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Agri-business and nobility in Northern Italy. Land, investments and markets (1815-1861)

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Abstract

Traditionally, the contribution of nobility to the enhancement of northern Italy's land and agro food production during the 19th century has been undervalued. The paper aims to address the question of whether the nobility considered land mainly as a means to collect rents with the least effort, maintaining their social status, or rather – as we affirm – they also developed entrepreneurial behaviour founded on a sort of class-expertise. Indeed, in a considerable number of cases, they owned and invested capital in large estates with a well-structured administration which they inherited from the past and improved upon; they organised complex production systems, introducing technical innovation; they were directly interested in market trends; they could take advantage of their local and international social networks. Finally, they acted as models for many of the bourgeoisie who became richer and became landowners themselves.

Through ongoing extensive research using primary sources (fiscal sources, notarial deeds and family archives), the essay will first focus on the general features of the noblemen's involvement in the management and improvement of lands, through agrarian innovation and experimentation (e.g. in silk or wine production), according to the circumstances of the markets. The second part will illustrate the case of the Lombardy noble family Lucini Passalacqua, who seems to exemplify the tendency towards innovation which was widespread among the region's noble landowners. The third part of the paper will shed light upon the business strategies of Genoese noblemen, traditionally tied to financial businesses, and who, during the 19th century, largely invested in land development, also acquiring vast estates in Piedmont and Lombardy.

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1. Land, investments and markets

Silvia A. Conca Messina

Historians generally view 19th century Italian development as a result of the progressive decline in the economic role of the nobility: the «rise of the bourgeoisie» endorsed the complete transition from a closed economy to markets, from an agrarian society to industrialisation. They agreed with the classical economists' view, who see the expansion of markets promoted by the bourgeoisie as the innovative force driving economic change. Since the 1980s, some research studies have emphasised here and there the entrepreneurial spirit of a single nobleman or noble family, but always with caution, as noblemen were supposed to be much more interested in rents than in profit, so their entrepreneurship seems to be *sui generis*.¹

By contrast, the main objective of the paper is to reassess the contribution of nobility in 19th century northern Italy's economic transformation in the wealthy regions of Lombardy and Liguria, focusing on their investments in land and innovation and their involvement in agribusiness. The aim is to find new evidence that noblemen acted in an entrepreneurial manner, supported the progress of science, techniques and economic development, often having a leading role in the economic choices of local communities.

The history of 19th century Italy is also marked by the national unification process, which can be considered complete only after the annexation of Rome in 1870. Until Italy's unification in 1861, the domestic market maintained a high degree of fragmentation at a national level and each regional state operated under a different economic policy. In the north, Lombardy (Milan and many other cities) was included in the Kingdom of Lombardy-Venetia, directly controlled by Vienna; while the Kingdom of Sardinia (including Piedmont with Turin and Liguria with Genoa) which would lead the unification process, was independent.

In this unstable political context, starting from the first half of the century, the northern regions were moving forward in a first wave of industrialisation. Faster circulation and transmission of technological innovations and scientific achievements were undertaken and successfully linked northern Italy to Paris, Lyon, Mulhouse, London, Manchester, Zurich, etc. Part of this progress was due to the strong commercial and economic relationships which merchants and industrialists exploited all over Europe. Businessmen from France, Switzerland, Austria, Germany were also coming to Italy and establishing their businesses in Milan, Turin, Genoa. Subsequently, the contribution of self-made men and of the bourgeoisie (who were first involved in the silk and cotton sectors and later in mechanics, banking, and new industries) played a decisive role.

However, according to the research results, it seems that until Unification, in the northern regions, a large proportion of capital, investments and improvements in the agricultural sector and agro-food production as well as, increasingly, in railways and infrastructures, industrial and financial sectors – continued to come from noblemen.² The noble liberal groups were fighting side by side with the bourgeoisie for the independence of Italy and often followed similar investment strategies, sharing the same initiatives and ventures. But innovation was transversal and also involved noblemen who were political supporters of Austria.³ Many of

¹ See for instance: COPPINI 1988; MORONI 1997; ROLLANDI 1998; BIAGIOLI 2000; FELISINI 2017.

² Further reflections on these themes can be found in the working papers presented at the Kyoto WEHC 2015 and at Bergen EBHA Congress 2016: Silvia A. Conca Messina, *Nobility and Economy in 19th Century Italy: Investments, Enterprises and Innovations* and Silvia A. Conca Messina, Roberto Tolaini, *Opening a debate: Nobility and economic transformation in 19th century Northern-Italy.*

³ See for example the case of Giovanni Brambilla from Inzago (Milan) and the copious documents on agrarian experiments and innovation in his properties, Private Archive *Brambilla* in Inzago.

them aimed to expand Italy's trade, by fostering economic progress and applying scientific and technical innovations to agriculture. Some played a natural leading economic role, as they were the richest, heirs to large properties and estates and to complex administration systems originating from early modern times and updated to meet new managerial necessities. Finally, they all belonged to wide, national and international social (and political) networks which could be useful for their business and which still deserve close analysis and broader investigation.

Landowners, rentiers, entrepreneurs

Scholars have underlined how, for much of the 19th century, the endurance, or the survival, of the nobility's social and economic power was still based on large-scale land ownership, which usually represented the majority of the nobility's assets and in many cases was extended or reinforced (e.g. thanks to public sales of former common properties or of expropriated Catholic Church estates).⁴ The real percentage of land owned by noblemen is still to be determined. In the past, many statements by contemporary experts, who asserted that since the Napoleonic age vast fragmentation of land properties was underway in northern Italy, have been uncritically taken for granted. By contrast, scholars such as Serpieri and Romani have underlined the long persistence of land ownership by the nobility in Lombardy.⁵ According to a statistical source, in 1835 noblemen owned 1/3 of plots in the high plain near Como and Milan (Brianza), where significant fragmentation of properties together with large common lands were the rule.⁶ In the province of Milan, in 1845 properties owned by noblemen would account for almost 60% of land.⁷ Around Inzago (Milan), the nobility still owned more than 50% of land in 1886-87.⁸

An accurate evaluation based on cadastral and fiscal documents of distribution and transformation of land ownership during the 19th century might be possible, but it would require a pool of researchers for many years to deal with and re-elaborate the vast amount of archival materials. Our research could cover just some parts of the area, and it seems that noblemen were still among the greatest landowners, and above all, the aristocratic predominance was even more striking at the very highest levels of land ownership. Their large and medium plots (*tenimenti*) were distributed in different rural contests. In northern Italy, the percentage of land organised into large properties varied among the different environments: it was lower in the mountains, increasing in the hills and in the high plain, prevalent in the low plain. Noblemen acquired land all over the Kingdom of Lombardy-Venetia, as very wealthy Lombards bought lands near Verona, Vicenza, Padova.⁹ The Genoese, as we will see in the third part of the paper, were extending their properties beyond Liguria, in Piedmont and Lombardy.

As extensive land ownership was a traditional kind of property, with connotations of status, normally handed down over the generations and finally belonging to the agricultural sector (whereas economic progress was linked to industry and industrialisation), historians have often evaluated it as a traditional conservative investment, not worthy – with only a few exceptions – of particular attention from the point of view of entrepreneurial attitudes and management capabilities.

⁴ LICINI 1994 AND 1999.

⁵ ROMANI 1963, p. 96, SERPIERI Arrigo, La guerra e le classi rurali italiane, Bari, Laterza, 1930, p. 48-50.

