

Department of History and Civilization

ITALIANS IN INDIA 1860-1920 Trades, Traders, Trading Networks

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INTRODUCTION

This thesis stems from my previous engagement with the study of the economic enterprises of Italian silk-traders in India. During my studies at the university of Pisa I was directed by my then advisor to the study of sericulture, and particularly to the activities of Italian sericulturists abroad. However, the original research-project that I had in mind when I began my PhD was broader, and in some ways more ambitious, and also included Greek traders. In the end, for several reasons, I decided to focus exclusively on Italian traders, leaving aside the part on the Greeks which I considered at odds with general structure of the thesis as I have refined and re-elaborated it in the last three years.

The work here presented therefore deals with the economic and commercial activities of Italian traders in British India from the 1860s to the 1920s. When confronted with the problem of selecting which type of traders I had to include in my study I choose to work on silk and coral traders. A general study on all the Italian traders active in India would have required much more time, and more archival research, both beyond the possibilities of a doctoral student. The rational behind this choice is explained in detail in chapter 2. Silk and coral traders have been taken as representative of the *Italian way of doing business*, or at least of the Italian ways of doing business in India between the 19th and 20th centuries.

My research presented four main difficulties: the first was the correct identification of the main issues or to put it as my supervisor at the EUI once did, the questions that I wanted to answer. Although I totally subscribe to the idea that to be a historian means, essentially to answer questions, I have always considered this only the second stage in my work, the first being the acquisition of 'knowledge'. By knowledge I mean the simple process of knowing. A comprehensive knowledge of facts and events must necessarily prelude to the analytical process. I felt the problem of 'knowledge' with a particular urgency as the secondary literature on the activities of Italian traders in India was not satisfactory; the few existing academic works dealt with Italian missionaries and travellers rather than with traders. It was also for this reason that from the beginning, I have had a privileged relationship with mys sources. It was only after two and a half years of intensive archival research, which enriched my knowledge of the topic I was dealing with, that I entered the second stage of my work: the

analysis, that is, the answering of questions. At that moment I was able to clearly identify which were the major issues that I wanted to tackle. It was precisely then that a myriad of questions took shape in my mind. Most had to do with the formation and structuring of trading networks, others were linked to Indian economy, and its economic growth during the British Raj. I have attempted to answer the most important ones, in most cases privileging those related to the network as a form of business organisation.

The second main difficulty I had to cope with was how to fit the ideas of India, and especially of Indian economy that I was forming while exploring the activities of Italian traders into the existing literature of the British Empire. In many cases – certainly more than I was expecting- these ideas did not correspond to what I had read or studied. The picture of India that emerged from my research was of a very complex country with different economies. Such complexity, full of contradictions, seemed to me the most interesting trait of Indian history. What initially struck me was the strength, and the power of Indian economic operators in a period which is often depicted as entirely dominated by British or other European trading houses. Secondly, I was surprised by the massive presence of Japanese traders who were able to circumvent and challenge Western alleged dominance. Their impressive state-sponsored commercial machinery worked in India with an amazing degree of efficiency, and the links that many Italian traders had with Japan and Japanese firms gives evidence of the role that Japan was going to play in the Indian Ocean from the late 19th century onwards. Similarly, I was surprised by the capacity of German traders to operate in the Indian market. In the second half of the 19th century they were undoubtedly the most successful European economic operators in India; and their success was striking and provided a model for many Italian economic operators. Interestingly enough, both Japan and Germany followed similar patterns of state-backed economic growth.

Each of these factors, of which I was not completely aware of before starting this research-project, led me to reflect on the fact that Western historians often loose sight of the multiple relationships (social, economic, and cultural) that linked India to the rest of Asia, and to those parts of Europe which took no part in colonial adventures and overseas expansion. The tendency to look at India through the lens of colonialism, that is to say, through the eyes of European colonial powers, is still too rooted to allow us to clearly see, and admit that the picture was much more complicated. Furthermore we should abandon the simple

contraposition colonisers/colonised as a tool for the investigation of Indian history and civilisation in favour of different patterns of analysis which should take into account the complexity, and specificity of India and her linkages with other Asian civilisations. Nor have Indian historians, who have often called for a new, and more balanced approach to Indian history, sufficiently clarified the necessity to completely free ourselves from some prejudices, and predispositions which heavily impinge upon our capacity to understand, and write Indian history beyond existing, and abused historiographical models.

The third challenge I faced was related to the role of the Mediterranean as a space of economic, and commercial interaction. Italian traders were deeply rooted in a 'Mediterranean economy'. The investigation of the links that these traders had with the Mediterranean Sea made me rethink its role as a bridge-head between Europe and the Indian Ocean which appaered to have remained central in the 19th century. Most of the commodities exported and re-exported to India in the 19th and 20th centuries by European traders were Mediterranean products, and the linkages that Mediterranean economies had forged with the countries of the Indian Ocean rim were not suddenly broken by the emergence of the Atlantic economy. Rather, they continued to play an important, though subterranean, and thus less visible, function. In this regard, it would be perhaps helpful to restate the importance of the Mediterranean as a crossroad of economic and commercial flows in the 19th and 20th centuries.

The fourth difficulty I had to tackle issued from the relationship between Italian traders in India, and their home-country, that is the post-unification Italy. As soon as I had collected a sufficient volume of documents on the activities of the Italians on the Indian subcontinent, I began to reflect on a number of issues which I had taken for granted. The first related the consequences, particularly those relative to the economic growth, of the unification of the Italian peninsula under the Piedmontese rule. While the modalities and the outcomes of Italian unification attained new significance to me, some of the myths about the importance of such a process for Italian economic development began to lose their appeal.

In the beginning, I aimed to avoid any direct involvement with the Italian history, though it remained in mind as a point of reference to understand certain features of the Italian traders' business organisation. But when questions about the controversial relations that linked Italian traders to their home-country became too pressing, I was forced to deal with them. What

emerged from the wealth of sources on Italian economic operators active in Asia, and particularly in India (I have included this archival material only partially in this study), is the picture of a country unable to favour dynamic patterns of commercial development; a country whose economy was penalised by an unbalanced political unification; a country whose mercantile and maritime vocation was frustrated by ill-judged policies; a country which did not support its economic operators abroad, particularly those active in Asia. This was an unexpected by-product of my research for which I was unprepared. Moreover, being primarily concerned with Italians in India I was unsure whether to tackle or not this issue, but in the end I felt that this had to be somehow included in this study. For the sake of coherence most of the issues related to the relationship between Italian traders in India and Italy have been left aside, and I kept only those which I considered central in chapter 2.

I am not sure whether I was able to overcome the difficulties listed above. A number of the flaws of this work derive precisely from them. As it stands, the thesis has a number of limits easy to perceive. The first one is the structure. The narrative is not always linear as it should be or as I wanted it to be. Two chapters to introduce the main topic are unusual, and may divert the reader's attention from the main argument. Secondly, the two parts are not equally developed; the section on the Italian silk-traders is longer, and perhaps better articulated; chapter 3 breaks the narrative, and introduces new themes useful to grasp what comes next in chapter 4 and 5, but is somewhat distant from the main argument; the second section is more 'experimental' being based on a very heterogeneous material, including 'oral sources'. For this reason it is shorter, and less developed than the first. Thirdly, the mix of public sources, private business records, which were not easily accessible, and memories of coral manufacturers whom I interviewed posed a real challenge. The combination of such diverse sources created some analytical and methodological problems. Not all of these problems have been overcome successfully.

This work has a marked explorative character and does not provide an answer for all the issues that it raises. Some arguments are left as open issues in the hope that a more comprehensive and deeper survey of the presence of Italian traders in India, and in Asia in general in the 19th and 20th centuries will follow. In this regard there is much left to do.

<u>1.</u>

STATE, EMPIRE AND TRADE IN A COLONIAL CONTEXT: BRITISH INDIA.

The exploration of the activities of Italian traders in British India requires a preliminary discussion of the relationship between foreign trade, economic and commercial policies, institutional arrangements, and colonialism. The analysis of the interrelation between British imperial system, and the organization and structure of trade in a given colonial setting, namely the Indian subcontinent, is important to grasp certain aspects of the economic behaviour of Italian traders. Italians in India had to cope with a system which was designed to allow British traders to operate as comfortably as possible in the local market. Therefore, when operating on the Indian subcontinent they immediately opted for entrepreneurial strategies, and patterns of business organization meant to minimize the disadvantage that derived from their 'outsiders status. By and large, Italian traders tried to overcome such hindrance by relying extensively upon a network-based organisation whose key- features were the close links with Indian native a tendency to be extremely open to commercial alliances with ethnically, culturally and religiously different economic actors even in a context marked by a high degree of racial discrimination as was India in the second half of the 19th century; a steady and complex micro-network back in Italy which gave them sufficient stability, and confidence to operate abroad; the role of the family as the main underpinning of the business activities; ad hoc strategies based on the knowledge of trends in the local as well as in the international market. A network-based business organization of this type gave to the Italians the flexibility they needed to overcome the structural disadvantage they experienced while working in India. This disadvantage was mostly due to the colonial domination to which the country was subjected. Colonial rule, in effect, impinged on the Indian economy in many ways, and such impingement was perceived by most Italian traders as fundamentally constricting. British colonial rule displayed its constraining function mainly in the institutional arrangements meant to govern economic activities. By looking

at the role of institutions in favouring economic activity broadly understood, and at the intertwinement of political power, and private business enterprises in the colony, this chapter suggests that the British Empire brought a vast array of benefits to the mother country's economic operators which were able to operate more comfortably than any other traders.

The role of institutional arrangements, in particular, was beneficial to British traders. Creativity, innovation, entrepreneurial spirit, and personal capacities and skills are doubtless backbone of every business enterprise, however, several hexogen factors can affect economic activities, and powerfully determine the success or failure of business enterprises. Institutions, trade and economic policies, and social forms of human interaction, for instance, play a significant role in turning a simple business into a successful enterprise. Institutions, above all, have been perceived as key-variables in creating suitable conditions for entrepreneurial activity to emerge, and have thus been considered as potentially conducive to modern economic growth, since the behaviour of economic operators as well as their strategies are directly linked to the institutional conditions under which they operate. The sensitivity of economic operators to normative frameworks, and changes thus makes institutions a particularly important element in propping up modern economic growth Recent research in the field of the N.I.E. (New Institutional Economics) has claimed that institutions, and especially the institution par excellence the State, can make an important difference in terms of economic performances². In effect, institutional frameworks shaped and created by the state have bounded the territory within which business enterprises operate, establishing the cooperative and competitive relationships which constitute an economic order. chapter concentrates on how certain institutional arrangements within the British empire positively influenced the activities of British traders engaged overseas. More precisely, its the role played by the colonial state in supporting overseas trading activities within the British Empire, and in creating conducive conditions in the colonies for British traders to operate. The colonial state is not perceived here as a monolithic entity which acted according to a the metropolitan will separated from the local context; it is viewed rather

¹ Eggertson, T., *Economic behaviour and institutions*, Cambridge, 1990; Werin, Lars *Economic behaviour and legal institutions*, Singapore, 2003; Furubotn, Eirik G., *Institutions and economic theory:* the contribution of the new institutional economics, 2005.

² North, Douglass C., *Institutions, institutional change and economic performance*, Cambridge, 1990.

as the outcome of the interaction between different types of social actors, colonizers and colonized, foreigners and natives, British and non-British, agents and subjects and so forth. Obviously some actors had more agency than others, and were more capable of influencing the system or better pursuing their goals, but this does not change the nature of the colonial state which remains profoundly dynamic. Within this dynamic, what matters most for the sake of this study is to look at how and to what extent specific groups, namely entrepreneurial and commercial lobbies among the colonizers, were able to exercise their agency in order to promote in the framework of the imperial system a set of institutional, political and economic arrangements favourable to their own activities. The key-argument advanced is that the British Empire generated favourable conditions for the mother country's enterprises to work enabling them to achieve better profitability results. A subsidiary argument is that trading enterprises of the colonized country as well as potential competitors from outside the empire were, generally speaking, placed at a disadvantage. Here the claim is not that British firms active in India in the second half of the 19th century "have enjoyed a hegemonic control over large swathes of the Indian economy because of their close ties to the colonial regime 3", - as the British never enjoyed a hegemonic control over Indian economy, and even when they gained a predominant position in some sectors this was just a 'drop in the ocean' - but rather than the empire was an external factor capable of incfluencing, and divering Indian economy by means of specific political, and institutional arrangements. In a nutshell, the empire can be seen as an important competitive advantage which allowed British trading companies to comfortably operate in the Indian market.

Exploring the link which bound the colonial state, the imperial system, and commercial enterprises is a way of directly assessing the issue of the interconnection between political and economic factors in the making of business activities. There is little doubt that politics and economics have ever been highly interlocked, and have reciprocally influenced one another. They have also interacted with other aspects of human formations generating the institutional frameworks within which business and entrepreneurship, as major components of a broader economic activity, had developed and organized themselves. Institutions have had a great relevance in encouraging, upholding and securing business activities or

³ B.R. Tomlinson, "British business in India, 1860-1970", in Jones, G. and Davenport-Hines, R.P.T. (eds), *British business in Asia since 1860*, Cambridge, 1989.

conversely limiting, and hindering them. Business activity in turn has influenced political and economic life, trying to modify given institutional structures every time these were insufficiently conducive. The dynamic of such mutual influence, considered interdependence appears quite clearly in the way commercial enterprises have worked jointly with the colonial state to create seaborne empires in the modern era. The empire-building process owed much to the pressure exerted by powerful lobbies, which represented the interests of financial and merchant elites, on their own governments in order to gain protection, and support for their trading traffics, and commercial activities overseas. More importantly, those groups in turn obtained far-ranging advantages from the colonial empires, exploiting the imperial system to further pursue their interests and better achieve their goals. Colonial empires, and the deriving notion of imperialism have been the subjects of extensive debate among scholars⁴, and broad and detailed surveys have attempted analyse imperialism, and its multiple effects. Although some discordances among academics, the role of economic motives, mostly related to the internal development of the European economies, has been amply acknowledged⁵. The acquisition of overseas territories, therefore, was mainly driven by the needs of the European capitalistic economies, and the growth of European private commercial interests in extra-European regions was part of such development, indeed a very important part. As soon as commercial expansion was perceived as an important factor in sustaining European internal economic growth, it became an overriding goal to safeguard, and support the presence of European economic operators overseas. Securing and widening commercial interests often required formal control on increasingly wide extra-European territories. Such control was mostly gained through military intervention which gradually turned vast regions strategically important European economic interests into colonial possessions. The modalities of colonial annexations show how close the link between leading commercial interests and overseas expansion was.

⁴ Barratt Brown, M., *The economics of imperialism*, London, 1974, *Essays on Imperialism*, London, 1972; Fieldhouse, D.K., *The theory of capitalist imperialism*, London, 1967, *Economics and empire*, 1830-1914, London 1973; Owen, R.G., and Sutcliffe, R.B. (eds), *Studies in the Theory of imperialism*, 1972; Pares, R. "The economic factors in the history of the empire" in E.M. Carus Wilson (ed) *Essays in economic history*, vol. 1, 1962;

⁵ Economic factors and motives, however, do not account for the overall European overseas expansion. Search for power and prestige, military and strategic reasons, and other non-economic factors also greatly contributed to the empire-building process.

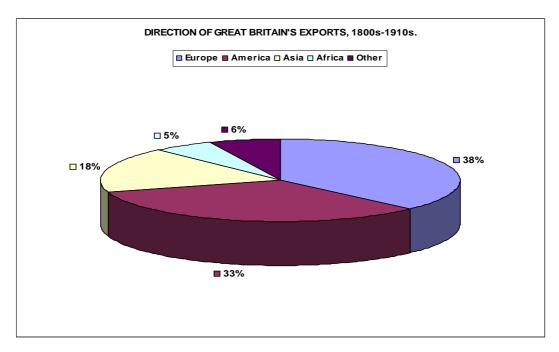


Fig. 1.1: Direction of Great Britain's Exports, 1800s-1900s. Source: Mitchell, B. R., *British historical statistics*, Cambridge, 1988.

The role played by commercial interests in thrusting European states towards a growing colonial expansion in Asia, Africa and America in the early modern period did not come to an end in the 19th century. Within the British empire, for instance, overseas commercial interests continued to play a key role in colonial expansion until well the 20th century, and international trade provided a remarkable input to British economic development. It is a matter of fact that a considerable share of British export trade was with extra-European territories, in particular with Asia and in America (Fig.1). Some of those territories were under British formal rule, others were linked to the empire through a system of informal dependence which allowed Great Britain to hijack their economies in order to serve her own purposes⁶. In the mid-nineteenth century industrial interests came to the fore as a result of a

⁶ Cain, P.J. and A.G. Hopkins, "The Political Economy of British Expansion Overseas, 1750-1914" in *The Economic History Review*, Vol.23, No. 4, Nov. 1980.

more intense industrial growth, and gradually mingled with purely commercial interests, which had in the meanwhile successfully merged with financial interests. The combination of the multiple interests of the City's financiers, commercial elite and industrialists became an influential factor in shaping metropolitan policies and attitudes towards the colonies as a result.

British largest customers and as the chief recipient of British overseas As one of the investments after Europe, India was the hub of the international trade system built by Great Britain in the 19th century. Furthermore India was essential in balancing British trade balance with China, which would otherwise have been passive. The terms of import-export trade between India and Great Britain moved around 10% to latter's favour by the 1870s (Fig1.2), and British business activities in India served as input to British domestic growth⁷. The importance of India in the international system built by Great Britain is reflected in the growing number of British firms which established themselves on the subcontinent throughout the 19th century. A quick look at the Indian commercial directories-especially those of the major seaports- shows the rise of India as the most important site for British business activities overseas. From 1830 onwards the presence of British private traders grew remarkably, with a significant acceleration after 1858. In 19th century India British commercial and economic activities took two main forms: British registered companies, and Indian registered companies⁸. The former were companies headquartered in Great Britain which handled several business activities abroad, usually in no more than one country⁹; the latter were companies established by British who resided in India¹⁰. There were also international trading companies which operated through a net of agents and branch-offices all over Asia, and owned assets in India as well as in other Asian countries. All these firms had close links with the London credit market, with British overseas banks, and generally speaking their activities were profoundly embedded in the imperial system. London, the core of the empire, was also the hub of those firms' business. By looking at the flows of capital between Great Britain, her colonies and the rest of the world, Chapman has defined these companies, and

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⁷ Lance E. Davis and Robert A. Huttenback, *Mammon and the pursuit of empire : the political economy of British imperialism, 1860-1912*, Cambridge, 1986.

⁸ M. Wilkins had defined British expatriate firms as "free-standing companies". See Wilkins, M. and Schoter, H. (ed), *The Free-standing company in the world economy*, 1830-1996, Oxford, 1998.

⁹ These commercial operators were often country -oriented firms.

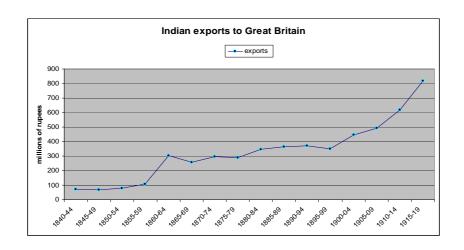
These two categories aside, in 19th century India there were also British overseas banks, multinational companies which had partly outsourced their activities in the colonies, and other business enterprises.

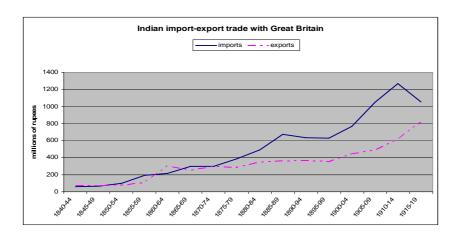
above all the merchant elite behind them, as 'investment groups' 11, stressing their ties to the British financial environment of mid-nineteenth century. Jones has proposed a more comprehensive definition centred around the concept of 'business groups' 12 regarded as groups which did not perform a mere financial function, but rather a set of economic and commercial activities within the territories of the empire. These groups were defined by an array of similar socio-economic attitudes, and practices, which made them a well identifiable if not homogenous group. Both British- registered companies and Indian-registered companies operated within a system which was designed to a great extent to favour them, and which they could and actually did influence.

In British India a set of certain political, social and economic principles deriving from the colonizing country, and implemented by the colonial rule framed most of the economic, and commercial relations between the colony, the mother country and the external world. This institutional framework turned out to be advantageous for British expatriate firms as well as for their economic activities. But the empire as a system discharged a far more complex function at a socio-political and cultural level.

¹¹ Chapman, S.D, 'British-based investments groups before 1914', in *The Economic History Review*, Vol.38 (may 1985), pp. 230-251. 'Investment groups in India and South Africa', *The Economic History Review*, Vol. 40. (May 1987), pp. 275-280.

¹² Jones, G. and Wale, J., *Merchants as business groups: British trading companies in Asia before 1945*, University of Reading Working Papers, 1998.







<u>Fig.1.2</u>: The charts provide quantitative information on the trade (merchandise only) between Great Britain and India, from 1840 and 1920. The data are taken from the *Statistical Abstract of British India*, compiled annually by the India Office, and from the elaboration made by Mitchell B. R., *International historical statistics : Africa, Asia & Oceania, 1750-2000*, New York, 2003.

1.2. The empire as competitive advantage

The multiple function that the imperial system performed in 19th century India can be summarised as follows: on the one hand, it set in motion a gradual modification of pre-existent political, and administrative institutions, by exporting new legal principles grounded in the colonizing country's culture, and more generally in the western tradition. The final outcome was the creation of new colonial institutions which replaced the local ones or more often merged with native practices of governing, administrating and enforcing law¹³. Put it differently, it can be said that the imperial system impacted on Indian society deconstructing the structural relationships which kept together native social formations, and reconstructing them according to new principles.

On the other hand, the empire also played an economic role in the redefinition and systematization of a new international economic order. In the new economic order India's economic and trading relations with the West, especially Europe, were managed almost wholly through the intermediation of Great Britain, and British commercial houses gradually dominated the trading routes between the Indian the Mediterranean and the Atlantic. The century-old relationship between India and a substantial part of the western world resulted altered to a great extent. Despite the outstanding dimension of such alteration, the empire failed to exert complete control over the Indian economy. In effect, the real strength of the British was their political, and administrative power rather than the capacity of deeply penetrating, and dominating the Indian market. Generally speaking, there are at least two ways of dominating a third country's market: a real economic penetration of the local market, which implies among other factors, alteration of traditional productive structures, modification of production and distribution channels, reorganization and reorientation of consumption patterns, etc..; and a political control of the market, which is directly linked to the loss of sovereignty experienced by the subjected country, and entails no crucial structural changes. In this case superficial modifications can be detected in the market organization, especially in the way the domestic market is linked to foreign markets. In British India both forms co-existed, but the political control of the market was clearly decisive.

Looking at the evolution of the British presence in India over time, it can be noted that Great Britain was never able to exercise a full control over Indian economy, but succeeded in gaining control over some economic sectors that were strategically important for British traders. Such control,

¹³ Boggs, Th. H., "The Government of India", in *Political Science Quarterly*, Vol. 26, No. 2 (Jun. 1911); Ram Gopal, *British rule in India: and assessment*, London, 1963.

however, was unchallenged only for a relatively short time-span; that very same time-span during which Great Britain enjoyed an almost unrivalled economic growth which allowed her to stand as the first among the western countries. By virtue of a precocious and rapid industrialisation in the early 19th century, Great Britain outstripped other European countries, and arose internationally as a firstclass economic power. In that period the British capability to control foreign markets, whether they formal colonies or independent countries bound to Great Britain by bonds of informal dependency, was very high because there were no real competitors which could seriously endanger British economic paramountcy. But in the last decades of the 19th century when a new and more intense wave of industrialization began in Europe and elsewhere, involving countries whose economies had hitherto been marginal, Great Britain's position as an economic power began to change. With new countries swelling the ranks of the 'industrialised powers', Great Britain was forced to re-design her international economic role, and fight commercial competition from countries such as Germany or Japan, which arose as powerful competitors in Asia, and particularly in the Indian Ocean. German and Japanese traders entered Indian market quite late, by the end of the 19th century, but in the early 20th century they had already gained a dominant position. German traders, in particular, played a very active role in the trading traffics between the Mediterranean and the Indian Ocean¹⁴. Thanks to an advanced industrial growth, large capital to be invested abroad, a very favourable national institutional framework¹⁵, and the strong support of the state, they managed to achieve an enviable position within the Indian market. The competition of German and Japanese traders for specific class of products, such as textiles, dyestuff and chemicals, just to name the more important ones, became fiercer in the first decades of the 20th century. As a consequence, Great Britain's grip over India economy, which had seemed strong and all-embracing, slowly loosened. When the changes briefly sketched above occurred, Great Britain had already established a solid imperial system of socio- political and institutional control which acted as a shield for its economic interests, prevented foreign traders from gaining a prominent position at least until World War I¹⁶.

This study seeks to emphasise the constraining role of socio-political forms of domination and institutional arrangements as powerful determinants of the economic subalternity experienced by a

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¹⁴ Italian exporters often complained about the fact that a great share of Italian products sold in India were exported by German trading houses.

¹⁵ By the end of the 19th century company law in Germany was more advanced than in other European countries.

¹⁶Unfortunately, the presence of German and Japanese traders in India is an under-researched topic. Given the lack of accurate and detailed studies on the matter, it is rather difficult to assess the impact that these traders had on the Indian economy. The few works in the field of the direct foreign investments in India from the mid-nineteenth century to the Second World War offer a partial insight into the rise of German and Japanese traders as competitors in the late 19th century Indian Ocean.

wide –range of economic operators were they Indian¹⁷ or foreign traders. Moreover, it suggests the need for a more balanced approach to Indian economy in the 19th and early 20th centuries, which cannot be reduced to a binary relationship between colonisers and colonized, between India and Great Britain. The complexity of Indian economy deserves to regarded in its completeness, avoiding the pitfalls of biased views which consider India at the mercy of an alleged supremely powerful Great Britain.

By and large, the economic *agency* exerted by the empire on the Indian economic life was neither pervasive nor all-embracing. It was rather more intensive and geographically circumscribed and, as already stressed, limited to some sectors. Its short, and long-term effects were more visible in those areas where the presence of colonizers as well as the concentration of their economic activities was more intense such major seaports, major urban centres, coastal regions. Large parts of the subcontinent, such as rural areas and zone of minor strategic importance, were hardly touched by the new forces unleashed by the British colonial rule.

The imperial system performed a major function in smoothing the process of adaptation to the Indian market to the benefit of the colonizing country's trading operators. Adapting requirements of a new market other than the home one, and adjusting to the rules of an alien economic environment was an essential aspect in the making of overseas commercial activities. In the early modern period foreign traders operating on the Indian subcontinent had to get used to a widerange of practices of conducting business which were different from those they were familiar with. the high degree of regional diversity in such practices, the variety of informal institutions which governed trade exchanges, and the broad and complex net of personal relationships through which information flowed represented concrete difficulties for outsiders. The presence of a large number of commercial intermediaries¹⁸, who effectively bridged the gap between foreign traders and the Indian marketplace, made things easier. But exclusive reliance on intermediaries was hardly ideal from the point of view of external traders. First of all there was the problem of lack of trust to overcome when settling a trading transaction. Secondly, the intermediation of local merchants acting as brokers, though absolutely indispensable in most cases, prevented European traders from getting full and direct access to the production, and distribution channels. Proficiency in Indian languages, a good knowledge of native institutions governing economic transactions, familiariy with local customs and tradition was thus vital to carry out commercial activities in India, and was an

¹⁷ Needless to say, some Indian economic actors largely profited from the collaboration with the British, and the imperial system offered them the chance to consolidate and widen their business.

¹⁸ Banyans, dusbashes and brokers of any sort, were central figures in the Indian major seaports, and the role they played in allowing external traders to enter the Indian market especially in the 17th-18th centuries was extremely significant.

important part of the training of most European traders¹⁹. However, adapting to the new economic environment, and its rules was a time-consuming and cost-ineffective activity. In the second half of the 19th century, once established, the British empire had already smoothed this process of adaptation, making it less essential. It reversed the problem: the market, and more generally the local economic environment had to be gradually adapted to the needs of foreign traders, notably those belonging to the colonizing country. The modification of the colonial market to meet externally generated needs was a crucial process. It was not a substantial modification of the economic structures, but rather a multifaceted change which a marked socio-cultural dimension. accomplishment of this process of modification appears to be confirmed by the dwindling role of Indian merchants acting as intermediaries for British traders. Some scholars have noticed that in the second half of the 19th century Indian intermediaries in trade and finance began to lose their importance, and the crucial function they had previously discharged was no longer required. ²⁰ The intermediation of Indian merchants who in the 18th century had provided the financial basis for the EIC, and private traders to operate in India became less relevant, and British companies could prosper without them. The role of indigenous intermediaries in providing commercial opportunities, and in allowing British traders to pursue their activities, also progressively dwindled throughout the 19th century. However, for some foreign traders - and the Italians are a case in point- Indian merchants and bankers continued to play a very significant role well after the end of the 19th century. Italian traders were often in very good terms with several Indian trading castes, to whom they were linked by close ties of cooperation and friendship. For Italian traders Indian merchants represented a sort of access-key to a market which was otherwise difficult to penetrate. The dense and complex cooperative relations that the Italians established with Indian economic operators seems to further strengthen the hypothesis that the Empire set up a system comprising of a gamut of social, cultural and institutional services, that were mostly, if not exclusively, conducive to British traders.

The British empire played also a very important role on a broader level. It was effective in connecting together diverse and geographically distant socio-economic contexts, binding them to a broader network of relationships, namely the imperial system. By doing so, the British empire promoted a form of globalisation which can be defined, borrowing the expression used by N. Ferguson in his praising, and nostalgic work, *anglobalisation*²¹. Despite being openly biased, the work by Ferguson had the merit of drawing attention on the 'globalising' character of the British

¹⁹ EIC's servants, for instance, were specifically trained to acquire an adequate knowledge of the Indian economic environment and to acquaint themselves with Indian native ways of conducting business.

²⁰ Bagchi, A.K., *The evolution of the State Bank of India*, 2 Vol., Bombay, 1987; Misra, M., *Business, Race and Politics in India*, c1850-1960, Oxford, 1999.

²¹ Ferguson Niall, *Empire: the Rise and the Demise*, London, 2004.

Empire. Obviously, the role of the Empire as carrier of an early form of globalisation was at times ambiguous, and in some cases, and under special conditions it was not as globalising as it was believed, acting rather as a major factor of de-globalisation²². However, the globalising power of the British Empire as a whole is clearly perceptible in the way the imperial system conveyed British culture, language, traditions and institutions world-widely, imposing a new set of values over foreign peoples by means of colonial rule. In this regard, the process of *anglobalisation* was profoundly coercive.

From an economic standpoint what matters the most is the spread of British institutions in the colonies. Generally speaking, the imperial system was organized on the basis of rules and regulations dictated by the colonial state, which provides the institutional and normative framework within which economic transactions took place. It could be hardly otherwise, as the empire as a system created, implemented, and governed by a national state, was directly related to the state from which originated. What the empire made available for British commercial enterprises operating in the Indian territories was in practice a wide-range of facilities/ services²³ not very different from those they experienced at home. These international services included "peace, safe access to international waterways, international laws for the protection of property rights, an open regime for foreign trade, and an international monetary system"²⁴. Among all the facilities that the empire provided, those listed below are fundamental to fathom why the empire can be considered an important competitive advantage:

- a) The introduction of a common language.
- **b)** A legal system deriving from that of the colonising state. Civil²⁵ and criminal law, and above all mercantile law patterned upon those already in force in the mother country.
- c) A set of common rules regulating economic transactions based on normative principles borrowed from the western tradition.
- **d**) A formal banking system, and credit access on the basis of the colonising country financial practices.

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²² The case of the Indian silk-industry in the second half of the 19th century offers a good example of the de-globalising role played by the British Empire. See chapter 3.

²³ Shigeru Akita while referring to the services offered by Great Britain within her sphere of interest, used the expression "public goods". Shigeru Akita (ed.), *Gentlemanly Capitalism, Imperialism and Global History*, New York, 2002.

²⁴ Patrick O'Brian, 'The Pax Britannica and the international order 1688-1914', in Shigeru Akita and Takeshi Matsuda (eds), Looking back at the 20th Century: the Role of Hegemonic State and the transformation of the Modern World-System (Proceedings of the Global History Workshop, Osaka University of Foreign Studies, Osaka, 1999).

²⁵ British civil law was applied only to European citizens. For Indian native people two different civil codes were put into force, the Hindu code and the Muhammad code.

e) A trade policy often shaped according to the mother country's own interests.

The competitive advantage for British traders lay precisely in the possibility of operating within a "familiar" system of laws and institutions which could be influenced, and to some extent even modified according to their own needs. The competitive advantage therefore resided in the possibility of cutting into the game and modifying its rules or dictating new ones when necessary. Great Britain leveraged the imbalance of power to impose institutional arrangements on the Indian territories that were in the end beneficial to British business activities.

However, establishing new rules and exporting new institutions governing trade exchanges, and economic transactions was not easy. On a macro -level legal rules governing all economic transactions were those dictated by the colonizers and implemented by the colonial state, but on a micro-level the long-standing native mercantile practices were still extremely important. The co-existence of British formal ways of carrying out economic activities enforced by the colonial state, and native ways of conducting business (indigenous practices which were deeply rooted in the social and cultural tradition of Indian mercantile communities survived, and continued to play a key-role in both local and international exchanges) generated a sort of binary system within which traders had to operate.

1.3.Spread of the English language.

There is no need to dwell extensively on the dissemination of the English language within the British Empire. It is almost self-evident that the imposition of English as the main language within the British Empire was same time an instrument of cultural domination and a factor of homogenization as well as exclusion, and last an effective tool to conduct business in all the territories under British rule. The spread of European languages in the colonial settings has been central to the postcolonial discourse which has efficaciously pointed out the formative power of language as a device to convey certain cultural, and ideological values. In British India English, which soon replaced the older *lingue franche*, became the new language of business, and international economic transactions in the big sea-port cities as well as in the other places where the British and European presence was more intense. The introduction of the English language as the main teaching language in Anglo-Indian schools and its deployment as the newest tool of communication between colonisers and colonised, and among Indian native elites was principally for the benefit and consolidation of the British power in

India²⁶. In spite of its widespread use in business activities, however, English did not penetrate deeply into local contexts, where indigenous languages remained important as tools for setting agreements within certain Indian merchant communities. Moreover, far away from the irradiating centres of colonial power, the importance of Indian languages, especially when dealing with suppliers and producers from the countryside, was still great²⁷.

1.4.Law, economics and the empire

The enactment and enforcement of certain laws with the consequent introduction of new institutions in the India represent is perhaps the most important aspect to be considered when tackling the role of the empire in creating a favourable framework for British traders.

Law is considered here in a very basic way, as a set of general principles on the basis of which political authorities, and the especially the state, shape normative frameworks, seek fore power legitimacy, and establish shared norms of conduct. Referring specifically to the relationship between law and economics, laws are basically meant to regulate and protect economic activities, but in a capitalistic economy they are also expected to support them, and to create good conditions for them to flourish. When looking at the British empire as a global-system the establishment and enforcement of rules and regulations governing commercial and economic activities within the system was a crucial factor, which impinged on the ways economic operators organized themselves, and on their performances.

The British came to rule a wide, and heterogeneous empire in which peoples, cultures, and ideas metand mixed together. The question of how to rule such a vast empire had crossed the *imperial mind* of generations of colonial administrators. A legal framework based on clear, and stable principles was considered essential to allow the British to govern the growing number of their overseas possessions. Limiting the analysis to British India, a brief exploration of the introduction of English law with special reference to mercantile law helps us to understand the nature of the competitive advantage given by the empire.

²⁶ On the introduction of English in India see: Roy, Modhumita, 'The Englishing of India: class formation and social privilege', in *Social Scientist* Vol.21, No. 5/6, 1993; Cohn, Bernard, 'The command of language and the language of command' in Ranajit Guha (ed), *Subaltern studies IV*, Delhi, 1985.

²⁷ When the *Consorzio Industriale pel commercio con l'Estremo Oriente* (a consociation of Italian industries interested in exporting to South Asia), opened up its branch-office in India (the *Italian Commercial Agency*) required that its agents and mangers were fluent in English, and at least in one Indian language in order to better deal with local producers, wholesalers and retailers.

