mars 1770.

Polemics

Notre-Dame de Paris

In 1788-1789, Notre-Dame built up a collection of published by the cathedral chapitres of France or favorable to their privileges. The archivist produced a summary of support for Notre-Dame from the other chapters, then or when he transferred to the nascent archives nationales.

AN L540. Paris, Chapitre of Notre-Dame de. “Protestation du Chapitre de l’Eglise de Paris.” Paris: 1789.

AN L541. Gandin. “Observations sur la Motion de M. Thouet concernant les Propriétés du Clergé, & de tous les Etablissements de MAIN-MORTE, par M. l’Abbe Gandin, Rédacteur des actes du Clergé de France.” Paris: n.d.; Sieyès, Emmanuel-Joseph. “Observations sommaires sur les biens Ecclésiastiques du 10 Aout 1789 par M. l’Abbé Sieyès, chanoine grand vicaire de Chartres, député aux Etats Généraux.” Paris: 1789.

AN L542. Fréjus, Chapitre of. “Réclamations que fait devant sa Majesté & devant la Nation assemblée le chapitre de l’Eglise de Fréjus.” Aix: 1789.; Relève de la correspondance des Chapitres du Royaume avec le Chapitre de l’Eglise de Paris relativement a l’assemblée des États Généraux. 1789-1790.

AN L543. “Observations adressées a MM. du Comite de l’Assemblée Nationale pour les Affaires Ecclésiastiques. Par un habitant de la Campagne.” N.l.: [1789?].; Auxerre, Chapitre of. “Représentations du chapitre d’Auxerre au Roi.” Auxerre: 1789.; Dijon, Chapitre of. “Réclamations et protestations de l’Eglise de Dijon.”(Dijon: 1789. Verdun, Chapitre of. “Représentations que fait à sa Majesté le chapitre de l’Église cathédrale de Verdun.” N.l.: 1789.; Chapitre de Noyon to chapitre de Notre-Dame de Paris, 2 décembre 1789, 19 avril 1790.

Agence générale du clergé de France

The archives of the agence générale are enormous. Some in manuscript, containing correspondence between the clergy and minutes of meetings, some were published at the time. There are some index volumes to make the process of finding relevant items somewhat easier.

AN G8 2464. Correspondence.

AN G8 2485. [Aymard-Chrétien-François-Michel de Nicolay?]. “Remarques sur l’édit du mois d’Aout 1749, concernant les établissements et acquisitions des gens de main-morte.” In Assemblée générale. *Edit sur les acquisitions des gens du mainmorte*. Vol. 18.

AN G8 2546. Vingtième crisis.

AN G8 2617-8. Correspondence.

Other
AN L553A. Catalogue des Livres de la Bibliothèque du Chapitre de l'Eglise de Paris, 1790.

AN L530. Prix des grains vendus à Paris, 1346-1774.

Archives départmentales

AD Eure et Loir G Supp. Art. 120. Chapitre de Notre-Dame de Chartres. L'usage de l'église de Chartres en l'administration du temporel. 1674?.

AD Val d'Oise 2L1 1. Directoire du District. Procès-Verbaux des Séances, 18 décembre 1790, 25 janvier 1791.

Bibliothèque Nationale de France

"Lettre de l'assemblée aux archevêques & évêques de France…" N.l.: n.d. In BN L3 D159. *Recueil des pièces concernant les affaires du clergé au sujet du XXe & autres impositions.* Vol. 2.

"Mémoire concernant le clergé, et le déclaration du roi du mois d'aout 1750, pour l'imposition du vingtième du revenu des biens-fonds, tant ecclésiastiques que laïcs." N.l.: 1753. In BN L3 D159. *Recueil des pièces concernant les affaires du clergé au sujet du XXe & autres impositions*. Vol. 10.

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[Daniel Bargeton], "Lettres: Ne repugnate vestro bono." Londres: 1750. In BN L3 D159. *Recueil des Pièces Concernant les Affaires du Clergé au Sujet du XXe & autres Impositions*. Vol. 3.

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Éphémérides du citoyen… Paris: 1765-1772.

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