⁶ Romani 1957, p. 70-73, 74, n. 9.

⁷ Lorenzo Litta Modignani, Carlo Bassi, Antonio Re (eds.), *Milano e il suo territorio*, 1844, vol. II, p. 186.

⁸ RIVA Dario Mario, *Tradizione e progresso in un comune rurale dell'est milanese: Inzago tra ottocento e Novecento*, tesi di laurea, a.a. 1984-85.

⁹ "Stato della coltivazione a riso nella Lombardia", in L'Eco della Borsa, 5 April 1843.

Therefore, although noblemen were closely involved in the development of their real estates, their efforts have been mostly considered as an attempt to *adapt* to the evolution of the economy, while keeping their traditional, dominant social and economic role. They were fundamentally aiming to maintain a conspicuous level of consumption, conserving or increasing the level of rents: rents and not profit, as they were *rentiers* and not *entrepreneurs*. The definition of *rentier* has had a negative meaning throughout the history of the nobility and still makes it impossible to define noblemen as true agents of economic growth, due to the negative connotation of the term.

By contrast, as it appears from the archival evidence, in several cases rents were not money earned by idle noblemen whose aim was mainly to spend it. If spending and conspicuous consumption were one of the ultimate aims of noblemen and the élite, rents were the result of a complex administration of the patrimony, which involved not only an articulated administrative structure, but also economic knowledge and the ability to produce prompt economic evaluations.

Management, Investments and Improvement

Noblemen took care of, supervised and managed their large estates mostly by acting as a sort of 'corporate director' (as John Beckett has stated for the British counterparts)¹⁰, making vital decisions about the improvement of their land: rotation, agrarian techniques, irrigation systems, crop selection. They were also appointing and overseeing the management team, assessing grievances and smoothing over relationships on the estates. As they could not physically be on all of their lands at the same time, they needed a general delegated administrator and one or more offices with lawyers, attorneys, notaries, engineers and bookkeepers; rural or commercial agents, farm labourers and technicians all to work for them and suppliers and sellers (also at an international level) of goods, plants and technical tools. The general administrators could be noblemen or might come from the professional bourgeoisie. These complex administration systems sometimes originated from early-modern times and were updated to meet the new organisational necessities.

Usually, the noble family relied on different type of rural organisation, managing the land directly or renting it to tenants, in a variable arrangement. In both cases, it is worth underlining that all the land was managed with the aim of improving yields and value, taking into consideration the kind of soil, the availability of water and local agrarian uses. The improvements were established by the proprietors according to the evolution of the local and international market, following increased demand for wine, crops, rice, dairy products, linen and silk. They could consist of new plantations (mulberries, vines, and poplars), new agricultural uses (grasses), the development of plant nurseries, innovation in the irrigation systems, or the like.

Only part of all the land was managed by the noble family directly (*ad economia*) through the employment of a farmer (*fattore*), constantly in touch with the general administrator, who in turn updated the landlord daily about the weather, the harvests, the potential problems or the progress of the land. Indeed, most wealthy noblemen worked their way through copious daily correspondence with the general administrator, who had to inform them about every problem that emerged and also had to carry out all the orders received on investments, profits and agrarian innovation which the noblemen often wanted to introduce (plants, practices, land recoveries). The letters noblemen wrote were full of advice concerning the maintenance of the farm and general cultivation¹¹. Constantly, and especially during the summertime, the noblemen visited their

¹⁰ BECKETT **1988**.

¹¹ In Cornaredo (Milan), the Serbelloni family introduced a written Regulation to improve the cultivation of mulberries and silkworm rearing and constantly pretend it to be respected, see the *Regolamento*, 5 Aug 1838, Cornaredo, f. 13, 1813-1865, *Serbelloni*, I serie, Box 10, f. 13.

estates in person. The general administrator, in turn, could only supervise all the house's affairs and so he appointed many other employees and consultants (a central office was nearby) to keep the accounts, give periodical reports, go to visit the real estate, gather information about the economy and enterprises for investment (engineers, lawyers, notaries, accountants, stewards)¹².

A further common way to improve the large properties was to rent the land to a tenant for many years (9, 12, 15 years) for a substantial annual payment in cash (plus some free services and foodstuff supplies). This happened especially (but was not limited to) in the low plain, where the land owned was larger and the cultivation and organisation of production had to be directed centrally by a farmer who had to deal constantly with specialised workers (such as the herdsmen, the milkers, the dairyman). A well consolidated historiography considers the tenants of the low plain to be the real capitalists and agrarian entrepreneurs, to whom the improvement and high profits of lands should be ascribed whereas the property owners have been often depicted as absent and interested only in rents.¹³ By contrast, what emerges from the numerous rent contracts and correspondences from the vast archives of the noble families is a bit different picture of strict cooperation.

It is undoubtable that tenants had to be rich enough to pay substantial amounts of cash in advance (thousands of Lire), provide enough livestock (cows, horses) and agrarian tools; they also acted as entrepreneurs in being able to deal with a remarkable number of workers on their land; to sell the crops, the dairy products, and all the other products at the right moment and price it competitively to merchants on the market. However, it is more difficult to state to what extent they were also innovators, as they were not independent. The landlords were not at all keen on leaving the tenants free to improve their lands. All the contracts denied the tenant any possibility to introduce innovation without the written authorisation of the landlord case by case. At the end of the convention, a balance sheet was drawn up by the agents of the landowners, accounting for credits, debts and enhancement. But the compensation for the cost of improvement was generally not compulsory (even if it was authorised) - in some cases explicitly not due - and in any case always had to be judged and evaluated by the expert agent or engineer of the landlord's house, who had the final word.¹⁴ The 'enhancement' was the object of the rent, but how, when and where (to do it) was described and clarified by the property owner. In the agreement, the amount and type of new plants to be introduced, the work and intervention on plants, wood, land and water to be done, the rotation to be respected, the number (and sometimes the breed) of cattle, horses, oxen who had at least to live on the land to fertilise and work it; the animals that could not be kept (such as, in the low plain, goats and sheep) and many other specific duties (penalties included) and (limited) rights - were all carefully listed. Furthermore, the tenants did not have the right to sell the harvest of grass from the farm, had to use the milk within the farm to produce butter or cheese, could not freely cut plants, and in any case, the landlord's agent had the right to control and invigilate his management of the farm at any time.¹⁵

¹² See the vast materials in the families' groups of documents at the State Archive of Milan (ASM): *Litta Modignani, Sormani, Serbelloni, Crivelli Giulini* et al.; the archive group *Litta,* Archive of Ospedale Maggiore di Milano at Foundation Ca' Granda,; the Archive *Visconti di Modrone* conserved by Foundation Visconti di Modrone at the Catholic University of Milan; the Private Archive *Brambilla* in Inzago (Milan).

¹³ Carlo Cattaneo's definition of the tenants as the real entrepreneurs of agrarian industry will be largely adopted by historiography (see Cattaneo: "Dell'agricoltura inglese paragonata alla nostra", *Il* Cr*espuscolo*, VIII, 13 Dic 1853).

¹⁴ On the agrarian pacts and their constraints; on tenants, defined as "servants" working for the owners, see Gaetano Cantoni, "Sulle condizioni economiche e morali della bassa Lombardia", 1851 (in *Il Crepuscolo*, II, 16 23 30 Mar, 4 Apr); Romani 1957, pp. 96 et seq; p. 104, n. 32.