In India the introduction of institutions and forms of administration deeply-rooted in the British legal, 19th century. However the gradually took place throughout the and governmental system introduction of British legal principles (property rights for instance) had already slowly begun in the mid-eighteen century, when the East India Company was in charge for the administration of several Indian territories (provinces of Bengal, Bihar and Orissa) where the Company had been granted the permission (diwani) to collect taxes (land revenue)²⁸. The EIC-a company of merchants which came to perform the main functions of a state - faced the urgent problem of creating an administrative apparatus in order to rule the Indian territories under its jurisdiction. Unsurprisingly, the Company's overriding concern was the codification, and protection of property rights, particularly those relative to land ownership. The necessity of identifying the land owner in order to impose, and collect taxes led to the study of native systems of property, -which clashed so far with the familiar western principles mostly ensuing from the Roman Law- and of local forms of power legitimacy, and state functioning. The political, and administrative model that the British first experienced was that of the Mughal Empire, a system which was largely perceived as profoundly despotic, and arbitrary in its nature, devoid of any social or political legitimacy, emanating directly from the emperor and exclusively subjected to his own will. Therefore the idea that British law, whereas applicable, should introduced, gradually emerged among those who were involved in the Indian affairs. Considerations about the advisability of introducing British law derived, on the on hand, from the urgency of finding suitable forms of governance, and on the other from the incapacity or perhaps unwillingness to understand indigenous forms of administration, native legal systems and forms of power legitimacy. The idea of a 'lawless Hindustan' 29 mostly due to an inability to fully grasp Indian native systems of codification, interpretation and enforcement of law or to penetrate the intricate labyrinth of Indian systems of governance, further fuelled the convinction that British law should be soon exported to India³⁰.

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²⁸ When the EIC was appointed the *diwan* of the Mughal emperor, the law in force in the Mughal Empire was basically Islamic law; however, the jurisdiction of Hindu law in all matters concerning Hindu people was recognized, with the important exception of crime, constitutional and fiscal administration, matters on which Islamic law had exclusive jurisdiction.

²⁹ Ignorance about Indian society, native law, local political and economic practices was quite widespread among the British in both India and in Great Britain at least until the end of the 18th century. Those who were more deeply involved in Indian affairs and had had a first-hand experience of India, certainly had a better knowledge of Indian culture, nevertheless their judgment was often vitiated by certain ideas embedded in the western notion of law.

³⁰On a speculative level, it may be argued that the preference towards British law reflected the idea of a certain British superiority, grounded in turn in the idea of the civilizing mission of the White Man. But on a more pragmatic level the introduction of British law was mostly dictated by contingent economic and financial considerations which heavily affected British policy in India.

Although gradually, new definitions of property rights, changing bases of commercial law borrowed from British home institutions were largely applied. The *Regulating Act* of 1773 began to bring to India the Law of England in its plenitude, with no explicit provision for this far-reaching change. The establishment of Courts of Justice in the three Presidencies, Bombay, Calcutta and Madras, sanctioned the introduction of the English Common law, and Statue Law then in force in Great Britain. Twenty years later, in 1793 the enactment of the *Permanent Settlement* which reorganized land property and land revenue taxation according to legal concepts, and principles ensuing from English Law, can be seen as the initial step toward the application of English legal principles in India. Far from being a minor aspec, the notion of property rights conveyed by the Settlement was fraught with consequences³¹. The idea of an exclusive ownership right of the land seemed extraneous to Indian legal tradition as the British interpreted it. The land was rather perceived as viable good, on which different actors could claim different rights and regarding which customary law recognized the rights of a multitude of individuals.

The process of codification and introduction of new legal principles and forms of governance accelerated from 1858 onwards, when Indian territories were taken over by the British Crown. The Government of India Act passed by the British Parliament declared that India was to be governed directly by, and in the name of the Crown, acting through a Secretary of State for India, to whom the powers exercised by the Court of Directors or by the Board of Control were to be transferred ³². The change in the status of the subcontinent brought about significant modification in the way India was hitherto ruled. Thenceforth India was increasingly subjected to a more direct political and administrative control. The decades between the beginning of the 19th century and the 1880s, were years of intense law codification. The introduction of British jurisprudence, however, was not simply a tool to administrate the growing number of territories that the British came to rule on the Indian subcontinent, it was also a cultural process whose impact and implications have been at times underrated. In effect, by applying their own instruments of rulership to India, although adapting them to some extent in order to fit it in the local context, the British inevitably introduced legal, and institutional principles grounded in the British legal tradition, and more generally in the Western culture. Such principles, and institutions were mostly alien to Indian society, and in spite of any attempt to adjust them to the new environment, they had anyhow an impact which is nonetheless

³¹ It is worthy to note that property rights as codified, and enforced in the Western legal contexts are considered one of the cornerstone of market exchange, and thus a central factor in the development of capitalism. For a good synthesis of the relationship between enforcement of property rights, institutions and economic development see Eggertsson, T., *Economic behavior and institutions*, Cambridge, 1990.

³²The Act transferred to the Secretary of State for India, who was a member of the British Cabinet, all the powers hitherto enjoyed by the president of the Board of Control of the ECI.

poses interpretative challeges³³. The exportation of British legal principles, and institutions, however, required negotiation with local authorities and with indigenous traditions in order to avoid forms of resistance which might jeopardize the stability of the British rule. Such compromise was achieved by setting up a two-faced system which bore an intrinsic contradiction. As it has been noted "from its very beginnings the Anglo-Indian legal system was distinctly Janus-faced and rested on two contradictory principles"³⁴. The public side of the law, in fact, was heavily grafted on the law in force in Great Britain, while 'private' or 'personal' law was administered according to the religious and traditional systems of the different Indian communities. Therefore, two separate codes were enforced for Hindus and Muslims. The latter had to refer to the Islamic Law, while Hindus to the Hindu Law. Hindu law was applicable to those whom the law defined as 'Hindus'. The definition provided by the Anglo-Indian legal system was drawn upon ethno-religious criteria, wrongly understood; in fact, also Sikh, Jaina and Buddhist (who did not profess Hinduism) were considered Hindu for legal purposes. There was therefore, no clear-cut distinction within the complex and multifaceted notion of 'Hinduiness', with the result that concepts of religion and ethnicity dramatically overlapped in the legal system of British India. The enforcement of a separate private law according to the different religious affiliation of Indian communities, was seen as a guarantee against possible conflicts. The codification and restating until 1864 of Hindu law as it was deduced from the ancient Sanskrit texts of the smrti 35 as codified in the so-called Dharma-shastras 36 was somewhat artificial, and its applicability was dubious, considering the high degree of diversity in the regional forms of In those matters whereas the texts or the local customary norms provided no indication of how a right was to be worked out, English rules based on English law were meant to fill the gap. The process of understanding, codification, selection and abrogation of rules deduced from the Indian traditional legal forms both written and unwritten, froze social relations within a backward system of rules which was far away form being the real condition of Indian society. Furthermore such processes seem to have had a negative effect on market activity, heavily affecting and limiting certain types of market relations. Washbrook, for instance, has claimed that the way the Anglo-Indian legal system was designed and enforced in the 19th century, had crucial consequences for the

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³³ On the introduction of British laws and institutions in India see Cohn, Bernard S. *Colonialism and its forms of knowledge. The British in India*, Princeton, 1996; See also Ram Gopal, *British rule in India: an assessment*, London, 1963.

³⁴ Washbrook, D.A., "Law, State and Agrarian Society in Colonial India", in *Modern Asian Studies*, 15,3, (1981), pp. 649-721.

³⁵ Smrti (Sansk. स्मृति) means 'tradition' in opposition to sruti (Sansk. श्रुति), and refers to Hindu law as codified in the ancient texts of Dharma-shastras.

³⁶ The most important of the Dharma-shastras is the *Laws of Manu* (Manava Dharma shastra or Manu smrti)

development of market relations³⁷. One consequence, among the others, was that Indian merchants tended to develop their business through mercantile networks. The preference shown by Indian merchants for carrying out their activities through networks mostly based on caste and kin was not simply an ethnic and cultural peculiarity, it was also the response to a legal system which made dangerous and risky extra-communal relations. In practice, Indian merchants preferred to have intracaste relations, limiting contacts with people who belonged to different castes. Stressing further this argument, M. Misra has argued that the relative isolation of British businessmen in the second half of the 19th century was determined by the "lack of an established legal framework and shared commercial and financial institutions which inhibited the development of closer relations with Indian businessmen"38. The separation between British-sponsored business sectors, and the Indian economic and trading 'world' appears as a distinctive trait of the late 19th century Indian economy. Nevertheless, this argument should not be stigmatized, as in several cases forms of economic cooperation and collaboration between Indian and British businessmen occurred. But it is important to acknowledge that the legal framework set by the colonial state discouraged extra-communal relationships, and made trading and economic agreements a risky business unless they were settled in strict accordance with the rules of the Anglo-Indian law as administered in the Indian courts.

Private law apart, the introduction of English law or English-type law on other fronts was massive. Limiting the analysis to mercantile law³⁹ and more generally to regulations of economic activities broadly considered, it has to be noted that in this specific field there was little attempt to negotiate between English and Indian principles. Indian mercantile law in force throughout the 19th century was strongly modelled upon English law. "Indian Mercantile Law is adapted from English Common Law, Equity and Statute Law, so far as it is applicable to Indian Conditions. It is incorporated in a number of Indian Acts and enactments which mostly follow the English Law on the subject with some important modifications"⁴⁰.

In 1872 the *Contract Act* ⁴¹ was applied to India, and it came to regulate most mercantile transactions. Later on, other Acts concerning trade and commerce (such as the *Negotiable Instruments Act*, 1881, etc..) which substantially reproduced English Law, were applied to India. Mercantile Law amply based on English Law introduced new legal concepts relating to business as well as new instruments

³⁷ Washbrook, D.A., "Law, State and Agrarian Society in Colonial India", op.cit.

³⁸ Misra, M., (1999), op.cit.

³⁹ Mercantile law is a branch of law which is applicable to or concerned with business, trade and commerce and other forms of economic activities.

⁴⁰ Davar, Sohrab R., *Indian Mercantile Law including Industrial Law*, Bombay, 1966.

⁴¹ The Indian Contract Act embraced the Indian Law of Partnership until 1932, when the *Indian Partnership Act* came into force.

for conducting economic and commercial transactions, bringing about a sea -change which mostly affected the activities of non-British traders, notably Indians.

A telling example of how the Anglo-Indian legal formal system was especially detrimental to Indian business as well as to a full-fledged development of equality in market relations, was the enforcement of the Negotiable Instruments Act which was concerned with bills of exchange 42, cheques and promissory notes. In India local bills of exchange, commonly known as *Hundis*, were largely used by Indian mercantile communities in their everyday-business transactions. They were a major tool to conduct business, and were usually written in Indian languages. When the Act was put into force in India, the legal status of the Hundis was volatile as the Act itself was meant to govern only bills of exchange in English. This meant that Hundis were not legally valid according to the Anglo-Indian law -unless the drawer made explicit reference to the Negotiable Instruments Act -, and in case of dispute they fell under the jurisdiction of customary law⁴³. Hence, the enforcement of the Act greatly penalised the issue and circulation of Hundis, the use of which was thus confined within Indian merchant communities. Another similar example is provide by the changing legal status of the 'trading family' 44. Anglo-British Law did not grant any legal status to trading families whose members where not considered partners, although they worked together on the basis of organizational patterns which in many ways resembled a partnership. In other words they could not claim any right according to the Anglo-Indian law since there was no legal recognition of their status. They were therefore pushed toward types of organization which took into consideration the legal arrangements of the *Contract Act* which regulated Partnership.

These two examples, among many possible others, offer some clues about how the imperial system created a legal framework particularly suitable for British traders and equipped them with a widerange of facilities' which were precluded to Indian traders as well as to other traders not linked to the empire.

⁴² According to the *Bills of Exchange Act* of 1881, a bill of exchange is "an unconditional order in writing, addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand, or at a fixed or determinable future time, a sum certain in money, to or to the order of a specific person or to bearer".

⁴³ "The Negotiable Instruments Act generally does not apply to the instruments in any oriental language (Hundis), but where by any words in the instrument itself the usages regarding such instruments are excluded, or where the writing expressly indicates an intention that the legal relations of the parties thereto shall be governed by the Negotiable Instruments Act, the Act will apply. In absence of these indications, Hundis in oriental languages shall be governed by local usages applying to such documents." Ibid. note 40. ⁴⁴ According to the Hindu Law, those families that carry out trade or any kind of commercial activities handed down by their ancestors are 'trading families'.

The idea of unifying the empire under a unique commercial code -which would have improved regulation of economic and trade activities in favour of British traders- was envisaged by the end of the 19th century⁴⁵.

1.5.British banking system in India

The implementation of a legal framework was the first step towards the creation of a system British-sponsored trade, but the establishment of a wide-range complementary services for business activities made this system fully operational. Among all the services provided by the mother-country, banking system and access to credit were extremely important. It is rather obvious that access to credit is crucial for business capitalistic economy, which often demands capital enterprises to operate within a exceeding the resources of individual investors or single firms. In an advanced capitalistic economy, the need for institutions able to mobilize capital, and provide financial resources is usually met by the creation of a formal credit system. In the hope of making credit viable to as many economic actors as possible, banks and other institutions, which formalize an otherwise private and mostly informal system of raising capital⁴⁶, are established. Therefore when access to credit is made difficult by a series of endogenous constraints related to the structure of the credit market, business enterprises with no possibility to self-finance their own activities are confronted with a very serious problem, which heavily affects their performances. The simpler and swifter the capital-raising process is made by proper institutions and organizations, the better are the chances for economic and commercial operators to work. The organizational structure of the credit and banking system is thus a

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⁴⁵ Macdonnel, J., "The codification of the Commercial Law of the empire", in *Journal of the Society of Comparative Legislation*, New Series, vol. 16, No. 2 (1916), pp. 265-282.

⁴⁶ Non-institutionalised credit systems has been usually perceived as a backward feature typical of less developed economies. However, such systems which are often based on an extensive, and effective network of personal relationships can be also seen as a perfect model of flow of information and allocation of financial resources in some specific contexts, such as highly interconnected and flexible economic communities.

major factor, and accordingly it can have positive or negative effects on economic performances.

As the first country to create a national banking system centred around the Bank of England, the London money market and the country banks, Great Britain tended to export such system overseas. In British colonies an English-type banking system was gradually promoted and implemented. In British India the formal banking system was dominated by British banks until the Second World War. How was the Anglo-Indian banking system organized?

Starting with some preliminary observations, it has to be noted that 1- despite the attempt to unify Indian territories under a unique monetary system, currencies and money market continued to be regionally and even locally heterogeneous⁴⁷; 2- The Indian credit market at a high level as organized by the British, was closely linked to and heavily dependant upon the London capital market; 3- The Anglo-Indian banking system was particularly beneficial to British- sponsored trade, and discriminated against indigenous and foreign businessmen.

Since the late 18th century a structure of British-type banking had developed in India in relation to the activities of the European agency houses. Those commercial houses often acted as commercial banks discounting bills of exchange, financing long-distance trade, lending money, and accepting deposits. They usually had close links with the richest Indian merchants who very often financed European private business ⁴⁸. For financial and administrative reasons the British reorganised the money market, and made a shift from a bimetallic system to a monometallic system based on the gold standard ⁴⁹. Thus, silver became the sole basis of currency. Furthermore the British implemented a formal credit system with the establishment of Presidency banks and the introduction of joint-stock banks. The new credit system was set as a blueprint of the British one. In the early 19th century the first banks were founded. The Bank of Calcutta was established in 1806, that of Bengal 1809. Some decades later—the—bank of Bombay, and bank of Madras followed, being established respectively in 1840 and 1843. During the first—half of the 19th century, the Indian banking

⁴⁷ It must be noticed that the unification of most Indian territories under the British rule, did not lead to a unification of the Indian regional and local currency and banking that served both domestic and international long-distance trade. Furthermore Indian native principalities, and sultanates had their own currencies and banking systems.

⁴⁸ Tripathi, D., *The Oxford history of Indian business*, New Delhi, 2004.

⁴⁹ In India both silver and gold coins circulated and were accepted for revenue payments. Obviously the use of silver coins was more widespread than that of golden coins. Copper coins and seashells "cowries" also circulated at a local level.

system was designed to serve mostly European customers (but it also occasionally dealt with Indians by discounting the *Hundi*), later on the system evolved to better meet the needs of the British customers. Therefore in the first half of the 19th century, there were roughly four types of institutions performing credit and financial functions: the East India Company; private agency houses linked both to the EIC and to native merchants and financiers; the join stock banks (The bank of Bengal, that Bombay and that Madras were joint stock banks under limited liability), and traditional Indian bankers.

The formal banking system created by the British discriminated, although not openly, in favour of British traders making access to credit extremely difficult for both indigenous and foreign traders. Indigenous industries and traders with no direct connections to the British financial market or with London- based companies were placed at disadvantage. Presidency banks and joint-stocks banks, for instance, applied strict rules to the lending of money, which cut out large part of potential borrowers, (especially Indians and other Europeans), from the credit system. The main feature of the Anglo-Indian system was the rigidity in lending rules; the lack of long-term lending policy and the high and variable rates of short-term lending which made access to credit very difficult of the latter, which was essential for traders considering the seasonality of many Indian products, remained mostly limited to British-sponsored trade and thus to British firms. Moreover, British-owned banks usually were not very inclined to deal with Indian businessmen as well as with foreign traders –especially small and medium size companies- which could difficultly meet the bank's requirements in terms of guarantees of solvability.

Foreign traders who operated in India thus had two options when searching capital to invest. They could raise the capital in their home-countries (this was the best option for traders based in Europe that had branch-offices in India) or use the financial services that their national authorities had made available for them in India. By the end of the 19th century, some European traders had managed to open up banks which could provide the necessary capital effectively and quickly as well as a range of other important financial services. The opening of banks was very much dependant upon the support of national authorities, and it goes

⁵⁰ Bagchi, A. K., The evolution of the State Bank of India, 2 Vol., Bombay, 1987.

without saying that only a few countries could bear the costs of opening colonial banks overseas. Germany, France, Japan, just to name few, were cases in point⁵¹.

For many other traders active in India the only feasible option left was to turn to informal ways of raising capital which usually implied that they relied upon native bankers and moneylenders. Italian traders often found themselves forced to turnin to Indian bankers when searching for capital. Although Italian economic operators active abroad had recurrently subscribed petitions for the opening of an Italian Colonial Bank in Calcutta, they never managed to achieve their goal. In 1880s the first proposal for an Italian colonial bank meant to serve Italian trade in India, and more in general in Asia, and to facilitate financial transactions making them less expensive and difficult, was addressed to the Government. This further supported by industrialists, and local institutions such as the proposal Chambers of commerce⁵². Caught between the lack of Italian credit institutions in Asia, and the inaccessibility of Anglo-Indian banks⁵³, Italian traders in some cases turned to Indian bankers when they were in need for money on the spot. The less formal but more flexible native credit system was better suited to their needs of Italian traders for short-term loans. Indian traditional banking and money-lending comprised far-reaching and well-established trans-regional networks of banking houses which connected together the most important economic centres of the subcontinent. Indigenous bankers usually handled a great variety of activities, ranging from finance to trade, from money-lending to insurance. The greater flexibility of operation of Indian bankers meant that they had customers who would rather borrow money from them at higher rates of interest than go to the Presidency banks, which were designed for targeting certain categories of traders, namely British firms, big trading companies from other European countries with a multinational profile. Unfortunately enough, only very few Italian traders fell in this category. The Industrial consortia for the promotion and exportation of Italian products, for instance, could and did approach Anglo-Indian banks for conducting their financial operations in India. But this remained an exception, the great majority of Italian traders had to find alternative ways to raise capital on the spot.

⁵¹ Germans traders had their own national bank in Calcutta, the *Deutsch-Asiatische Bank*, Japanese firms were backed by different banks such as the *Yokohama Specie Bank*, and *Sumitomo Bank LD*, Portuguese and Dutch traders established respectively the *Banco Ultramarino*, and *Nederlandsch Indische Handels Bank*.

⁵² See chapter 2.

⁵³ The great majority of Italian traders in India were small or medium-size firms which found rather difficult, not to say impossible, to meet the requirements of Anglo-Indian banks in terms of solvency.

1.6. State power and free trade system within the British Empire.

The notion of the empire as a competitive advantage might appear at a first glance as a nonsense with respect to the British Empire. In effect, it might be reasonably argued that belonging to the empire did not make such a big difference since throughout the 19th century the British empire was characterized by a Free trade system. The openness of the British trade system is supposed to have virtually guaranteed fair competition without favouring one category of traders at the expense of others. The absence of significant tariff barriers in the mother country as well as in her colonies⁵⁴ might validate this view. However, accurate look at the British economic and trade policy as well as British foreign trade's structure during the 19th century, makes clear that far from being a simple application of the then fashionable ideology of *laisser faire*, the openness of the trade system that Great Britain set up internationally was an important tool which effectively served British economic, and political purposes. In effect, the open structure of the British foreign trade was mainly conducive to Great Britain's needs, and it was to a great extent the result of her unchallenged power on a global level⁵⁵. The functionality of the free trade system was largely due to Great Britain's hegemonic position in her colonies' markets. This position was directly linked to the fact that Great Britain enjoyed the status of the most technologically advanced industrial country until at least the last quarter of the 19th century. During the 19th century Great Britain had managed to exert a more or less stable control over large parts of the world, and its capacity of controlling, formally and informally, third countries' markets both in Europe and outside Europe allowed it to set up an open trade system within its sphere of interest. The openness of such a system, by enabling the widening of the markets for British manufactures and fostering trade exchanges and capital investments overseas, resulted in great practical advantages. During the 19th century, as the dominating state in the british empire,

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⁵⁴ British India had very low export and import tariffs, 5% *ad valorem* for all products with the exclusion of weapons and spirits which were extra charged; cotton piece-goods were charged only for 3 ½ % *ad valorem*.

⁵⁵ Krasner, Stephen D., 'State power and the structure of international trade' in *World Politics*, vol. 28, No. 3, (April. 1976), pp. 317-347.

Great Britain had the necessary resources to create a system characterized by lower tariff, rising trade proportions and less regionalism. More importantly, Great Britain was able to use its economic resources to create an open structure, which was in general beneficial to British economic and commercial activities, and detrimental to her potential competitors from weaker and less developed states, including the territories under colonial rule. Furthermore, the political and economic power of Great Britain made her capable to provide the confidence necessary for the establishment of an international monetary system, and her currency could offer the liquidity needed for an increasingly open system. The openness of the free trade system, however, was far away from being beneficial to all traders, as it did not necessarily grant equal conditions and chances to all the parties. Foreign competitors active in the British sphere of interests did not equally share the advantages of free trade. Free trade was never synonymous with free competition.

Research on the interconnected issues of foreign trade, national power, institutional and economic policies and the degree of economic development has shown that the maximum openness of the structures of international trade in a hegemonic system, such as a colonial empire, is likely to occur when the power of the colonizing state reaches its highest level⁵⁶. The golden age of British free trade system occurred precisely in a period during which British supremacy was at its acme, roughly from the 1830s to the late 1880s. In Great Britain the first shift towards liberalism occurred in the 1820s, from then onwards a free trade policy was progressively put into force by the metropolis. Free trade lasted approximately until the 1890s when a set of commercial treaties and trade agreements with the mostfavoured-nation -clause were signed with most British colonies and dominions and when possible with other states⁵⁷. Those treaties were under many aspects a very telling sign of the changing position of Great Britain internationally: her economic power became less stable, and new and strong competitors from the rapidly industrialising countries were increasingly challenging its power in most of its colonies' markets. At that time Great Britain needed to protect its preferential markets which were traditionally a resource-pool for British trading operators, and secure British overseas investments, therefore an open trade structure was no longer functional. The age of free trade was soon to be over. In a world characterized by

Hirschman, Albert O., *National power and the structure of foreign trade*, Los Angeles, 1980.
 Quite interestingly, in 1892 India refused to signed a commercial treaty with Great Britain, which would have forced her to raise higher tariffs for imported goods.

raising tariff walls, an increasingly aggressive imperialism, with a growing number of rapidly industrializing countries to maintain an open trade structure on the international level was considered hazardous.

Under colonial conditions the inequality in trading relations between the mother country and the colonies is quite obvious, and the dominant position of the colonising country is selfevident. In order to fully understand this unbalance it is necessary to clarify what a dominant position implies. In an imperial system with a colonising state dominating over a given number of colonies, the hegemonic position of the former is mostly given by its coercive power. Such power, which basically means that the colonies loose their national sovereignty, to impose a set of new political, economic, institutional allows the colonising state arrangements. The relationship between the mother country and her colonies is indeed a very unbalanced relationship. The supremacy of the former leveraged on the direction and composition of the colonies's trade and the new modified trade relations contribute to further strengthen the power of the mother country. Throughout the 19th century the trade relationship between Great Britain and India was, generally speaking, inbalanced to the benefit of the former. This was not the product of an alleged pervasive control of the British over the Indian economy, but rather the result of disequilibrium in the terms of foreign trade which in turn ensued from the imposition, through coercive means, of an alien system of legal, institutional and economic arrangements meant to govern economic life, and especially international economic relations.

The condition of colony in which India found herself implied the impossibility of having control over her own foreign trade⁵⁸. Interrupting or starting foreign trade relations with other countries was no longer possible for India. The British Government made decisions, took the measures, and the loss of control over foreign trade which was just a part, perhaps even a minor part, of a more general loss of political independence, was the most visible symptom of India's loss of national sovereignty that the condition of colony dramatically entailed.

But if the subaltern condition of the colonised country, and the inbalance in economic and trade relations between the latter and the mother-country is quite clear, the conditions under which foreign traders found themselves when working within the British empire's free trade

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⁵⁸ When a slow and gradual transfer of power happened to occur by the end of the 19th century, India had the chance to exert a certain control over her foreign trade or at least over some aspects of her international economic and commercial relations with other countries.

system might appear less clear and less perceptible. As previously pointed out, free trade never meant equality in opportunities to all the traders that happened to operate within the empire. British traders were openly favoured within that system whose openness was nothing but another 'bonus' at their disposal. By and large, external traders hoping to access the Indian market experienced difficulties which could be compared to the hardships suffered by Indian native traders. Such difficulties were greater if the traders came from countries whose economies were still marginal and if they were not adequately backed by their national authority. In spite of the fact that tariffs were relatively low, foreign traders active in India were confronted with a system which thwarted their business activities.

1.7. Coping with the empire: trading networks as market strategy.

Under the light of the competitive advantage enjoyed by British traders, competitors from outside the empire had apparently few chances to successfully compete with the British at least until the interwar period, when the changing political and economic scenario began to erode Great Britain's economic power. Hence external traders aiming at placing themselves in the Indian market had to develop specific strategies to cope with the imperial system, and thus be competitive. Competitiveness was in effect crucial to operate in a potentially profitable but risky market like India.

The organizational patterns as well as the entrepreneurial strategies of Italian traders, clearly reflected the disadvantageous conditions in which they found themselves when operating in India. Italian traders seemed to have opted quickly for commercial strategies meant to minimize the effects of such disadvantage. A network-based business organisation characterised by a thick net of cooperative relations with a wide-range of economic operators was, therefore, considered a suitable device to overcome most of the difficulties with which Italians were confronted. In effect, a flexible network-based organization combined with certain entrepreneurial practices, while allowing the Italians to conduct quite successfully their activities, helped them to find an alternative access to the Indian market.

However, the tendency towards network-type forms of business organization was not an exclusive feature of Italian traders. Other economic operators handled a portion of their activities by means of trading networks. Greek traders in India are, perhaps, amongst most significant cases of traders that built up trading networks of an impressive complexity and extent. Greek traders in India were never a homogeneous group⁵⁹. The exploration of their trading networks and, more generally, of their commercial presence poses a set of questions about the role of a network-based business organization in Diaspora merchant communities. Moreover, given that the majority of Greek traders were British-based companies, the analysis of their trading networks should also be conducted in the framework of the expansion of British economic interests abroad. Despite being fully part of the British empire, these traders retained several typical features, among which the marked tendency to organise their economic and commercial activities around trading networks. The case of the Greek traders based in England leads to a series of considerations about the role that trading networks had for British traders in general. British expatriate companies in the 19th century in Asia worked within networks of economic and commercial relationships they had established with each other, marked by a high degree of interaction⁶⁰. Those networks entrenched in the imperial system, were inter-regional in their form -the British empire was after all effective in integrating different and distant regions, promoting economic interaction and commercial exchanges- but mostly intra-cultural in their essence. From the second half of the 19th century, in fact, British companies became increasingly isolated from the local social and economic environment, and the interaction with indigenous entrepreneurial communities and businessmen was limited to those relations essential to conduct commercial exchanges. British businessmen resident in India developed a set of attitudes towards Indians which were shaped by a mix of racial prejudices informed by the discriminating social codes of late Victorian culture (Indians, with the remarkable exception of Parsis and few other trading castes, were considered not gifted for business), fear of local competition, and lack of knowledge of indigenous ways of conducting business. A comparison with Italian traders on

⁵⁹ Greek traders in British India comprised at least three groups of traders: British-based trading companies owned by Greeks who had previously moved to Great Britain such as those from *Chios*; Greek Ottoman traders coming from Smyrna, Constantinople and Egypt; Greek traders, mostly shipping companies, from the Ionian islands. The first group was by far the most numerous one.

the different role of commercial intermediaries is enlightening. Italians extensively employed commercial intermediaries to carry out their business until well into the 20th century, and in most cases they established very close ties with their intermediaries. The most striking case is that of *Turyneychurn Bose*, who worked as *banian* of the same Italian (Genoese) company in Calcutta⁶¹ for more than 30 years. He also acted as commercial intermediary for other Genoese companies established in Calcutta⁶².

If it is true that trading networks as forms of carrying out business activities cannot be solely attributed to marginal traders in the Indian market, it is also true that for traders that did not benefit from the 'facilities' given by the imperial system an organizational structure based on trading networks attained a far more complex meaning, and a greater importance, being a practical, and effective strategy to downplay the effects of certain constrains, and overcome those hindrances which prevented them from maximizing profits. For Italian traders, in particular, a network-based business organization is to be regarded first of all as a market strategy, a deliberate choice made under the pressure of a system which left few alternatives to external traders. Nevertheless the tendency to operate within trading networks shown by the Italians must be placed into a broader context which should take into consideration their original background, the socio-cultural attitudes typical to Mediterranean traders, and the patterns of firm organization developed in post-unification Italy.

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⁶¹ Thackery's Directory, Calcutta commercial directories, OIOC, BL.

⁶² Genoese traders in Calcutta seemed to prefer certain castes to others when choosing their commercial intermediaries. The relationship between specific Italian commercial *sub-groups* with a shared geographical origin, and specific Indian mercantile and commercial groups clearly emerged from the data collected.

2.

ITALIAN TRADERS, AND THEIR TRADING NETWORKS IN INDIA: SOME GENERAL PREMISES.

In the previous chapter it has been argued that colonial domination to which India was subjected made it rather difficult for foreign traders with no imperial connections –that is to say not formally linked to the British Empire- to gain access to the Indian market, and thus operate within it. Consequently the network-based business organization typical to majority of Italian traders active in India has been regarded as a tool for overcoming institutional constraints in a colonial market. These assumptions have hitherto been postulated abstractly, relying mostly upon the broad and rich historiography on the topic without providing any evidence taken from the specific experience of the Italian traders in India. The following chapters, divided for convenience sake into two sections, are meant to provide the necessary evidence to underpin such assumptions, through the exploration of relevant case-studies. The analysis will concentrate on the activities of two well-defined groups of traders: silk-traders⁶³ and coral traders. These two groups have been singled out after several careful considerations about the type of trading networks they established, and the nature of trades in which they were engaged. Silk and coral, and the economic activities linked to these commodities were, for reasons that will be eventually clarified, particularly important for the regional economies of two geographically different areas of the Italian peninsula. Raw silk production was mostly, although not exclusively, located in North Italy, therefore most Italian silk traders who moved to India were usually from those regions where the concentration of the productive activities connected to silk was higher (Piedmont, Lombardy, Veneto etc..). The production of coral, conversely, was located in South Italy. Although Genoa, and especially Leghorn were for centuries important centres for coral trade, during the 19th century due to a number of events that will be described in the second section of this study, Torre del Greco arose as the newest pole for the international

⁶³ Silk traders, sericulturists, and silk entrepreneurs have been used interchangeably to indicate those who were engaged in producing and trading raw silk.

trade in red coral. The town's renowned coral manufactures retained the monopoly of coral trade until well the second World War⁶⁴. With silk and coral traders hailing from areas substantially different economies - regionalism was, and still is a characterised by significant feature of the overall Italian economic profile- the exploration of their activities offers the chance to examine two different ways of establishing trading-networks abroad. In spite of the large number of similarities in their business practices, silk and coral traders in India respectively developed their own specific ways of forging linkages with commercial partners, were they Indian native merchants or other European or Asian traders. This specificity regarding the forging of the cooperative relations is to be partially ascribed to their different regional background. Coral traders, for instance, organised themselves and their activities around socio-economic models which resembled to a great extent the traditional mercantile communities of Diaspora traders. In many regards their tightly-knit community in Calcutta -the most important outlet market for coral in Asia- represented a reproduction on a smaller scale of the community to which they belonged in Italy, and was informed by the same principles and norms that prevailed in the social fabric which they came from, with a minimum degree of modification indispensable to adjust themselves and their activities to the new environment in which they were working. If the community of coral traders in Calcutta was in many aspects an overseas projection of Torre del Greco, the economic dynamism that the Calcutta-based coral traders showed in building up trading networks on the spot, and starting new branches of business was a novelty that impacted back on their hometown, generating remarkable changes in the coral-manufacturing industry, and more generally in the organisation of coral trade between the Mediterranean and India Ocean. In handling their business in India, Italian coral traders showed a striking entrepreneurial spirit which makes them the perfect prototype of the Schumpeterian 'entrepreneur', 65. Their form of entrepreneurship was genuinely innovative but, at the same time, extremely traditional;

⁶⁴ From the second half of the 19th century onwards the number of *corallari* or *corallieri* – as coral traders are commonly known in Italian- from Torre del Greco who settled in India exceeded that of coral traders from other parts of Italy.

⁶⁵ Schumpeter stressed the capacity of innovating as the main connotative feature of the entrepreneur, a figure that becomes in his view a sort of hero able to induce major structural changes in the economic system, and thereby generate growth. Schumpeter, J.A., *The Theory of Economic Development*, London, 1961. For a recent review of the literature on entrepreneurship see in Italian Berta, G., L'*imprenditore*. *Un enigma tra economia e storia*, 2004; in English Cassis, Y, and I. Pepelasis Minoglou (eds), *Entrepreneurship in Theory and History*, New York, 2005.

Italian coral traders in India skilfully mixed the old with the new, long-lasting business practices with newer market strategies creating opportunities for economic growth and commercial expansion. For their part, silk traders were the carriers of a different pattern of trading networks. These traders structured their business in a rather peculiar way, building up networks that are difficult to categorise –in fact to put them in this or that category is rather hard - and when it comes to investigate them in depth, requires a special set of analytical tools distinct form those employed to survey coral traders or other kinds of Diaspora-like trading networks. Italian silk traders in India, for instance, were never a homogeneous group, and their business developed along lines that make their trading networks an especially suitable ground for testing network theory as elaborated in recent sociological research. In particular these trading networks urgently address the issue of trust in networks involving 'complete strangers', who were not related to each other by blood, did not share the same cultural and religious beliefs, did not belong to the same social or ethnic group, and, generally speaking, had very little in common apart from a 'thirst for profit'. A trading network is never simply a system to exchange commodities, or a device to reduce transaction costs, and solve the ever-concerning problems inherent to the merchantagent relationship. Nor it is only a strategy to overcome, and bring down trade barriers, and maximize profits. A trading network as a form of business organization is a rather complex system characterised by broad spectrum non-market relations, that range from family ties to social, cultural and religious bonds. For its full, and efficient operationalisation it requires a set of shared norms, and a self-enforcing system of control in order to prevent misbehaviour, misconduct, and cheating. As it is not always possible for traders of diverse origin to share in common norms of conduct, and thus implement an internal system of control based on the commonality of values and beliefs, just as it is not always possible to settle a trade transaction within a costless and adequate legal framework, trust among members of a network becomes the *conditio sine qua no* for the transaction to take place. Silk traders and their trading networks offer a good starting point to look at the formation of trust, preservation a good levels of trustworthiness among members belonging to the same network in an environment, namely 19th and early 20th century India, that discouraged intergroups relationships, and within a legal framework that penalised this type of relations.

relevant part of the analysis in chapter 4 will be concentrated precisely on the detection and construction of trust in these trading networks.

Like coral traders, silk traders also retained a very special relationship with their place of origin. Common interests and goals, and a thick net of social and familial ties which intermingled with economic relationships kept those economic operators closely linked to some areas in northern Italy where local economic fabric was deeply rooted in, and highly dependant upon sericulture and silk-manufacturing. By concentrating on two groups of traders that had a different regional origin it is thus possible to see at work two diverse types of trading networks whose diversities correlated directly with the different background of those who established them.

An analysis focused on traders engaged in silk and coral trade bears another intrinsic advantage. Coral and silk traders settled in different regions of the Indian subcontinent – the former had their headquarters in Calcutta (Bengal), while the latter were based in South India (Mysore and Madras Presidency⁶⁶) – thus offering the historian interested in observing and illustrating the capacity of economic operators to cope with different situations and specific economic microenvironments a chance to look at Italian traders working in two distinct settings. Location was a key factor. The local socio-economic environment of a city like Calcutta, for instance, influenced a wide-range of aspects of the formation, and structuring of the trading networks established by coral traders, by shaping the nature of cooperation among the members as well as the degree of non-economic interaction within the networks. Additionally, the fact that Italian coral and silk traders settled, and operated in different areas represents a further asset when it comes to exploring the cooperative relations established with Indian mercantile groups. Coral traders forged linkages with certain trading castes involved in wholesaling and retailing, while silk traders worked jointly with Muslim merchants that controlled silk production, and Hindu financiers. Generally speaking, in a given place were active specific mercantile groups: in 19th century Calcutta, for instance, Marwaris were domintating large swathes of the local market, while in places like Bombay or Madras the prevailing treading groups were different. In a nutshell, each Indian mercantile

⁶⁶ The activities of Italian silk traders were not confined to Southern India, they operated in other regions as well. However, given that by the end of the 19th century Mysore arose as the major silk-producer of India the activities carried out by the Italians in those territories attained special importance, and therefore as been chosen as a significant case-study.

groups had usually control over a specific economic region which represented the hub of their business, but there were also traders whose activities emcompassed the entire subcontinent. The variation on regional basis of trading groups meant that the merchants who became part of the trading networks built up by the Italians were not always the same⁶⁷. Moreover, location-specific factors influenced the way Italian traders approached and chose their trading partners on the spot. Coral and silk traders selected their partners according to their contingent needs, and expectations about the benefits that the cooperative relations with native merchants might bring to their activities, but they also considered other aspects, and the preference towards certain castes in certain places hints that their choice was to some influenced by social, and cultural factors which had very little to do with pure economic considerations about eventual profits. When looking at the start-up phase of these trading networks, the selection of trading partners might appear impressively immediate. Its immediateness, however, was only apparent. In reality, it hid a fairly remarkable knowledge of the logic underlying local market, and of the socio-cultural mechanisms linked to it, disguised long and complex historical processes of which information among merchants. Italian traders in 19th century India had at their disposal a 'baggage' of knowledge and experiences that evinces a considerable continuity in the processes of transfer of information, and know-how across centuries. As we shall see, both coral and silk traders were inspired by, and learned from their predecessors, making the best of the experience, and expertise of other Italian merchants who had worked in India before them.

Indian merchants who entered the trading networks of Italian silk and coral traders usually had some records of previous collaboration or frequent contacts with Italians. Prior familiarity with Italians was an important pre-requisite when choosing trading partners. In a place like Calcutta where the concentration of the economic activities of Italian traders had been very high since the early 19th century, it was rather easy to find native merchants who were familiar with the Italians and their businesses; while in Madras, where the activities of Italian traders had always been sporadic, and there was never a numerically significant presence of Italians, it was more problematic to seek trading partners. To select trading

⁶⁷ The variation in the type of Indian merchants that cooperated with the Italians was also partially due to the differing nature of trades in coral and silk.

partners was not, of course, a one- way process, and reciprocity, as we shall see in the exploration of each case-study, was an essential component. After all, Italian traders selected Indian merchants as trading partners as much as they were selected by the latter.

Furthermore, concentrating on foreign traders active in India in the same period but in different regions is a very useful means of viewing the variation in space and time in the degree of British economic penetration as well as the multiple levels of colonial rule. Despite depicting itself as a monolithic entity to outsiders, British administrative system in India was in reality a stratification of varying levels of political control, economic supremacy, social and cultural subordination. 'The British never were able to enforce a tight chain of command from the metropolitan authority in London to local officials in India⁶⁸. The spatial and temporal dimensions of the variation in the political and economic control exerted by the British over Indian territories is particularly clear if one looks at evolution over time of a specific trading network in a given place or compares trading networks established in different places but during the same period. With specific reference to the activities of Italian traders, this study will tend to alternately highlight one of these dimensions. It claims no pretensions to comprehensiveness as a full consideration of the implications and effects of the multiple levels of British colonial rule cannot be pursued here. What matters for present purposes is to stress the multiplicity of, and variation in colonial rule as a crucial element which, by having direct repercussions on Indian economic development on regional basis as well as on the way Indian economic operators organised and carried out their activities, impacted on the business of Italian traders.

While selecting coral and silk traders as the main case-studies, two more elements have been considered. The first is the 'Japanese connection' that both coral and silk traders shared in common. The expression refers to the close commercial relations that these traders had with Japan. When the archival research on which this study is based began this connection was barely visible, but it became more relevant after a deeper investigation of the available sources. Itremarkable potential to shed new light on the activities of Italian traders in India also became quickly apparent. Silk traders began to be interested in Japanese sericulture by

⁶⁸ Ramusack, N., Barbara., *The Indian Princes and Their States*, The New Cambridge History of India, Part III Vol. 6, Cambridge, 2004.

the mid-nineteenth century soon after the outbreak of pebrine ⁶⁹, and simultaneously an extensive trade in silkworms' eggs. Coral traders in India pioneered the exportation of Japanese raw coral that they themselves purchased travelling twice a year to Japan. For the first time after centuries during which raw coral had travelled from West to East, the route of coral trade was reversed with Japan rising as a major source of raw material for Italian coral manufactures. Moreover, the relationships between Italian traders and Japan offer an insight into the rise of the latter as a first class economic power in Asia, even able to challenge the dominance of British traders at the core of their Empire. If better and deeper researched these relationships might also provide a new perspective for the analysis of the changing equilibrium in the economic, and trading system of the Indian Ocean in the late 19th century. To point at the links that Italian silk and coral traders had with Japan also serves to draw attention on the global character of the trading networks that they built up. In effect, one of the most intriguing aspects of the economic behaviour of these traders is their capacity to encompass vast areas of the globe within their networks as well as a variegated range of ethnically and culturally different economic operators. The geographic reach of these trading networks is a telling sign of the resilience of forms of conducting business based on networking. Italian traders were able to successfully place themselves in diverse contexts, and establishing broad, steady cross-cultural cooperative relations exploiting them for their own benefit. Naturally the geographical reach as such had much to do with the nature itself of trade in raw silk and coral, both highly 'globalized' commodities in the second half of the 19th century with a large international market.

The last element that has been taken into consideration is the final market for the commodities traded by the Italians. It has to be noted that for silk traders India was a source of raw material, while for coral traders India was a major market for sales. Raw silk and silk-waste produced in India were sold by Italian silk traders abroad, generally in Italy or Europe; coral, on the contrary, was an Italian product meant for the Indian domestic market. This means that coral traders had to focus, more attentively on distribution channels, local patterns of consumption, and local consumers (coral was very much a customer-oriented product) while building their trading networks. Indians were demanding customers with specific needs which were to be scrupulously met in order to keep the demand

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⁶⁹ See chapter 3.

for coral stable and the price relatively high. Silk traders, on the contrary, traded in a product- raw silk- that was meant for European intermediate consumers (silk-weaving and silk-spinning industries), therefore they focused on production rather than on distribution or consumption. What silk traders needed the most was to enter production channels and get full access to local sericulture. Conversely, coral traders needed to enter to the complex circuits of domestic distribution, which were traditionally controlled by Indian merchants who retailed coral all over the subcontinent. Considering all these elements as a whole, the choice of taking silk and coral traders as representative of the *modus operandi* of Italian traders in British India seems amply justified.

However, the exploration of the trading networks built by silk and coral traders in India is not simply meant to provide sufficient evidence to underpin the hypothesis regarding the disadvantage in which Italians found themselves when operating in India, also serves another crucial purpose that is to test the efficiency of the networks themselves. To claim that a network-based organization allowed Italian traders to operate comfortably within the Indian market is not enough; it is necessary to prove the effectiveness of those trading networks, and their capacity to allow the Italians to successfully carry out their business and from them. Therefore the two following sections also aim to answer a host of questions related on the one hand, to the role played by a network-based business organization in upholding a substantial part of the activities of the Italian traders (would it have been possible for Italian traders to operate in the Indian market without such an organization? Which benefits did such an organization bear?), and on the other to the structuring and functioning of the trading networks themselves, (how were the networks set up? How did they function in practice? Which purposes did they serve? Were they effective or not? Which type of non-economic relationship did they entail?). In order to answer this set of questions several general criteria have been considered. These criteria are as follows:

- 1- capacity of the network to provide access to the domestic market, meaning access to internal trading circuits and to production and distribution channels in the place where Italian traders operated.
- 2- capacity of the network to improve economic performances, and thus generate profit.
- 3- the level of cooperation among the members of the network. The cooperative dimension is a key-factor, and can be taken a fairly good indicator of the 'health' of the network, and

of its good functioning. A high degree of cooperation indicates that the members of the network have been able, by mediation and negotiation, to neutralized opportunism and competition or at least to keep them under control.

4- capacity of the network to provide human as well as financial resources. Allocation and distribution of 'men' and 'money' is crucial for the network to work properly.

5- last, but not least, capacity of the network to convey information among the members of the same networks⁷⁰.

As previously stated, these criteria are general, and when dealing with each specific trading network some additional elements have been taken into consideration to explore it. One element, in particular, has been carefully considered in the effort of testing the efficiency of a given trading network: the nature and density of the ties between Italian and Indian traders. Given that a significant share of the economic activities handled by the Italians in India went through local channels of production, distribution and consumption controlled by Indian merchants, there is little doubt on the fact that hat the latter performed an overall essential function. Indeed, the role of Indian economic operators in operationalising these trading networks was fundamental. The latent risk in a study of this type, based as it is mostly on Italian and British records, is always to look at the 'Italian' side of the network, and pay scant attention to the other side, relegating Indian traders to a less important, if not subaltern role. Although it would be reasonable to assume that if a given network is set up, and functions properly for a certain time, during that time-span all the members must have benefited from it otherwise they would not have engaged in any cooperative relations, it is essential to investigate the nature of such benefits, and obviously this cannot be done only for Italian traders. The analysis here conducted shows that the strength of the trading networks built up by the Italians in India lay precisely in the close, sound and long-lasting cooperative relations that they managed to establish at various level with native traders. The nature and structure of these relations have been fully considered, and investigated to the extent possible from the data available in order to unveil hidden aspects of the formation and structuring of trading networks.

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⁷⁰ As we shall see, the circulation of information within the network attained a crucial importance especially in the case of silk traders, because of the high content of scientific and technical knowledge that their economic activities necessarily implied.

In retrospection, the trading networks set up by silk and coral traders in India seem to rest on two major 'hubs' whose relevance outstripped that of smaller, albeit more numerous hubs. A hub was a place where the concentration of the economic activities was higher, and the relations with trading partners within the network were denser. A visual depiction of the trading networks that Italian silk and coral traders built up across the Mediterranean and the Indian Ocean might help clarify this point. These networks are to be pictured as a thick grid of intersecting lines, the points where these lines meet each other represent a hub. Each hub corresponds to a specific location, and is identified by an 'anchorage' 71 that keeps the network grounded in the local context. In the framework of extensive and interlocking trading networks, some hubs were more important than others. Generally speaking, for Italian traders the two most important hubs were respectively located in Italy and in India. Exceptionally there could be one or more hubs equally important elsewhere. The importance of the Italian hub is self-evident. The main economic activities in which these traders engaged were based in Italy, and from Italy broader overseas trading networks were built up. The Indian hub served as operational base for the trading activities in the Indian Ocean. Under this light the Indian hub was genuinely 'instrumental' for furthering Italian-based business activities. Italian traders in India -and coral and silk traders were no exception- always considered the country 'una frontiera commerciale'; a place which offered new, and appealing business opportunities for strengthening the activities they were already carrying out in Italy. This explains why the majority of Italian traders never settled in India permanently, and went back home at the age of retirement, or even earlier, handing over their business to younger members of the family or relatives-in-law. The fact that the Italians kept their families at home in Italy further confirms that they perceived their stay in India as temporary. The meaning of 'temporary' in the case of Italians who worked in India for more than thirty years (some Italian firms were very long-lived) is, of course, an open issue. Younger generations who succeeded their fathers in the management of the business in India grew up, studied and were trained in Italy. A remarkable exception was represented by those who married non-Italian women in India 72. The imbalanced sex ratio -the number of Italian

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⁷¹ See chapter 4.

Research on the registers of the Catholic churches in Calcutta and elsewhere, has brought to light a number of records on mixed-marriages between Italian men and non-Italian women, such as those of Peliti F./Molly J., vol. 148, Folio 369, 1874; Boscolo A./ Marçon E., vol. 195, folio 209, 1886; Boscolo

women was always relatively low to that of men⁷³- among the Italian communities in Calcutta and Bombay (Madras never had a significant population of Italians) favoured mixedmarriages. But even in this case when the men retired, they took their 'Indian' families with them back to Italy. The links with Italy were always overwhelmingly strong. The core of the economic activities of Italian traders was located in Italy, and business in India was mostly meant to corroborate those activities. The largest share of the profits made in India were usually reinvested in Italy. But Italy was not simply a mere recipient of profits made elsewhere or a far away 'homeland' that Italians nostalgically dreamt of when working in the merciless sun of Calcutta or Madras. Italy was much more, it was for them a constant point of reference. For the historian who aims at an exhaustive and comprehensive explanation of socio-economic behaviours connected to the formation of a network-based business organization observable in the Italian traders in India, the close links with Italy constitute an aspect of primary interest. As a simple market/ firm⁷⁴ delineation does not provide a complete or satisfactory explanation for the rise of network based mechanisms of economic coordination, and more importantly, fails to account for non-market relationships within a trading network, it is necessary to take a step backward, and look at the environment in which Italian traders originally worked, and the business culture that such an environment generated.

2.2. Italian network-based trading organization: between traditional business culture, market strategies and domestic institutional constraints.

Like most Italian traders in India, silk and coral traders developed a network-type business organization on the spot in order to cope with a new, risky, and unfriendly economic

A.F./ Marçon M., vol. 208, folio 350, 1889; Boscolo R./ Marçon J., vol. 209, folio 322, 1889; Checcacci G. F./ Morfinder C., vol. 211, folio 211, 1890. Returns of Baptisms, Marriages and Burials, 1698-1969, N/1 Bengal 1713-1948, OIOC, BL.

⁷³ Emigrazione e Colonie, Rapporti dei Regi Agenti Consolari e Diplomatici, Ministero Italiano degli Affari Esteri (MAE), Roma, 1893; Emigrazione e Colonie, Raccolta dei Rapporti dei Regi Agenti Consolari e *Diplomatici*, *Vol. II*, *Asia*, *Africa*, *Oceania*, MAE, Roma, 1906. ⁷⁴ Trader, firm, company have been used interchangeably.

environment characterised by a number of constraints that in most cases made their activities difficult, if not hazardous. However, for Italian traders a business organization based upon trading networks was not only a response to the difficulties they were confronted with in India. but it was also the outcome of a long-standing, and clearly identifiable entrepreneurial culture embedded in social and cultural habits, and mercantile practices that dated back to the Middle Ages. If one looks at the background of Italian traders it immediately become clear that trading networks as forms of commercial organization were mostly a traditional way of conducting business and that thay had a long 'history' in the Italian socio- economic context. From this point of view, the marked preference for a network-based organization shown by the Italians in India can be also regarded as the external projection of a specific entrepreneurial culture ingrained into patterns of business organization, and coordination heavily dependant upon personal relationships, familial ties, and kinship. And it is precisely in this shared entrepreneurial culture that one can look for a sense of italianess, if there was any, among the Italians in India.

The historical trajectory of the Italian peninsula, and her prolonged political and economic fragmentation favoured the persistence of forms of organization, and cooperation that privileged informal relationships over more formal, and institutionalised ways of setting business. After political unification under the Piedmontese rule political fragmentation was finally put to an end, nonetheless the lack of economic homogeneity continued as an element of disruption which the new state was barely able to patch up. The implementation of an economic policy which was initially strongly patterned upon that in force in the territories of the Kingdom of Sardinia heightened the divergence between regions, and the disparity in the opportunities given by the state generated a number of imbalances in the overall Italian economic development which later on turned into unbridgeable fractures⁷⁵. On the other side, the lack of a state authority capable to accomplish the task of integrating such diverse territories into an economic system made of shared goals, common interests and equal pushed economic operators to retain traditional patterns of business opportunities organization which offered a certain degree of assurance against the uncertainty, volatility of governmental institutions which still left much to desire in terms of aid to private

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⁷⁵ Toniolo, G. *Lo sviluppo economico italiano, 1861-1940*, Bari, 1973; Pescosolido, G., *Unità nazionale e sviluppo economico*, Bari, 1998.

assenza storica dello stato 77, as the mainstream enterprises⁷⁶. In some cases the historiography has defined the historical weakness of the Italian state authority, further thrust economic operators towards informal ways of setting and handling business in order to accommodate their activities in a country that seemed far away from being able to guarantee high standard of complementary services to allow private economic activity to thrive. Coral traders are a good example of how economic operators responded to the hardships, disincentives of the Italian economic environment. Suffering from the subordination and to which some territories of the peninsula were subjected after the political unification, they increasingly tended to strengthen an organizational system already firmly based on structures, promoting and experimenting entrepreneurial models, highly informal market strategies that rested upon the tight interconnection of two elements: the family, as a pool for human and financial resources, and economic alliances based on the thorough knowledge of each other. The propensity for informal structures and practices in the organization of business was not peculiar to coral traders alone. Even silk traders, were among the few beneficiaries of the economic policies of the Italian state⁷⁸ represented an influential elite in some pre-unification states and a powerful lobby in the post-unification Italy, often preferred to operate within a system of extensive and pervasive personal relationships, familial ties and face-to-face agreements.

Looking at the network- based business organization of Italian traders as an aspect of their entrepreneurial culture helps explain why they found it so relatively easy to establish good cooperative relations with Indian merchants, managing to operate comfortably in a system that , after all, must have appeared to them not so dissimilar from that they were used to back home . In other words, for those active in India, Italian entrepreneurial culture turned out to be a versatile tool to operate in a new market facilitating the approach with economic

⁷⁶ Fumi, G. 'L'integrazione economica e i suoi limiti nei decenni dell'unificazione politica (1848-1878), in S. Zaninelli (ed), *L'Ottocento economico italiano*, Bologna, 1993.

⁷⁷ On the debite on the formation of the Italian state authority after 1861 see Banti, A. M. *La nazione del Risorgimento : parentela, santità e onore alle origini dell'Italia unita,* Torino, 2006; Barberis, W., *Il bisogno di patria*, Torino, 2004.

⁷⁸ Textile industry was one of the targets of the measures implemented by the Government in order to protect some industrial sectors

operators in the host country. In this regard, it can be considered was a 'competitive advantage', 79.

Clearly enough, the environment in which economic operators happened to work, which for Italy was characterised by a widespread feeling of mistrust in public institutions, together with a weak civic tradition was primarily responsible for the evolution and fortification over time of a business culture profoundly embedded in informality. Such fortification was also, in many respects, a natural reaction to some of the limits of the Italian state as an economic-policy – maker. The looseness and flimsiness of public institutions as well as the Government's ineptitude in promoting and upholding private initiative failed to make legal forms of enterprise attractive, unless they were backed by relations of different nature, were they family ties or bonds of friendship.

The role of the Italian state in prompting and backing economic growth by favouring entrepreneurial initiative is a sensitive, and altogether controversial argument, and it has proven a battlefield for scholars. This study does not aspire to enter into a discussion of such a complex topic, it rather aims at remarking on one important aspect of the relationship between the state and economy in Italy. When dealing with the role played by the Italian state in fostering, and upholding economic growth after 1861, one basic distinction has to be drawn in order to avoid any misunderstanding. Since after 1861 the Italian Government, as many have pointed out, was truly 'interventionist', and entered the country's economic life in many ways, especially by subsidising several industrial sectors. Economic historians like V. Zamagni and F. Amatori have highlighted this aspect of the Italian state's economic policy. The former has placed the Italian state among the most interventionist, comparing it with Japan and Germany 80, while the latter with specific reference to the Italian economic growth has spoken of 'political capitalism', pointing at the overwhelming role of the state in the development of many industries 81. However, if the Italian Government gave a rather marked support to those industrial sectors considered strategically important by favouring them in a number of ways impossible to enumerate

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⁷⁹ Casson, M., *Entrepreneurial culture as a competitive advantage*, Discussions on papers in international investments and business studies, 124, University of Reading Working Papers, 1988.

⁸⁰ Zamagni, V., 'Alcune tesi sull'intervento dello stato in una prospettiva di lungo periodo' in P.L. Ciocca, *Il progresso economico dell'Italia*, Bologna, 1994.

⁸¹ Amatori, F., 'Italy: the tormented rise of organisational capabilities between government and families' in A.D. Chandler Jr., F. Amatori, and T. Hikino (eds), *Big Business and the Wealth of nations*, Cambridge, 1997.

here, such support, whose effects can be and have been differently judged by scholars⁸², was almost exclusively confined to the sphere of the *big business*. That dynamic part of Italian entrepreneurship belonging to the so-called *piccola impresa* (small business), which represented a vital component of the Italian economy, and some decades later became a worldwide well- known, and admired model of 'flexible capitalism', was usually left at the margins of any economic and financial policy⁸³. The lack of support suffered by the small businesses has not escaped the attention of historiography, however an accurate assessment of the after-effects of the lack of supportive measures is still missing.

But why is it crucial emphasise the deficiency of the measures taken by the Italian government to foster small business? The answer is fairly straightforword: the great majority of Italian traders that were active in British India were usually small or mediumsized firms run by a family, and were severely affected by the lack of specifically designed measures, and initiatives tailored to meet their needs. Furthermore, being engaged in overseas trade with extra-European countries, they did not benefit from favourable policies as the Italian state never put into force measures meant to buttress Italian trading and economic activities beyond Suez. Therefore, the entrepreneurial dynamism of the Italian economic operators was hampered by both the lack of economic policies to support small and medium-size firms, and the state's disregard for trade with Asia. The latter, in particular, seriously hindered enterprise start-up and exit. From the 1861 untill the World War First the attitude of the Italian state towards overseas trade and commerce was, generally speaking, not conducive. Looking at how trade-related issues were approached by political elites, the incapacity and unwillingness of the state to fittingly support commercial activities overseas, preferring to give large subsides to certain industrial sectors⁸⁴, or implementing policies favourable to a rather narrow club of industrialists and landlords, appears fraught with negative consequences. If one focuses on the foreign trade between Italy and Asia, the consequences of this attitude seem even more detrimental. The maritime and commercial

⁸² Zamagni, V. *Lo stato italiano e l'economia*, Firenze, 1981; Sapelli, G., 'Technical change, microeconomic evolution and growth: an introductory view of Italian industrial development', in G. Dosi, R. Giannetti, and P. A. Toninelly (eds), *Technology and Enterprise in a Historical perspective*, Oxford, 1992; Are, G, *Alle origini dell'Italia industriale*, Napoli, 1974.

⁸³Abrate, M. (ed), *L'imprenditorialità italiana dopo l'Unità. L'inchiesta industriale del 1870-1874*, Milano, 1970; Doria, M., 'Gli imprenditori tra vincoli strutturali e nuove opportunità ' in *Storia d'Italia Einaudi*, *L'Industria*, Vol. 22, *Imprenditori e imprese*, Torino, 1999.

⁸⁴ Gozzini, G. 'Le politiche di welfare per l'Industria' in *Storia d'Italia Einaudi*, op. cit.

vocation (needless to say, overseas trade and maritime transports were deeply intertwined) of large fringes of Italian entrepreneurship, therefore, was frustrated by a government which did very little to sustain commerce and trade. The flaws of the Italian mercantile marine⁸⁵ which the majority of the Italian entrepreneurial bourgeoisie saw as the main tool for a thriving overseas commercial expansion in Asia 86- as well as the limits of the Italian commercial policies, which had been always evident, became matters of ominous concern in the last decades of the 19th century. It was at this time that the first wave of domestic industrial take-off called for a commercial system able to place Italian products beyond the borders of Europe, in those extra-continental markets that were potentially profitable but difficult to reach. Overseas commercial expansion required a system of supportive measures as well as economic policies specifically designed to encourage, and protect foreign trade⁸⁷. Italian traders in India often protested for the conditions of their national mercantile marine which forced them to ship their merchandises to and from India via Trieste, using the Lloyd Austriaco. The Austro-Hungarian shipping company was very well organised, its services were faster, more reliable and cheaper than those of the Navigazione Generale and there was little danger that cargoes would be lost or damaged transhipment in Port Said. The Peninsular and Oriental Shipping Company - which received some subsidies from the Italian government- was a good alternative when traders needed to ship cargo from Genoa or from Southern Italy.

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Bettolo, G., 'Il nostro problema navale 'in *Rivista Marittima*, Aprile 1890; Careri, G., *La marina mercantile e il naviglio ausiliario*, Napoli, 1896; Rossi, A., 'Della odierna crisi della nostra marina mercantile 'in *Nuova Antologia*, Novembre 1879; Naselli De Luca, D., 'La marina mercantile nella vita economica nazionale 'in *Rivista coloniale*, IV (1909), Vol. VI; Teso, A., 'Le condizioni della marina mercantile italiana 'in *Rivista Marittima*, Gennaio 1895. For a comprehensive study on the interconnection between maritime transports and commercial expansion see De Courten, L., *La Marina Mercantile Italiana nella politica di espansione (1860-1914). Industria, finanza e trasporti marittimi*, Roma, 1989.

⁸⁶ Progetto per una linea di navigazione dell' Italia al Giappone fatta da piroscafi a grande velocità, Roma, 1886; Unione commerciale e industriale di Venezia, Memoria sul progetto di Legge n. 655, Provvedimenti a favore della navigazione libera: per una linea regolare di navigazione fra l' Italia e l' Estremo Oriente, Venezia, 1913; Rossi, L., Per una linea di navigazione fra l'Italia e l'Estremo Oriente, Brescia, 1917; Boezi, G., Per una linea di navigazione fra l' Italia e l' Estremo Oriente, Roma, 1919;

⁸⁷ Sabbatini, L., *Per le nostre esportazioni: appunti sul movimento e sulla organizzazione del commercio di esportazione in Italia*, Camera di Commercio di Milano, Milano, 1911.

⁸⁸ With regard to the freights and services of the *Navigazione Generale Italiana*, the Agent of the *Unione Industriale Italiana per il Commercio d'Esportazione* in Shanghai, stated 'un servizio più indegno non si è mai veduto'. De Albertis, *Rapporto riassuntivo della prima parte della mia missione*, Unione Industriale Italiana per il Commercio d'Esportazione, Torino, 1899, O.P.L.E. 19/5, Library of the Luigi Einaudi Foundation, Turin.

Italian traders also complained of the lack of favourable economic policies. The attitude of the Italian government towards mercantile marine, economic policy, and financial aid to overseas commercial enterprises - which were perceived as indispensable tools for enhancing Italian commercial expansion- was disappointing. Ironically enough, when complaining the weakness of the commercial policies implemented by the Italian state, and the lack of facilities for traders engaged overseas, economic operators often compared the idleness of Italian institutions with the activeness and dynamism of Germany and Japan. The absence of state support was generally perceived by Italian traders as a setback that dramatically reduced their chances to successfully compete in the Asian markets. was a rather generalised perception is amply documented by a large number of records that range from the proceedings of the congresses of Italian exporters⁸⁹ to the dossiers addressed to the Parliament by the Chambers of Commerce, and articles in the Italian press. This heterogenoues corpus of numerous but scattered records shades light on questions concerning Italian- Asian trade, Italian mercantile marine, and the government's economic and commercial policies. If the inadequacy of the economic and commercial policy of the Italian Government, and the conditions of the mercantile marine were considered by most economic operators the two first defects to amend in an economic system which was overall dissatisfactory, the lack of financial institutions purposely designed to support overseas trade was regarded as an additional factor which put a fetter on the Italian commercial expansion in Asia 90. Economic operators often complained that beyond the Suez canal there were no Italian credit intuitions to support Italian trade. The only Italian bank in Asia was the Banca Italiana in Constantinople, which was able only to meet the financial needs of the Levantine community:

[&]quot;Ora noi sappiamo che mentre le nazioni estere hanno banche ed agenzie bancarie in tutto l'Oriente, l'Italia non ha che una sola banca : la Banca d'Oriente a Costantinopoli. Ed intanto noi abbiamo visto le altre nazioni europee- specialmente la Germania, l'Austria e la Francia-formarsi in Oriente un'infinità di diramazioni bancarie ognuna delle quali è fulcro

⁸⁹ Atti del I Congresso degli esportatori italiani in Oriente, Venezia 21-24 Ottobre 1909, Venezia, 1910; Atti del I Congresso degli italiani all'estero, 11-20 Giugno 1911, 2 Vol., Roma, 1911.

⁹⁰ See Mallarini, A. G., Per una Banca coloniale Italiana (ossia Banca Nazionale per gli interessi italiani all'estero), Firenze, 1911; Teso, A., L'Italia e l'Oriente: studi di politica commerciale, Torino, 1909. Zuannelli, L., L' Italia nella conquista commerciale dell'Estremo Oriente, Milano, 1911. Istituto Italiano per l'Espansione Coloniale e Commerciale, Il mercato di Calcutta e l'Italia, Rapporto del Dott. Giuseppe Gmeiner agente del regio museo Commerciale di Venezia a Calcutta, Venezia, 1912.

d'informazione, vera tutela del fido, perché trovandosi a contatto coi consumatori del luogo può dare agli esportatori del proprio paese tutte le informazioni che essi desiderano, in maniera precisa, concreta e perché inoltre fa funzionare a vantaggio degli esportatori stessi tutto il congegno bancario. La tutela del fido, per quanto riguarda l'Italia, deve dunque essere esercitata da un istituto Italiano, sia esso di stato o privato, senza di che il nostro commercio di esportazione rimane alla mercè dei capitali stranieri" 91.

The need for colonial credit institutions in Asia was felt by Italian traders in India to be particularly urgent⁹².

"A parità di organizzazione tecnica, la insufficienza di capitali poneva gli esportatori italiani in India in condizioni di inferiorità di fronte ai loro concorrenti esteri "93

Italian financial institutions able to back them, Italians were forced when Lacking any working in India to deal with Anglo-Indian, or French banks⁹⁴, which used to apply a discriminatory policy to non-national customers that greatly penalised transactions in currencies other than pounds sterling, and francs. In order to overcome this problem, projects for the establishment of an Italian Colonial Bank in India were frequently addressed to the Italian Parliament from the second half of the 19th century onwards. Despite acknowledging that there was a real need for Italian banks in Asia, the government refused to grant any aid, declaring that the establishment of credit institutions of this sort did not fall under the competence of the state 95. The request for colonial banks or credit institutions for financing Italian trade in Asia went on until well the 20th century. On the eve of the First World War an Italian entrepreneurs in India remarked that Italian firms were still deprived of the indispensable financial services able to satisfactorily carry out their activities:

"Nessuna banca italiana ha una propria filiale in India, per quanto il volume complessivo degli scambi italo-indiani ne giustificherebbe e ne renderebbe proficua la istituzione . Le nostre ditte devono passare per le forche caudine delle banche inglesi, la cui rigidezza e le cui

95 See Teso, A., op. cit.

⁹¹ From Atti del I Congresso degli esportatori italiani in Oriente, op.cit.

⁹² As we shall see, silk and coral traders responded differently to the issue of raising capital in India. The former resolved to rely, when convenient, upon Indian native bankers and financiers; the latter clung to forms of self-financing, collecting money in their place of origin, within the family and/ or in their circle of friends, whilst at the same time turning to local financial resources when capital for short-term investments was required.

⁹³ Tabasso Volterra, G., L' India e la penetrazione economica italiana, Istituto Coloniale Italiano (I.C.I.), Roma, 1918.

⁹⁴ From the records of the I.C.E.O. (Consorzio Industriale Italiano pel commercio dell'Estremo Oriente) is possible to partially track back the main banks with which Italian traders in India worked. In the list compiled by the C. Boggiano, the Agent of the Italian Commercial Agency in Bombay appear the National Bank of India, The Chartered Bank of India, Australia and China, Bank of Bengal. See Camperio. M., Le Agenzie del Consorzio pel commercio dell'Estremo Oriente, Milano, 1898.

scarse agevolazioni, verso ditte non inglesi, rendono oltreché costose, difficili e talvolta addirittura spinose, le transazioni bancarie delle ditte italiane" ⁹⁶.

The situation outlined above is meant to draw attention to the Italian socio-economic environment as an ideal breeding-ground for patterns of business organization that sought assurance in traditional values and practices, which could offer a good degree of protection from the dysfunctions of a disappointing political and economic system. The network-based business organization that characterised the activities of Italian traders in India can be regarded, therefore, as a cultural attitude which was turned into a tool to comfortably operate in the Indian market. This type of organization was, by and large, was a corrective a number of constrains both in Italy and India, and in this regard it was amazingly multifunctional, and unusually pliable.

The trading networks of Italian traders in India mirrored a business culture based upon the predominance of familial ties and personal relationships. Kinship, in particular, seems to have been extremely relevant in the organization of the overseas activities of the Italians.

2.3. The role of the family

The great majority of the Italian firms active in South Asia were founded, and run by a dominant family. This is the case, for instance, of firms engaged in coral trade such as Checcacci & Co. (from Leghorn), Raffaele Costa & Co. (from Genoa) Mazza B. & Co., Palomba & Co. 97, and others from Torre del Greco. The Indian-based firms were the branch offices of Italian companies. The company located in Italy fulfilled the role of Mother Company while the office in India acted as a branch. Usually overseas branches were entrusted to male relatives, who settled in India during the period in which they were managing the branch.

Family and personal relationships played a key-role in the making of the Italian overseas commercial activities. Italian entrepreneurial culture is deeply rooted in the

 ⁹⁶ La Stampa (Italian newspaper) , 27th August 1927.
 ⁹⁷ Thacker's Indian directory, Calcutta Commercial Directory, 1888; OIOC, BL.

family, from which it frequently derives its raison d'etre, and its main underpinning, and family ties have been extremely important for them growth of the Italian modern business enterprises⁹⁸. Italy owes much to 'familial capitalism' ⁹⁹, and the persistence over time of family-run firms in the Italian economy is remarkably impressive 100. Economic literature has too often underrated the contribution of family-run enterprises to modern economic growth. In fact fro a long time, the notion of family business had a negative connotation which recalled economic backwardness, and commercial weakness. The prevalent idea among economists was that, given its alleged pre-modern features, family business could be only the first stage in the life of an enterprise, following the start-up period, and preceding the public company phase. They assumed a linear evolution of business organization that proceeded from less complex to more sophisticated, and thus more effective, organizational models. Less complex models, such as family firms, have been considered less evolved, and therefore less successful, and as such they have been usually portrayed as backward organizational models typical to not fully mature economies, destined sooner or later to extinction. The influential work of Alfred Chandler, who envisaged the top management methods and procedures of the post-war U.S. firms with their fully -fledged verticalisation which allowed the minimization of transaction costs, and other cost-ineffective processes by internalising them, as the future of business enterprises, has substantially contributed to such a view¹⁰¹. Recent research however, has put forward the idea that this kind of vertical evolutional model should be re-thought under the light of the widespread dissemination, and endurance of family business in a myriad of economic contexts far away from each other. The re-conceptualization of the evolution of models of business

⁹⁸ Colli, A., The history of family business, 1850-2000, Cambridge, 2003. Anderson, A. R., Sarah L. Jack, and S. Drakopoulo Dodd, 'The Role of family members in entrepreneurial networks: beyond the boundaries of family firm', in Family Business Review, vol.28, no.2, June 2005.; Dyer, W.G., and W., Handler, 'Entrepreneurship and family business: exploring the connections', in Entrepreneurship: Theory and Practice, vol. 19, no.1, 1994; Rauch, J. E., 'Business and social networks in international trade', in Journal of Economic Literature, Vol. 39, no.4, 2001; Stewart, J., 'Help one another, use one another: toward an anthropology of family business', in Entrepreneurship: theory and Practice, Vol.27, no. 4, 2003. 99 Colli, A., 'Piccole imprese e <<pre>piccole industrie>> sino al 1945' in Storia d'Italia Einaudi, op. cit.

¹⁰⁰ A survey conducted between 1950-70 on the 100 major firms in Italy, classified by sales revenue, showed that half of them were family-controlled firms, confirming once again that the predominance of family-run business was a distinctive feature of the Italian economy. See Pavan, R., Strutture e strategie delle imprese italiane, Bologna, 1976.