¹⁵ Among the ample material, see for example the Notarial Deeds renting estates in Lombardy conserved at the ASM, *Notarile u.v.*: Gallarati Scotti (Peschiera, Milan) 13 Jan 1844, Box 1088; Tossa (Arcore, Milan) 1 Maj 1844, Box

Moreover, it was up to the property owners to provide the capital to repair and renovate the farmhouses, the cattle sheds, the haylofts; the silos; the irrigation and hydraulic system; the buildings for processing foodstuffs, such as corn and rice mills, milk and dairy stores and production buildings, silk spinning machines, and the like. They were all necessary investments to increase the amount and the quality of production, meet the demand of the markets and increase the value and rental income of the land. In this way, some technical innovation could be tried out or introduced by the owners, such as new machinery, preservation and processing tools and systems. For example, between 1828 and 1843 the Serbelloni family (who will have serious economic troubles according to the reconstruction by Ferrini 1994) enlarged several farmerhouses, built about 30 small new cattle sheds and a cheese factory in Cornaredo.¹⁶ In the land owned by Cavagna Sangiuliani near Pavia, the self-financed spending (using revenues) for unscheduled repairs and conservation increased from 1/6 of the total owners' expenditures, at the beginning of the century, to 1/3 in the middle of the century.¹⁷

Obviously, to find a good and loyal tenant was not so easy. Cooperating well with him was also difficult. Former herdsmen, relatives of farmers, agents or tenants as well, they usually originated from the local countryside, had some agricultural experience and varying levels of capabilities and knowledge. Even when carefully selected and engaged, they might still not have been clever or talented enough to manage the farm well. Tenants might be unable to make the expected profit from the rented land; could fail in reaching the goal to improve value and productivity; or could be forced to delay and skip the rent payments; they could also prove incapable or unfair in representing the owners' interests in the local municipal Council.¹⁸ If they proved able to successfully manage the land under the supervision of the owners, landlords kept them for a long time. By contrast, if they were not satisfied with the tenants' management or behaviour, noblemen often rescinded the contract and sometimes decided to return the property to their own direct administration.¹⁹

Innovation and markets

It can be widely documented (e.g. from their ample correspondence) that noblemen tried to earn as much as possible from their lands and were often (although not always) successful in exploiting their rural properties economically. Many of them were increasingly involved in commercial agricultural activities and invested a huge amount of money in crop and livestock innovations and experimentation, in introducing new kinds of plants and cultivation techniques and in canal-building for irrigation²⁰ Yields and rental incomes increased. It was recognised that their land was essential to the economy, supplying commodities such as hemp, linen, silk, wood, and untapped raw materials (minerals), waterpower (renting ancient water rights and old cereal mill-sites to be transformed into silk or cotton mills) and in addition, the land could be used to provide security for the borrowing of capital.

^{836;} Biumi (Trenno, Milan) 6 Jul 1844, Box 1089; Castelbarco Visconti (Binasco, Pavia) 4 Apr 1845, Box 877; Visconti di Modrone (Ossago, Milan), 11 Feb 1856, (Borghetto, Lodi and Crema) 23 Jun 1860, Box 1046 and 1062. ¹⁶Francesco D'Adda, Description of the buildings (new, enlarged, improved) in Cornaredo 1828-1854 (*Descrizione dei Fabbricati eretti di nuovo, ampliati e migliorati nel Tenimento di Cornaredo*), 31 May 1854, Cornaredo, f. 13, 1813-1865, *Serbelloni*, I serie, Box 10, ASM.

¹⁷ Archive of Cavagna Sangiuliani in Zelata (Pavia), in ROMANI 1957, p. 126, n. 23.

¹⁸ See f.e. the Letter, Berra to Vismara, 22 Sep 1848, *Litta Modignani*, titolo XVII, amministrazione complessiva, Box 4, f. 7, ASM; RIVA 1984-85, quoted.

¹⁹ See the case of the tenants Bianchi and the Litta Modignani family, 1845-1851, *Litta Modignani*, titolo XVIII, amministrazione in particolare, Box 23, ASM.

²⁰ See the several manuscripts related to cultivation systems, livestock, cheese processing, silkworm, etc. by Giovanni Brambilla in Private Archive Brambilla in Inzago. See also the Correspondance in the Archive Groups *Serbelloni, Litta Modignani, Sormani* in ASM.

Moreover, following the movement of "agrarian activism" which was spreading throughout Europe at the time, the nobility provided much of the leadership for the most important agricultural improvement societies, such as the Royal Academy of Agriculture and the Subalpine Agrarian Association in Piedmont or the Agrarian Society of Lombardy. They actively participated in the organisation of the Italian Scientists Congresses. Agricultural issues (including vegetal and animal diseases) were discussed in social and local meetings and lectures, and in the numerous reviews and brochures which were published and circulated among them. Additionally, noblemen travelling for business or leisure around the world were collecting, sending and experimenting seeds of corns, rice, silkworms, exotic fruits, plants, in a continuous transmission of knowledge in an attempt to discover new opportunities for agriculture²¹.

Beyond a scientific and practical interest, constant attention was paid to updated information on prices and market trends by consulting specialised journals and daily bulletins. Indeed, noblemen analysed the trends of the markets and prices, the best times to sell, costs and benefits, and tried to foresee the potential profit or the level of capital remuneration which could be expected. They were often sharing and confronting their information with those collected by other noblemen and landowners.

As farm prices rose, so did the value of rental rates (which reached unequalled heights until the mid-century). Participating in a process which was largely underway in France, Germany, and many other European areas, noblemen funded or supported large investments and improvements, depending on the environment and characteristics of the lands. Traditionally they invested a lot of capital in salvaging land and in the building of the irrigation system. In the 19th century they continued to invest in building canals²², in the production of cereals (and the transformations they underwent, such as when corn mills and rice refineries were introduced), grass and dairy (transforming land into pasture and increasing the livestock, the production and export of butter and cheese), silk (with the cultivation of thousands of mulberries and the promotion of the rearing of silkworms and in many cases of silk reeling), fruit (lemons around the lakes in the north), wine (increasing quality and techniques in Piedmont)²³.

Silk in particular has been defined as the «main leading sector» of the Lombardy economy, the wealthiest Italian region even before Unification, which at the end of the 19th century and throughout the 20th century was to be «at the helm of Italian industrialisation». Within this area, the quantity of mulberry trees tripled from 1796 to 1834; the production and export of silk grew and in the 1830s Lombardy was the region which produced and exported the greatest amount in Italy (about 75 % of exports was reeled silk), while more than 50 % of the silk manufactured in Europe was produced in Italy. The capital accumulated in this sector by landowners, manufacturers and merchant-bankers would be decisive in furthering investments in financial activities and later in the new industries of the second industrial revolution; indeed, the silk industry would deploy its «propulsive role» after Unification.

As for wine growing, it took place in the hills and also in the high plain where it was combined with mulberries in Lombardy and with trees such as ash, elm and maple in Piedmont. A large part

²¹ See for example the numerous news in "Annali universali di tecnologia. di agricoltura, di economia rurale e domestica, di arti e mestieri", 1826-1827, "Tecnologia. Annali universali di agricoltura, economia rurale e domestica; arti e mestieri" (1827-1830); "Annali universali di agricoltura, economia rurale e domestica, arti e mestieri" (1830); "Annali universali di agricoltura, industria ed arti economiche" (1831-1833); "Giornale agrario lombardo-veneto" (1834-1843); "Giornale agrario Lombardo-Veneto" (1844-1853); "Annali di agricoltura" (1854-1857).