101 Chandler, A., The visible hand: the managerial revolution in American business, Cambridge U.S., 1977.

organization as resultant from cultural influences rather than as a predetermined behavioural form to be followed by all economic actors, has drawn attention to the significance of the socio-cultural context within which firms are created, and evolve. Several scholars have consequently stressed the cultural sensitivity of forms of business organization, restoring the importance of culture as one of the main determinants of economic behaviour¹⁰².

In cultural contexts within which the role of the family is overwhelming, – and Italy is the case in point- it is more likely that the organization of economic activities internally and externally reflects the importance of the family by replicating some of its structures. Generally speaking, the structure of the family, as developed in South European societies, is hierarchical in its nature, however when the family is used as a device to establish cooperative relations with external actors in the frame of a trading network it is capable to mitigate such hierarchy, and emphasize horizontal rather than vertical ties. "The fact that the role of family is culturally-specific means that it can be utilised to support different forms of network activity" ¹⁰³.

In practice, family-run business can be highly articulated forms of managing business which display a remarkable flexibility, ability in negotiation, and capacities of quickly responding to market changes. Adaptive, resilient, and enduring family business has consistently represented a distinctive feature of the Italian economy. As the great majority of Italian traders in India were family-run firms, the tendency to capitalise on resources embedded in the family was widespread among them. They actually tended to associate members of the family with the allocation of resources, power and responsibility. The coincidence between the family, and the firm undoubtedly offered an array of practical advantages: first of all the reduction of internal transaction, and agency costs; secondly it gave them the suppleness necessary operate in a new economic environment; thirdly it helped convey information more rapidly. In effect, circulation of information, and knowledge was faster, reliable within a family firm, and all the members of the family could equally benefit

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Casson, M., Entrepreneurship and business culture, Brookfield, 1995; Casson, M., 'Cultural Determinants of Economic Performance' in *Journal of Comparative Economics*, 17, 418-442 (1993). Casson, M., and Cox, H., Firms, Networks and International Business Enterprises, Discussion Papers in International Investment & Business Studies, University of Reading Working Papers, Series B, Vol V (1993/93), No. 167.

from the 'cultural baggage' gained by those who had travelled, and worked abroad. In this way even those who never worked in India but stayed in the headquarter in Italy had a 'first-hand' knowledge of the Indian economic environment. Among all the Italian traders, coral traders are those who provide the most enlightening case of circulation of information between the mother house, and the branch offices in India. The knowledge gained by those who were based in Calcutta was channelled to their relatives in Italy by means of detailed letters meant to inform the latter about prices, costumers' needs, changes in the local fashion, relations with intermediaries and trading partners, and so forth. The huge amount of letters kept by some of the oldest coral manufactures in Torre del Greco (Mazza & Co., Liverino & Co., Ascione & Figli.) testifies such intense exchange of correspondence. Last but not least, the family structure of most Italian firms made them similar to the trading families of Indian merchants, and was therefore fundamental in providing a common ground between the Italians and Indian merchants. When the Italians approached mercantile groups in India, they immediately understood that the success of the networks they wished to establish depended on the capacity of understanding the multiple level of interaction inside and outside merchant family. Their acquaintance with the organizational patterns of Italian family firms constituted a formidable advantage. There were, of course, some initial difficulties, but once established linkages with native merchants the Italians managed to grasp mechanisms underlying the intra and inert-family relationships among in the different communities of merchants relatively soon. In this regard, Italian silk traders in Mysore are a good example of how Italians were able to slip into the system of cooperation between different local trading groups exploiting it for their benefit.

When approaching family business, scholars have stressed above all its flexibility, and adaptability, both important requisites to operate in a host country's market. For Italian traders working in India, neither benefiting from the legal and economic facilities of the colonizers nor enjoying the countless practical advantages of the native mercantile communities, a model of business organization based on family ties and kinship, proved to be sufficiently pliable and adaptive to fit in the new economic environment. A family-based business organization was usually combined with a thick net of personal relationships. Likewise family ties personal relationships represented another important

component in the making of the Italian commercial activities in India. At a time when business was still mostly dependent upon reputation and personal connections, an extensive net of personal relationships could turn out to be very useful, not to say crucial for the success of a business enterprise. Friendship, broadly understood, was therefore another important element. It could happen that family ties and bonds of friendship mingled due to nuptial strategies aiming at integrating close friends into family. As we shall see in two case-studies selected, this shrewd mixture of personal connections and economic activity yielded good results in terms of stability of the business, which impacted on performances, and thus on profits.

2.4. Italian silk and coral traders in India.

The following section is concerned with silk trade, and the trading networks established in South India by Italian silk traders. In particular, it focuses on the activities of Italian silk-traders in Mysore, and in the Madras Presidency. The chronological framework stretches from the mid-nineteenth century – when an Italian silk-company massively entered the business of silk in South India- to the 1930s – when a significant improvement in the local sericulture turned Mysore, and some districts of the then Madras Presidency into the major silk-producing areas of the Indian subcontinent. The analysis will specifically concentrate on the activities of the A. De Vecchi & Co., a firm owned by by two bothers, Achille and Henry De Vecchi, who operated in South India in the 1860s. The section is basically meant to explore the trading networks set up by the Italians -how the networks were built up, which purposes they served, how they functioned in practise-. However, as the exploration of these networks often requires to foray into issues regarding sericulture and silk-reeling, this section also provides some general information on crucial aspects of the production and manufacturing of raw silk. The interrelation between trading networks, and issues regarding silk production, transfer of technical knowledge and so forth is, in effect, so tight that it is almost impossible to deal with them separately. The most evident example

of such interrelation is the contribution given by Italian silk-traders to the revival first, and the technical upgrading later of the silk industry in South India, especially in Mysore. While conducting their business in South India, Italians introduced new races of silkworms, and some hybrids, and fostered a significant transfer of know-how regarding on the one hand, the way of rearing those new races, and attempted to improve reeling processes on the other. Despite appearing utterly unconnected at a first glance, the building up of trading networks and the transfer of scientific knowledge under the form of technical improvements are linked to each other. In fact, the silk business of the Italians in South India went hand in hand with a number of 'experiments' that they carried out over time in order to improve the local species of silkworms as well as the reeling of silk. The close link that exists between economic activities, and sericultural experiments is so strong that is not possible to deal with the former without tackling the latter. Any attempt to separate these two issues would impact negatively on the overall analysis. However, handling the analysis of the networks and the exploration of the experiments simultaneously creates several problems. The first is the necessity frequently foray into technical aspects regarding silk production and manufacturing. This may disorientate the reader not fully acquainted with the subject, as only those technical aspects directly related to the activities of the Italian silk traders have been dealt with extensively, while many notions concerning sericulture haven been taken for granted. Needless to say, a detailed illustration of the silk production processes is beyond the scale and scope of this study. However, given the high specificity of the topic – trading networks meant to serve silk trade-, some basic information regarding key-issues, such as, for instance, the pebrine crisis or the traditional methods of producing raw silk in South India, has been provided for sake of clarity. Taking into account the aforementioned problems the material has been organised and subdivided into three chapters. The first of these three chapters (chapter 3) has been designed as an explanatory introduction which eventually leads to the main topic. It provides a brief, and very general overview of the state of sericulture, and silk trade in the Eurasian continent in the mid-nineteenth century. Taking the *pebrine* crisis at the middle of the 19th century as point of departure, it explores the major upheavals that occurred in the international market for raw silk, and also reviews changes in silk global production. The chapter that follows (chapter 4) focuses on the activities of the De Vecchi enterprise in Mysore and Madras.

The second section, devoted to the analysis of the trading networks of Italian coral traders from the town of Torre del Greco, has been laid out very similarly. The first chapter (chapter deals with the market for red coral in India, illustrating the widespread usage of Mediterranean coral in the Indian traditional jewellery and explaining why it was in such great demand. Drawing upon a heterogeneous set of sources, such as Hindu and Buddhist sacred texts, the chapter explores the symbolic and religious value of red coral. As in the case of silk, it is also necessary briefly to dwell on some technical aspects of the coral manufacture and trade (processes of production, manufacturing and commercialisation) which help understand the formation and organization of the trading networks linked to it. The second chapter of the section enters the main topic, and focuses on the organisation of the trading networks of the Italian coral traders. This chapter is partially based on interviews I have had with the descendents of ancient and renowned manufactures in Torre del Greco. Their memories, which I have cross-checked with other archival sources from public archives, have been essential to trace back some organisational habits of these traders in their settlement at Calcutta. A good deal of the documentation on which this chapter is based also comes from the business records, kept in private archives, of coral manufactures that are still active in Torre del Greco. Particularly important have been the correspondence with their overseas agents of the Basilio Liverino & Co., Raffaele Costa & Co., and Antonino De Simone & Co. The chapter explores the networks that these firms, and other coiral traders operating in India in the 19th and 20th centuries, had developed within and outside their community in Calcutta.

PART ONE

INDIAN SILK AND THE TRADING NETWORKS OF ITALIAN SILK-TRADERS IN SOUTH INDIA 1860s-1870s

3.

THE PEBRINE CRISIS, THE INTERNATIONAL MARKET FOR RAW SILK AND INDIAN SERICULTURE.

3.1. The pebrine crisis: 1850-1870.

This chapter has an introductory function. It is concerned with two preliminary topics that are indispensable to introduce before proceeding with the analysis of the trading network of Italian sericulturists in Mysore. The first of these two topics is outbreak of *pebrine*, and the other is the condition of the silk-industry in South India. Both issues may at first seem—little connected with the main topic, but in fact they are extremely important to grasp some crucial aspects of the organisation and the structure of the De Vecchi's trading network. *Pebrine* and its aftermaths in particular, was of great importance for the modification undergone by this trading network over the years and for this reason a good portion of the chapter is devoted to reviewing its global consequences.

From the mid-nineteenth century onwards the presence and the activities of Italian sericulturists in South India were to a great extent the by-product of a crucial event which dramatically impacted on European sericulture: the prebrine crisis. The latter was, indeed, a powerful catalyst for a gamut of far-reaching modifications in the international market for raw silk, and silk textiles. It was a true turning-point which upset the international market for raw silk for more than twenty years, and reshaped the world geography of silk-production. *Pebrine* played a very important role in the making of the trading networks of the Italian silk traders. It was primarily responsible for the high level of symmetry in the cooperative relations within the network which would have been otherwise unbalanced in favour of the Mysorean merchants. As we shall see, certain aspects of the network's structure need to be analysed in the context of the

modifications caused by *pebrine* to be fully understood¹⁰⁴. Given the importance of the disease in determining the equal position of the actors inside the network, it is worth briefly reviewing some of its major aftermaths both in Europe and Asia, with special emphasis on British India.

The pebrine crisis began as an 'European' crisis, but within one decade it became a global phenomenon, and its reverberations were soon perceived in the main silkproducing areas as well as in the major silk-consuming countries. Pebrine 105 broke out in the mid-nineteenth century, and proved to be the worst crisis ever experienced by the First the French silk-producing districts were infected, European silk-industry. later on the disease crossed the Alps, and swept through Northern Italy, the then corearea of Italian sericulture. Lombardy, Piedmont, and Veneto were infected in the early outbreak of pebrine, which soon reached all the countries of the Mediterranean rim, and moved rapidly eastward, was a real shock. Its first macroscopic effect was a significant decrease in the output of raw silk in Europe. Within a few years the production of raw silk drastically shrank as a result of the amazingly rapid spread of the disease. The decline in the European production, which was particularly visible in countries such as France and Italy 106, immediately impacted on the international market for raw silk, generating a number of wide-ranging effects, among which: loss of market shares in the world silk trade for France and Italy; rise in the price of seed¹⁰⁷, raw silk and silk textiles; search for new seed, which could replace the diseased European races; gradual rise of Asian countries as leading producers of raw silk. French and Italian silk industries were badly hit by the epidemic 108. In Italy, in particular, the rapid propagation of pebrine shook the silk-producing sector as there

¹⁰⁴ In effect, the sudden outbreak of pebrine in Mysore in 1866 influenced the structuring of the trading network established by Achille and Henry De Vecchi.

¹⁰⁵ The name *pebrine* derived from the dialect spoken in the French Midi, and it referred to the black spots that appeared on the body of the diseased caterpillars. The disease was caused by a protozoan parasite - *Nosema Bombycis*- belonging to the order *Microsporidia* of the subclass *Neosporidia* of the class *Sperozoa*. It was highly contagious and hereditary. The symptoms were visible only in the final moult, when the worms were prevented from spinning the cocoons. No efficacious remedies were available until Pasteur experimented, in 1869, a method to detect the disease and select the healthy eggs.

¹⁰⁶ Before the pebrine crisis Italy was estimated the second lager world producer of silk yarn, while China was the fist one.

¹⁰⁷ Silkworms' eggs are technically known as *seed*.

¹⁰⁸ In the mid-nineteenth century those of France and Italy were the most advanced silk industries of the world, and their production of raw silk was renowned for its quality.

was no way to efficaciously treat the disease or to prevent the contagioun. Furthermore, it was almost impossible to ascertain whether the silkworms eggs were contaminated or not (only later on, with the examination of the eggs under the microscope was it possible to verify the healthiness of the eggs, but even this method could not give any assurance about the quantity, and quality of the harvest). Because of this Italian silk-producers continued to invest huge amounts of money only to find out at the end of the harvest season, that the great majority of the silkworms had died before spinning their cocoons. Italian as well as French sericulture employed a monovoltine silkworm (Bombyx Mori), thus only one annual cocoon crop was The capital required to carry out sericulture under this form was relevant, harvested. and if there was no crop at the end of the year, or if the crop was meagre the capital invested would have been totally lost. As G. Federico put it:

"the disease transformed the economics of sericulture. It greatly increased the risk of losing the harvest, and with it all the work and money the raiser had invested in eggs. (...) Moreover, pebrine upset the whole process of framing expectations on output and prices. (...) The epidemic made output and prices unpredictable "."

In order to fully grasp the shattering effects of the pebrine crisis on the Italian silk-industry, it is worth bearing in mind that by the mid-nineteenth century the production and manufacturing of raw silk were among the most important industrial activities, and the exportation of raw silk and silk yarn was a key-factor in the economic development of Italy. Although the role of the silk industry in propping up the industrial development of large parts of the Italian peninsula was decidedly relevant, it has often been underestimated or simply neglected in the past. In the mainstream historiography, for instance, the tendency to emphasize, on the one hand, the role of heavy industry as the engine of the Italian industrial take-off, and the political unification of the peninsula as a process positive implications for the latter has been so generalised that for a large number of scholars the relationship between a strongly subsided heavy industry (the financial support given by the Italian Government to some industries is very well-known), and the unified state has been the main analytical category for the study of the economic growth of Italy. The preference for such a limited

¹⁰⁹ Federico, G., An economic history of the silk industry, 1830-1930. Cambridge, 1997.

approach has often led to a deceptive and altogether inaccurate assessment of Italian economic growth as a whole. As a result, the importance of the silk- industry in setting in motion and driving an early and essential stage of industrialization has been very frequently misconceived or downplayed. This type of historical 'myopia' seemingly affects a significant number of scholarly works on Italian industrialization. In fact, the silk-industry has had an unfortunate fate in the master narrative on Italian economic history being neglected or left at the margins of an alleged heavy-industry driven, and state-subsidised economic growth. However, efforts to rectify such view and restore the leading role of the silk industry in the industrial development of the Italian peninsula have been made in recent years. Through a closer and more accurate look at the economic development of the Italian in the past two centuries is possible to acknowledge, and peninsula on regional basis appreciate the role that sericulture and her ancillary manufacturing activities have had not only in promoting and sustaining an initial phase of industrial take-off, but also creating a fertile socio-economic fabric upon which a sounder and broader economic growth was grafted. As L. Cafagna correctly pointed out:

"se l'Italia è oggi un paese industriale lo si deve in non piccola parte a coloro che, nei secoli che vanno dal Cinque-Seicento all'Ottocento, ma soprattutto nell'Ottocento, si dedicarono alla cura del filugello, come un tempo veniva chiamato il baco da seta, e alla sua lavorazione. Stanno qui le origine prime della moderna industriosità italiana che doveva approdare all'inserimento del paese in quello che si suol denominare oggi il novero delle grandi potenze industriali¹¹⁰."

The Italian silk industry grew steadily until the middle of the 19th century, when the outbreak of pebrine put to an end a century-long upward trend, and seriously endangered the industry. How did Italian silk producers respond to the crisis generated by *pebrine*?

Logically enough, concern and in some cases even panic was the first reaction of large fringes of silk-entrepreneurship. For the first time, the latter had to cope with a crisis whose dimensions appeared catastrophic from the outset. The bad news coming from the French silk-rearing districts, which soon dashed all the hopes of a fast recovery of the industry, led to increasingly worry amongst Italians about the uncertain fate of their silk-industry. Italian silk-producers frantically tried to fight the epidemic with all the means at their

¹¹⁰ Cafagna, Luciano, *Dualismo e sviluppo nella Storia d' Italia*, Venezia, 1989.

disposal. However, in spite of the large number of attempts made in Italy and elsewhere to find remedies which could heal the diseased European silkworms, no significant results were achieved. Most of these attempts, moreover, were rather bizarre, and their scientific foundations were very often highly questionable. Other experiments were conducted in a more proper way, employing the scientific knowledge, and technology available at that time in order to prevent the contagion among the silkworms or to create, by means of hybridization¹¹¹, new kinds of silkworms more resistant to the disease. Certain experiments made it immediately clear that one way to partially prevent the contagioun was to keep high standards of hygiene in the rearing houses by removing the dead and diseased worms from the trays where they fed. Special care for hygiene soon became a sort of stopgap measure which helped to keep the disease under control. But for the silkworms already infected there was no way to recover 112. Only when L. Pasteur discovered a method to detect pebrine in the eggs, did it become possible to prevent pebrine through the careful selection of the healthy eggs¹¹³. The dramatic incidence of pebrine on the one hand forced the Italian silkmanufacturing industry to search for new supply -sources for raw material, and on the other Italian sericulturists to look for a better *seed* beyond European borders. Asia, which was the original home to the silkworm, and the area where sericulture was firstly developed, soon emerged as the new, major supplier of raw material for the expanding international market for raw silk as well as the favourite site for a growing number of 'scientific missions' meant to search for healthy, and disease-free seed to replace the degenerate Europenas species. Asia, therefore, was immediately seen as a sort of "promised land", which concealed new races of silkworms more resistant to the disease, and more productive. The growing interest in the Asiatic sericulture shown by Europeans general, and by the Italians in particular, was certainly one of the most important outcomes of the pebrine crisis, as it had several consequences that ranged from a stronger presence of

¹¹¹ It has to be noted that the experiments of hybridization became a widespread practice soon after the outbreak of pebrine. Some hybrids, later on, gave good results, being more resistant to pebrine and other diseases.

¹¹² Even nowadays it is not possible to treat pebrine. The only method to avoid pebrine is the microscopic examination of the eggs, and the consequent selection of the healthy eggs. Special centers for the distributions of *disease-free layings* (dfl) - *Stazioni bacologiche sperimentali* in Italy- were gradually established in all the silk-producing countries in order to make sure that rearers received and raised a healthy seed.

¹¹³ Pasteur,L., Etudes sur la maladie des vers à soie : moyen pratique assuré de la combattre et d'en prévenir le retour, Vol. 1, La pébrine et la flacherie,Paris, 1870.

Italian enterprises in the silk-producing areas of Asia, to the exchange of scientific knowledge as well as technology in the field of silk-cultivation and silk-manufacturing between Europe and Asia¹¹⁴. China, Japan and India became the final destinations of long and often dangerous voyages to seek more resistant races of silkworms. In the beginning it was especially China -the cradle of sericulture 115 - that aroused the interests of the Italians, who hoped to find new races of silkworms immune from pebrine in the remote Chinese silk districts ¹¹⁶. But later on, as soon as it was proved that Japanese silkworms could successfully be reared in Italy, the attention of the Italian sericulturists focused on Japan, which eventually turned out to be the only way-out for European sericulture. A silk-entrepreneur and seedimporter from Milan described as follows the relief of Italian silk- producers soon after the first successful experiments with the Japanese races gave reassurances about the possibility to save European sericulture from perishing:

"Dopo le tante dispendiose e vane esplorazioni fatte per ristorare i raccolti di bozzoli, anche i più coraggiosi ed energici semai disperavano ormai di trovare sementi sane e tali da poter ristorare la bachicoltura in Italia e in Francia. Sennonché i buoni risultati degli esperimenti d'allevamento delle sementi giapponesi del 1862 (...) confortarono a sperare in quest'ultima àncora di salvamento" ¹¹⁷.

From the 1860s the bay of Yokohama in the island of Hokkaido, became the gathering point of a large number of Italian semai 118 who went there to purchase huge quantities of semebachi 119 to be shipped back to Italy 120. Since the early 1860s small quantities of Japanese eggs had been tested by Italian silk-producers with very good results, which induced them to rightly think of Japan as the sole, and valid alternative for the supply of seed. The massive importation of new, fresh seed from Japan, in effect saved Italian sericulture from declining,

¹¹⁴ On the transfer of technology from Europe to Asia and vice versa see: Zanier C., Where the roads met: East and West in the silk production processes: 17th to 19th century, Kyoto, 1994.

¹¹⁵ Sericulture is said to have started in China, where the silkworm was firstly domesticated.

¹¹⁶ Most of the Chinese races which were imported in Italy for being experimented, were difficult to acclimatize, and the final results were largely disappointing.

Fossati, Primo, 'Cenni storici sulla Epizoozia nel baco da seta e Prospetto statistico dell' esportazione seme-bachi dal Giappone' in Rassegna statistica baco-sericola d'Italia e della provincia di Milano del 1886-87, Milano, 1887.

118 Seed-dealers, people specialised in trading *seed. Graneurs* in French.

¹¹⁹ Seme-bachi is the technical term used in Italian to indicate the silk seed. Grain in French. Tane in

For a detail account of the presence and activities of Italian seed-dealers in Japan see Zanier, C. Semai. Setaioli Italiani in Giappone (1861-1880), Padova, 2006.

and allowed Italian silk industry to recover quite quickly from the pebrine crisis, and regain her position in the international market. At the turn of the 19th century, Italian silk-industry once again held a leading position both domestically and internationally as P. Pinchetti pointed out in his study on the Italian silk industry and the competition with Asian silk-producing countries:

"(...) fra le industrie italiane di primo ordine, nessuna per importanza economica può competere con quella serica, dalla bachicoltura alla trattura, dalla lavorazione del filo serico al commercio di esso. L'Italia da sola rappresenta oltre la terza parte della produzione mondiale, il suo raccolto è dieci volte superiore a quello della Francia e cinque volte maggiore di quello complessivo delle nazioni seriche dell'Europa. Questa industria esporta per un valore di oltre mezzo miliardo di lire e le sete, compresi i tessuti di seta e i misti, costituiscono più della terza parte delle nostre esportazioni. Tutto ciò dimostra che per l'entità della sua produzione serica l'Italia gode di un primato in Europa e che a questa principalissima fra le industrie italiane sono collegati tutti i rami della nostra vita economica, dall'agricoltura alle manifatture, alle banche e al commercio" 121

The financial cost of the importation of *seed* from Japan was enormous. It has been estimated that between 1864-1886, 22.273.000 *seed* cardboards¹²² were imported from Japan, for a total value of 240.101.200 L. (Fig. 3.1. and 3.2.). This was a huge amount of money, which brought about a noteworthy deficit in the Italian trade-balance with Japan. But for those who actively engaged in trading Japanese *seed*, the business turned out to be very profitable. From 1864 to 1885 Italian *seed-dealers* earned about L. 66.084.600 (this estimation is an approximation and refers to net profits)¹²³. Japan became, therefore, the largest supplier for disease-free *seed*, which was virtually exported all over the world, and Italians took a very active part in such trade. The constant need¹²⁴ for disease-free *seed* meant that Italian sericulturists had to travel to Japan in order to select and collect the best *seed* to be imported into Italy from where it was made available for distribution to other European countries, especially France. Before Japan the successful experimentation of Japanese seed, Italian sericulturists had travelled throughout Asia in search of healthy seed. Here it is not possible to give a detailed account of the countless number of expeditions undertaken by

¹²¹ Pinchetti, P., La industria serica in Italia e la concorrenza asiatica, Como, 1906.

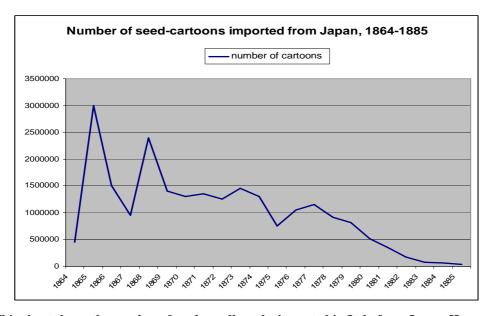
¹²² Cardboard (*cartone* in Italian and *cartoon* in the 19th century British records on sericulture) was the unity of measure for *seed* used in Japan. One cardboard contained 25 ounces of silkworm eggs.

¹²³ Fossati, Primo (1887), op. cit.

¹²⁴ For many years it was necessary to introduce Japanese *seed* at every season.

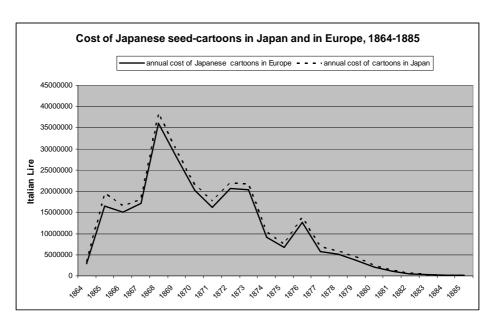
the Italians. However, two scientific missions, those of Freschi and Orio, deserve to be briefly mentioned as they have direct links with the topic of this study.

Gherardo Freschi ¹²⁵ a nobleman from Friuli, with huge interests in the silk-business and an outstanding expertise in sericulture planned an expedition to Asia jointly with his friend and country-fellow G. B. Castellani to test the feasibility of importing, and rearing Asian *seed* in Italy. Castellani and Freschi resolved to visit the main silk districts of China and India. The mission, which was perhaps one of the most ambitious ever organised of its time, was sponsored, amongst others, by the Archduke Maximilian of Hapsburg. Castellani travelled to China with some companions, while Freschi headed for India, where he arrived after a long trip in February 1859.



<u>Fig. 3.1.</u>This chart shows the number of seed- cardboards imported in Italy from Japan. However, nearly half of the cartoons imported from Japan into Italy between 1864 1869 were destined for France. Source: Fossati, Primo, 'Cenni storici sulla Epizoozia nel baco da seta e Prospetto statistico dell' esportazione seme-bachi dal Giappone' in *Rassegna statistica baco-sericola d'Italia e della provincia di Milano del 1886-87*, Milano, 1887.

¹²⁵ On Gherardo Freschi, see Zanier, C. (ed), *Una figura di statura europea tra ricerca scientifica ed operare concreto: Gherardo Freschi (1804-1893)*, atti del Convegno di Sesto al Reghena/Ramoscello, 13 Dec. 1997.



<u>Fig.3.2.</u> Cost of Japanese seed-cardboards in Japan and in Europe. Source: Fossati, Primo, 'Cenni storici sulla Epizoozia nel baco da seta e Prospetto statistico dell' esportazione seme-bachi dal Giappone' in Rassegna statistica baco-sericola d'Italia e della provincia di Milano del 1886-87, Milano, 1887.

While travelling to Bengal Freschi made contact with other Italians (Vidi and Pistori) who were also going on an explorative mission to India on behalf of a group of silk-entrepreneurs from Vicenza (Veneto). In Calcutta all these people received help from the then Consul of the Kingdom of Sardinia, Giuseppe Casella¹²⁶, who may have played a certain role in advising Italians about the best silk-producing districts to visit, and those people whom it would be advantageous to contact on the spot. Freschi was advised to go to Ghottal, and did so in company of Casella's son, Francesco¹²⁷. While Freschi was in Ghottal, Vidi and Pistori reached Rajarampore, where Giuseppe De Cristoforis¹²⁸ worked for the Italian- Swiss firm

¹²⁶ Giuseppe Casella was the co-owner of the first Italian trading company established in India, the Genoese firm *Oliva & Casella*. On the firm and its activities see: Iannettone,G., *Presenze italiane lungo le vie dell'Oriente nei secoli 18. e 19. : nella documentazione diplomatico-consolare italiana, Napoli*, 1994. Viola, A., 'Italian traders in 19th century South Asia', in *Colonialism and Imperialism: between Ideologies and Practices*, D. Ramada Curto and A. Rappas (eds), EUI WORKING PAPERS No. 2006/01

¹²⁷ Francesco Casella was the Italian vice-consul from June 1861 to November 1862, when the consulate was taken over by C.E. De Souza. Moscati VI, ASD, MAE.

A member of an influential and well-known family from Milan, G. De Cristoforis went to India in 1851 as the country manager of the filatures owned by the firm *Jung e C.*. See Zanier, C., (2006), *op.cit*.

Jung & Co., which had purchased some of the East India Company filatures 129. Soon after his arrival in Ghottal, Freschi began to inspect all the silkworm breeding establishments in the area, and was unimpressed by the dreadful conditions of the local sericulture. His consternation was made worse by the examination under the microscope of the young silkworms, and the moths which according to him, showed the unequivocal symptoms of pebrine. Later on Freschi also examined other seed-samples he received from other parts of Bengal, and came to the final conclusion that the entire region was already infected by the disease, and therefore no seed could be collected from any of the Bengali silk-producing districts. In April 1859, the results of the Freschi's mission were officially presented in one of the meetings of the Agricultural and Horticultural Society of India at Calcutta. As soon as Freschi's report was echoed in the Anglo-Indian press, it stirred up a hornet's nest. The immediate reaction of the Bengal-based British entrepreneurs with interests in the silkbusiness was violent. One of the most important British trading companies in Asia, Jardine, Skinner & Co. 130, whose filatures Freschi had visited in Ghottal, considered the report as a personal attack. Freschi was accused of inaccuracy in his examination of the Bengali races, and of unfairness in his considerations on the poor state of the sericulture in the region, and on the quality of the Bengali raw silk, which as Freschi himself stated "would have been considered less than rubbish in Italy" 131. Moreover, the claim of Freschi about the widespread presence of pebrine in Bengal, was rejected as it was said that insufficient evidence had been provided. However, soon after the entomologist Thomas Hutton¹³² confirmed Freschi's diagnosis with no hesitation, asserting that pebrine was present in many Bengali silk-districts. The detection of pebrine by Freschi is a controversial point, and

¹²⁹ In 1835, two years later the expiration of the royal charter, the EIC sold to private companies all the filatures previously owned in Bengal.

¹³⁰ The firm was engaged in silk-trade as well as in *seed*-trade between India and Europe. On the activities of the *Jardine, Skinner & Co.* in India see Jones, G., *Merchants to multinationals. British trading companies in the nineteenth and twentieth centuries*, New York, 2000; Jones, S., *Merchants of the Raj. British managing agency houses in Calcutta, yesterday and today*, 1992.; Chapman, S.D., 'British-based investments groups before 1914', in *The Economic History Review*, Vol.38, No. 2 (May 1985), pp.230-251, and *Merchant Enterprise in Britain: From the Industrial Revolution to World War I*, Cambridge, 1992.

¹³¹Quoted in Zanier, C., *Alla ricerca del seme perduto: sulla via della seta tra scienza e speculazione, 1858-1862*, Milano, 1993. Freschi's categorical statement can be partially explained by taking into account the fact that the Italian sericulturists had usually in mind the high standard of the Italian raw silk, Bengali raw silk, alike the majority of Asian raws, did not match such a standard. This, however, did not mean that the entire production of raw silk in Bengal was 'rubbish'.

¹³² Thomas Hutton was a scientist and entomologist active in India at that time. He studied and classified the Indian wild silkworms.

requires clarification. According to the majority of the British official reports on silkcultivation, pebrine was first said to have broken out in 1875 in Bengal. Prior to that date no pebrine had been officially diagnosed. Indian reports of the same matter are more realistic, and reliable, as they recognise the presence of a disease whose symptoms were concernedly similar to those of pebrine 133. However, for the subject this study is concerned with, the fact that Freschi identified pebrine in Bengal already in 1859 is crucial because this was the period during which the De Vecchi brothers began to operate in India. In 1860 Henry De Vecchi was already active in Calcutta, and presumably he would have established his activities in Bengal, had not the disheartening news on the Bengali sericulture surely convinced him and his brother that it was better to look for business opportunities elsewhere in India, in regions still unexplored and hopefully not yet touched by pebrine. At that time Mysore and Kashmir seemed to be the only practical alternatives. Kashmir was already on the top of the agenda of most Italian sericulturists (Freschi himself intended to go to Kashmir), and as rumored in Italy, was very soon going to be the destination of another Italian mission, that of Carlo Orio. In contrast Mysore was still an untried region with a rather good, albeit limited, production of raw silk ¹³⁴. Its climate and geography seemed particularly suitable for the rearing of silkworms and the cultivation of mulberry. Therefore, Freschi's identification of pebrine was an important factor in orienting other Italians towards silk-producing areas other than Bengal, and in alerting them about the concrete risk of the disease.

In 1863, some years after the failure of Freschi in Bengal¹³⁵, a limited partnership company was launched in Milan to raise the capital to finance a new mission of Italian sericulturists to Kashmir¹³⁶. The mission was led by Carlo Orio, a very reputable, and prominent silk-entrepreneur from Lombardy. The journey to Kashmir was rather difficult, and, as testified to by the correspondence of the Italian consulates in India¹³⁷, Orio and his country fellows were

¹³³ For a discussion on the spread of pebrine in India see Jameson, Pringle, A., *Report on the diseases of silkworms in India*, Calcutta, 1922.

The production of raw silk in Mysore was limited compared to that of Bengal.

135 For a detailed account of the expedition of Gherardo Freschi in Bengal see: Zanier, C., (1993) *op. cit.*

For a detailed account of the expedition of Gnerardo Freschi in Bengal see: Zanier, C., (1993) op. cit. ¹³⁶ The company was registered under the name of Carlo Orio e C.. Other entrepreneurs, and bankers gave their financial support, among which Albini e Orio, Fratelli Gavazzi, and Pasquale De Vecchi e C. (there is no relation between this firm and the A. De Vecchi & Co. active in South India). See Zanier, C., (2006) op.cit.

¹³⁷ Le Scritture del Ministero degli Affari Esteri del Regno d'Italia dal 1861 al 181, (Moscati VI), Consolato Italiano a Bombay, F. 865, 1862-69; Consolato Italiano a Calcutta, F. 869, 1861-69, ASD.MAE.

confronted with many difficulties, and were forced to change their itinerary, rerouting it via Calcutta rather than via Bombay as they had originally planned. Nevertheless they managed to reach Kashmir, and once there they collected a great quantity of *seed*. Orio took back to Italy 30.000 ounces of silkworm's eggs, which were ostensibly of a very good quality. In spite of the great expectations around the Kashmir's *seed*, the silkworms turned out, when the eggs hatched, to be less resistant to pebrine than had previously been believed. Additionally the quality of the silk thread, once the cocoons were reeled, left much to desire by Italian qualitative standards, as it did not meet the needs of the silk-reeling industry, and in turn, even less those of the silk-weavers¹³⁸.

In spite of their partially disappointing results, both the missions were the sign of the widespread interest in India among Italian sericulturists. Although the *seed* collected in India and imported into Italy did not perform as expected, causing great disappointment to those who had invested money and energy in those enterprises, the Indian subcontinent did not cease to be regarded as an area which could still offer opportunities for the business of silk. But besides being a sign of interest in Indian silk -production, these two missions were also, and perhaps more importantly, a good indicator of a crucial phenomenon to which the majority of scholars concerned with the global history of silk have ever paid scant attention. Both missions brought to light the decline of Bengal- until then the main silk-producing area of the Indian subcontinent-, and the rise of two new silk-poles, namely Kashmir and Mysore, where the production of mulberry silk was to be concentrated in the following decades.

3.2. The pebrine crisis and Indian silk-industry.

With the major European producers of raw silk temporarily cut out from the international market because of *pebrine*, the chances offered to the silk-producing countries in Asia seemed virtually unlimited. Generally speaking, there is agreement among the scholars in deeming the supply shock brought about by the pebrine crisis as a watershed that marked the end of an era, and opened up a new one which saw the rise of

¹³⁸ On the Italian mission to Kashmir see Zanier, C., (2006), op.cit.

Asian countries as leading producers and exporters of raw silk ¹³⁹. Unfortunately enough, in reviewing the global effects of the pebrine crisis scholars have tended to focus almost exclusively on China and Japan. The latter, in particular, has drawn substantial attention, and her major breakthroughs in silk-production from the last quarter of the 19th century have been regarded as one of the direct outcomes of the pebrine crisis ¹⁴⁰. The rapid growth of the Japanese silk-production, along with the massive flow of Chinese raws into western markets have deflected the attention from South Asia, which is often neglected or at the best referred to as an area where sericulture was languishing. The widespread idea that by the mid-nineteenth century Indian silk-industry was at a standstill was generated by a combination of different factors, among which the decline of silk production in Bengal, and the incapacity of the Indian silk industry as a whole to promptly respond to external inputs, and increase its productive power as China and Japan did.