²²Modignani, Bassi, Re (II, 1844) quoted, p.123; CANETTA 1976, pp. 112 et seq..

²³ On the production and trade of lemons, see the case of Counts Bettoni near Brescia, in TEDESCHI 2009. See also Letter, Giovanni Serbelloni to Ferdinando Serbelloni, 9 May 1946, *Serbelloni*, II serie, Box 13, f, 4, ASM.

of the production was of low quality and directed towards auto consumption, local and regional markets²⁴. However, many attempts to improve the wine process and to introduce foreign vines were made during the first half of the century, following the increase in demand and the evolution of consumer tastes. A larger extent of land was given over to vines by counts and marquises in southern Piedmont, which at the time included Oltrepò Pavese. As we will see, many of the investors were from Genoa: a large variety of white and black grapes, some of which are still in existence, and experiments to introduce foreign vines (especially French) were mainly carried out by the wealthiest and more educated landowners, as they were able to read specialised publications and exchange information, to get in contact with foreign growers and to import the plants²⁵. About two thirds of Piedmont production was directed to Lombardy, but increases in the duty on wine, which in the mid 1840s more than doubled, hit the sector hard.

In the 1850s, devastating diseases respectively called *pebrina* and cryptogam affected both the silkworms and vines, and would prove to be a huge challenge for northern Italy. Silk and wine operators (beginning with noblemen) reacted by trying to find both the scientific and practical solution to the diseases. They funded enterprises to explore new ways and systems to produce and rear safe silkworm eggs, successfully finding new suppliers far away in Japan. Vines substantially decreased in Lombardy, while more specialised areas emerged in the areas near Brescia, the Oltrepò Pavese and southern Piedmont.

2. The Lucini Passalacqua family Catia Brilli

Unlike their European counterparts, the Italian nobility did not experience an irreversible crisis after the Napoleonic wars. The Lombard noble families in particular, despite a substantial loss of political primacy, in many cases were able to conserve and even enlarge their properties, remaining a role model to many entrepreneurs who aimed to climb the social ladder.²⁶

As illustrated in the first part of the paper, traditionally, nineteenth-century aristocratic landownership has been equated to that of religious institutions as the expression of a semi-feudal conception of economy and society. A rent-seeking conception that has led scholars to neglect or underestimate the role of nobility in the history of modern economic development in Lombardy as well as in unified Italy.²⁷

Yet around the middle of the nineteenth century landlords of noble origin still owned a substantial part of the land situated in the hillocks and uplands of northern Lombardy: the same area that radically transformed the bases of its agricultural economy from the mid eighteenth century through the widespread practice of silk farming.²⁸ Noble families' persisting influence is also apparent in the fertile lands of southern Lombardy, where they continued to be

²⁶ For an overview, see CAPRA 2011, pp. 134-48.

²⁴ The amount of the Lombardy wine production was 1.400.000 hectolitres on average in 1842-1851, ROMANI Mario, *produzione e commercio dei vini in Lombardia nei secoli XVIII e XIX*, in Romani Mario, *Aspetti e problemi di storia economica lombarda nei secoli XVIII e XIX*. *Scritti riediti in memoria*, Milano, Vita e Pensiero, 1977, p. 527.

²⁵ See Luciano Maffi, *The development of wine growing and oenology in southern Piedmont and Oltrepò Pavese*, draft, in Silvia A. Conca Messina, Stephane Le Bras, Paolo Tedeschi, Manuel Vaquero Piñeiro (eds.), *Wine history. Making and Consumption Patterns in Europe (19th-20th Centuries)*, Palgrave Mcmillan, forthcoming.

²⁷ Romani 1957; Zaninelli 1964; Zangheri 1961, p. 150; Kroll 2005, p. 98.

²⁸ MOIOLI 1981; CAFAGNA 1989. On the role of nobility in promoting this transformations in Lombardy, see the case of Vincenzo Dandolo in PEDERZANI 2014, pp. 120-40.

acknowledged for their role in expanding the web of irrigation canals that created the fortune of this territory.²⁹

The image of the Milanese nobility as a group of absentee landowners facing an inevitable decline in parallel with the emergence of new and more dynamic agricultural entrepreneurs is not reflected in contemporary documents. The primary sources conserved in public and family archives unveil a more nuanced reality in which the nobility did not simply operate to conserve their patrimonies but also to enlarge them through an efficient exploitation of any possible resource.

This attitude seems to have been a common feature of small and great noble families alike.

Among the former, the case of the Lucini Passalacqua family is particularly representative.

By means of a long and meticulous process of land acquisitions, which continued throughout the nineteenth century, the family was able to accumulate assets in different parts of Lombardy, from the northern area of Como to the rich agricultural territories of Pavia and Lodi. The core of the family assets was in Moltrasio, on the left bank of the western branch of Lake Como. Here in 1787 they bought a mansion that today is still among the greatest buildings along the lake's shores. During the first half of the nineteenth century, the Moltrasio family's property was constantly enlarged with land and rural houses belonging to suppressed religious institutes, and through successive acquisitions and property exchanges. The protagonist of this story was Count Alessandro Lucini Passalaqua, who inherited Moltrasio when he was still an infant and remained at the forefront of the family's business until his death in 1861.³⁰

Near Como, Count Alessandro also owned different plots of land and buildings, most of which were situated around Olgiate. In 1861, these properties amounted to 230 hectares worth about 20,000 scudi (equal to 91,500 Italian lire) and were under the same administration.

Alessandro's assets included other properties near Pavia and Lodi worth 771,000 Milanese lire, which in 1836 produced an annual income of 44,000 Milanese lire.³¹ Other family members had solid interests in the area. One of Alessandro's daughters, Rosa, married Count Augusto Giorgi di Vistarino Bellingeri, who lived and owned lands in Rocca de Giorgi near Pavia. ³² The second daughter, Maria, in 1855 married Stefano Negrotto Cambiaso, a great Genoese nobleman whose possessions allowed the Lucinis to expand their interests in southern Lombardy (Lodi), Liguria, and Piedmont.

Although Alessandro Lucini's main assets were situated in an area where land properties were scarcely fertile and highly fragmented, the way of managing such properties testifies to the entrepreneurial mentality of the family, enabling them to make efficient use of all possible profit sources.

Alessandro Lucini had various other interests. Despite possessing houses both in Milan and Como, he spent long periods of time in Moltrasio and often visited the nearby properties of

²⁹ BAIRD SMITH Richard, *Italian irrigation. A report on the agricultural canals of Piedmont and Lombardy addressed to the honourable the court of directors of the East India Company*, vol. I, *Historical and Descriptive*, Edinburgh and London, William Blackwood and Sons, 1855 (second edition), p. 42.

³⁰ Inventory (*Inventario della sostanza dei minori Passalacqua Conte Gio.Battista Morto 29 ottobre 1842 e Nobile Alessandro morto il 16 luglio 1861*), box 24, f. 633, FLP (*Archive Group* Fondo Lucini Passalacqua), ISEC (Institute for the History of contemporary age, Sesto S. Giovanni, Milan).

³¹ Balance sheet, 27/06/1836 (*Bilancio consuntivo della Provincia di Villarzino ed Uniti di proprietà del Nobile Signor Don Alessandro Lucini Passalacqua*), Box 2, f. 51, FLP, ISEC.

³² Notarial Deed, Carlo Marocco, 14/12/1872, Box 29, f. 802, FLP, ISEC.

Olgiate. All the possessions in the area were connected among them and worked under the close control of the ownership.

Moltrasio's land was dotted with mulberries for the feeding of silkworms and hosted a nursery for mulberries, which served this and other properties belonging to the family.³³ There were also vineyards, pastures, and forests for the production of timber and firewood, and even rice and cotton fields, which had been carved out from the mountains through the terracing system. The property included a stone cave³⁴, whose rent ensured a regular income, and a mill, purchased by the family in the 1850s. ³⁵ The core of production, however, was silk farming, which generated the highest profits and was expanded throughout the years in parallel with the enlargement of the property. Most of the land acquired during the first half of century or cleared of stones to increase production became new plantations of mulberries and vines.³⁶

At the beginning of the century, when the Lucini brothers were still minors, Moltrasio was rented to an expert in agricultural management, the engineer Giuseppe Porro. ³⁷ In the ensuing years, it was directly managed by the landlord in collaboration with local farmers who dealt with hiring hands and invigilating the work of five farmworker families established in the property's farms. The silk, the wood, the olive oil, the linen, the linen oil, part of the wine and even part of the mulberry leaves were sold into the market. The cocoons were all sold to a single merchant established in the near village of Canzo.³⁸

Situated on flatter land, the Olgiate's property mainly produced cereals, wood, and silk. As in Moltrasio, the farm and annexed lands were managed by a farmer. The granary of Olgiate's farm was also used as a deposit for the wheat produced in Bregnano and provided Moltrasio with hay and cereals. Besides this, the farm had a spinning mill for the silk produced in the different properties of the family.³⁹

The interest of the family in sericulture was not new. The wife of count Alessandro, Leopolda D'adda, was the granddaughter and heiress of Emmanuele Khewenhüller, a Habsburg official and Milanese patrician who had made a great fortune in Lombardy by producing silk textiles in his properties and trading them all over Europe.⁴⁰

The Lucini family continued to profit from silk farming despite the difficulties. The outbreak of pebrine disease towards the middle of the century caused great losses. Shortly after the death of count Alessandro, however, new batches of imported silkworm eggs allowed his son and heir, Giovanni Battista, to recover production and keep operating in this sector in the decades that followed.⁴¹

³³ "Giornale della Provincia di Moltrasio", 1837-1847, Box 17, f. 531, FLP, ISEC.

³⁴ Rent Contract, copy signed by Alessandro Lucini Passalacqua and Teresa Pedraglio, 03 Jan 1859, Box 18, f. 545, FLP, ISEC.

³⁵ Notarial Deeds, 13 Jan 1846, 05Jul 1847, 19 Jan1856, Box 18, f. 543, FLP, ISEC.

³⁶ "Giornale della Provincia di Moltrasio", 1837-1847, Box 17, f. 531, FLP, ISEC.

³⁷ Giuseppe Porro, 16 Mar 1815, Box 16, f. 510, FLP, ISEC.

³⁸ "Giornale della Provincia di Moltrasio", 1843.

³⁹ "Register Inventory", 2 Sep 1861, Box 2, f. 54, FLP, ISEC.

⁴⁰ At his death, in 1841, more than 7,700 pounds of Emanuele's silk textiles were deposited in London, Zurich, and Moscow, ANGELI 1982, p. 37, n. 50; Prospect of the inheritance, Leopolda D'Adda (*Prospetto di liquidazione della sostanza ereditaria abbandonata dalla Illustre defunta Marchesa Leopolda d'Adda nata Contessa Khewenhuller al 2 Gennaio 1852 nei rapporti delle Nobili Legittimarie Sorelle d'Adda*), 2 Jan 1852, Box 2, f. 53, FLP, ISEC; http://servizi.ct2.it/ssl/webtrees/family.php?famid=F5742&ged=ssl

⁴¹ Correspondence, Maurizio Carcano, 21 Jul 1861– 2 Sep1872 (see in particular year 1864), Box 19, f. 564, FLP, ISEC.

Alessandro's brother, Giovanni Battista, who inherited other properties near Como and Monza seems to have had a similar interest in the management of his own rural assets. After holdng a variety of public offices, he decided to permanently settle in his palace at Mariano Comense and devoted himself to agriculture until he died in 1842.⁴²

The proximity of Counts Lucini to their properties in Como did not lead them to neglect those situated in south Lombardy. In line with the system of land tenancy of the area, their lands were organised into larger properties and rented to major tenants. Rent payments were in cash, while production was focused on milk cows, wood, linen, and to a less extent, silk and wine.⁴³ The property included taverns and other residential buildings which were subleased by tenants.⁴⁴ Tenants were obliged by contract to respect a consolidated set of rules on the rotation and fertilisation of the fields, the cleaning and fixing of the property's waterways, roads, and buildings, as well as the distribution of water among the different plots.⁴⁵

These rules and the checking of their implementation responded to the landlord's interest in achieving the highest possible level of productivity over time. This interest potentially clashed with that of the tenant, whose goal was possibly that of exhausting the land through intensive exploitation during the years of his tenancy. Aware of these implications, the Lucinis rented their main properties to the same family, the Griffinis, from 1787 to at least 1872 uninterruptedly.⁴⁶ This way they fully exploited the know-how and experience of the tenants, favoured their attachment to the property and to an effective interest in its development. A delay in the rent payment did not impede the renewal of the contract throughout the years. As such delays were often determined by the tenant's need or desire to invest money in the property, the Lucinis' strategy was to lend tenants the necessary sum at an interest rate of 5% per annum.⁴⁷ The payment of the debt was guaranteed by the land of the tenants, owners of a farm in the area.⁴⁸ The long duration of the lease contract leads one to think that the conditions imposed by the landlord were not too oppressive and that, on the contrary, tenants were able to negotiate and receive a good share of the profits.

The existing documentation does not allow us to determine when the Griffinis' tenancy came to an end. What we know is that the Lucini family continued to closely monitor their lands in southern Lombardy and to foster their improvement, extending the web of irrigation channels within and among the different properties.⁴⁹

⁴² Rinaldi Antonio, *Sepolcro Passalacqua in Paina, provincia di Milano*, Milano, Tipografia di G.B. Bianchi di Giacomo, 1844, p. 8.

⁴³ Delivering of land, 1840 (*Consegna della possessione Malcantone, Barbetta e Colombara in affitto Griffini*) in Gugnano (District I, Lodi), S. Zeno, Foppa e Bescapè (District VII in Landriano, Pavia) owned by Alessandro Lucini Passalacqua and rented to Domenico e Luigi Griffini in the period 11 Nov 1839- 11 Nov 1848, Box 20, f. 593, FLP, ISEC.

⁴⁴ Ibid.

⁴⁵Renewal of rent (*Appuntamento per la rinnovazione d'affitto in favore Griffini delle possessioni Barbetta, Colombara e Malcantone in Villarzino ed uniti*), 06 Jul 1829, Box 24, f. 623, FLP, ISEC.

⁴⁶ Delivering of land, 1840, quoted, "Giornale della Provincia di Villarzino ed unito", 1849-1856, Box 23, f. 615 B; Notarial Deed, Carlo Marocco, 14 Dec1872, Box 29, f. 802, all in FLP, ISEC.