The decline of Bengali silk-industry, in particular, gave the misleading impression to external observers that in India little silk-production endured. This negative impression seemed to find apparent confirmation in the drop of raw silk exported from Bengal to Europe – the London market was usually taken as a point of reference for these types of estimations-. Despite a sudden growth in the importations of raw silk from India (mostly from Bengal) in the years of the fiercest spread of *pebrine*¹⁴¹, the consumption of Bengali silks in the British domestic market diminished significantly in the last three decades of the 19th century, the main reason being the massive importation of Chinese silks which successfully replaced those from Bengal. Due to the forced opening of the Chinese ports soon after the First Opium War¹⁴², the British market was flooded with large quantities of raw silks from China. It has been estimated that in ten years, from 1850 to 1860, the exportation of

¹³⁹ For sake of accuracy it has to be specified that China never lost her role of the world's larger silk-producer. Japan caught up during the pebrine crisis and in the early 20th century became the major supplier of raw silk for the western markets. India became a leading silk-producer only after the Second World War, with the Mysorean silk districts accounting for the 70-75%% of the India's total output of raw silk.

¹⁴⁰ On the pebrine crisis and Japan, see C. Zanier, "Japan and the pebrine crisis of European sericulture during the 1860s", in Power, E. (ed), *Silkworms and chips*, Banner Zeitschrift fur Japanologie, 1986.

¹⁴¹In the year between 1862-1872, the dramatic shortage of raw material forced British silk-weaving industries to increase the purchase of Bengali raws. This was a result of the fact that it was impossible to get supplies from Italy or France, which at that time were barely able to meet their domestic demand. ¹⁴² With the Treaty of Nanjing, China was forced to open the ports of Guangzhou, Xiamen, Fuzhou,

Ningbo and Shangai to British trade.

Chinese "raws" increased sharply, going up more than fourfold 143. A survey on the types of raws employed by British weaving-industries in the early 20th century¹⁴⁴ showed that from the 1880s onwards the imports from China boosted, driving out Bengali silks from the British market where they had formerly been largely employed. Chinese raw silks were usually divided into three categories, according to their different quality and characteristics: Tsatlee reel, which was the oldest type of Chinese silk to be imported into Britain, was mostly a primitive and defective kind of raw silk; re-reels was a better type of raw silk that, as the name indicated, had undergone a process of re-reeling which made the silk thread less defective than that of the tsatlee; steam filatures raws were the finest raw silk that came from China, and were quite expensive. All these raw silks went under the general name of "Chinas" 145. Better reeled, and in the case of tsatlee and re-reels, even less expensive, Chinese raw silks successfully competed with the Bengali ones. On the other hand, in the second half of the 19th century silk-production in other parts of India, namely Kashmir and Mysore, was not yet as large as to efficiently serve the international market, being principally employed by the Indian silk manufactures. The annual output of raw silk in both regions was relatively limited, and the quantity available for exportation was even far smaller as the domestic weaving-centres absorbed almost entirely the production. Only quantities of raw silk were exported, and preferably to continental Europe where Kashmiri raws, in particular, were very appreciated for their quality. By the mid-nineteenth raw silks from Kashmir were usually marketed in continental Europe, and only a comparatively tiny amount reached the London market, and thus British silk weaving-industries. This explains why looking at the Indian silk-industry through the lens of the British market for raw silk, it is very difficult to gain a realistic perception of what was going on. Only the deceptive impression of a generalised decline is visible. Moreover, India's spectacular loss of market shares in the international market for raw silk, contributed to generate the idea that sericulture in the country was slowly dying out. As confirmed by statistical data, the position of India as a supplier of raw silk for the international market changed noticeably from the

¹⁴³ Debin Ma, "The Modern Silk Road: The Global Raw Silk-Market, 1850-1930" in *The Journal of Economic History*, Vol. 56, No. 2, June 1996, pp.330-355.

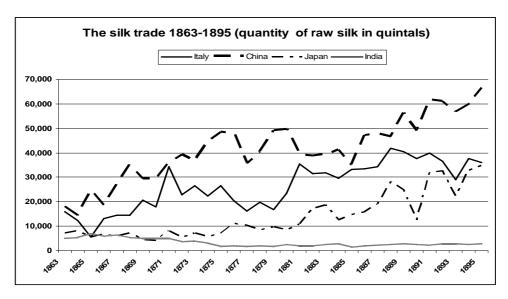
¹⁴⁴ Ratan, C. Rawlley, The Silk Industry and trade. A study in the economic organization of the export trade of Kashmir and Indian Silks, with Special Reference to their utilization in the British and French markets, London, 1919.

British weavers used also another type of Chinese raw silks, named "Cantons", which were imported via Canton. They were of a very poor quality and could be utilised only for cheaper goods.

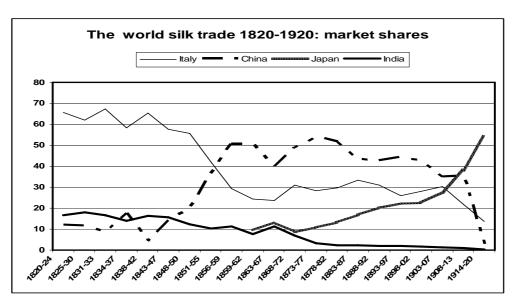
mid-nineteenth century onwards. This change, however, -and it is crucial to emphasise this point-, corresponded neither to a decline in the raw silk output nor to a decrease in the exportation of raw silk. The loss of market shares that India experienced considered in any way a good indicator of the decline of the Indian silk production as a whole. And yet it cannot be taken as the one and sole element to evaluate the state of the silk industry on the subcontinent. The withdrawal of India from the top five list of the world major silk-producers in the second half of the 19th century should first of all be considered in relation to the complex dynamic of the demand and offer for raw silk at a global level in the age of pebrine. The consumption of raw silk grew steadily throughout the 19th century, with a significant intensification from the 1860s onwards; in the mid-nineteenth century with the outbreak of pebrine in Europe the productive power of some of the major European silkproducers (Italy and France) halved, while the silk-production of some Asian countries (China and Japan) increased as a reflex to meet the demand of a rapidly expanding market. In that context, China and above all Japan were capable of making up the gap between the rising demand and the declining offer, filling the temporary void left by French and Italian silk-industries. Unlike China or Japan, the productive power of India did not increase consequently, and although the exportation of Indian raw silk went up in the 1860s, her capacity to supply the international market remained substantially limited. Moreover, the growth of the Indian domestic market –it has been estimated that by the turn of the 19th century 90 to 100 millions Indians used to dress in silk- meant that only a comparatively small amount of raw silk was available for exportation, while the great bulk was utilised by the local silk-manufactures. Therefore, India's loss of market shares in the world trade in raw silk had very little to do with the an alleged decline in production or exportations. Statistical series (fig. 3.3.) show that there was no sudden drop in the exportations, on the contrary there was a certain stability in the total amount of raw silk annually exported from India, with peaks of two millions lbs and above in 1868,1869,1870,1871,1873, (those were the years of the fiercest spread of pebrine in Europe) and in 1889,1890,1910¹⁴⁶. The loss of market shares is thus to be re-thought under the light of the rise of Japan and China as major suppliers of raw silk for the international market. Japanese and Chinese productions were far

¹⁴⁶ Statistical Abstracts of British India, Government of India, available at 'South Asian Digital Library' http://dsal.uchicago.edu/statistics/.

larger than that of India, and could be massively exported for the benefit of the western silk-consuming countries. Unlike China and Japan, India was incapable of quickly adapting her productive system to the needs of the international market, and increase her production accordingly, and thus the country lost market shares. In this perspective, it is evident that the pebrine crisis had a radically different impact on India in comparison with China and Japan. The crisis did not induce an immediate expansion of the Indian silk-industry as occurred in China and Japan. Nonetheless it had a vast array of effects which changed the profile of the industry. First and foremost, the pebrine crisis sanctioned the definitive decline of Bengal as the major producer of raw silk on the subcontinent, which was soon to be replaced by Kashmir and Mysore as the new poles of silk-production. This important change in the geographical distribution of the production of raw silk was already underway, and the pebrine crisis acted mostly as speeding-up factor. As previously emphasised, the rise of these regions which replaced Bengal as the major mulberry silk producers in India, was already a visible phenomenon, albeit not fully-fledged at the middle of the 19th century.



<u>Fig.3.3.</u> The world silk trade between 1863-1895. Source: Federico, G. *Il filo d'oro. L'industria mondiale della seta dalla restaurazione alla grande crisi*, Venezia, 1994.



<u>Fig.3.4</u>. Market shares of Italy, China, Japan and India in the world silk trade, 1820-1920. Source: Federico, G. *Il filo d'oro. L'industria mondiale della seta dalla restaurazione alla grande crisi*, Venezia, 1994.

The experiences of Carlo Orio, and Gherardo Freschi respectively in Kashmir and Bengal, represented an early confirmation of this trend. In the beginning it was Kashmir that came to the fore as the 'promised land' of Indian sericulture. In 1869 the Maharaja Ranbir Singh launched several modernization projects with a view to improving local silk production. Since then Kashmiri the silk-industry had been strongly backed by local authorities, and from the last quarter of the 19th century it was also partially supported by the Government of India, which dispatched Thomas Wardle¹⁴⁷ to Kashmir in order to conduct a survey on the production and manufacturing of raw silk in the country. Wardle, who began several experiments to enhance local silk-production in conjunction with Kashmiri authorities, reported favourably on the potentialities of local silk-industry, if a further modernization was implemented¹⁴⁸. The efforts of the Kashmir Government led to a relevant improvement in the production of raw silk¹⁴⁹.

Despite some similarities with Kashmir, Mysore silk-industry grew along different developmental patterns, and its evolution was a long process that went through alternate

¹⁴⁷ On the activities of Th. Wardle in Kashmir see King, Brenda M., *Silk and Empire*, Manchester, 2005.

¹⁴⁸ Crown Representative's Records, Indian State Residencies, Kashmir Residency, File no.69 (Part I and II), *Revival of Sericulture in Kashmir*, 1898, OIOC, BL.

Present-day Kashmir has the largest number of mechanised filatures. About 90% of the annual output of raw silk produced in Kashmir is machine-reeled.

phases of expansion, and contraction. Mysore arose as the main producer of mulberry raw silk in the early 20th century, and further consolidated her position in the following decades. In 1917 the production of raw silk in the country already accounted for more than the 50% of the total Indian output of mulberry raw silk¹⁵⁰. But the real take-off occurred only by Before World War II the great bulk of the Mysore raw silk was still late 1940s. consumed mostly domestically, while the silk waste was sent to Europe to be spun¹⁵¹. Soon after the war, as a consequence of the remarkable increase in the number of developmental projects managed by the state, silk-production in Mysore grew quite steadily. The outbreak of pebrine, and the consequent disarray in the world silk-industry was the prime reason for the initial development of the local silk industry. However, the ultimate success of the Mysore silk-industry was determined by a wide-range of factors both endogenous and exogenous. With hindsight, the growth of the silk industry in Mysore was a long and gradual process which was influenced by a number of different elements: Changes in the political and administrative status of the country -the shift from direct to indirect rule was crucial¹⁵²-; the joint efforts of the Mysorean local authorities; the contribution of foreign silk experts and the infusion of foreign technology 153; modifications in the fashion industry which impacted on the international market altering the demand for raw silk 154; and the

¹⁵⁰ In 1917 Mysore produced nearly 1,152,000 lb of raw silk, the total Indian production for the same year amounted to 2,276,800 lb. Statistical data from a paper by H. M. Lefroy presented at the Royal Society of Arts. Feb.1917, quoted in Ratan, C. Rawlley. (1919) *on.cit*.

of Arts, Feb.1917, quoted in Ratan, C. Rawlley, (1919) *op.cit*.

151 The Italian company *Gorio, Bettoni & C.*, owned by Giovanni Gorio (Italian consul in Bombay and prominent entrepreneur from Brescia) and his partner Francesco Bettoni, was deeply engaged in the exportation of silk -waste from Mysore. The Bettoni family owned some spinning industries in Brescia.

¹⁵² Mysore experienced both forms of direct and indirect rule. From 1831 to 1881 the country was ruled by British Officers depended upon the Madras Government. From 1881 onwards Mysore was subjected to indirect rule. Two treaties were signed between the Maharaja and the British Empire to define and regulate the status of the country; the first one in 1881 (*The Instrument of Transfer*) and the other one in 1913 (*Mysore Treaty*). In 1881, a British officer, the Resident, discharging the double function of bridgehead between Mysorean authorities and the British Empire, and Chief Commissioner for the province of Coorg, was then appointed. From 1913 onwards, although not yet fully independent, Mysore enjoyed ample margins of freedom in the administration of the domestic affaires. Silk industry as well as other branches of the country's economic life fell under this category, and therefore were directly managed by local authorities.

¹⁵³ Since the mid-nineteenth century, the Mysore silk-industry benefited from the introduction of foreign technology (mostly Italian and Japanese) which was primarily meant to improve local races of silkworms and silk-reeling processes.

¹⁵⁴ The profound and rapid changes in the Western fashion industry in the last seventy years had modified the demand for raw silk. The rise of new patterns of mass consumption which required less expensive fabrics to create garments no more meant to last for a long time favoured raws of low or average quality, placing a fetter on the utilisation of the finest types of raw silk. The market for this type

extensive commercialisation and utilisation of synthetic fibres¹⁵⁵ were all important factors in stimulating the growth of the silk industry in Mysore, and in India in general. Additionally, it has to be noted that from Second World War onwards the production of raw silk became more and more an activity unsuitable for highly industrialised countries, where labour force was diverted towards other productive sectors. In most countries which had previously taken the lead in silk-production, sericulture was abandoned, and only the silk-weaving sector which utilised mainly raw material coming from Asia survived. Italy and Japan are the case in point. In these two countries sericulture gradually ceased to be the mainstay of most rural areas bordering industrial districts where silk manufactures were located, because a relevant portion of peasants once engaged in sericulture were increasingly attracted by more remunerative activities. The aforementioned factors contributed to give new chances to Asian raw silks, including those of Mysore.

The other important change that the pebrine crisis brought about in India was the growing integration of the Kashmiri and Mysorean silk-industries into international trade circuits. Unlike raw silk from Bengal which had ever been marketed in European as well as Asian markets, until the mid-nineteenth century raw silk from Kashmir and Mysore had not achieved the same degree of international circulation. Kashmiri raw silk found its way to Central Asia, but the great bulk of the production, which was in any case too limited to efficiently serve other than the domestic market, was used locally. The meagre volume of the annual output impeded a larger circulation into distant markets and confined Kashmiri raw silk into regional or at the best extra-regional commercial circuits. Mysore silk-industry was rather new, and after the impetus given by Tipu Sultan, who created the industry out of nothing and tried to place it into an ambitious economic system which looked at the international patterns of trade between the Indian Ocean, the Middle East and Europe, was marginal with regard to that of Bengal. The annual output of raw silk in the country was

of raw silk shrank as a result, while new opportunities were created for the low-quality productions of Asian countries.

¹⁵⁵ The growing utilisation of synthetic fibres thwarted that of natural fibres, raw silk included. Rayon also known as *artificial silk*, successfully replaced silk in trimmings, and from 1920 it was largely used to produces cloth. In the 1930s the large-scale production and commercialisation of nylon –specifically designed for the hosiery industry- began. Nylon proved to be an excellent substitute for raw silk in the production of stockings first, and later parachutes. Both required a high quality, standardised silk thread, when the need for a this type of raw silk slowly vanished, more room in the international market was made for low and average-quality Asian raws.

almost entirely used by the local silk-weaving centres. Limits in the silk-production of both Kashmir and Mysore combined with other factors, such as the merchantable characteristics of their raw silks, prevented the access to broader commercial circuits and confined them to local consumption. The marginality of Kashmiri and Mysorean silk-industries ended precisely when the pebrine crisis began. The interest of foreign sericulturists, notably Italians and French, the programmes for the amelioration of sericulture launched by the British colonial administration and local authorities, the active commitment of local silkproducers and traders were all outcomes related to the supply shock determined by *pebrine*. With so many actors interested in the silk-production in the two regions, local silk-industries were soon projected into a far broader context. The integration into the international market was faster for Kashmiri silk-industry. By the end of the 19th century stocks of raw silk produced in Kashmir were already successfully marketed in Lyon and Milan¹⁵⁶. Apart from a larger circulation of its raws, another clear sign of the incorporation of the Kashmiri silk-industry into the international market was the massive introduction of foreign diseasefree seed 157, meant to help the industry to cope with the spread of pebrine, which in the meanwhile had made its appearance in Kashmir as well. As regards Mysorean silk-industry, the years between 1860-1870 were a crucial period. For the first time after Tipu the industry was put in contact with the international market for raw silk¹⁵⁸. Obviously, this was only the very first step towards the definitive incorporation of the silk -industry into global trading circuits.

But the pebrine crisis had also, and perhaps more importantly, a plethora of effects on sericulture bringing about several modifications in the practise of growing a crop of silk cocoons. After the pebrine crisis gelsi-bachicoltura, as the process of growing mulberry and rearing silkworms is commonly known in Italian, was altered. This alteration affected not only European sericulture, but, in different degrees, all the silk-producing countries in the

¹⁵⁶ Ratan, C. Rawlley, (1919) op. cit.; Imperial Institute, Reports of the Indian Trade Enquiry, Reports on Jute and Silk, London, 1921.

¹⁵⁷ From the late 19th century the Kashmir silk-industry became growingly dependant upon the annual supplies of disease-free *seed* from Italy and France. In the early 20th century Italian *seed* from the *Istituto Bacologico E. Mari* in Ascoli Piceno, and the *grainage* of *T. Ferri & Co.* (Fossombrone) was imported into Kashmir by the *B.G.Gorio & Co.*.

¹⁵⁸ The fact that the Mysore silk-industry was linked to international market by virtue of the activities of the Italian silk-traders, does not mean that the industry was able to seize all the opportunities that the connection with a broader context offered.

world¹⁵⁹. As the only effective way to cope with pebrine was the importation of disease-free seed, and the adoption of severe measures of control, silk -industry at every latitude was forced to respond to the crisis in the same manner. All the silk-producing areas, India included, were confronted with a number of new problems deriving from the quick spread of the disease. As occurred in Europe, also in India the introduction of healthy, selected became increasingly necessary to save and revive sericulture. Both Kashmiri and Mysorean silk industries amply benefited from the introduction of *seed* from Italian *grainages*. In Kashmir disease-free *seed* was mostly supplied by Italian and French companies ¹⁶⁰. In Mysore the first well-documented attempt to introduce and acclimatize foreign seed was made by Henry De Vecchi¹⁶¹. In the early decades of the 20th century, with the successful experiments of W. Mari, the introduction and hybridization of foreign seed was one of the most important means to revive local silk-industry¹⁶². Both the introduction of foreign *seed* and crossbreeds made the dissemination of sericultural know-how from one place to another urgent, as silkworm-rearers needed to be properly trained on a number of issues which ranged from the methods of breeding foreign worms, and careful handling of the eggs to the use of more sophisticated routines for disinfection and maintenance of high standards of hygiene. Therefore the pebrine crisis set in motion an intense process of transfer of knowledge and technology, which was greatly favoured by the exchange of silk experts between countries. The geographic dimension and the time-span of such transfer was very relevant; sericultural know-how travelled from West to East and vice-versa, with Italy and Japan at the forefront of technological innovation providing new patterns of development. The introduction of new races of silkworms¹⁶³, the need for healthy seed at every season, the creation of grainages, and the growing number of hybrids required the implementation of a

¹⁵⁹ In those regions where more than one cocoons crop was available per year, it was somehow easier to cope with pebrine given the faster rate of propagation of the silkworms. Nevertheless, even there it was necessary to take some measures to keep the disease under control and prevent further contagion.

¹⁶⁰ G. Gorio in conjunction with the *Istituto Bacologico E. Mari* used to import several cardboards of seed annually into Kashmir. The seed was usually a cross between Japanese and Italian races, and only rarely pure Italian races.

Henry De Vecchi introduced, as we shall see, mostly Japanese seed.

¹⁶² W. Mari, the Italian silk-expert appointed by the Mysore Government in 1914, introduced twelve races of pure Chinese and Italian silkworms in the region and crossed them with the females of the local race.

¹⁶³ The introduction of foreign seed in India was not a novelty. The *Bombyx Mori* and other varieties of the domesticated silkworm were alien to India and therefore had to be imported from abroad and acclimatized, but this was never a large-scale operation or a recurrent trade. It became so only during and after the pebrine crisis, when Indian sericulture was in need of fresher and sounder races.

system which was able to support such radical changes. Traditional ways of carrying out sericulture were challenged by the quick spread of the disease which compelled producers to take on, when possible, new methods. Until well into the Second World War both countries were the centres of irradiation of new and more advanced methods of silk production, on which the development of other silk industries was often patterned. *Pebrine* literally revolutionised sericulture at a world level, and it is precisely in this 'revolution' of modes of production, patterns of trade and models of development that the globalising character of the disease and the consequent crisis rests.

3.3. The pebrine crisis and British colonial rule in India.

When reviewing the effects of the pebrine crisis in Asia, and comparing what were at that time the largest Asian silk-producers (China, India and Japan) one is struck by the difference in the performances of the silk-industries in these three countries. As previously underlined, the Indian silk-industry did not expand under the pressure of the pebrine crisis as did those of China and Japan. But unlike China and Japan, India was under colonial rule and the different political status has to be taken into consideration when appraising the growth of her silk-industry after the mid-nineteenth century. If we relates India's incapacity to increase her productive power to meet the increasing international demand for raw silk to the colonial rule to which the country was subjected the question that immediately stems to mind is 'what was the role of the British colonial administration in the development of the local silk-industry'? This crucial question is followed by a corollary of other important questions about the relationship between colonial domination and the growth of Indian silk-production during and after the pebrine crisis. Research conducted on the activities of Italian silktraders in South India suggests that British colonial rule biased the capacity of Indian silk-industry to quickly respond to the stimuli coming from outside. In a nutshell, British colonial rule acted as a factor of de-globalisation at a time when the pebrine crisis was favouring a process of further integration of the international market for raw silk

as well as a increasing interdependence among silk-producing areas. The detrimental role of the British rule is confirmed by the fact that only in Mysore and Kashmir, both princely states enjoying a varying degree of autonomy, was the silk-industry effectively revived and improved over the years. Despite the great interest that many British officials had in reviving sericulture in India, colonial administration proved to be fundamentally incapable to put into practice adequate measures to support Indian silkindustry in the second half of the 19th century. The disturbing function performed by the colonial rule can be fully grasped by looking more closely at the attitudes and expectations of the British authorities regarding the improvement of silk-production as a the interest that British authorities in India whole. To begin with, had in silkproduction was characterised, by and large, by a high degree of discontinuity. This seesawing interest was accompanied by a lack of specific expertise regarding sericulture. For instance, the majority of British officials who got involved in the attempts of the Italian silk-traders in Mysore had only basic or indeed, no competence regarding ericulture, and moreover, they also seemed to lack profound knowledge of the rural society in the territories they were administering. From this point of view the reports on sericulture that district Collectors addressed to the Madras Board of Revenue are enlightening. They offer a revealing insight into the way British officials approached rural society and native people in South India. These reports also show how essential was the collaboration with native subordinate officers, on whom British authorities were highly dependant for gathering every type of information regarding agriculture, the social and economic life of villages, native practices of cultivation etc... Since silk-industry was an agro-based industry, it was closely connected to agriculture of which it was often a subsidiary activity. Therefore a lack of specific knowledge on how it was carried out corresponded, at a deeper level, to an unawareness of the functioning of the prevailing agrarian systems. Being mostly unfamiliar with silk-production, British authorities approached the entire issue of the amelioration of silk-industry in a confused, and altogether naïve way. The naivety of the British authorities was very evident in the way they reviewed the results of the experiments carried out in different parts of India. By and large, British officials expected amazingly fast results. The majority of them believed that the task of fostering Indian silk-industry in order to make it internationally competitive could be easily accomplished. But contrary to their expectations, a real improvement of the Indian silk-industry could not be achieved in a short time. Furthermo, the mobilisation of the financial resources necessary to support silk-industry soon arose as a crucial issue. Reviving and modernising Indian silk-industry was not simply a matter of time, it was also a matter of investment. In most cases British officials shared the idea that the expenditure of few thousands of Rupees, and some sporadic experiments with foreign seed conducted under the supervision of Italian or French experts could really improve the industry. In practice, however, the amelioration of sericulture and the technical upgrading of the reeling processes required several years and a good deal of money. British rulers, with some significant exceptions, saw little point in investing huge capital if no immediate results were to be expected. This is the reason why the mobilisation of capital to back the development of Indian silk-industry was never earnestly contemplated in the loose programmes of the British authorities. As long as the experiments of improvement implied only short-term, minimal investments, British authorities embarked on the initiative, but as soon as it became clear that this was not enough and that, if the main goal was to increase the productive power of the industry and substantially improve the quality of its production, massive long-term investments were indispensable, they gave the issue up. British authorities in India sought for concrete and immediate returns which could amply justify, in their view, any attempt to improve Indian silk-industry.

In London, however, attitudes towards sericulture were radically different. Being one of the larger silk-consuming countries, Great Britain was immediately affected by the pebrine crisis and the British silk-weaving industry which greatly suffered because of the shortage of raw silk, especially from Italy and France, began to seek new supply-sources. Under the pressure of industrial lobbies linked to the textile industry the British Government decided to support silk- production in those British colonies where it was possible to cultivate mulberries and rear silkworms. The difficult conjuncture in which European silk-weaving industry was languishing at the middle of the 19th century was a powerful fillip which prompted British metropolitan authorities to

undertake several initiatives in order to promote and enhance silk-production in their overseas possessions.

"The high price of silk arising from the ravages of disease in the silk-worm in the countries formerly contributing the greater portion of raw silk for European consumption, naturally roused to the possibility of rearing healthy breeds in the regions untried, or of extending the productive powers of silk-producing countries still unaffected by the taint" ¹⁶⁴.

India, with her long-standing tradition of sericulture, was better suited than any other colony to become the target of specific programmes for the betterment of silk-production. Therefore the India Office advised the Government of India to consider the amelioration of the Indian silk-industry as a priority issue.

"The Government of India has been recently endeavouring to acquire full information as to the present state and prospects and past history of the Indian silk-trade, in view to ascertaining the best practical methods of developing it, and improving sericulture generally in India¹⁶⁵."

As soon as it became clear that European sericulture would have difficultly recovered from the pebrine crisis, and that such recovering was not to occur in a short time, great opportunities for Indian silk industry were envisaged. The India Office set the guidelines for programmes of amelioration, but the practical organization and the planning of the projects were entirely left in the hands of men on the spot. The interest in the silk industry of India shown by the British at the time of the pebrine crisis was not a novelty. Since silk was a highly valuable product with an expanding market in Europe, Indian silk- industry had drawn the attention of the British since their arrival in Bengal. In the 18th century silk had ceased to be a luxury good for well-off people, and the use of silk fabrics and textiles had become increasingly widespread in the West as well as in the East, and the consumption of raw silk at a global level had increased remarkably as a result¹⁶⁶. In the late 18th century the East Indian Company undertook several initiatives to enhance silk cultivation in the territories under her

¹⁶⁵Proc. No. 153-154, 12th Sept. 1871, MRD, OIOC, BL.

¹⁶⁴ Proc.115, 17th Sept. 1872,MRD,OIOC,BL.

¹⁶⁶. This phenomenon has been named the 'democratisation' of silk. See Cafagna, L., and Federico, G., 'The World Silk Trade: a Long- Period Overview' in *La seta in Europa, secc.XIII-XX*, Atti della Ventiquattresima Settimana di Studi, Maggio, 1992, Istituto Internazionale di Storia Economica F. Datini, Prato.

control. Those initiatives included a top-down introduction of foreign technology, notably Piedmontese-type reeling machineries; establishment and implementation of filatures; control over the production and where possible even over the marketing of the cocoons (the so-called forced commercialisation). All these measures were often put into practice regardless of the native traditional methods of producing silk, by trying to force native cultivators to serve the Company's interests.

Soon after the outbreak of pebrine British officials in India became more attentive to the matter of the improvement of silk-production, and the renewed interest in sericulture led to some experimental attempts which were made in those considered the best suited territories for silk-production, which were in general regions with an already established tradition of silk cultivation or with certain climatic and geographical conditions. Attempts were thus made in Punjab, Central Provinces, Bombay Presidency, Madras Presidency and Mysore. In general British authorities in India lacked the necessary technical expertise to handle large-scale programmes for the amelioration of sericulture. Great Britain, despite being one of the larger silk-consuming countries, never developed any form of sericulture and hence the recruitment of silk-experts from abroad was the rule. Silk-experts were generally from Italy and France. Japanese experts became a valid alternative by the turn of the 19th century. On the other hand, Indian silk- producers had neither scientific knowledge of the silkworms nor modern technical know-how, and Indian sericulture, as traditionally conducted, was backward if compared with that of Europe. Therefore the help of foreign experts was crucial for the planning and managing of the modernization projects. The main goal of these loose projects was usually twofold: on the one hand, they aimed at extending silk cultivation in areas in which it represented a traditional activity; on the other, they were focused on the enhancement of the quality of Indian raw silk through the modernization of the reeling processes 167. In effect, the few and inconclusive efforts of the British administration were chiefly directed towards the improvement of the marketability of the Indian raw silk, which was usually of a low quality, and unsuitable for the international market. European continental market, for instance, it was rather difficult to sell Indian native-reeled

¹⁶⁷ Interestingly, British rulers in India seemed to be little concerned with the fact that if the quality of the silk cocoons was not good it was impossible to obtain a fine raw silk even with the most advanced reeling machinery; on the contrary, the more technically sophisticated a reeling-machine was, the better the silk thread had to be. The quality of the silk cocoons depended very much upon the races of silkworms and the way they were fed and raised.

raw silk, due to the great number of defects that made her unsuitable for the mechanized looms¹⁶⁸. European weaving-industries required highly standardized raw silks with specific characteristics of cleanliness, evenness, roundness and fineness and so on, otherwise the silkthread would have broken during the weaving process. In the mid-nineteenth century, the raw silk produced in India, with the remarkable exception of that reeled in the European-owned filatures, was mostly hand-reeled. In Europe only British weaving-industries had adapted their looms in order to extensively utilize Indian raw silk. A similar adaptation, although on a smaller scale, had also occurred in the silk manufactures of Lyon. Other European weavingindustries found it very difficult to use Indian raws. Obviously Indian raw silk reeled in the European-owned filatures was an exception, and it could be successfully marketed everywhere, as it was in general much finer than the native hand -reeled silk. As the defectiveness of the Indian raw silk was a concrete problem which limited its commercialization in the Western markets, most of the efforts for the modernization of the silk industry were meant to technically upgrade the reeling-process. Such upgrading was mostly understood in terms of mechanization of the traditional reeling-process which was conducted traditionally by employing a rudimental reeling-wheel. Very often behind the attempts made by the British colonial administrators there was a quite simple idea: they aimed at moulding the upgrading of Indian silk-industry on the basis of the European models. Italian sericultural system, in particular, had been considered a perfect model since the late 18th. And even in the 20th century, when it was necessary to put Indian silk industry on a technological foot in order to keep pace with modern techniques, the point of reference was again the Italian system¹⁶⁹. Additionally, the presence on the subcontinent of a number of Italian silk-experts further fuelled the conviction that the introduction of Italian-type techniques was the best way to enhance local silk production. This idea, however, proved to

be profoundly wrong in its essence. It was rather problematic to introduce a system of

production in a context which greatly differed from the environment where such a system

originally developed. The prevailing agrarian conditions and the structure of the Indian rural communities – sericulture cannot be separated from agriculture - were not favourable for the

¹⁶⁹ Japanese silk-industry became an alternative model to imitate in the early 20th century. Japanese silk-experts, for instance, were recruited by J. Tata for his experimental silk-factory in Mysore.

sudden introduction of alien methods of production, as the socio-economic fabric could not A system which did not take into consideration the multiple support this change. relationships between land, cultivators, merchants, and the domestic market had little chances of success in the complex rural world of India. This is the reason why in most cases the projects of modernization patronised by the British colonial administrators were far away from being a well-thought out programme, and resulted in questionable attempts which rarely achieved the initial goals. Even Italian silk-traders active in South India were confronted with the same problem: exporting their patterns of production in an environment which was so dissimilar from that they were familiar with, led to a series of misjudgements which in turn, resulted in recurrent failures. As we shall see in the case of the De Vecchi enterprise, it was very difficult for the Italians to escape the pitfalls of reproducing the Italian model in India. What impresses the historian analysing the huge documentation regarding sericulture in the British Empire is the gap between the decisions made at the Indian Office and the initiatives undertaken by British officials in India. The pronounced and genuine interest in the improvement of Indian silk-industry noticeable in London found little application in The way plans for the amelioration of the Indian silk-production were handled, concealed a remarkable dichotomy in the relationship between the metropolis and the colony. This dichotomy was generated by two factors: the objective difficulty in communication between the mother country and India; the lack of Indian-based British interests in the silkindustry. The transmission of orders from London to India was a major problem at least until the 1880s, when substantial improvements in maritime transports, and the invention of the telegraph made communication easier and quicker. Before the 1880s distance mattered. Precisely because of such distance colonial rulers enjoyed a good degree of autonomy in the day-to-day administration. Letters from Great Britain took a good deal of time to reach India, and, at the same time, information about the state of things in the colony was not immediately at the disposal of politicians in the mother-country. The way in which colonial power was articulated and the objective conditions under which it was exercised left ample margins of freedom to local administrators. Such freedom materialised especially in the decision-making process regarding a wide-range of local affaires. Colonial officials were quite free to act according to their own personal judgement, which was not necessarily in agreement with the suggestions given by the central administration in Great Britain. The

articulation and exercise of power allows us to speak of two states, one situated in London and the other one in the colony. The relationship between the two was not always univocal or harmonious. Of course, those who actually lived and administered power in the colony were likely to have the 'last word' on how to proceed.

Slowness in communication, and the distance and the absence of a strong chain of command partially explains why despite the fact that the India Office was sending orders about the improvement of sericulture in India, British administrators in loco were slow in putting into practice projects of amelioration, and sometimes deliberately rejected the idea of undertake any further initiative on the basis of the few, short-term and hesitant attempts which had been previously made. Difficulties in communication apart, the other factor which powerfully determined the fate of the Indian silk-industry was the absence of large British interests in the business of silk in India. In Great Britain industrial lobbies linked to the silk- weavingindustry were able to exert pressure on the government in order to foster silk-production in the colonies, conversely in India there were no influential lobbies with large interests in the silk-industry which could press colonial administrators towards the implementation of improvement of the silk-industry. In effect, British economic specific plans for the operators in India had no or little interest in silk-production as such. There was a small number of trading companies which still handled a lucrative trade in raw silk and silk seed, but generally speaking, silk was no longer perceived as a good business. From the mid-nineteenth century other commodities (tea, cotton, jute, opium to name only the most important) emerged as the main attraction for British traders. Despite being a product with a large and highly integrated international market, raw silk had ceased to be an 'imperial' commodity able to draw the attention of British economic operators, remaining at the margins of the British-sponsored trade. The gap between the metropolitan will and the colonial inertia impeded the creation of a system of indirect and direct support to the Indian silk-industry in a period during which it would be advisable to uphold the industry through some specifically the growth of the Indian silk-industry radically tailored measures. In this perspective differed from that of the cotton industry which saw the convergence of the metropolitan and colonial interests.

3.4. Sericulture in South India: silk-production in Mysore and in the Madras Presidency

Before engaging in a brief discussion on the conditions of the silk-industry in South India, let us begin with some premises about what silk-industry actually is.

Silk-industry is an agro-based industry comprising two main stages: sericulture and silk-reeling. Sericulture involves the cultivation of mulberry trees, and the rearing of the silkworms. The production chain of silk begins with the hatching of silkworm's eggs, shortly after the small worms are put on a tray for being fed with chopped mulberry leaves. The raising of silkworms usually takes from twenty up to twenty-five days. As soon as the worms are fully grown they are transferred to the mountage where they spin their cocoons. Cocoons spinning can last two or three days. The harvesting of cocoons occurs immediately afterwards. Silk-cocoons are boiled in hot water in order to soften the fiber, and then they are reeled to form skeins of raw silk. Afterwards raw silk is "thrown" to make the thread suitable for weaving 171. The main by-product of the reeling process is a certain amount of waste, consisting of the top layer of floss and bottom layer of parchment which cannot be reeled. Silk waste is carded to produce spun silk yarn which can be woven as it is.