⁴⁷ Mortgage, Carlo Quinterio, 29 May 1816, Box 24, f. 618, Delivering of rented land (*Riconsegna delle possessioni* Malcantone, Barbetta e Colombara, proprietà del Sr. Don Alessandro Lucini Passalacqua in affitto a Domenico Griffini) 29 Feb 1840, Box 24, f. 624, both in FLP, ISEC.

⁴⁸ Mortgage, Carlo Quinterio, 29 May 1816, quoted.

⁴⁹ Ricognizioni livellarie e altra documentazione sulla Roggia Bescapera, 30 Apr 1586–12 Feb 1858, Box 3, f. 80; Elenco delle carte componenti il Progetto di nuovo cavo da aprirsi nella Possessione di Gugnano del Conte Gio. Battista Lucini Passalacqua) 16 Apr 1870–10 Oct 1873, Box 24, f. 631; Notarial Deed, Carlo Marocco, 14 Dec1872, Box 29, f. 802, all in FLP, ISEC.

The Milanese patrician Giuseppe Biumi was the first one to theorise on the advantages of large rents in the Po valley. In his 1773 treatise entitled "Scienza politica-economica", major tenants were presented as the best possible managers of the large and rich properties in the area both for their expertise in agricultural techniques and for the capital they could invest in land improvement. ⁵⁰ This idea was maintained by prominent Lombard thinkers like Melchiorre Gioia and Carlo Cattaneo in the nineteenth century, and was one of the reasons why some foreign observers considered Lombardy agriculture as the most remunerative after those of Holland and Belgium. ⁵¹

The Lucinis thus followed well-consolidated practices that ensured the efficient exploitation of their lands in the area, being particularly careful to preserve their fertility. Unlike great landowners such as religious institutions⁵², which often rented lands through public auction in order to get the highest possible remuneration on the spot to the detriment of future rewards, the Lucinis opted for a business strategy that benefited from the capitalistic way of farming but tried to minimise its possible negative effects, ensuring the profitability of lands in the long term.

The Lucini case reveals that even the families outside the top ranks of the Milanese nobility experienced continuous fortune throughout the nineteenth century by virtue of their ability to manage their rural properties in accordance with the needs of the market. In northern Lombardy, they promoted and fully exploited silk farming, the most innovative and profitable sector in the area. In the Po valley, they were able to cope with competition from new ranks of agricultural entrepreneurs by orienting their strategies towards the capitalistic exploitation of their lands.

Other cases under analysis are revealing similar attitudes in great noble families and in less prominent ones. Between the eighteenth and the nineteenth century, some of the main exponents of the Milanese nobility such as the Litta Modignani dukes, the Busca Serbelloni marquises, the Taverna counts, the Archinto counts, and the Cusani marquises invested and earned high profits with sericulture.⁵³ In the 1820s, Ferdinando Serbelloni personally managed his properties of nearly 400 hectares and was one of the first silk producers to introduce the steam silk mill engine.⁵⁴ Count Alessandro Manzoni and one of his sons, Enrico, invested in silk farming and trade until the pebrine disease and a fire in their property severely damaged the family's interests.⁵⁵

As for the Po valley, the private correspondence (1823 to 1837) of Count Adalberto Barbò, owner of great properties near Cremona, points to a direct involvement of the landlord in the technical and organisational aspects of the business such as the selection of tenants, the establishment of a fair relationship between lease contracts and the current price of agricultural products, and the implementation of the necessary improvements to land properties.⁵⁶ In the 1840s, Princess Cristina Trivulzio di Belgiojoso personally took care of the administration of her extended properties near Pavia and also implemented ground-breaking measures to improve the sanitary conditions and education of workers.⁵⁷ Similar initiatives were taken by the Litta family on their

⁵⁰ Romani 1957, pp. 103-4.

⁵¹ "Fixity of tenure historically and economically considered", *Dublin University Magazine*, 1844, vol. 23, 605-615. ⁵² ROMANI 1957, p. 101.

⁵³ "Statistica dell'industria serica in Lombardia nell'anno 1847", *Atti della società di incoraggiamento d'arti e mestiri per l'anno 1851*, Milano, Pirola, 1851, pp. 16-53. Vincenzo Dandolo, a noblemen of Venetian origin, gave a capital contribution in silkworm rearing.

⁵⁴ ANGELI 1982, p. 37.

⁵⁵ CORGNATI and CORGNATI 1984; VIGANÒ 2007.

⁵⁶ Adalberto Barbò, Correspondance (*Copialettere*) 1823-1837, Box 3 f. 12, *Archive Group* Famiglia Barbò, ASCM.

⁵⁷ INCISA and TRIVULZIO 1984, pp. 229-43. See Possessione La Colombaia, Fondi 25; Possessione La Fontana, Fondi 27; Podere di Opera (1828-1914), Fondi 34; Podere Venturina (1827-1919), Fondi 37, all in Archive Cristina Trivulzio di Belgioioso, Fondazione Trivulzio.

properties.⁵⁸ The careful management of their lands near Cremona, whose activities extended to the commerce of wine, allowed the lesser-known Zaccaria family to keep prospering in agriculture throughout the nineteenth century.⁵⁹

The Milanese aristocracy did not act as an exclusive group in defense of its own privileges to the detriment of the emerging rural entrepreneurs. Exponents of the Milanese nobility were among the founders and leaders of the Milanese Comizio Agrario and the Lombard Agrarian Society, established in the middle of the nineteenth century as a means of promoting scientific and financial improvements in Lombard agriculture. Both institutions represented the whole category of landowners, which at the time already included a majority of non-noble landlords.⁶⁰

The Milanese nobility, or at least the most advanced segments of this group, were thus able not only to defend their own interests, but to fully participate in the process of modernisation that characterised the Lombard economy and society between the eighteenth and the nineteenth century.⁶¹ This would explain the uncommon words used by German jurist Carl Mittermaier to describe Lombard aristocracy in his 1844 essay on the conditions of Italy: an "active and industrious class within an expanding civil society, aimed at presenting itself as the guarantor of social cohesion and no longer as a group assimilated to public power, but as private elite".⁶²

To conclude, the documentation collected sofar seems to suggest that, in the nineteenth century, noble gentlemen's *esprit du rentier* did not stifle the *esprit de l'entrepreneur* in rural Lombardy; on the contrary, it continued to stimulate new entrepreneurial initiatives.⁶³ These and other families' private archives point to the need to reassess the role of the Milanese nobility also in other economic sectors, calling into question the scope and the nature of this group's historical decline.

3. The Genoese case Roberto Tolaini

While traditional European nobilities had their origins in military enterprises, the Genoese one, like many others in Italy, mainly originated from trade, finance and shipping. However, the most important families diversified their wealth, investing in land, thus rivaling the feudal nobility. Land investment was considered a reserve value, less uncertain than maritime commerce and financial assets, as well as a status symbol. Nevertheless, at the end of the Ancien Regime, the main earnings of these wealthy families came mainly from financial investments, urban rents, and partly from commercial activities. G. Felloni's studies estimated that more than half of the income of these families came from capital invested in European public debt and private mortgages.⁶⁴ So, while the land was important, it only represented a minority share of noblemen's total income.

⁵⁸ Nota della Delegazione Provinciale di Milano alla Deputazione Comunale di Busto Garolfo 1852, Litta Modignani, Primo Acquisto, Carteggio, Titolo XVIII, Amministrazione in particolare, Box. 20, f. 17, ASM.

⁵⁹ See in particular sections "Beni di proprietà" and "Acque". Archive Group Fondo Zaccaria, ISEC. On the wine trade, *Cantina Zaccaria in piazza Lodi a Cremona. Nomina del commesso Silvestro Sacchetti* (1834-1839). ibid., Box 21, f. 139.

⁶⁰ BRIANTA 1994, pp. 1-9.

⁶¹ This process led to a progressive integration between nobility and non-noble entrepreneurial elites, BANTI 1989; MERIGGI 1992.

⁶² MERIGGI 1988, pp. 68-9

⁶³ DE MADDALENA 2000, p. 53.

⁶⁴ FELLONI 1971, pp. 59-61.

Another aspect to point out is the location of these properties. Not only did the Genoese patricians have almost a monopoly of the few fertile areas in Liguria, especially near urban centres of any importance, but they also owned agricultural lands beyond the Republic of Genova⁶⁵, in the hills and plains of Low Piedmont, in the Oltrepo Pavese, in the Lomellina, in Tuscanv or in southern Italy; indeed, the majority of their agricultural holdings was normally located outside the state. Given the variety of agrarian contracts and peninsula farming patterns, the scattering of properties makes it impossible to identify a specific "Genoese" form of land management, as it did for other urban noble families, for example sharecropping (mezzadria) for the Florentine élite. The directors of the largest holdings should have had, therefore, the ability to manage heterogeneous forms of agrarian contracts and hold together very different realities, which often had a different degree of commercialisation. They managed intensive agricultural farms, based on vegetable gardens and citrus gardens, typical of Liguria, with a limited area but with high income since they were traditionally integrated in the supply of the cities and the maritime trade, but they also managed agricultural properties in the Apennines, sometimes fiefs, mainly characterised by subsistence farming, based on various patterns of sharecropping, often with poor connections with the urban markets.

The French revolution and the following Napoleonic experience heavily cut the financial wealth of Genoa and consequently reduced the financial incomes of patrician families. An emblematic example is that of the Brignole Sale, one of the most powerful families of the period, who saw their wealth almost halved; the loss mainly involved financial investments, which went from 4.3000000 Genoese lire in 1785 to 2.2000000 in 1805 (ASCG, Fondo Brignole Sale, general ledgers, n. 165 and n. 171). Consequently, land and urban real estate weighed more in the composition of wealth and income. A more profitable farm management was decisive in maintaining a high economic and political status, taking into account the loss of feudal privileges: if the noble families had not been able to extract more income from their properties, the decline would have been unstoppable. The most important challenge was the introduction of marketoriented capitalist management models in agricultural areas more closely linked to traditional practices and self-consumption. Of course, the possibility of a greater exploitation of resources also depended on the expansion of transport infrastructures, but the initiative of the owners was essential. Among the various possible measures, the transformation of agrarian products was one of the most important, as it allowed the value added to be increased, but also implied a higher level of investment and the acquisition of technical-scientific knowledge which was increasingly crucial. In this regard we can also measure the contribution of the nobility to the processes of economic modernisation.

Historiography, with only a few exceptions, has not shown much interest in this topic, so the work to do is vast. Here we can only refer to a few elements, the first fruits of some recent research, relating to the archives of noble families (De Ferrari, Brignole Sale, Durazzo, Pallavicini, Spinola di Luccoli, Doria di Montaldeo, Balbi di Piovera) who played a prominent role in Genoa and elsewhere. In the first instance, we can say that in all cases investigated, the attention to the careful management of agricultural properties is key.⁶⁶ Also the great financier De Ferrari continuously gave instructions to his agents to set prices for agricultural products and precise guidelines on agrarian production, effectively acting as a resident landowner⁶⁷. Similar considerations apply to Antonio Brignole Sale, not to mention Giorgio Doria, Giacomo Balbi or Giacomo and Francesco Gaetano Spinola, who constantly controlled his agents.

⁶⁵ QUAINI 1971 and DE NEGRI et al. 1972.

⁶⁶ This confirms an important observation of BIAGIOLI 2000, p. 50, that for many noble landowners the land was "primarily a factor of production".

⁶⁷ MASSA 1991, pp. 407-410.

It is important to understand how noble families managed these properties, looking for advanced practices, supported by greater use of technical and scientific knowledge as historiography has highlighted in several parts of Italy.⁶⁸ A common element in all cases presented is noted, i.e. the existence of organisational structures directed by administrators, usually resident in Genoa. They corresponded with the agents in charge of the various farms and operated in close contact with the owners. The administrator visited agencies and followed guidelines set by the owner. Agents were required to follow 'instructions' written by landowners regarding the agricultural practices. Giacomo Spinola, for example, warned his agents not to make "any variation in each land or farm or in the estimates or in the rent or cattle", without his consent and to keep him updated on progress and problems of the agency, including any suggestions for improvement.⁶⁹

These administrative structures evolved over time and, depending on the complexity of the property, became more articulated, generating wide archives. A particularly well documented case is the 'Azienda Durazzo Pallavicini' which at the beginning of the twentieth century had as many as 12 agrarian agencies, each directed by an agent who sent weekly reports to the administrator, on a pre-printed form divided into 12 points, comprising service personnel health status, weather notes, the movement of cattle, sales, purchases, investments, current work, the state of the crops, the trend of cash etc. It was a flow of information through which the central administration, directed at that time by an engineer, got an idea of real-time trends in crops and the farming year outlook.

Among the few studies that exist, there is a particularly significant paper relating to a branch of the Doria family at Montaldeo (Alessandria, Piedmont). This paper clearly shows that the Marquis Giorgio Doria, since the Restoration, initiated a 'maximum exploitation' policy aimed at reinforcing the use of labour. He started to specialise in wine production, alternating different agricultural contracts, but investing little in the improvement of wine production techniques, achieving a significant increase in land revenue, which grew fivefold between 1830 and 1890. This had been made possible thanks to the improvement of the roads, which had linked Montaldeo to the rich markets of Genoa and Lombardy. The increase in income was not the result of investments from the landowner, but from the farmworkers' labour, who either worked in order to repay their debts to the property owners or who were contractually obliged to plant new vines. The result was the further extension of noblemen's property between 1830 and 1894 and an increase in their income, which rose from 8,955 lire in 1830 to 47,282 in 1880.⁷⁰

Can these outcomes be applied to other aristocratic families with estates in the hills of Piedmont? One may answer yes, because the orientation towards wine production also emerges in other cases, such as that of Durazzo Pallavicini and +Spinola. But it seems that the attention to improving the quality of the product and thus the awareness towards the introduction of more sophisticated technical-scientific knowledge increased over time. Research into these archives has just begun, but we can say that this attention already present in the pre-unitarian years was strengthened in the following decades. Initially, the goal was to produce wine to supply the Genoa market without paying much attention to quality but seeking profit by simply extending the vineyard areas. Later, the businesses, as the case of Durazzo Pallavicini shows clearly, intensified their interest both in agricultural and industrial practices, through the growing use of chemical treatments to combat diseases in the vineyards, constant attention to the advancement of scientific and technological knowledge (subscription to specialised magazines and the

⁶⁸ The bibliography is very wide, we just quote ZANINELLI 1990, PAZZAGLI 2004.

⁶⁹ Istruzioni per l'agente d'Ovada, 1848, armadio 6, Box 16 G, Archivio Spinola, Galleria Nazionale di Palazzo Spinola, Genova (ASpG).