In India agriculture and sericulture were adopted simultaneously by cultivators in those regions where the ecological conditions were favourable for the acclimatization of the silkworms or where they could be found in the wild. Silkworms belonging to the *Bombycidae* ¹⁷² group were alien to India, and were introduced either from China or Europe. Given the fact that the rate of propagation of the worms is highly dependent upon climate and humidity, Bombycidae in India can produce one (uni-voltine), two (bi-voltine) or multiple (multi-voltine) cocoons crops per year. On the Indian

¹⁷⁰ The process of "throwing" is improperly often named "twisting".

¹⁷¹ For more information on the silkworm and his cycle, and on other post-cocoon processes see Hills, Richard L. "From cocoon to cloth. The technology of Silk production" in Cavaciocchi, S. (ed), *La seta in Europa se. XIII-XX*, Istituto Internazionale di Storia Economica "F. Datini", Prato, 1993.

¹⁷² Silkworms can be divided into two groups, domesticated silkworms and wild silkproducers. The domesticated worms belong mostly to the *Bombycidea* group. The wild silk–producers in India belong to *Saturnidae* group. The latter includes *Attacus Ricini* known also as 'castor-oil silkworm', producing the so-called *eri* silk (this has been lately domesticated), *Antherea assamensis* producing *muga* silk, and *Antherea mylitta* producing *tasar* silk.

subcontinent, Bengal was the region with the most ancient and remarkable tradition of silk-production. Sericulture in southern India had not the 'glorious' past of that of Bengal, silk-cultivation having being introduced much later. In Mysore sericulture was promoted by Tipu Sultan, while in the Madras Presidency, where a certain, though not well-documented, tradition of silk production was already present, attempts to favour the growing of mulberries and the rearing of silkworms were made by the British in the late 18th century ¹⁷³. Sericulture and silk-manufacturing are therefore relatively new to South India.

S. R. Charsley in his path-breaking work on sericulture in South India 174 has proposed a chronological division to approach the history of the Mysore silk-industry comprising four main periods (1.- the beginnings 1785 to 1840; 2- Problems and unsuccessful experiments: 1840 to 1910; 3- Transition, 1910-1940; 4-Consolidation and expansion, 1940 onwards) which corresponded, in his view, to different developmental stages. According to the chronological scheme provide by Charsely the years between 1840 to 1910 are regarded as a period of attempts which failed to achieve their goals, while the following decades are seen as a transitional phase. With regards to chronology, this study takes a rather different perspective, and considers the period between 1860-1890 crucial for the development of the silk industry in Mysore; while the years from 1910 to 1920 represent a transition towards the take-off of the industry which occurred in the following decade (1930-1940). In retrospective, the first fifty years after the introduction of sericulture were a period of slow progress. The second, and the third periods were decades of booms and busts. From 1860 until the end of the 19th century the growth of the Mysorean silk-industry was irregular. The industry was badly hit by recurrent epidemics of pebrine, at the same time it was the target of some attempts of modernization, often handled by Italian sericulturists. The practical results of the attempts made in this period are open to discussion and their assessment can be controversial, however, those attempts had the indisputable merit of generating a consciousness of the possibilities that the international market offered among local economic operators. Between 1910 and 1920, silk-industry was strongly backed by

¹⁷³ See Geoghegan, J., (1880), op.cit.

¹⁷⁴ Charsley, S.R., Culture and sericulture, Social Anthropology and Development in a South Indian Livestock Industry, London, 1972.

the Mysore Government, which decided, soon after the recrudescence of pebrine in 1906, to foster the production of raw silk in the country by means of specific programmes. From the Second World War until the most recent years silk-industry in Mysore grew steadily under the patronage of the local authorities, and with the support of the federal Government.

The origin of Mysore silk industry dated back to the 18th century when it initially developed as a 'state-industry' under the patronage of Tipu, who had a keen interest in developing and sustaining sericulture, and for that purpose allotted free-rent lands to his most loyal warriors, and compelled them to the business of silk. According to the few records available, mulberry cuttings and silkworms were imported from Bengal first, and from China later, and silk-experts came from abroad to train local cultivators in the art of rearing the silkworm. The know-how of the French silk-experts recruited by the Sultan made possible the flourishing of an industry which, for the ensuing century, almost exclusively served the domestic market. This was because the production of raw silk was limited, and mainly consumed by the local manufactures in Bangalore, Mysore, Coimbatore, Tanjore, and also in Bellary and Dharwar¹⁷⁵. It seems that Tippu supported the development of the industry through a series of fiscal facilities, from reduction in taxation for those who engaged in silk production to the grant of large portions of uncultivated lands ¹⁷⁶. At the end of the fourth Mysore War, with the defeat of Tipu, Mysore passed under the direct rule of the E.I.C. which was only moderately interested in the local silk-industry, that of Bengal being significantly more appealing. Some Company's officials, however, pursued their personal interests in silk cultivation to the extent of undertaking some experiments with mulberry-gardens and silkworms taken from other parts of India. Some started experimental mulberry-gardens, and with the help of foreign experts tried to improve sericulture ¹⁷⁷. Records on the very

¹⁷⁵ 'Most of the silk was formerly exported to Coimbatore and Tanjore, and a smaller portion found its way to Bellary and Dharwar for consumption in native manufactories. At this time there was a considerable consumption of the raw material in Bangalore and Mysore in the manufacture of silk – shawls, handkerchiefs, and native cloths, &c.'. Report of Surgeon Smith on Silk in Mysore down to 1857, quoted in Geoghegna. J. (1880), op.cit.

¹⁷⁶ Unfortunately, there are no comprehensive studies –at least not in English- on the silk-industry in Mysore under Tipu Sultan, which could cast light on how the dissemination of sericulture took place.

¹⁷⁷ In the 1830s some British officials (Captain Vallancy at Coonoor, Mr. Groves at Katairy and Mr. Sullivan at Biliwul) with the help of Alessandro Martelli, an Italian silk-expert, attempted to introduce sericulture in the Neilgherry Hills. Proc. No. 10, 24th Nov. 1869, MBR, OIOC, BL.

first period of the development of the silk industry in Mysore are scarce, and the data they provide at the best merely indicative. British records on the matter give some useful information about the extension of the industry. According to the data collected by the district collectors on behalf of the Chief Commissioner, in the years between 1846-1857 the average annual production of raw silk in Mysore was 240,000 lbs weight 178. Despite being a small production if compared with the annual output of Bengal, that of Mysore, however, was by qualitative standards a very good production. The cocoons of the local silkworm were of a very fine quality, and the raw silk, when properly and accurately reeled, proved to be one of the finest raw silk ever produced in India. In 1846, the Calcutta Chamber of Commerce, and the Agri-Horticultural Society after having inspected some samples-skeins of Mysore raw silk, were positively impressed by its characteristics 179.

Mulberry cultivation was usually conducted throughout southern India in a way similar to that observable in Bengal, and in other parts of India. The plant, which was usually of the local kind, *Morus indica*, was cultivated as a bush. Other varieties such as *Morus Alba*, from China or Europe, and the *Morus Multicaulis* (known also as the 'Philippine mulberry') were also cultivated ¹⁸⁰. The Indian mulberry (*Morus Indica*) was widespread especially in Mysore, while in the Tamil silk-producing districts the Philippine mulberry was the most common variety grown by the *ryots* ¹⁸¹. In Mysore, despite an early attempt to introduce the cultivation of standard mulberry trees as was then fashionable in Europe, the traditional methods of cultivation kept the plant, by periodically pruning, down at the dimension of a small shrub which grew from cuttings thickly planted in rows placed very close to each other. Giuseppe Mutti, the Italian silk-expert who worked for the Government of Bombay in the Deccan during the 1830s, had suggested introducing the cultivation of standard mulberry trees, which he considered

¹⁷⁸ Geoghegan, J. (1880) op.cit.

¹⁷⁹ 'The Calcutta Chamber of Commerce and the Agro-Horticultural Society both reported most favourably on the cleanness, evenness, roundness and good colour of certain specimens of Mysore raw silk submitted to them. Report of Sugeon Smith on the silk in Mysore, quoted in Geoghegan (1880) op.cit.

¹⁸⁰" The plant generally grown may be Morus Indica, the Indian mulberry, or Morus Alba, possibly from Europe or China, or some other variety". Maxwell- Lefroy H. and E.C. Ansorge, op.cit.

¹⁸¹ Ryots (from Arabic) also spelled rayats is used in Anglo-Indian to refer to farmers or cultivators.

better adapted to feed the worms¹⁸². Henry De Vecchi had a completely different opinion on the matter:

"The raising of mulberry trees from seed we do not recommend. It is not desiderable to feed the worms from the tree but from shrub variety as used in China and India, where they are pruned periodically so as to afford fresh and succulent leaves for each successive crop" ¹⁸³.

He found that the traditional bush- system was more suitable for the ecological, and climate conditions of the southern territories, and thus discouraged the Government of Madras from any attempt to modify the native way of growing mulberries. As recorded in a report on the silk cultivation in the Tenkasi $talook^{184}$ (Tinnevelly district, Madras Presidency), the mulberry "is a perennial plant and would grow into a tree, but is kept down to the height of 4 or 5 feet by pruning" the Tamil-speaking areas the mulberry was usually know as $Kampaly CeTi^{186}$ whose meaning -literally 'woolly shrub'- refers precisely to the way the plant was usually grown, as a small bush. In the Kannada speaking-territories, especially in the silk tract of the Mysore district, the mulberry tree was commonly named 'Sultani kaddi' (the shrub of the Sultan), in the memory of Tipu who firstly introduced it.

Throughout southern India mulberry was grown both on dry lands as well as in lands under irrigation. More specifically, in Mysore the areas under mulberry cultivation were of three types: dry lands mostly depending on rainfalls (*battu*), lands under irrigation form rivers (*bail*), and lands irrigated from wells (*majal*). The concentration of mulberries, however, was higher on dry lands. This had a twofold advantage: it made available better land for staple crops, with which mulberry was always in competition, and it allowed the cultivators to grow a remunerative crop paying very low taxes, as according to the regulations on land revenue enforced by the British dry lands were

¹⁸²On the Mutti and his activities in India see Zanier, C., "Silk culture in Western India: The Mutti experiment (1830-47), in *Indian Economic and Social History Review*, 21, 1984.

¹⁸³Letter of A. De Vecchi and A. Foster Pater to the Chief Secretary to the Government, MRD Proc. no. 348-349, 23rd March 1871, OIOC, BL.

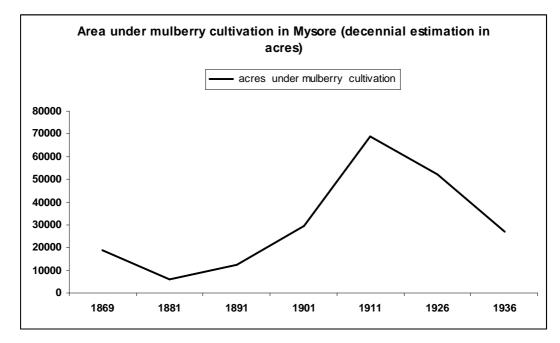
¹⁸⁴ *Talook* was the smallest administrative unit of a district.

¹⁸⁵ Report by the Collector of the Tinnevelly District, MRD, Proc. no. 402-403, 26th August 1870, OIOC, BL.

¹⁸⁶ In Tamil கம்பளிச்செடி- *kampalicceTi*; there are, however, other forms used to refer to the mulberry , such as முசுக்கட்டை- *mucukkaTTai*, which specifically indicates the Indian mulberry (*Morus Indica*).

taxed less than other types of lands. Even nowadays mulberry is still considered a dryland crop.

In the 1870-71, 31% of the cultivated lands in Mysore were under mulberry cultivation; such a portion, following the major trend of the local silk-industry which experienced alternating phases of expansion and contraction, increased or diminished accordingly.



<u>Fig.3.5.</u> Acreage under mulberry cultivation, 1869-1939. The data available for 1869 and 1910 are perhaps an overestimation, as not all the land entered as 'mulberry gardens' was actually cultivated with mulberry. Sources: J. Geoghegan, *Some account on silk in India*, Calcutta, 1880; Lefroy-Ansorge, *Report on an enquiry into the silk industry in India*, Gosh C.C., *Mysore Silk industry*, Gov. of Bengal, Dept. of Industries, Bullettin no. 78, 1939; Mysore Statistical Abstract, 1923/24-1947/48 - ref. IOR/V/14/84 - date: 1923-1948

In the Madras Presidency mulberry cultivation was carried out in $high nunjah^{187} land$ as well as in $punjah^{188} land$. The latter was usually watered by $picottahs^{189}$.

The main silk-producing districts in the Mysore state were Mysore, Kolar, Tumkur and Bangalore. In the Madras Presidency the main silk-producing areas were located at the border with the Kannada-speaking territories (Coimbatore and Salem districts) and in the deep south (Tinnivelly district). For what concerns the rearing of the silkworms, the practices followed by native cultivators were very similar all over India. Generally speaking, the silkworms reared in South India were bi-voltine or multi-voltine. In Mysore the local race ¹⁹⁰ was a multivoltine of the kind of the Bengal Nistari (*Bombyx* Croesi)¹⁹¹, which produced from 5 up to 7 cocoons crops a year. Fretwell¹⁹² the Mysore native specie was a cross between the native species and the Chinese silkworm introduced by Tipu Sultan. The Mysore silk-worm produced a greenish-white cocoon from which a raw silk renowned for its strength, lustre and capacity for retaining its weight when bleached was obtained. If practices of cultivation and rearing were almost the same in all the Indian silk-producing regions, the structure of the silk-industry presented a high degree of dissimilarity. In South India silk -industry had a certain number of peculiarities in the way the production chain of raw silk was organised. Silk -industry in Mysore was rather fragmented, with individuals specialized in different tasks from the cultivation of the mulberry to the reeling process. Maxwell-Lefroy, Imperial Silk-Specialist 193 described as follows such division: "the industry is very much sub-divided. There may be the following series:

-the mulberry leaf grower

⁻the eggs-producers who rears to the second moult

¹⁸⁷ Nunjah, Anglo-Indian for *nanjai*, (in Tamil the word can be found in two differently spelled versions **நஞ்சை** *nañcai*, or more properly **நன்செய்**- *nancey*), wet fields where rice is cultivated.

¹⁸⁸ Punjah, Anglo-Indian for *punjai* (Tamil, புன்செய், *puncey*), dry fields usually on the slopes of hills for any grain but rice.

¹⁸⁹ In South India the term *picottah* (origin unknown) refers to an ancient machine for raising water.

¹⁹⁰ The 'pure' Mysore race was named *Bombyx Meridionalis*.

¹⁹¹ Nistari or Madrassi are the local Bengali names of the Bombyx Croesi, a silk-worm imported from China and acclimatized in Madras in 1770, then introduced in Bengal. See Lotika Varadarajan, "Silk in North-eastern and Eastern India: the indigenous tradition", in Modern Asian Studies, 22,3 (1988), pp. 561-570

¹⁹² Mr. Fretwell 's account on silk cultivation in Mysore, quoted in Geoghegan, J. (1880), op. cit.

¹⁹³ H. Maxwell-Lefroy was Professor of Entomology at the Imperial college in London. He was entrusted with a survey on the state on sericulture in India. The final report he wrote jointly with E..C. Ansorge was published in 1916 under the title *Report on an enquiry into the silk industry in India*.

- -the rearer from the second moult to spinning
- the chandraki¹⁹⁴ hirer
- -the reeler, who dries the cocoons and reels
- the raw silk dealer
- -the pierced cocoons dealer

As a rule the rearer who hatches the eggs rears the worms only to the second moult, he sells them at Rs 4 a tray to other rearers who buy from him on the understanding that if all the lots fail he is not to be paid for" ¹⁹⁵.

If that described above was the rule, there were also cases in which one individual cultivator combined the growing of mulberry, the rearing of the silkworms to cocoons, and then employed reelers to produce raw silk. As Lefroy rightly noticed in his report, the chandraki hirer¹⁹⁶, and the egg-hatcher were peculiar to Mysore. He also pointed out that such subdivision allowed one person to specialise on *seed* production and hatching, whichin his view was a positive element. Interestingly enough, it seems that such subdivision corresponded to a cross-cut distinction on religious basis: the mulberry leaf growers were Hindu and the silkworm rearers and the reelers were Muslims:

"The Mahomedans adopted the feeding and management of the worms, and the reeling of the silk as one of the few modes of gaining a livelihood to which they were not averse, purchasing the mulberry leaves from the cultivators" ¹⁹⁷.

Usually Muslim rearers were non-farmers. This meant that they did not own any land, and therefore they had to buy mulberry leaves from Hindu growers. It is worth noting that the fragmentation of the silk industry, which derived most probably from the original system established under Tipu Sultan, was sufficiently unusual to create some problems for Italian silk-traders. It represented a major drawback when they tried to introduce and rear foreign *seed*. The subdivision of the silk industry, in fact made it extremely problematic to carefully monitoring all the phases of production.

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¹⁹⁴ *Chandraki* was a mountage on which full grown silkworms were placed to spin. This system was also used in Bengal. In Mysore *chandrakis* were usually placed under a tree in the open air.

¹⁹⁵ Maxwell- Lefroy H. and E.C. Ansorge, *Report on an enquiry into the silk industry in India*, 3 vols., 1916, OIOC, BL.

¹⁹⁶ Renting out a chandraki was a quite profitable activity since its daily cost ranged from 6 pies to 1 anna.

¹⁹⁷ Report on silk cultivation in Mysore by Surgeon Smith of the 50th Regiment Native Infantry, quoted in Geoghegan J. (1880) *op.cit*.

Interestingly enough, the present-day situation is different. According to the current socio-economic profile of the silk-rearers drawn upon a recent investigation conducted in some villages of the main silk-districts of Karnataka¹⁹⁸, the majority of those who raise the silkworms are Hindu belonging to the castes of *Vokkaligas* and *Lingayats*, major landowning castes in the silk tract of the Mysore and Bangalore districts¹⁹⁹. This may be the result of the structural reforms implemented by the Mysore Government in the last sixty years. In contrast, the Muslim presence in silk-reeling is tsill noticeable, although Hindus represent half of total number of silk-reelers, and silk-weavers.

As regards the reeling-process, that is the second stage for the production of raw silk, South Indian silk-industry did not diverge from that of other parts of the subcontinent. Silk-reeling was usually carried out traditionally by means of a very simple and rudimental reeling machine. A fairly good description of the native 'reeling apparatus' utilised in the silk districts of Mysore is given by Mr. H. E. Sullivan, Collector of the Coimbatore district, in a letter addressed to the Madras Board of Revenue:

"the native reeling apparatus consists of small axis working in bearings on two uprights, the motion being communicated from the hand by a winch-handle. Radiating from the axis at each end, within the uprights are four or six arms of either wood or metal which are connected at the upper extremities by bars of smooth, polished wood or bamboo. This forms the reel. At the opposite end of the axis to that where by which-handle is fixed, a pulley is attached, which, communicating by a band with a rough eccentric gives a lateral motion to the bar. In the centre of this bar, and immediately in front of the basin where the cocoons are steeped, two holes are punched, through each of which a filament of silk (the two crossing each other below) is led on to the reel. The object of the crossing is to free the filaments from the gummy substance present in the cocoon, and to give the silk a roundness, and the lateral movement of the bar distributes the silk evenly on the reel. It also, I imagine, serves to detach some of the gummy substance above referred to; but in this essential part of the process the country apparatus is certainly very defective. Hence the harsh, coarse feeling of country-wound silk, which, combined with other defects, renders it of little value in comparison with the material reeled in the European

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manner",200.

¹⁹⁸ Hanumappa, H.G., Erappa, S., and Gurumallaiah, H.S., 'Cocoon production and silk reeling: a socioeconomic profile of the producers' in Hanumappa, H.G. (ed), *Sericulture, Society and Economy*, Bombay, 1993.

¹⁹⁹ Lingayats are not exactly a caste, they represent, in reality, a religious group, but they are usually referred to as a caste.

²⁰⁰ Letter from the Collector of Coimbatore to the Board of Revenue, Proc. 442-444, 5th Jan. 1871, MBR, OIOC.BL.

In the conclusive lines the Collector remarked that the final produce obtained with this method was not a fine one, especially if compared with the machinery-reeled silk. When drawing this comparison, the Collector had in mind the silk reeled by the De Vecchis in their silk-factory at Kingherry which he visited on behalf of the Madras Board of Revenue. More information on the methods of reeling silk adopted by natives is given by an Indian silk-expert, N.G. Mukherji, ²⁰¹ in a report addressed to Bengal Agriculture Department dated 1906. He described the traditional reeling process as follows:

"In native establishments, as a rule, the object is to obtain as much produce as possible at the expense of quality, and so two most important principles of reeling are neglected: 1- a knot is not made when a break takes place, but the loose end of the thread is stuck on the reel anyhow, and the reeling continued as fast as possible; 2- the two sets of fibres reeled are not crossed one with another to give them compactness and roundness, but taken straight from the basin to the reel through two fairly large holes in an iron plate" 202

Although Mukherji was referring to the system prevailing in Bengal, his observations can also be applied to silk-industry of South India. By and large, silk-reelers employed a traditional apparatus (which just like that that employed for cotton, is named charka) which was quite rudimentary ²⁰³. In the majority of cases the reeling process was fast and inaccurate, and the final produce, the silk thread, was very irregular and full of defects which ranged from an inadequate strength and evenness to bad colour. The latter was one of the main faults of the native-reeled silk. Before the reeling process could start, the cocoons were usually cooked in hot water in order to soften the outer cover of sericin²⁰⁴. Native reelers usually paid little attention to the cleanliness of the water employed for cooking the cocoons, and they did not change it as often as they should have done in order to avoid that the impurities suspended in the water adhering to the

 $^{^{201}}$ N.G. Mukherji was Assistant Director of the Agricultural Department in Bengal. He was trained in Italy and in France.

²⁰² N.G. Mukerji, Suggestions on the improvement of silk reeling in Bengal based on a study of the systems prevailing in Kashmir and Bangalore, Calcutta, 1906.
²⁰³ Chakra (from Sanskrit) means 'wheel'; it indicates the spinning -wheel for reeling silk or cleaning

²⁰³ Chakra (from Sanskrit) means 'wheel'; it indicates the spinning -wheel for reeling silk or cleaning cotton. In the Tamil-speaking areas the *chakra* was known as *raaTTinam* (ராட்டினம்) or *iraaTTinam* (இராட்டினம்).

²⁰⁴ Silk consists of two proteins, the inner core of fibroin and the outer cover of sericin. The latter is a gummy substance which is to be softened to allow the proper unwinding of the cocoons.

silk thread and affecting its colour and the lustre. A British official reporting on the practice followed by Indian reelers stated that:

'One of the most apparent faults of this silk is its bad colour; this arises from the circumstances of the cocoons being boiled in copper pans instead of earthware, and I should imagine that at the time of reeling the silk, the water in which the cocoons were placed was not changed often, as should be done' 205.

Therefore the entire silk-reeling process as conducted by local reelers was considered very defective. Most of the British reports on sericulture highlight the backwardness and inefficiency of the native methods of reeling silk. In 1880s it was the Collector of Coimbatore again commented negatively on the native methods of reeling silk:

"The reeling stage is that at which the failure occurs" 206.

What clearly emerges in each of these accounts is that inaccuracy, lack of knowledge and technology, and little care for the quality of the final produce, were the main hurdles to high quality production. There were obviously different levels of production which corresponded to different levels of quality. In India the domestic silk-market had is own needs, driven by different patterns of consumption, determined in turn by diverse cultural habits. But in order to market Indian raw silk in Europe appropriate improvements were indispensable:

"the second stage in producing market for silk is reeling. The country methods are crude and inefficient and do not do justice to the high quality of the Mysore silk" ²⁰⁷.

The major problem of the raw silk produced in South India, was the lack of certain characteristics, which were considered by European standards essential: evenness, strength, uniformity in size, and standardization of the silk skeins. With the native traditional reeling methods the raw silk produced did not meet the basic requirements for the European market, which required raws fit for mechanised looms. It is therefore hardly surprising that most of the attempts to improve silk industry in South India and elsewhere patronised by the British authorities were principally directed towards the technical upgrading of the reeling process. Italian silk-traders took part in these projects,

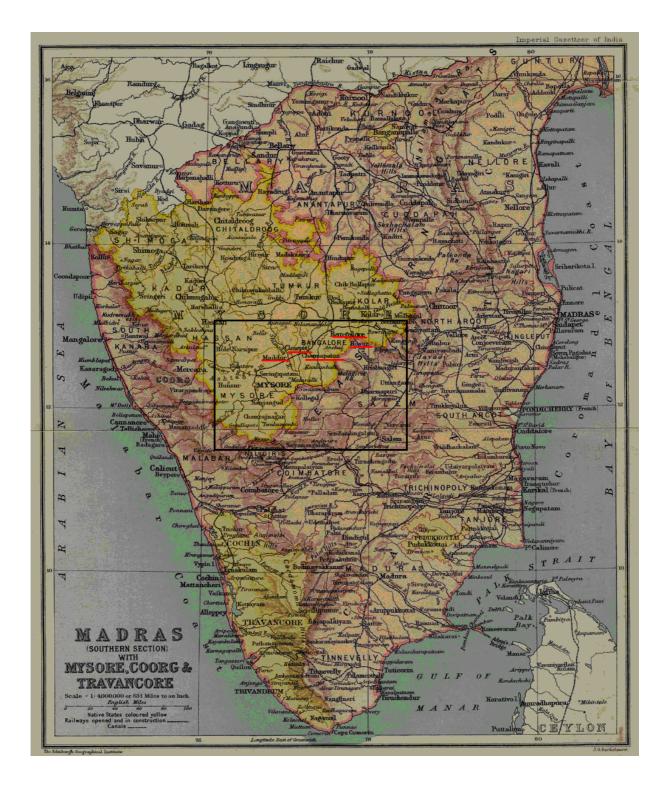
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²⁰⁵ Sugeon Smith on the silk produced in Msyore in 1841, quoted in Geoghegan. J, (1880), op.cit.

²⁰⁶ Quoted in Liotard, L. Memorandum on silk in India, Calcutta, 1883, OIOC, BL.

²⁰⁷ Alfred Chatterton, *Note on silk industry*, Private Papers of Sir A. Chatterton, OIOC, BL.

making suggestions, giving advices, and proposing practical solutions for the technical improvement of the local silk industry. Obviously this was done in the framework of their own business, and was closely linked to their personal interests. Cooperation with the colonial authorities was generally seen as a tool to widen their economic activities, and gain subsidiary profits.



<u>Fig.3.6.</u> Map of South India by J.G. Bartholomew, from the *Imperial Gazetteer*, vol.18, 1907-1909. Circled in black is the area where the Italian silk-traders operated. Bangalore, Closepet, Chennapatna, Hosur and Maddur are marked in red.

4.

ESTABLISHING AND CONSOLIDATING THE NEWTORK: THE DE VECCHI BROS. ENTERPRISE IN MYSORE 1860 -1872.

Looking more closely at the Italian sericulturists' trading network as a whole, certain aspects immediately emerge as strikingly connotative. As already pointed out in chapter 2, this trading- network was essentially a global network. This is hardly surprising. Silk has always been a commodity with a rather marked capacity to link vast, and diverse areas of the world. During and after the pebrine crisis, as a consequence of the remarkable acceleration in the integration of the international market for raw silk and of the faster transfer of sericultural know-how, this capacity strengthened as is proven by the high degree of interconnectivity between silk-producing and silk-consuming countries in the last decades of the 19th century. Needles to say if silk was by nature a global commodity networks meant to serve silk trade had to be global as well. The first, and more evident traces of the global character of the De Vecchis' trading network can be found in its geographical extension and ethno-cultural composition. The network encompassed different countries, stretching from Italy to Japan, including, among the others, China, India, and Great Britain. It involved people with different ethnic, religious and cultural backgrounds. In South India, in particular, the Italians worked jointly with a wide-range of economic operators: Muslim merchants, Hindu bankers, British and other European firms. Geographical extension aside, there was another element that justifies the deliberate use of the world 'global': the mentality of the actors. The way in which the network's members shaped the cooperative relations hints that although to a variable degree, each had a perception of the dynamic set in motion by the pebrine crisis, and its effects in the international market for raw silk. Moreover, the modalities of interaction within the network evince that the members were capable of looking beyond the borders of the specific economic settings in which they were working and taking a broader perspective on carrying out their own business.

In the case of the Italians the ability to transcend the limits of forms of localism seems obvious. These traders, after all, handled businesses in many parts of the world, and their entrepreneurial strategies, and their organization were calculatedly planned to operate in an international environment, and to respond to rapidly changing inputs. There is little difficulty in imagining Italian silk-traders as 'global actors'. The same goes for their European trading partners²⁰⁸. But when looking at the Indian members of the network, there is always the latent temptation to deem them incapable of acting 'globally'. Were these traders really able to fathom the changing dynamic of international silk-production and trade at the international level, and fit their interests inside such dynamic? If we look at these merchants through the lens of the mainstream historiography, the answer would be no. According to a cliché view, so often used and abused in many works on Indian economy, Indian traders were under a colonial regime which supposedly bridled almost all the local productive forces, and caged them into an imperial economy, within which there was little or no room for Indian economic operators. The cooperation between Italian silk-traders, and Mysorean merchants, however, tells us a different 'story' which contradicts such view, and brings fresher elements to assess the role of Indian traders under the British Raj. Mysorean silk- merchants who collaborated with the De Vecchi brothers displayed an impressively capacity to grasp the main changes in the international market. Despite operating in a rather limited market²⁰⁹, they did not fail to acknowledge the upheavals that pebrine was then generating in Europe. They soon perceived that the presence of Italian sericulturists in the country was a sign of the difficulties in which European sericulture was languishing. The cooperation that Mysorean traders established with the De Vecchis was probably partly driven by the will to place their economic activities in the new scenario created by the pebrine crisis. The rapidity with which they responded to the inputs coming from outside was impressive, and suggests that their background and aspirations were not those of marginal economic operators. On the contrary, they were central actors with ample margins of action. However, their freedom of action was not unlimited. Likewise other economic

²⁰⁸ The De Vecchis were linked, in particular, to a British firm, *Dymes & Co.*, with branch-offices in India and China.

²⁰⁹ The market for the Mysore raw silk at that time was essentially a regional market. In spite of its rather limited geographical extension, this market was characterised by the growing demand of the local weaving-centres to which the raw silk output was almost entirely destined. The market for Mysore silk -textiles was far larger, as they usually entered the domestic as well as international circuits.

operators, they had to work within a given social, institutional and economic frame which influenced their activities. In particular, these silk-traders had to interact with the colonial authorities on the one hand, and with local cultivators and silkworms rearers on the other. Interaction with the former was more problematic and made harder by the incapacity of these traders to exert an efficacious action at a political level.

The global mentality of these Mysorean silk-merchants was shaped, first of all, by their original and rather peculiar background. They were somehow the offspring of the modernization projects of Tipu Sultan, and therefore from the outset their activities were inscribed in the liveliness and briskness of the Mysore State under Tipu and the restored Maharaja soon after the Sultan's defeat²¹⁰.

The capacity of the network's members to grasp global processes does not mean that they were totally extraneous to local contexts. Clearly enough, all the network's members had more or less localised interests, but such interests were also fit into a broader dynamic. The relationship between 'global' and 'local', however, was never univocal, and the two dimensions often conflicted -as did the interests of the members of the network- with one of the two prevailing on the other. The combination of or the clash between local and global is rather perceptible in the negotiation, and renegotiation of the terms of the network which changed their original configuration over the years, adapting to the changing needs of its members.

The second noteworthy characteristic of this network relates to the original background of Italian silk-traders, and the socio-economic environment in which they were used to work in Italy. As already anticipated, beyond the trading networks that Italians set up in South India there was an already established, steady and well- organized network comprising economic operators engaged in the silk-industry in a given geographical area in Italy. For convenience sake such network will henceforth be referred to as 'locality-based network'²¹¹. The locality was usually a city with a relevant number of silk-traders linked to each other by commercial, social, and more importantly family ties²¹². Personal relationships,

²¹⁰ There a was a certain form of continuity between in the administration of Mysore from Haydar Ali to Sri Krishnarajendra Wodeyar Bahadur II. Such continuity was guaranteed by Smrinath Purniah, who was minister under Haydar Ali and Tipu as well as under the rule of the restored Maharaja.

²¹¹ C. Markovits has used a similar expression to characterize the regional-based merchant networks of Sindhi traders. See *The global world of Indian merchants*, 1750-1947, Cambridge, 2000.

²¹² For the De Vecchi family the centre of the network was based in Milan and London.

strengthened by blood ties, often represented the concrete underpinning of the network. In many respects this network was a micro- network, being essentially based in a specific geographic area, and highly dependent on the socio-economic interaction within a rather narrow group of economic operators closely connected by kinship and friendship. In spite of its micro-dimension, however, such locality-based network proved to be outstandingly effective in backing its members not only within the narrow borders of their place of origin, but even at national and international level. It therefore became an important point of reference for those who ventured new business abroad. Within a locality-based network members exchanged credit, information, and human resources. In the case of silk-traders, however, technical know-how, and scientific knowledge regarding the different stages of the silk-production were also exchanged and shared among the members. Under special conditions two or more locality-based networks could intersect and merge, and thereby generate a broader network. The crisis following the spread of *pebrine*, for instance, pushed a number of entrepreneurs engaged in silk-production to cooperate more actively in order to obtain supplies of fresh seed from abroad. In such cases, however, the informal network-type relationships were abandoned in favour of forms of cooperation which had a certain degree of institutionalisation, and therefore offered more legal guarantees. The creation of ad hoc companies to purchase supplies of seed from abroad, for instance, fell into this category. These companies usually took the shape of limited partnership (società in accomandita) and were meant to allow a large number of sericulrurists to raise the necessary capital to organize long and expensive missions to Asia. Later on the formation of specific organizations for the protection of the silk sector, such as Associazione dell'industria e del commercio delle sete, Societa' per la filature dei cascami di seta, and Ente Nazionale Serico further contributed to the merger, at a national level, of the interests of the economic operators engaged in silk-production, manufacturing and trade.

For silk-traders operating in markets where uncertainty, risk, and alien normative frameworks governing economic transactions made trading operations overall difficult, if not hazardous, these locality- based networks represented a sort of long-term 'assurance' able to provide the necessary stability and confidence to work abroad. Furthermore, these networks were effective in detecting new business opportunities in the domestic market as well as in foreign markets for the benefit of their members. According to their contingent needs, Italian

silk-traders active in South India constantly moved across the micro-network of which they were part back in Italy, and the broader network they had themselves built up in the host country. The tendency towards forms of business organization based on networking was a vital aspect of the entrepreneurial culture of Italian traders in the 19th century, and it was linked to familial character of most Italian economic activities. Silk-industry was no exception. Family ties, and extensive networks of personal relationships were the dominant features of the socio-economic context in which the industry was rooted. The cultural aspects of business organization are crucial if we are to understand the structuring and functioning of trading networks. As previously emphasised, since the middle-ages the socio-economic conditions of the Italian peninsula as well as a long-standing tradition of political and economic particolarismo, had favoured the emergence among economic operators of a business culture essentially based on family ties on the one hand, and on personal relationships, on the other. Operating within a broad net of personal and inter-familial relationships therefore became , a consolidated and reassuring practise as well as a traditional social and cultural habit strengthened by the lack of unitary institutions until the mid-nineteenth century first, and by the weakness of the Italian state after the reunification. The picture hitherto outlined may convey the misleading idea that silk-traders worked jointly in a sort of highly cooperative environment –which might resemble more an idyllic situation rather than the real market-, where mutual and constant aid left no room for competition. In reality, things were more complicated. The locality-based network was rooted in a social fabric generally marked by a high degree of interaction among economic actors who often worked for common benefits. Nonetheless, the personal interests of single entrepreneurs were extremely important, and were obviously a priority. In practice, steady and enduring cooperation was more likely to happen within a specific and circumscribed 'segment' of the locality-based network, where the denseness of family ties was higher, and personal relationships were stronger, and thorough knowledge among the members neutralized opportunistic behaviour, and made trustworthiness unchallenged²¹³. Collaboration occurred at other levels, of course, and it was not less genuine, but this did not prevent silk-traders

²¹³ C. Zanier in his research on Italian *seed-dealers* active in the trade of Japanese seed in the midnineteenth century, has noticed that most of them were linked by kinship. Zanier, Claudio. (2006) *op.cit*.

from competing with each other even within the same micro-network. In most cases however, the pebrine crisis favoured the creation of cooperative projects.

The third defining element was represented by the flow of technical and scientific knowledge that this type of network inevitably entailed. The activities of Italian silk-traders were oriented, since the beginning, towards the experimentation of foreign *seed* and the technical upgrading of the traditional reeling-system. This was to be made in the framework of their business of which it represented an essential part. The introduction of new types of mulberries and new races of silkworms implied a substantial infusion of know-how, which was made more urgent by the sudden outbreak of pebrine in 1866. Understandably enough, the experimental activities of the Italians had repercussions on the network formation and structuring.

4.1. Formation of the network: the De Vecchi's enterprise in Mysore, and the Mustan family. 1862-1868

Achille and Henry De Vecchi, , owners of the *A. De Vecchi & Co.*, registered in the Chamber of Commerce of Madras, and partners of a London-based firm under the name *De Vecchi, Metveleff & Co²¹⁴*, were the first Italian silk-traders to enter the business of silk in South India. They had three silk-factories, two located in Mysore, respectively at Kingherry and Maddur and another one in the Madras Presidency (Salem District). The two brothers were from Milan. As the business records of the firm have survived, it has been very difficult to trace the origin, and the activities of the De Vecchi family in Italy. British and Indian documents, which form the major part of the sources used for this study, present several gaps in the information. Therefore it has been necessary to supplement the data with other sources. Consular correspondence between the Italian consulate at Madras and the Ministry for Foreign Affaires has proven extremely useful in order to gather additional information on the De Vecchis' background. The family were very probable of noble origin, maybe counts,

²¹⁴ The firm was engaged in silk-trade between Europe and Asia. In 1864 the firm sold Japanese *seed* to a French company in Lyon. In the same years the two brothers were also active in China, where they worked with the British firm, *Dymes & Co.*. I am grateful to C. Zanier for providing me with this information he had come across while scrutinising some British commercial directories.

their full surname being De Vecchi De Piccioli. Achille was an artillery officer who served in the Italian Army (in the British records he is often referred to as Major De Vecchi), whilst his brother Henry was probably a scientist, with a good expertise in sericulture and agriculture (Doctor De Vecchi in the British records). It seems that Achille De Vecchi fought in the American Civil War²¹⁵. In July 1862, answering to President Lincoln's call for 300,000 volunteers, Achille, on leave in America from the Italian Army, organized a battery of light artillery which was designated as the Ninth Battery, Massachusetts Volunteer Light Artillery. He trained and commanded the battery as captain, and stayed in the US until 1863, when he left for Italy. Later on he went back to the United States, where he sought the financial aid of prominent members of the Italian community in San Francisco (California)²¹⁶. The presence of Achille De Vecchi on the West Coast might have some bearing on the sericultural experiments that were being made in those years in California²¹⁷. After a short stay in San Francisco Achille De Vecchi left for Japan. He arrived in Yokohama in November 1864, and stayed there until the end of February 1865²¹⁸, when he went to India stopping over in Singapore in March 1865²¹⁹. When Achille arrived in South India, his brother Henry had already started his activities there. Achille De Vecchi must have gone back to America after the Indian 'interlude' as he is reported to have died in Washington D.C. in 1897²²⁰. Less information is available for Henry De Vecchi. He probably arrived in India (Calcutta) the end of the 1850s. In 1865 he purchased a plot of land not far away from Bangalore in a

²¹⁵ This information should be further verified. Although it could simply be a coincidence of names, there are several elements which attest that Achille De Vecchi brother of Henry De Vecchi was in the United States in 1862 as volunteer in the America Civil War.

²¹⁶ 'Giunse testé in questa città un certo Signor Cavaliere A. De Vecchi di Milano, sulle sue cartelline da visita v'è il titolo di Maggiore d'artiglieria, e, a quanto si dice, sarebbe incaricato dai municipi di Milano e di Firenze, a fare un viaggio al Giappone per comprarvi della sementa di bachi.' Letter from the Italian consul in San Francisco to the Minister of Foreign Affaires, 25th June 1864; MAE, ASD, Italian Consulate in San Francisco (USA), Moscati VI, b. 904.

²¹⁷ Louis Prevost, a Frenchman who moved to the United States, started experimental attempts for the introduction of sericulture in California (Santa Barbara and San José) by importing, in 1854, mulberry seed and , in 1859, eggs from France. In 1860s he also experimented Japanese seed. Prevost, L., Silk *Grower's Manual*, San Francisco, 1867. ²¹⁸ See Zanier, C. (2006) *op.cit*.

²¹⁹ 'J'ai eu le plaisir de voir ici M. le Major de Vecchy de l'armeé italienne à son passage de retour du Japon en Italie, où il pensait retourner vers le milieu de Juin prochain; d'ici M. Le Major s'est rendu à Bombay.' Letter from the Italian Consul in Singapore to the Italian Minister for Foreign Affaires, 4th March 1865; MAE, ASD, Italian Consulate in Singapore, Moscati VI. ²²⁰ *The Boston Globe*, 14th November 1897, page 27.

neighborhood named Kengeri (or Kingherry), where he set up a silk-factory with a small technically advanced Italian-style filature attached.



<u>Fig.4.1.</u> Achille De Vecchi wearing the uniform of the 9th Battery, Massachusetts Volunteer Light Artillery, 1862. Source: *Photographs of the 9th Battery Mass. Vols. Soldiers*, National Archives, Washington, USA.

Immediately after his arrival in Mysore, Henry De Vecchi sought the help of local traders, and contacted the *Mustan family*, a family of silk-merchants from Chennapatna. Since the documents on the activities of the Italians prior to 1865 are very few, it is not possible to know how they got in touch with those who were to become the 'anchorage' of their network in India. However, as attested by the letters exchanged between *Sowcar*²²² *Muhammad Mustan Sahib*- who was the then local *Silk Commissioner* in the Closepet

²²¹ The word 'anchorage' has been used to indicate one actor or a group of actors which constituted the link between Italian traders and the local market. The function of such actor/actors was precisely that of keeping 'anchored' the trading network in a specific socio-economic setting

²²² Sowcar- spelled differently in Kannada (saahukaara), Tamil (मंद्रीमां-cavkaar) and Hindi (वंकर - saukar) - is a term of Sanskrit origin mostly used to refer to bankers. In Southern India, more specifically in Mysore, it is used to refer to a special category of merchants who finance different types of activities in the weaving industry.

Talook - and Achille De Vecchi²²³ the relationship between the Italians and the Mustan family was already well-established in 1865. The choice of the Mustan family intermediaries first, and as trading partners later was not accidental, and reveals several important things about the strategy of the Italians when searching for trading partner in loco. The De Vecchi brothers were looking for traders who could provide them with a large number of 'services' that ranged from information about local market, and systems of silkproduction to socio-cultural intermediation at various levels. From this perspective, the Mustans must have appeared as an ideal option. These traders were powerful economic actors in Mysore and were used to cooperating with foreigners. It seems, in fact, that members of the Mustan family had already worked jointly with Italians in the 1830s, when an Italian silk-expert was managing an experimental silk-farm in the Neilgherry Hills under the patronage of the local British authorities²²⁴. Having been engaged in the business of silk for decades, these value-added merchants²²⁵ were immediately identified suitable trading partners. Generation after generation, thy had gained a great knowledge of silk-production in the country, and over the years they had established pervasive trading network which encompassed not only Mysore but large parts of Southern India and far beyond²²⁶. Furthermore, the public office held by Muhammad Mustan Sahib was perceived by the Italians as an additional asset; it meant that they could benefit from his private as well as institutional connections. The Mustans had traded in raw silk in Mysore since the

²²³ Excerpts of these letters were published in 1923 in a book by one of the descendents of the Mustan Family. See Fayaz M. A. Quddus, *Mustan Family and its activities in Mysore*, Bangalore, 1923.

²²⁴ "It appears that thirty-three years ago, Captain Vallancy at Coonoor and Mr. Martelli (..), attempted the culture of silk on the Neilgherry Hills, carried on for few years and finally abandoned the attempt". Proc. No. 10, 25th November 1870, MBR, OIOC, BL. This Martelli should not be confused with Alessandro Martelli, an Italian architect active in Australia, who firstly introduced sericulture in the country in the early 1860s and wrote a handbook entitled, The silkworm and its food: introduction of sericulture into Australian colonies, with special reference to the raising of cocoons for exportation, published in Melbourne in 1863.

²²⁵ A value-added merchant is, according to the definition given by Kindleberger, a merchant who does not simply gain from the mere exchange of products, but is an economic operator *tout court* that engages in a number of trade-based activities which often foray into production, finance and industry. See Kindleberger, C.P., 'Commercial expansion and the Industrial Revolution' in *Journal of European Economic History*, 4, (1975), pp.615-616.

²²⁶ F. A. M. Quddus in his book speaks of the business of the Mustan family as extremely ramified, and well –established in the socio-economic fabric of the region. Peer Muhammad sahib was linked by family ties to the Tanjore monarchy, having married the daughter of the favourite to Maharaja Serfoji II. He was also connected to Hindu sowcars from Hyderabad in the Nizam's dominion (Deccan).

late 18th century²²⁷. Before entering the business of silk, they were warriors in the armies of Bijapur and Poona in the 17th century ²²⁸. In 1792 Peer Mohammad Sahib, and his brother Shaik Sultan Sahib who had swelled the ranks of the Marathas army were captured by Tipu Sultan, and taken to Seringapatam. From this unfortunate event began the 'story' of the Mustan family as silk-traders. Once freed, Peer Mohammad Sahib became contractor in the Mysore army. After the defeat of Tipu Sultan, Peer Mohammad Sahib who was on good terms with Smrinath Purniah received a plot of land located in Mogenahalli, a small village not far away from Chennapatna²²⁹. From this point onwards the Muslim warriors turned themselves into merchants, and started profitable activities in the field of silk-production and trade, which eventually diversified into other businesses²³⁰. According to the business records during the lifetime of Peer Mohammad Sahib, the average amount of raw silk prepared was nearly about 100 maunds²³¹, valued roughly 12.00 Rupees²³². Soon after his death, the business of silk was taken up by two of his sons, Muhammad Hussain Sahib and Muhammad Ibrahim Sahib. In those years the business of silk increased enormously. The firm purchased 25,00 maunds of raw silk valued 30 lakh of rupees²³³. The eldest son of Muhammad Hussain Sahib, Muhammad Mustan Sahib, with whom the De Vecchi brothers cooperated, continued the family's traditional business with the help of his younger brother, Muhammad Hyder Sahib.

The relationship with these Mysorean traders was crucial for the Italians, as a significant portion of their economic, and trading activities depended precisely upon the linkages they forged with members of the Mustan family. The salience of such a relationship laid in the multiple function that these traders performed within the network, accomplishing several tasks at the same time. Their role, in effect, cannot be reduced to a strict economic

²²⁷ I am extremely grateful to R. Davini for his insightful critique of my way of approaching the Mustan family, and their activities. He pushed me towards a deeper investigation of the activities of these silkmerchants, suggesting that only by going back to the 18th century would it be possible to fully grasp their 'global mentality', and their capacity to respond to the inputs given by the Italians.

The Mustan family may be traced from the 17th century A.D. from a line of Mussalman Warriors who distinguished themselves in military service'. Quddus, Fayaz M.Abdul, (1923), op.cit.

Srimanth Purniah granted a piece of land to Peer Mohammad Sahib in the village of Mogenahalli, five miles from Chennapatna'. Quddus, Fayaz M. Abdul, (1923), op. cit.

³⁰ The family owned an iron factory in Hulgoor (Malvalli taluk) and traded in musical wires for which Chennapatna was renowned.

²³¹ Maund (or Bazaar Maund) was a unity of measurement used throughout India, and corresponded roughly to 37, 250 Kg.

²³² Fayaz M.A. Quddus (1923), *op.cit*. ²³³ *Ibidem*

intermediation, which was anyhow decidedly relevant. It was, in reality, a more complex form of intermediation with social and cultural implications. For traders aiming at entering local channels of silk- production - an activity deeply rooted in the rural world which was, for several reasons, not directly accessible to foreigners- the function discharged by native merchants was priceless. The Mustans therefore came to play a multiple and rather complex role within the network.

Initially they acted as commercial intermediaries or brokers²³⁴, being the first link of an articulated chain of economic relationships that connected foreign traders to Indian domestic economy. They performed the same function that ranks of other Indian merchants before them had played over centuries²³⁵. The Italians entrusted the Mustans to purchase raw silk and silk cocoons on their behalf:

'Please buy for us 20 maunds silk, first quality at Bazaar price and to be delivered in Bangalore on the 2^{nd} of September 1865 and we will pay your bill' 236.

The De Vecchi relied upon the connoisseurship and capacity of Muhammad M. Sahib and his relatives to procure the best raw silk available in the local market.

'I am arrived tonight in Closepet with the money you required. Please, come at once and bring with you all the silk you have purchased for me'²³⁷.

Raw silk purchased for the Italians was likely to come from the Closepet taluk, of which Chennapatna was a sub-taluk at that time, and from the contiguous taluk of Maddur (Maddoor). The Mustans almost certainly used their own network of middlemen to purchase

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²³⁴ Pearson, M.N., 'Brokers in Western Indian Port Cities . Their role in servicing Foreign Merchants, *Modern Asian Studies*, Vol. 22, No. 3, pp 455-472, 1988; Qaisar Jan, A. 'The Role of Brokers in Medieval India', *Indian Historical Review*, I, ii, 1974.

²³⁵The literature on the role of Indian merchants, and on the commercial encounters between foreign merchants, mostly Europeans, and Indians is extremely broad, see Das Gupta, A. and Pearson, M. (eds), India and Indian Ocean, 1500-1800, Calcutta, 1987; Prakash, Om, European commercial enterprise in Precolonial India, Cambridge, 1998; Chaudhuri, K.N., *Trade and civilisation in the Indian Ocean: An economic History from the Rise of Islam to 1750*, Cambridge, 1985; Subrahmanyam, S. (ed), *Merchants networks in the Early Modern World*, Brookfield, Variorum, 1996. Habib, I., 'Merchants communities in precolonial India' in Tracy, J. (ed), *The Rise of Merchants Empires: Long-distance trade in the early Modern World*, 1350-1750, Cambridge, 1990.

²³⁶ Letter from A. De Vecchi to Muhammad Mustan Sahib, 24th August 1865, quoted in Quddus, Fayaz M.Abdul, (1923), *op.cit*.

²³⁷ Letter from A. De Vecchi to Muhammad Mustan Sahib, 6th August 1865, quoted in Quddus, Fayaz M.Abdul, (1923), *op.cit*

raw silk in the area comprising the then districts of Bangalore and Mysore²³⁸. Prices were rarely bargained. It seems that the two Italian brothers trusted the Mustans with regards to the price they applied to the silk skeins and cocoons purchased. However, the mention of the bazaar price in the lines quoted above is not incidental. It means that the De Vecchis were updated about the then current prices of good raw silk in the local market. This is no surprise. Achille and Henry De Vecchi had other sources of information from which they could obtained fresh news about the market. The manager and other employees of the silk-factory at Kingherry were recruited among locals, therefore they could provide their masters with, at least, basic information regarding prices and trends in the local market. On their side, the Mustans never tried to cheat on the Italians by inflating raw silk's price. Nor did they cheat on the silk's quality. The quality: price ratio of raw silk they procured was always fair. They only applied a commission for brokerage, which was the rule in this type of transaction. The commission requested by the Mustans must have been reasonable, De Vecchis never complained. Cheating on silk's quality would have been more complicated, because Achille and Henry De Vecchi were too expert to be easily cheated. They would have immediately noted the flaws of the raw material as the quality of raw silk was carefully checked at its arrival at Kingherry. In acting as commercial intermediaries during the first years of the cooperation with the Italians, the Mustans behaved well, their conduct was irreproachable, and the silk they procured was always good in quality. Indeed, the Mustans were already very well-known at that time for their honesty and rectitude:

'The firm was so famous on account of the honesty and straightforwardness' 239

In theory, cheating would have been easier for the Italians who were intruders. Unlike the Mustans, who were exposed to the judgment of their own community and commercial partners (the mechanism of reputation within and outside the Muslim community in Mysore was a crucial factor for businessmen. Public contempt and disapproval along with actual ostracism in business was a powerful deterrent which induced economic operators to work according to specific norms of conduct), the Italians were not bound to any communal or

²³⁸ The taluk of Closepet was located in the Bangalore district, while Maddur was located in the Mysore district.

²³⁹ Quddus, Fayaz M. Abdul, (1923), op.cit.

internally enforced system of control. A handful of traders²⁴⁰ in a foreign country had neither the resources nor the strength to oversee individual behaviour. Moral hazard, and opportunism in informal commercial relations would have been more practicable in a foreign country which was not supposed to be a permanent place for business. The transitory nature of their business might in effect have provided sufficient reason for Italians to cheat. In practice, however, at this stage of the cooperative relations an opportunistic behaviour was not conducive, and, above all, too risky. The De Vecchis were still building a reputation for cooperativeness and trustworthiness which could help a more balanced evolution of the relations with the Mustans, and therefore it was crucial for them to behave honestly. Rectitude and honesty were important attributes to traders, and the reputation mechanism attained great importance in mercantile communities. The ubiquity of the reputation mechanism, which can be found almost everywhere trade is carried out, was still considered by economic actors as a partial warranty against possible cheating and malfeasance. A trader with a sound reputation for honesty and expertness had more chances to find opportunities for cooperation with other traders. The reputation mechanism, in other words, favoured a predisposition for trust among economic actors. Trust, in turn, favoured the creation of stable cooperative relations. Information asymmetries like those noticeable in the De Vecchi's network, offered plenty of chances for trickery and cheating, and both parties were virtually in the position to take advantage of the other's information inferiority. Opportunism was always round the corner. In spite of the fact that international legislation in devices to enforce individual the mid-nineteenth century provided improved legal responsibility in trading transactions, reputation still mattered. Very often, reputability and honesty attested by firm's records, and orally circulated within business communities were indispensable qualities for conducting economic activities or starting a new branch of business. The importance attached to such qualities by Indian trading groups was great, and was a powerful factor when selecting trading partners.

Generally speaking, reputation is past oriented, and the reliability of one party is assessed on the basis of its past experiences and records. 'Reference to reputation is commonly about

²⁴⁰ Achille and Henry De Vecchi were linked to the other few Italians who were active in those years in Madras.

the past, as though to say that someone has demonstrated reliability, 241. In the case of the De Vecchi's network, reputation was, at least for the Italians, present oriented, and was based on a day-to-day relationship, and a side-by-side cooperation. At the early stage of their activities in Mysore, the De Vecchis had to demonstrate to the Mustans their trustworthiness and competence in carrying out the business in order to create conducive conditions for a fully-fledged cooperation. There is a growing body of literature on the importance of the reputation mechanism in market relations, and scholars have emphasized the diffusion and persistence of such mechanisms in world trade from the Middle Ages to more recent times, when the efficiency of increasingly sophisticated institutions, and the enforcement of contracts secured by law are erroneously supposed to have minimized the importance of personal relationships in trading transactions²⁴². Avner Greif, in his study of the Maghribi Jews²⁴³, has shown that in absence of formal contracts enforcement institutions (CEIs), trading activities in the Mediterranean benefited from an informal but effective network of information between merchants and financiers about who was trustworthy and who was not. This mechanism was not relegated into the boundaries of a single merchant community, but was disseminated in larger contexts, usually through contacts among different mercantile groups. In the 19th century news about businessmen's conduct, fraudulency, solvency and bankrupt enjoyed ample circulation among economic operators, a situation favoured by an already well-established tradition of reliable commercial press which kept economic operators informed about a number of issues including the reputability of firms and entrepreneurs.

The Mustans probably tried to pick up as much information as they could about the Italians. Before actively collaborating with the latter, Muhammad Mustan Sahib might have used his position as a public officer to check the reliability of the De Vecchi enterprise. In fact, it was not uncommon that traders would also use institutional channels to check on other's reliability. In 1869, Jean Casnati, who was concluding a business with the De Vecchis, asked the *Prefettura Reale di Milano* for reassurances about the solvency of the *Madras* &

²⁴¹ Hardin, R., *Trust and Trustworthiness*, New York, 2002.

²⁴² Klein, Daniel B. (ed), *Reputation: Studies in the Voluntary Elicitation of Good Conduct*, Ann Arbor, 1997.

²⁴³ Greif, A., 'Reputation and coalitions in Medieval Trade: evidence on the Maghribi Traders', *The Journal of economic History*, vol. 49, no. 4, Dec. 1989, pp. 857-882; *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*, Cambridge, 2006;

Mysore Silk Company, the firm launched by the Italians in 1868. The then Italian Consul in Madras, Edoard Lecot, was consulted for further information:

'(...) je m'empresse de vous transmettre sous ce pli une lettre du Sieur Jean Casnati par laquelle il manifests le desir d'obtenir des informations sur la societé du commerce Madras & Mysore Silk Company et spécialment sur la solvabilité des nommés Achille et Henry De Vecchi qui sont interesés ou agents de la meme association. Je vous prie M. le Consul de vouloir bien satisfaire à cette demande en procurant des renseignement exacts sur la solidité et importance de la compagnie nommé ainsi que sur la part d'interests qui est due aux dits Achille et Henry De Vecchi et je saisis cette occasion pour vous offrir les nouvelles assurances de ma considération distinguée '244</sup>.

It is difficult, if not impossible, to know what precisely the Mustans knew about the two Italian brothers when they began to work with them. It is highly implausible that they had managed to collect sufficient information to assess the degree of trustworthiness and reliability of the Italians in order to make decisions about whether to cooperate or not. Most probably the Mustans' decision was influenced, at least in the beginning, by the desire for profits - the brokerage for the Italians represented an appealing source of extra-profits- and by the implications that the presence of Italians sericulturists had for the silk-industry in Mysore, and thus for their own activities. The Mustans were outward looking traders, and soon grasped the opportunities that such presence offered. Furthermore, a family memory about the good conduct of other Italian silk-traders with whom the Mustans had happened to collaborate in the past likely acted as a positive element which made them more inclined cooperate. Last, but not least, the technical and scientific expertise of the De Vecchis must have attracted the Mustans, who feared, as many others in those years, pebrine and its fast spread. When *pebrine* broke out in Mysore, a country where no one was sufficiently acquainted with the disease to be able to recognise it, the Italians 's knowledge on the matter was considered particularly valuable.

Achille and Henry De Vecchi, on their side, knew only too well that a good conduct was pivotal for doing business in the new environment in which they were operating. They might have cheated on silkworms' eggs prices in Europe, and Japan, indeed this had been the case when they supplied the Chief Commissioner of Mysore with Japanese *seed* ²⁴⁵, but

²⁴⁴ Letter from the Royal Prefecture in Milan to Mr. Edoard Lecot, Italian consul in Madras, 6th Jan. 1869, Italian Consulate in Madras, MAE, ASD, Moscati VI, f. 561.

²⁴⁵ The cardboards of fresh *seed* coming from Japan that the De Vecchi imported on behalf of the Chief Commissioner of Mysore, were slightly overpriced.

this would have been too hazardous. For foreign traders so highly dependent upon local support it was extremely important to act properly. The Italians behaved honestly with their Indian partners, building such a high reputation that the Mustans always referred to them with a sort of affection suggestive of great consideration and sympathy.

Economic intermediation apart, the Mustans came to play a further function: they became the link between the De Vecchis and local producers (mulberry growers and silkworms rearers). The documentation available does not reveal how the Mustans concretely discharged this function, but, as clearly emerges from the sources at our disposal, it was of crucial importance. Indian rural society was a highly stratified reality which under no circumstances could be easily penetrated or understood by foreigners. For traders like the De it was vital to access channels of silk- production laying in the village's Vecchis communities. Their British trading partners could not give them any help. Nor could British authorities, such as district collectors, as they had a chronic lack of real knowledge regarding rural society, and knew very little or nothing about sericulture. As previously pointed out, in Southern India there was little central knowledge of how land and men interacted, and information about prevailing agrarian systems in a given area was very often not readily available to British officials. Only local agents possessed the qualities to disentangle themselves in the labyrinth of Indian rural world²⁴⁶. The Mustans, with their deep knowledge of both the market for raw silk, and local systems of silk-production in the Mysore silk tract, could put into contact the Italians with native producers. When pebrine made its appearance, and the experimental distribution of foreign seed began, the role of members of the Mustan family as mediators became even more important. This is a nodal point and warrants close attention. The transfer of know-how that the De Vecchi's network entailed was very unlikely to occur directly from the Italians to local producers. Linguistic, social and cultural barriers impeded frequent contacts between the Italians and native peasants. It is reasonable, therefore, to assume that the very initial recipients of the sericultural knowledge disseminated by the De Vecchis were the Mustans, who, through a sort of process of osmosis, favoured by daily cooperation, absorbed and conveyed it to other traders of the same sort in their own pervasive network in the area. Only secondarily, did such

²⁴⁶ Robb, P., Sugihara, K., and Yanagisawa, H. (eds), *Local Agrarian Societies in colonial India; Japanese Perspectives*, New Delhi, 1997.

knowledge reached -very probably in an abridged version- local producers. On the first stage of the dissemination of the Italian know-how we have more information; on the second stage, lacking substantial documents, it is only possible to put forward hypothesis.

Direct contacts between the Italians and local producers were likely to occur in the areas surrounding their silk-factories where the two brothers and their country – staff went to distribute *seed*, and monitor production. But beyond these rather sporadic contacts, neither Henry nor Achille seem to have ventured to search for closer connections with native producers. On the other hand, the Italians thought very little of *ryots* and according to widespread stereotypes of racial and class discrimination considered them fundamentally incapable of conducting sericulture in a 'modern' way if there was no one to guide and supervise them . The despicable qualities of native cultivators were usually referred to when the introduction of foreign *seed* was mentioned:

'It will be readily understood that the introduction of new seed will be looked upon with suspicion by ignorant and prejudiced cultivators' 247.

Ryots were portrayed by the Italians as stingy, diffident, ignorant and full of superstitions.

'(...) the new cocoons will, however, show such an improved production both in quality and quantity, that native avarice will be surely tempted to destroy the chrysalis in order to sell the silk ²⁴⁸.

This depiction of South Indian peasants was clearly influenced by the then existing prejudices about non-European peoples with a perceptible undertone of class superiority. The De Vecchis, like other Italians, were not immune to such prejudices, which, however, did not impede them from establishing commercial alliances with traders of diverse ethnic and cultural backgrounds.

Throughout the 19th century several Italian traders active in India seemed to have accepted, and re-elaborated through a process of internalization, some of the prevailing discriminative aspects of the Indian colonial society, as testified to by the following words of an Italian commercial agent:

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²⁴⁷ Letter from A. De Vecchi and A. Foster Pater to the Chief Secretary to Government, Proc. No. 272A, 13th Sept. 1869, MRD, OIOC, BL.

Letter from A. De Vecchi and A. Foster Pater to the Acting Secretary to the Board of Revenue, Proc. No. 1,151, 19th Feb. 1870,MBR, OIOC, BL.

'(...) gli indigeni sono in generale malfidi e mancano loro le cultura e la lealtà commerciale necessarie per poter trattare direttamente con lontani paesi. Fanno eccezione alcuni Maomettani e molti Parsi, questi specialmente, che sono molto stimati ed occupano nella Presidenza di Bombay una posizione commerciale importante ²⁴⁹.

What is reported here probably reflects the hidden feelings that many European traders in India shared in common: a mixture of racial superiority; contempt for natives; a steady belief in the civilising mission of the white man; admiration for the British rule in India. degree of such feelings varied according to the background of the Indian subjects. Fairskinned and Persian by origin, Parsis, for example, were privileged similarities with Europeans. Muslims were ranked as second, and at the bottom were Hindus. Racial prejudices, however, never seriously impinged on commercial exchanges. Mercantile groups of different ethnic origin and religion have for many century traded with one another in spite of cultural and social barriers, but under colonial rule things could be different and reciprocal diffidence heightened by unfavourable, and ethnic-biased legal frameworks had repercussions on the way in which trade was conducted. Nonetheless, Italian traders in India very often mitigated racial discrimination as the breadth and variety of their commercial relationships amply confirm. However, to generalise about the colonial experience of Italian traders in India would be an error. Individual trajectories of colonial encounter could differ dramatically, and greatly varied on the basis of class and gender. Given that commerce and trade were 'male' activities, and no women were involved in that, the focus should be on class. In fact, differences in social status influenced perceptions and receptions of the colonial environment. Since British authorities allowed only relatively well off people in the colony – those who arrived in India with no financial means to sustain themselves were immediately handed over to the consular authorities, and sent back home-Italian traders belonged to the middle and upper classes. The great majority were bourgeois, a few, however, were exponents of the Italian aristocracy from Northern Italy entrepreneurial activities provided a means of financially maintaining and consolidating their status. The De Vecchi brothers belonged to this small group of 'aristocratic traders'. Being noble meant that unlike other Italian traders, who felt themselves trapped in between the colonial order, being neither colonisers no colonised, and had, therefore, difficulty in identifying themselves with either the former or the latter, the De Vecchis found it

²⁴⁹ Fries, G. and Lanzoni, P., *Relazione sul commercio dell'Italia coll'India*, Bologna, 1896.

comparatively easy to place themselves in a system which recognised their higher status in spite of the fact that they were not British, and came from a country which was considered, and actually was a second-class power in Europe. Similarities in education, practices of sociability and cultural background made the European aristocracy a rather homogenous entity. Furthermore, this shared social language made it possible for them to interact with few difficulties. Class, more than race, seems to have shaped the way in which Italian traders perceived, and mentally elaborated their stay in colonial India.

The De Vecchis esteemed the Mustans highly, but this feeling of gratitude and friendship did not apply indiscriminately to all the Indians they happened to meet or work with. Peasants, for instance, received neither their favour nor their sympathy. Since they had a negative opinion of cultivators, be they mulberry growers or silkworms rearers, Achille and Henry De Vecchi did not try to transmit their know-how directly to them. If this happened, it did only so in circumscribed areas, preferably around the Italians' silk-factories, and was limited to those few cultivators who combined mulberry growing and silkworms rearing- but they looked for mediation and, when possible, even supervision of cultivators. The Mustans, therefore, became a sort of sieve through which a new body of sericultural knowledge was filtered, and then transferred to local producers. This system should have prevented forms of resistance, and rejection. The De Vecchis, however, underestimated the capacity of native ryots to correctly judge benefits and detriments of the introduction of foreign *seed*, and new techniques. If it is true that a lack of proper training impeded the easy circulation of a highly theoretical knowledge on sericulture among cultivators, the latter's practical expertise enabled them to immediately understand what was convenient, and what was not so. Certainly the distribution of foreign seed in a period of widespread pebrine was difficult because producers were initially suspicious. Addittionally, the new seed required special care being so perishable, and to make rearers adopt special measures was not easy at all. They usually carried out sericulture under conditions which were not exactly conducive to the acclimatisation of foreign races of silkworms. The high fragmentation of the productive chain made the entire sericultural system more vulnerable to the disease, and, moreover, made the acclimatisation of foreign silkworms more difficult. Under such conditions the mediation of the Mustan family was truly fundamental. The De Vecchis counted upon the agency of their trading partners understood as social prestige which derived from their

position as leading merchants, and officials legally deputed to supervise silk-production (the public office held by Muhammad Mustan Sahib was an element of further guarantee that the introduction of new seed as well as the process of transfer of know-how would have occurred with no hitches); knowledge of local rural world; ability to wield power over cultivators on the family's land, and extend control over larger swathes of cultivators in the Mysore silk by means of their pervasive personal network. The position of the Mustans within their community and their widespread net of commercial and personal relations gave them the necessary strength to act successfully as 'cultural' mediators. Interestingly enough, the Mustans played this role until well the 1930s, always mediating between foreign experts and the local context, which was not always prepared to receive and accept foreign innovations.

Last, but not least, the Mustan also provided financial resources. Unfortunately enough this aspect remains in the shadow in the documentation available, and only by piecing together scattered information it is possible to reconstruct the circuit of such intermediation. The silk traders from Chennapatna never directly provided the Italians with capital for their activities, but they put the latter in touch with Hindu bankers.

Since the 18th century the Mustan family had enjoyed financial links with Hindu bankers. The bank of Damodardas Sait²⁵⁰ in Seringapatam used to discount the Hundis brought by merchants coming from abroad to purchase silk in Mysore²⁵¹. From 1820 onwards, having the bank of Damodardas Sait ceased its activities, the Mustan family was constantly backed by the bank of Mangoomal Nundaramdas Sait established in Bangalore under the name Mangoomal Jessasing Sait. Because the trade in raw silk was so intimately connected with, and dependent upon banking facilities, members of the Mustan family tried hard to improve them by forging links with Hindu bankers.

In the mid-nineteenth century the indigenous financial market in South India was dominated by Hindu bankers and money-lenders, such as the Nattukottai Chettiars, and Kallidaikurichy Brahmins, while the Multans, and the Marwaris, who, although not native to South India, provided financial services in the main urban centres. A small and thriving community of Gujarati bankers scattered throughout South India also provided financial

²⁵⁰ Darmodardas Sait was the Huzur Sowcar of Tipu Sultan.

²⁵¹ M. A. Fayaz Quddus notes that merchants from Northern India who went to Chennapatna to buy silk often exchanged it for musk that they have brought with them. See Fayaz M.A. Quddus (1923), op.cit.

resources²⁵². And it was precisely this group of Gujarati bankers-traders that bankrolled the Mustan family until well into the 20th century. This continuity is a salient aspect of intergroups relationships in the trading world of Indian merchants. The preference that one group of traders showed for another group or caste that materialised in long-lasting cooperation between different mercantile communities in India is an under-researched topic. Cooperative relations under the form of exchange of information, commercial and financial resources, between Muslim and Hindu traders, has to date been tackled only marginally. As an example of extra-communal collaboration, the relationship between Mysorean silk-merchants and Gujarati bankers should be further investigated. This is a promising field of study which could cast new light on the domestic circuits of trade, and finance in precolonial India. Additionally, it could also open new paths for investigating domestic economic organization of Indian traders under the Raj.

It is a matter of fact that since the beginning of their activities as silk-merchants, Mustans preferred Gujarati bankers. This preference may be explained in different ways. The uninterrupted relationship between the Mustans and the Gujarati bankers could be the result of Tipu Sultan's commercial policy. The Sultan constantly looked towards the Arab Sea and the Middle East as privileged areas for commercial expansion, and economic collaboration. Gujarat had always been at the forefront of trading relations with the Arab World, and this fact made its people the perfect referents for strengthening the links between Mysore, and the Near East. He might have favoured the settling of Gujarati shroffs and traders in his kingdom to better serve his purposes. The Mustans, in turn, took advantage from the presence of such bankers and their pan-Indian network. But it may also be possible that the preference for Gujarati bankers was determined by trajectory of the domestic silk trade. It is possible, in fact, that small quantities of raw silk from Mysore were exported to Western India, and the services of bankers from the region could in that case prove to be an important practical advantage. Most probably it was the combination of the aforementioned factors and other more difficultly identifiable elements that made the Mustans so inclined to rely on Gujarati bankers.

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²⁵² The activities of merchants from Gujarat in South India dated back to the 17th century and were partly linked to trade in diamonds from Golconda.

While using the services of Hindu bankers, the Mustan family was also in the habit of lending money. In most cases, Mysore Muslim merchants with large interests in the textile industry performed the function of true bankers. In fact, they used to advancing money to weavers. Despite the fact that in principle Quran prohibited money-lending at interest identifying this with usury (riba) which was haram, that is unlawful. madhab that prevailed among Muslims in India²⁵³, had a softer approach to the issue. The Sir Sayyed Amhed Khan²⁵⁴ proposed distinguishing between usury Muslim reformer (understood as loans for consumption), and loans for commercial investments. The former was a despicable activity, but the latter was to be considered licit (halal), as it was the lymph of economic activity. On the other hand, since the 18th century when Tipu Sultan had ruled the country, Muslim merchants have learned to work within a system which was not strictly regulated by Islamic precepts. When Tipu organised his Department of Commerce-Mulikut Tujar - in the early 1790s he implemented regulations which had very little to do with Islam²⁵⁵. As a result Muslim traders in Mysore were, generally speaking, not adverse to financial activities which implied lending money at interest. However, financing the firm that Achille and Henry De Vecchi were establishing in partnership with the Dymes & Co (Madras & Mysore Silk Company) by direct investments was something which did not really fit into the traditional activities of the Mustan family. Furthermore, this was probably perceived as a risky business: the capital required was high; the guarantees were few; profits calculated on the basis of the investment made seemed initially volatile. Besides that, the new company would have been headquartered in Madras, and would have included partners (Albert Foster Pater and Daniel David Dymes) with whom the Mustans had not direct contacts. The inter-groups exchange of financial resources in whichever form was a rather sensitive matter which required a high level of reciprocal trust among the members of the network. But it is also possible that the Mustans lacked the financial resources to enter the new business, and therefore declined the offer of a partnership with the Italians or simply

²⁵³ In Mysore the Urdu-speaking Muslims were in general Hanifs , while the Mappilas and the Navayats (Muslims in the Uttara Kannada district) were Shafis.