⁷⁰ DORIA 1966, p.174.

continuous purchase of books on agriculture) with the recruitment of qualified oenologists from the famous Conegliano school, to whom Durazzo Pallavicini entrusted the management of the cellar. In 1881 this family established the 'Emporio vini di Pegli', a wine-making company, to sell wines throughout Italy and abroad, and by 1890 Durazzo Pallavicini merged this company with the Deutsch Italienische Wein Import Gesellschaft to expand the business on a more international level;⁷¹ but one can also note the case of Spinola who together with other Genoese patrician families established the Consorzio Cantine Castelli Alto Monferrato at the beginning of the twentieth century.⁷² Indeed, wine prices were rising from the 1840s and improvements of the infrastructure (railways, roads and canals) lowered the costs of transport, making it profitable to specialise in wine production. In other parts of Piedmont and Tuscany too, the nobility's interest for wine was high. One only has to think of the innovative experiments undertaken by the Marchese Filippo Asinari San Marzano, in Asti since the Restoration or by Baron Ricasoli in Chianti.⁷³

The Genoese noble families, however, possessed vast farms even in irrigated areas of the Pianura Padana and presumably they participated in the renewal process led by landowners and tenants analysed several years ago by Romeo.⁷⁴ It is worth noting, despite incomplete documentation, the experience of the Marquis Giacomo Balbi Piovera, who in 1832 inherited from his father a property of more than 1,400 hectares in the Alessandria plain, and who invested in hydraulic works, introduced stable meadows, alfalfa in rotation, rice fields, built new barns, increased the number of livestock, and modernised the production of silk.⁷⁵ The estimated value of the property in Piedmont increased from about 1,458,000 lire in 1808 to 3.3 million lire in 1858.⁷⁶ These fragments illustrate that over time agrarian income was probably not increased simply by intensifying the farmworkers' work, but also through capital investments.

This case seems meaningful to illustrate the behaviour of a non-marginal group of liberal noblemen whose political actions for the renewal of society and the unification of the country intertwined with innovative economic choices aimed at modernising agro-industrial production. Giacomo Balbi, a heir to one of the most powerful families in Genoa during the 17th century, was a liberal politician who played a leading role in the events of the First Italian War of Independence, also holding military positions. After 1849 he decided to devote himself more to the business, especially that of silk, one of the key products of the economy of northern Italy until the beginning of the twentieth century. In 1853 he completely renewed the production of silk within his property, building a steam silk reeling mill with 100 basins with mechanised motion, aiming to produce silk of high quality for organzines, at that time the most valuable semi-finished product of the European market, by considerably expanding the scale of production. This was the typical choice of phase for the overall modernisation of the silk industry, whose protagonists were industrial entrepreneurs and agricultural owners in northern Italy⁷⁷. Already in 1855 his silk won awards at the Universal Exhibition of Agricultural Products, Industry and Fine Arts in Paris. The investment was about 60,000 Piedmont Lire (1 Piedmontese lira = 1 French franc). He employed more than 150 staff, using cocoons produced in his property, or received from his farmers as part of the rent or which were bought at the town market. Every year he needed a working capital of

⁷⁷ Tolaini 1994.

⁷¹ Copialettere 1880-1886 and 1886-1890, Fondo Durazzo Pallavicini. Archivio Durazzo Giustiniani Genova, Fondo Durazzo Pallavicini.

⁷² See n. 10/4; 8/814, ASgG.

⁷³ Some brief notes on San Marzano in GADDO 2013, pp. 46 et seq. On Ricasoli, BIAGIOLI 2000.

⁷⁴ ROMEO 1977, II, 1, 14 e sgg.

⁷⁵ Essential biographical information on in CALVINI 1963. The description of the large Piovera estate is in *Fondo Balbi Piovera*, n. 32, Archivio di Stato di Genova (ASG).

⁷⁶ See n. 26 for the datum of 1808 e n. 32 for that one of 1858, *Fondo Balbi Piovera*, ASG.

about 100,000 lire to buy the cocoons, which was financed by bankers, such as his good friend Duke Raffaele De Ferrari, or by large silk entrepreneurs, to whom he was often entrusted with the sale of the product. The quality of production attracted the attention of the great operators of the sector, such as Alberto Keller, a silk entrepreneur and banker in Milan and Turin, who became his point of reference towards the end of the 1850s, and with whom he exchanged lengthy correspondence on silk market trends.

Balbi is similar to other landowners of the period who became entrepreneurs, spending much more time on their possessions and considering land as a means of production, not just a sign of status, as it emerges in the study carried out by G. Biagioli on Bettino Ricasoli, an agricultural entrepreneur and political leader of absolute grandeur, who among other things invented Chianti wine. It is certainly not the case that Balbi came into contact with Bettino Ricasoli when, like thousands of great landowners at the time, he faced the problem of pebrina, a silkworm disease that threatened the European silk industry's agricultural bases. In a desperate search for healthy silkworms eggs which began in 1855, Balbi started a series of experiments to find out which kind of silkworms he should breed to produce cocoons for reeling silk and, after several attempts, he established a relationship with Ricasoli, who, thanks to good breeding techniques, became one of the few landowners who for some years had sold very good silkworms eggs. Ricasoli became the leading supplier of healthy eggs for Balbi, who also bought a large quantity for other Piedmontese and Lombard breeders. Later in the early 1860s, when this supply source failed, Balbi, like other landowners, became a shareholder in the companies which began to buy silkworms eggs in Japan.

These relationships show the existence of networks of landowners, many of whom were noblemen, through which knowledge, practices and information were passed, creating a favourable environment for the modernisation of agriculture. But through these networks political issues were also passed that were central to the process of national unification: many of these noblemen were among the prominent figures in the development of agricultural and economic associations, the publication and the diffusion of agricultural journals and of the organisation of the Italian Scientists Congresses, deemed by many historians to be essential in the Risorgimento, where political interests joined scientific, technological and economic needs.⁷⁸ It is interesting to note that part of the Genoese nobility, of which Balbi was an essential component, became actively interested in the dissemination of agricultural knowledge, participating in the Associazione Agraria subalpina, which combined support for the agricultural progress and dissemination of technical and scientific knowledge with social modernisation objectives, representing one of the first arenas of advanced political and economic debate in preunitarian Italy.⁷⁹ In 1845 out of 55 Genoese members, there were no less than 22 noblemen.⁸⁰ They were among the main leaders of the Comizio agrario of Genoa, established in June 1843. which was a branch of the Association, in which they covered leadership roles; ⁸¹ and in 1846, Genoese noblemen played a leading role in the organisation of the eighth Italian Congress of Scientists in Genoa.

⁷⁸ Among these Lorenzo Pareto, Massimiliano Spinola and Francesco and Camillo Pallavicino. One useful publication on these conferences is FUMIAN 1995. ⁷⁹ We refer to the still relevant pages of ROMEO 1977, II, 1, 83-115.

⁸⁰ The number is derived by counting the Genoese nobles admitted as members in the meetings of the Association from January 1844 until the end of 1845, published in the "Gazzetta dell'Associazione agrarian".

⁸¹ The president was marchese Lorenzo Pareto, a nationally renowned geologist, while marchese Ademaro De Mari was its treasurer. In February 1847, Ignazio A. Pallavicini was vice-president. Among those who wrote in the Gazzetta dell'Associazione agraria Giacomo Balbi Piovera and Massimiliano Spinola, an internationally renowned entomologist.

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