²⁵⁴ In 1875, Sayyed Ahmed Khan, a fervent reformer of Islam in India, founded the Muhammadan Anglo-Oriental College at Aligarh.

²⁵⁵ See Gopal, M. H., *Tipu Sultan's Mysore*. *An economic study*, Bombay, 1971; Risso, Patricia, 'Muslim identity in maritime trade: general observations and some evidence from the 18th century Persian Gulf/Indian Ocean Region', in *International Journal of Middle East Studies*, vol. 21, No. 3, (Aug. 1989), pp. 381-392.

considered the enterprise not sufficiently attractive. Whatever the reason for the Mustans failing to participate in the launch of the Madras & Mysore Silk Company, they did not let their 'friends' down, and indirectly provided them with the connections to gain access to the local indigenous banking system. In 1867-68 Achille and Henry De Vecchi had already established a solid relationship with the Mustans and mutual cooperation had created the conditions for trust to emerge. Both groups considered the other party honest and reputable beyond any doubt. On the basis of this relationship the Mustans introduced them to the Hindu bankers and financiers who backed them financially. In so doing the Mustans ran great risks, and took the full responsibility for the honesty and rectitude of the Italians, whom they guaranteed. If something went wrong, the Mustans would have been blamed and deemed as responsible in the eyes of Hindu bankers to whom they recommended the De Vecchis. Even the slightest problem in the relations between the Italians and Hindu bankers would have immediately jeopardised the Mustan family's businesses and, more importantly, damaged their public image which would have been hard to shine-up afterwards. But, in spite of the large number of risks that they might incur by offering their aid to the Italians, the Mustan family spared no energy in helping the De Vecchis finding reliable financial resources in loco.

The Mustans came to discharge, therefore, a threefold function: commercial, cultural and financial intermediation. While the latter was an occasional form of intermediation linked to a specific moment of the cooperation with the Italians, the other two forms were long-lasting and characterized the activities of the family until the 1930s. Considering the wide-range of 'services' that these Mysorean traders provided, it may appear that the De Vecchis attached themselves to the Mustan family's network rather than establishing their own. This impression is, however, deceptive. The trading network that Achille and Henry De Vecchi forged with the Mustan family was a new, and highly articulated form of cooperation beneficial to all the members. Certainly the Italians gained massive advantages from their ties with the Mustans (this was, after all, what they expected when they selected them as trading partners), but they brought a vast array of opportunities in return. First of all, the arrival of De Vecchis meant extra profits for the Mustans. This is not a secondary factor. The 'logic of profit', which is often underestimated in studies on trading networks in favour of other forms of explanation, is extremely capable of pushing merchants towards

cooperation even under difficult or risky conditions. Secondly, the presence of Italians certainly broadened the commercial horizons of these Mysorean merchants. Thirdly, the Italians themselves became a rather atypical type of intermediaries. On several occasions, they acted as a sort of 'buffer' between local traders and colonial authorities - especially when the experimental introduction of foreign seed was attempted in the country-, mediating between their trading partners, who endeavoured to seize the opportunities that the pebrine crisis offered to Asiatic raws, and the indifference and incompetence of colonial rulers epitomized by the sporadic and pointless attempts to improve local sericulture they made. Furthermore, the trading network that Achille and Henry De Vecchi established with the which made local economic actors particularly Mustans constituted a ' precedent' inclined to collaborate with Italians in the field of sericulture. In the 1880s, and again in the 1910s the Mustans aided Italian sericulturists active in the country. These Italians were pointed towards the memory of the cooperation with the De Vecchis that was still alive. In 1914 Giovanni Gorio, the then Italian consul at Bombay and prominent silk-entrepreneur from Brescia, learned from Muhammad A. Fayaz, of the past collaboration between the Mustan family and the De Vecchi:

'Fifty years ago Signor De Veeche, another Italian expert, came to Chennapatna and received help from the members of the Mustan family whose members are yet taking the lead in the silk trade²⁵⁶',

What remains unclear, is how the De Vecchi brothers initially got in touch with the Mustans. Were they given advice by someone in India? Did they simply approach them only by virtue of the official position hold by Muhammad Mustan Sahib? Or did they learn about the Mustan family within their locality-based network in Italy? It is almost impossible to answer these questions as the documentation on the very first stage of the relationship between the De Vecchis and the Mustans is incomplete.

Previous links between Italian silk-traders and the Mustan family don't seem to have taken form of a proper trading network, most probably they were only a sporadic and occasional

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²⁵⁶ Lecture delivered by Dr. G. Gorio at the YMCA, Bangalore, 18th March 1914, quoted Quddus, Fayaz M. Abdul, (1923), *op.cit*.

cooperation²⁵⁷. It is highly improbable, therefore, that the De Vecchis jumped into a trading network already established by other silk-traders before them. The most realistic hypothesis is that the two brothers were advised by someone in their locality-based network. This would prove the effectiveness of this micro-network in detecting opportunities beneficial to its members even in contexts far away from Italy. But, more importantly, this would demonstrate the existence of enduring forms of collaboration between economic actors apparently disconnected over vast areas across Eurasia.

However, given the lack of substantial evidence, this remains an open issue.

4.2. The experiments of Henry De Vecchi in Mysore: 1866-1871.

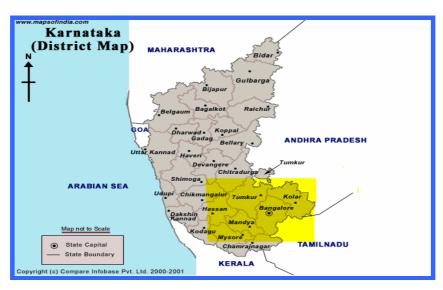
Unlike other types of similar networks, that of the De Vecchi had an interesting peculiarity: it was polarised around the economic exchange on the one hand, and the transfer of sericultural know-how on the other. The network, in fact, was meant to circulate not only commodities (raw silk, silk *seed*, and so forth), but also western scientific knowledge regarding sericulture. The polarisation of the cooperative relations around the economic exchange, and the transfer of sericultural know-how had a profound influence on the structuring of the network. This is the reason why before proceeding with the analysis of the internal structure of the network, it is worth dwelling briefly on the first experimental attempts made by Henry De Vecchi in Mysore.

The main aim of the Italians when they moved to Mysore, which they considered particularly suitable for silk-production²⁵⁸, was to produce a better quality of raw silk to be marketed in

²⁵⁷ It is bearing in mind that an economic network is a system within which a group of agents pursue repeated and enduring relations with one another. Such relationships go beyond mere economic transactions, and usually take the shape of complex socio-economic relations.

²⁵⁸ 'The experience of our Mr. De Vecchj, who has visited almost the whole of the silk-producing districts of the world under a special commission from the Italian Government, shows him distinctly that the highlands of Southern India, for equality of climate, suitably of soil, and cheapness of labour, are unequalled'. Letter from A. De Vecchj (of the Messrs. A. P. De Vecchj & Co.) and A.F. Pater (of Messrs

western markets, especially in Europe. In practice, their business consisted in producing their own raw silk in their silk-farm at Kingherry, in purchasing the best raw silk locally produced, plus large quantities of cocoons which were to be machine- reeled in the Italian filature at Kingherry. The final produce was shipped to London or Milan for sale. Between 1865 and 1868, while carrying out their the aforementioned activities, the De Vecchis got involved in a number of experiments with new types of mulberries²⁵⁹, and new races of silkworms that they themselves imported from abroad, introduced and acclimatised in the country. at Kingherry Henry De Vecchi began to rear some Italian *seed* of the fine golden-yellow type as well as Japanese *seed* imported from Yokohama. Later on , he began several experiments of hybridization. He created several hybrids by crossing Italian and Japanese *seed* with the Mysore native race to obtain a better, and more resistant breed of silkworms. In the beginning, however, this was not meant to be a large-scale activity.



<u>Fig.4.2.</u> The area marked in yellow shows the districts involved in the experimental trials of the De Vecchi Bros. first, and other Italian sericulturists later. Nowadays these districts are the largest silk-producing area of the Indian Union.

Dymes & Co.) to the Chief Secretary to the Government, Proc. No. 272A, 13th Sept. 1869, MRD, OIOC, BL.

 $^{^{259}}$ H. De Vecchi introduced the *Morus Multicaulis*, commonly known as the Philippines mulberry, which became in the following decades the most popular type of mulberry grown by the *ryots* in the Salem, Coimbatore and Tinnivelly districts.

The introduction, acclimatisation and distribution of foreign *seed*, and hybrids as well as the training of Mysorean cultivators in the Italian sericultural practices that Italians pioneered in the following years, probably started merely as an experimental attempt to improve local sericulture in the Bangalore district where the Kingherry silk-factory was located. But the introduction of foreign *seed* became a necessity when in 1866 pebrine swept through the silk tract of Mysore:

'(silk trade) has been fostered by us as much as possible, but we have had to contend against a serious epidemic which carried off the bulk of the best breeds of silkworms in the country. The remaining are so sickly and degenerated that their eggs are practically useless, and we have arrived to the conclusion that, without a thorough and extensive importation of entirely new and healthy breeds of worms, the silk trade, hitherto so important in this country will entirely die out and disappear, ²⁶⁰.

Interestingly enough, despite knowing that the epidemic was pebrine, Italian sericulturists never mentioned 'pebrine' in their correspondence with the Chief Commissioner or with the Board of Revenue of Madras. British collectors referred to the disease as a sort of 'atrophy' ²⁶¹, a rather vague term which could be used to refer to other diseases as well. At the end of 1866 the effects of the disease were a cause for deep concern ²⁶², and native producers as well as silk-merchants were growingly worried about the speed of contagion. In Mysore, in spite of the fact that from 5 up to 7 cocoon -crops were available every year, the spread of *pebrine* was so rapid and devastating that the annual production of cocoons halved. The coincidence between the propagation of pebrine and the activities of the Italians would suggest that the disease was transmitted by the foreign eggs that they imported and distributed. This is undoubtedly a plausible hypothesis ²⁶³. In fact, it frequently occurred that Italian and French

²⁶⁰ Proc. No. 272A, 13th Sept. 1869,MRD, OIOC, BL.

²⁶¹ 'The worms were reported to have died in most cases before they could form the cocoons, having been infected by the prevailing disease, a sort of 'Atrophy'. Letter from the Officiating Secretary to the Chief Commissioner of Mysore to the Acting Secretary to the Board of Revenue, Madras Board of Revenue (henceforth M.B.R.), Proc. No.3,188, 31st July 1871, OIOC, BL.

²⁶² 'The industry had almost died out about 1866, and was temporally helped by importation of Japanese seed'. Government of Bengal, Dept. of Industries, Bullettin No.78, 'Mysore Silk Industry' as studied by C. C. Gosh, Deputy Director of Sericulture, 1919, OIOC, BL.

²⁶³ I have discussed the issue of the propagation of *pebrine* in Mysore with C. Zanier. He suggested to me the idea that the disease might have arrived in the country along with the first *seed* that Henry De Vecchi introduced.

sericulturits, who usually carried with them some quantity of the eggs of the diseased European silkworms, infected the silk-producing areas they visited. The practice of travelling with eggs of the diseased European silkworms was quite common during the pebrine crisis, and many sericulturists believed that the disease was caused by adverse environmental conditions, and that in climates more consonant to the silkworms' nature would have healed them. Such practice, which had no scientific foundation, favoured the propagation of *pebrine*.

Pebrine was highly contagious, and the transmission of the protozoan rather easy. In the Coimbatore district, for instance, silkworm rearers believed, in the beginning, that the disease was caused by the *seed* they were given. However, it has be noted that 1866 pebrine made its appearance not only in Mysore, and in the Coimbatore and Salem districts, which benefited from the distribution of the foreign *seed* ²⁶⁴, but also in other areas, such the district of North Arcot, a region far away from the area where the Italians were operating which could not have been infected by foreign *seed*.

'(..) there is an impression among the ryots that the disease from which the native worms are there suffering is due to the importation of foreign seed, but it must be remarked that the disease has appeared simultaneously over nearly all the silk producing countries, and it will be observed that in North Arcot, where seed has not been introduced, the same disease prevails ²⁶⁵.

On the other hand, several studies on the transmission of *pebrine* conducted in the early 20^{th} century, when the disease still represented a concrete threat, showed that the *Nosema Bombycis* is naturally present in many parts of the world, including India²⁶⁶. This hints that the manifestation of *pebrine* could be linked to the extreme exploitation of silkworms, and their intensive rearing which makes the worms more sensitive and fragile. Given that there is no agreement on how *pebrine* originated and propagated, it is pointless to linger over the argument.

We have only indirect and scattered about the silkworms' eggs introduced by the De Vecchi. These data come from the collectors 'reports which provide information about

²⁶⁴ For sake of accuracy it must be said that only in Mysore the distribution of foreign *seed* was massive, while in the Salem and Coimbatore districts only limited areas received new eggs.

²⁶⁵ Silk Cultivation in the Madras Presidency, Report of the Revenue Department dated 21st Dec. 1869, Proc. 3,221 recorded 19th Feb. 1870, M.B.R., OIOC, BL.

²⁶⁶ See Jameson, A. Pringles, (1922), op.cit.

quantity and provenience of *seed* but rarely give indication about quality. However, the records of the New South Wales (Australia) authorities, that requested the Madras Board of Revenue to be supplied with mulberry cuttings, and *seed* give us the chance to cross-check those reports and obtain a sufficiently precise idea about the type and healthiness of *seed* the De Vecchis introduced. British authorities in Madras turned to the Italians to satisfy the request of the Australian Government:

'Messrs de Vecchi and Pater are requested to favour their opinion as to the utility of sending either wild or domesticated species of silkworm for the Acclimatisation Society of New South Wale ²⁶⁷.

After receiving the communication of the Board of Revenue, the De Vecchis sent a cardboard of silkworms' eggs and some cuttings of *China mulberry*²⁶⁸ to the New South. These were placed in the hands of the Mr. Charles Brady who was conducting experiments with different kinds of silkworms and mulberry trees:

'I have also to acknowledge receipt of the package of eggs and seeds from Dr. De Vecchy, of Mysore, and have the great satisfaction of saying that they arrived in most excellent condition; they were immediately placed under the care of Mr. Charles Brady, F.L.S., of Manly, our most experienced silk grower. I enclose copy of Mr. Brady's report, and am happy to add that I am assured of the continued well-doing of the silkworms which have turned out quite healthy, and prove a most valuable acquisition to this Colony'269.

Mr. Brady reported to the Secretary to the Acclimatisation Society of New South Wales on the eggs received from Mysore as follows:

'Dear Sir, I have carefully examined the parcel of silkworms' eggs just arrived from India, and have the pleasure to say that although the varieties are in part similar to some of my own, they form a very desiderable and valuable addition to the useful sorts which Australia is now acquiring.(..); the eggs were admirable packed, and arrived in perfect condition. A portion of the eggs was already hatched so that a further short delay would have been fatal, but there is every probability of saving enough of each breed for reproduction in the Colony. There appear to be two, if not three, separate varieties-one high class race from Italy, by way of India; a second unnamed; the third Japanese green (apparently different to that already imported by the Society)

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²⁶⁷ Proc. No. 762, 7th Sept. 1870., M.R.D., OIOC, BL.

²⁶⁸Proc. No. 348, 23rd March 1871, M.R.D., OIOC, BL.

²⁶⁹ Letter from the Secretary of the Acclimatisation Society of New South Wales to his Excellency the Viceroy of India, 24th Feb. 1870. New South Wales, Parliament, *Correspondence relating to cultivation of silk*, Sydney, 1870.

partly acclimatised in India by Dr. De Vecchy, from whose estate also Italian eggs were obtained' 270

The unnamed type referred to in Mr. Brady's letter was most probably a hybrid created by Henry De Vecchi himself. The seed was successfully raised by Mr. Brady who managed to ship a quantity of the new eggs to France and Italy²⁷¹. This does not dispel, of course, doubts about that quality and healthiness of the seed utilised by the De Vecchis, but, at least, makes clear that a part of the seed was actually good and disease-free. The outbreak of pebrine in Mysore, therefore, cannot be directly ascribed to the activities of the Italian sericulturists, as there is no sufficient evidence to confirm a similar hypothesis.

Soon after the propagation of *pebrine* in Mysore, the decrease in the output of raw silk made immediately clear that it was necessary to take measures to keep the disease under control. Like elsewhere in the world, the introduction of disease-free seed was the only effective measure which could help local silk-industry. But the traditional organization of silk-production in the country made it rather problematic. the prevailing fragmentation of the industry, which was in general an element of profound inefficiency for a western-style large-scale production, was particularly detrimental to the introduction ad monitoring of foreign seed. Achille and Henry De Vecchi under the pressure of the fast propagation of pebrine, which directly affected their business as well, and pushed by their trading partners resolved to turn to the British authorities in Mysore for aid, and support for the introduction and distribution of disease-free seed. When they addressed their proposal to the Chief Commissioner ²⁷², the moment was apparently propitious. The Chief Commissioner, like other British officials in India at that time, had turned his attention to the issue of sericulture, and was thus glad to accept the proposal of the Italians. British districts collectors and their entourage, were asked to help the Italians in the distribution of foreign seed. Five attempts were made between 1866-1871 with a view to introducing disease-free seed (hybrids and Japanese seed). The first two attempts were made exclusively in the

²⁷⁰ Letter from Charles Brady to Dr. G. Bennett, Secretary to the Acclimatisation Society of New South Wales, 8th Jan 1870. New South Wales, Parliament (1870), *op. cit.*²⁷¹ From the *Sydney Mail*, 23rd July 1870 quoted in New South Wales, Parliament (1870), *op. cit.*

²⁷² Sir Lewin Bentham Bowring, Chief Commissioner of Mysore from 1862 to 1870.

Bangalore district, and the cost of this experiment was entirely paid for by the Italians. At the end of the year 1866, and once again in 1867 a large quantity of a hybridised *seed* (a cross between Italian and Japanese breeds, and the Mysore race obtained a Kingherry) was distributed for free among the *ryots* with the help of district officials. The results did not fulfil expectations: a large portion of the eggs hatched, but the silkworms died soon after. Henry De Vecchi, who personally monitored the distribution of eggs in the Bangalore district in 1866-67, was very puzzled by this initial failure, as a stock of the same *seed* distributed to the *ryots* had been successfully reared in the Italian silk-farm at Kingherry. In a report addressed to the Madras Board of Revenue, Captain Clarke summarised the story of the first attempts as follows:

'(..) it was not until 1866 that the subject was again energetically taken up by Signor de Vecchj, who, with the help of this Government, distributed among selected men in the Bangalore District a large number of cartoons. Great expectations were entertained, as these eggs were obtained from crossing Italian and Japanese worms imported by Signor De Vecchj himself, with healthy specimens of the country worm, but from causes not explained the results was most unsatisfactory²⁷³.

The way these first two attempts were conducted evinces two important things: first of all they were mere experiments made under the pressure of pebrine, and with no careful planning; secondly, the Italians had little knowledge of the local silk industry, and were not yet fully aware of native practices of carrying out sericulture, especially the rearing of silkworms. Until 1866 the activities of the De Vecchi brothers were concentrated only in the production of raw silk in their own silk-factory, and they were not yet well acquainted with the system of production that characterised silk-industry in Mysore, having had only few contacts with native producers, and having entrusted the Mustan family with the task of procuring raw silk and cocoons. But those first experiments brought to light another noteworthy aspect, that is the widespread ignorance among British officials of the prevalent sericultural system followed by native ryots. The selection of the ryots that received the *seed*, had been entrusted to British Officials because of their alleged knowledge of local rural society, but, in fact,

²⁷³ Letter from Captain T.G. Clarke, Officiating Secretary to the Chief Commissioner of Mysore, to the Acting Secretary to the Board of Revenue, 24th June 1871, Proc. 3,188, 31st July 1871, M.B.R., OIOC, RI

they had no profound understanding of the latter. On the other hand, British authorities seemed to be averse to the idea of handing over the task to the native revenue officials, who certainly had a better knowledge of the prevailing agrarian systems²⁷⁴.

Soon after the initial failure the two brothers began to gather detailed information on local sericulture in order to obtain a clearer picture of the organisation of silk-industry not only in the Bangalore district, but in the whole Mysore silk tract. While carrying out their personal survey, they came to know that Mysore silk industry was traditionally very much fragmented, and each segments of the production chain was highly interdependent on the other. Ryots who cultivated mulberry; men and women who reared silkworms; labourers who reeled the cocoons and merchants who purchased silk and sold it domestically or exported abroad were all intimately connected. The De Vecchis immediately understood that this internal subdivision was, and would always be, a major drawback for a large-scale development. Moreover, for traders used to the productive mechanism of Italian sericulture, that of Mysore must have appeared a very special system that bore no resemblance to any other systems they knew. In the context of local silk-production there was very little they could do to modify the traditional organization of silk-industry, this was not simply a matter of improving sericultural methods and reeling techniques, but it was a more complex issue that required a complete restructuring of the industry as such.

The De Vecchis therefore decided to proceed along two different lines, on the one hand, they asked members of the Mustan family for concrete aid for the introduction of foreign *seed*, in the hope that they were able on their own lands to combine and monitor the entire cycle, from the hatching of the eggs to the reeling of raw silk; on the other, they tried to push British authorities to finance larger experiments, which were, in their opinion, the only way to actively support Mysore silk-industry in a difficult conjuncture. Besides negotiating the terms of such experiments with the Chief Commissioner, the De Vecchis started working on possible alternatives to avoid the failure occurred in 1866-67. They engaged in a deeper investigation of how sericulture was conducted in the Mysore, and came to the conclusion that even though they could

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²⁷⁴ 'To entrust it to the native revenue officials would simply be throwing money away (...). Letter from the Acting Collector of Coimbatore to the Acting Secretary to the Board of Revenue, M.B.R., Proc. 2,407, 9th April 1870.

do very little against the subdivision of silk- industry which proved to be so harmful for the introduction of new seed, they could, at least, try to reduce its negative effects by disseminating knowledge about how to take good care of foreign races of silkworms. As part of this programme of transfer of know-how, the De Vecchis trained few local cultivators at Kingherry in the art or rearing Japanese and Italian silkworms. In order to make this body of knowledge more efficient and readily availableHenry De Vecchi wrote a textbook on sericulture²⁷⁵, which was published by the Mysore Government, and then circulated in the main silk-producing districts. It is highly doubtful that the manual was meant for the illiterate native ryots, although British authorities reported so in their reports. Most probably it was conceived for those who actively collaborated with the Italians in the distribution and monitoring of the seed, first of all Mysorean silk-merchants, then British collectors, and talooks officials. Further attempts to introduce disease-free seed were made respectively in 1869,1870, 1871, in the Bangalore, Tumkur and Kolar districts. Mostly Japanese seed (1,375 cardboards in total) was introduced. The cost of the importation and distribution was entirely borne by the Chief Commissioner. Reports on the results of these attempts are

'In the year 1869 Signor De Vecchj was commissioned to procure a large supply of Japanese eggs, which were distributed immediately on their arrival among the most intelligent of the silkworm rearers. (..) The eggs did not hatch in a large number of cases, and for the rest the worms generally died. For the fourth time, in January 1870, a large quantity of newly imported Japanese cartoons was distributed in the Bangalore, Tookur and Kolar Districts: the first were favourable, and the demand for the eggs was very large, but the worms did not seem to thrive in the second generation, and the foreign species may be said to be already extinct²⁷⁶.

contradictory, and in some cases unreliable. According to the records of the Mysore

Sate the results were not as satisfactory as expected:

In contrast, British collectors in the Coimbatore and Salem districts (Madras Presidency) reported that local *ryots* after a first distribution of a small quantity of eggs which had

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²⁷⁵The textbook was entitled *The Manual of Sericulture in Mysore*, and was published in Kannada (400 copies) and in English (50 copies). Letter from the Officiating Secretary to the Chief Commissioner of Mysore, to the Chief Secretary to the Government of Fort Saint George. M.R.D., Proc. No.44, 7th Sept. 1870, OIOC, BL.

²⁷⁶ Letter from Captain T.G. Clarke, Officiating Secretary to the Chief Commissioner of Mysore, to the Acting Secretary to the Board of Revenue, 24th Jun. 1871, Proc. No. 3,188, 31st Jul. 1871, M.B.R., OIOC, RI

very well, sought more supply, but no more seed was available for distribution²⁷⁷. Besides carrying out these activities in Mysore, the Italians were also trying to convince the Madras Government to undertake an initiative similar to that already proposed to the Chief Commissioner, but with slightly different modalities of introduction and distribution of seed. In their letters to the Madras Board of Revenue they repeatedly stated that only by means of large-scale programmes of amelioration throughout South India was it possible to foster local silk-industry in the right way, and achieve satisfactory results. Sporadic and uneven attempts, they remarked, were not sufficient to revive local silk-industry. On the basis of their personal experience in the country Italians sericulturists suggested launching well-thought out, large-scale programmes backed by the government. They genuinely thought that the great interest shown in those years by British authorities was the sign of a concrete willingness to foster the development of local silk-industry. As we have previously noted, at the time of the pebrine crisis there was a certain excitement about the potentialities of Indian as testified to by the intense exchange of correspondence silk-industry in general, between the India Office and the Governments of the Bombay, Madras, and Bengal Presidencies. But such interest, as the Italians learned at their expenses, was volatile and destined to wane as soon as the first difficulties arose. After the failure in 1871, the Chief Commissioner of Mysore let the Italians know that it was not his intention to support other similar attempts, as no substantial results had been achieved:

The Chief Commissioner is led to the conclusion that the dry climate of Mysore is not favourable to the freshly imported Japanese breeds, and that it would be undesirable to renew the experiments, unless it can be clearly proved that with care and skill those foreign species can be acclimatized in this part of the country.²⁷⁸.

²⁷⁷ The Collegal talook in the Coimbatore district, and the Oossoor talook in the Salem districts, although laying in the territory of the Madras Presidency, were included in the experiments. The Japanese *seed* for the Collegal talook was made available at the Italian silk-farm at Maddoor, while the Italian silk-farm at Oossoor provided the *seed* for that talook.

²⁷⁸ Proc. 3,188, 31st July 1871, M.B.R., OIOC, BL.

The De Vecchi brothers were discouraged by the experiments in Mysore, and by the refusal of the Madras Government to support further experiments in the Presidency²⁷⁹, but the end of 1871 abandoned the idea of continuing their experimental activities.

The experiments carried out by the De Vecchis in Mysore and in the contiguous districts of Salem and Coimbatore should be judged under the light of two sets of factors: the objective conditions of the South Indian silk-industry on the one hand, and contingent events which heavily affected the final results on the other. We have already dwelt on the structure of the indigenous silk-industry, emphasising its rather atypical What is essential now is to pinpoint the fragmentation. aspects of such fragmentation which made in practice difficult the successful introduction of foreign seed. The distinction between those who hatched the eggs, and reared the silkworms to the second moult, and those who reared them from the second moult to spinning, and the chandraki hirer were the elements really peculiar to Mysore silk-industry. From the simple point of view of efficiency in production the main problem was represented by practise of selling the worms while their were moulting. (between the the common second and the third moult). The process of moulting is an extremely delicate phase in the life of the caterpillar, which stops eating and remains motionless in order to discard the old skin that has become to tight and assume a new one. In this phase any external disturbance has to be carefully avoided to allow the worms to complete the cycle. By breaking the rearing process in several phases, the organization of the Mysore silkindustry made the introduction and acclimatisation of foreign seed more difficult. In fact, moulting silkworms could easily die during transportation to the village market where they were brought for sale. When applied to foreign seed this practice was even more dangerous, as the silkworms of foreign races were more sensitive to temperature change than the local ones, and thus more perishable. Upon realising that this practice was widespread in the Mysore silk-industry, Achille and Henry De Vecchi tried to prevent it or reduce its negative effects. But their capacity to influence the structure of local silk-industry was limited, and a complete restructuring of the industry, which they probably envisaged, was certainly beyond their real possibilities. That they had a rather clear idea of the problem and its implications is testified to by

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²⁷⁹ See chapter 5.

the fact that they asked British district authorities to supervise silk- production by means of local officials in order to make sure that those ryots who were given imported eggs could conclude the entire rearing process. A similar request was made to the Mustans as well. Members of the Mustan family were known for their past efforts in favouring the dissemination of sericulture in Mysore. Peer Muhammad Sahib, for instance, in the late 18th century had travelled indefatigably in the Bangalore District to diffuse mulberry trees, and silkworms by practical demonstrations to ryots. In the areas under their direct influence, the Mustans were, of course, in the position of exerting control over production, but such control was not unlimited. The structure of silk-industry in Mysore was, in fact, permeable only to a certain extent, and modifications of existing mechanisms of production, even in circumscribed areas, were not easy to achieve. The relatively recent origin of silk-industry should in theory have favoured changes, but, in practice, systems of agricultural production, and the organization of silk-cultivation were already amply consolidated. Moreover, the Mustans knew too well that the subdivision of the silk-industry was important for the survival of some social strata of the local population. The centralization of the productive process, beneficial for the economic development of silk-industry, would have been harmful from a social point of view, as it could have affected the livelihood of a number of people. The equilibrium of the production chain of raw silk in the country was delicate and alterations were to be carefully thought out as the outcome could be uncertain and socially problematic. The preservation of the prevailing socio-economic equilibrium, which the Mustans certainly considered, became an untenable position in the following years when recurrent recrudescence of pebrine required the adoption of measures which inevitably tended to centralise production, privileging forms of organization which combined mulberry cultivation and the rearing of silkworms. By the end of the 19th century, and in early 20th century the Mysore authorities, partially free to decide economic strategies and developmental patterns, opted for programmes of aid to silk-industry which implied the modification of the traditional organization or which could at least guarantee the completion of the rearing phase within the same productive unit. When Achille and Henry De Vecchi operated in South India programmes of this sort were simply impossible to carry out. The nature of colonial rule, and the character of the Italians' activities combined with the inadequate resources of local entrepreneurship linked to silk-industry were major Traders like the Mustans, for instance, lacked the strength to activate profound developmental trends in Mysore. Furthermore their own activities were deeply embedded in the local productive system, and any change at any level would have altered their position in the system. There is little doubt that they hope to seize the opportunities that the pebrine crisis and the arrive of the Italians, as a reflex, offered. But they did not consider large-scale plans which could radically modify the existing conditions of local silk-industry. They appreciated the introduction of new seed, which helped to save silk-industry in a difficult conjuncture, but certainly they never thought of a structural modification. From a practical standpoint, a radical modification of silk-industry in Mysore within a few years was simply unfeasible, and the introduction of foreign seed on larger-scale would have probably had beneficial effects, but could not set in motion a process of real take-off.

Internal structure of indigenous silk-industry aside, there were also contingent events which influenced the results of the sericultural experiment made by Achille and Henri De Vecchi. In 1865-66 Mysore was hit by famine. This was not a secondary factor, as famine's effects on agriculture and, consequently, on sericulture were many and severe. Until well into the 20th century, subsistence crises represented a major threat for rural population in India. Famine in Mysore followed that of Orissa and Bihar, and preceded that of Deccan in 1866-67²⁸⁰. The effects of this wave of famines was catastrophic; periods of prolonged droughts alternated with periods of flooding; rainfalls failed to fall when it was needed, and fell in plenty when it was not. Indian agriculture which depended so heavily on seasonal and timely rainfalls, was badly hit. This was crucial for a country like Mysore where the great majority of cultivated lands were rainfed. The paucity of food crops made rural people weaker and, thus, vulnerable to the epidemics that inevitably followed famines.

In Mysore, although records of the Mustan family attested that people engaged in silkcultivation suffered the least, and were able to survive decently even in very hard times,

²⁸⁰ Bhatia, B.M., Famines in India: a study on some aspects of the Economic History of India (1860-1945), New Delhi, 1963; Alamgir, M., Famines in South Asia, Cambridge (USA), 1980.

famine harshly affected agricultural production, and sericulture as a consequence. Under the pressure of starvation mulberry growers were probably tempted to divert a great portion of their energy and land towards the production of food crops. Silkworms rearers, deprived of land and dependent upon supplies of fresh leaves from mulberry growers, were obviously immediately affected by even the slightest change in the cultivation of mulberry trees. Silkworm rearers were probably one of the most vulnerable stratum of the local population. The diminishing area cultivated with mulberry, and the preference towards food crops reverberated negatively on silk-industry.

Furthermore, it has to be noted that the bush-style mulberry cultivation which was widespread in Mysore and Madras Presidency required regular and abundant water. The greatest portion of lands cultivated under mulberry in South India was dry and, therefore depended heavily upon rainfalls. Adverse environmental conditions such as prolonged periods of drought or overabundant rainfalls, heavily affected the quality of mulberry leaves, with which silkworms were fed. Additionally, movements of starving peasants throughout the Southern regions generated further upheavals in the rural world. Indian agriculture, and agriculturists did not easily recover from such events, especially when they happened to occur in sequence.

It is understandable, therefore, why under similar circumstances the sericultural experiments undertaken by the Italians had few chances to fully succeed. The results of the De Vecchis' experiments should also be re-thought and evaluated also under the light of such an unfavourable environmental frame. An immediate success, as British officials expected, was impossible. But far from being completely fruitless efforts those experimental attempts with foreign $seed^{281}$ were a concrete, although not fully effective, aid against pebrine, whose detrimental effects were in this way partially reduced. The difficulties in assessing the experiments made by the De Vecchis and their results are many. For the scope of this study a review of those experiments it is expedient to the analysis of the trading network. Retrospectively, the outbreak of pebrine and

²⁸¹ The overall number of cardboards imported by the De Vecchis in Mysore is not known. The only data available are those recorded by British authorities and referred exclusively to the cardboards imported on behalf of the Chief Commissioner.

the consequent involvement of the Italians in sericultural experiments brought to light their expertise and their net of personal connections in many countries.

Soon after the outbreak of pebrine, De Vecchis' knowledge became a tradable 'commodity' which could be exchanged within the network for other 'goods'. That the Italians shrewdly leveraged upon their know-how is confirmed by the modification of the relations between the actors within the network. Before the propagation of pebrine in South India, the trading network was characterised by a noteworthy asymmetry in information which made the Italians extremely dependent upon their Indian trading partners for the majority of the activities they were carried out. When *pebrine* became a serious threat in Mysore, the expertise of Achille and Henry De Vecchi becama a great advantage, which enabled them to rebalance their relations with the Mustans. The latter who had until this point played an hegemonic role within the network, were no longer in same position as before. They now needed the Italians' expertise to fight against pebrine as they lacked any scientific knowledge regarding silkworms. The need to bridge an information asymmetry became thus reciprocal. The reciprocity consisted in the fact that De Vecchis needed the Mustans' knowledge of local market and indigenous sericulture, but at the same time the Mustans needed the expertise of the Italians to cope with pebrine. We shall see that the post-1865 reorganization of the cooperative relations within the network was due to such 'reciprocal necessity'.

Besides determining a reciprocal necessity on which more equal relations were built, the sericultural experiments made the cooperation between the Mustans and the De Vecchis tighter, consolidating the inner structure of the network. By showing the competence of the Italians those experiments created favourable conditions for the emergence of a real trust between the actors and heightened the degree of trustworthiness.

THE TRADING NETWORK FROM WITHIN.

5.1 Actors and ties within the De Vecchi's trading network.

The trading network established by the De Vecchi brothers was a form of economic interaction, and interdependence created by actors who found strategically convenient to set up a system of mutual cooperation in order to comfortably operate in a given place at a given time. The network undergone, over the years, an evolution characterised by a change in the relations between actors, and went through three main phases: formation (1860ca-1865); stabilisation institutionalisation (1868-71). As previously pointed out, the origins of this trading network laid in the economic intermediation played by the Mustan family. In the formation period the network was characterised by embryonic cooperative relations which paved the way to the full-fledged development of the network; the trading network was still in the making, and the position of actors within it was rather unbalanced. In its second evolutional stage the trading network was fully operative. Its central features were the symmetry in the relations that linked the actors, and the emergence of a 'real' trust. In the final phase, the network adapted itself to the new needs of some members. Due to the new requirements generated by the Italians' need for capital, the structure of the network was partially modified by the incorporation of new actors.

The analysis of the structure of the trading network established by the De Vecchi brothers conducted in this chapter as well as in the following one makes use of some theoretical tools developed in the field of network analysis. Sociological approaches to network formation and structuring, in particular, have proven extremly helpful, providing an effective methodological scaffolding. Generally speaking, sociologists engaged in network analysis have identified main constitutive components: the structural component; the resource component; the normative component; and the dynamic component²⁸². The structural component refers, as the expression clearly suggests, to the structure of the network, that is the configuration of actors and ties²⁸³ within

²⁸² Davern, M., 'Social Networks and Economic Sociology: A Proposed Research Agenda for a More Complete Social Science', in *American Journal of Economics and Sociology*, vol. 56, No. 3 (Jul.1997). ²⁸³ 'Ties' are the relations which link one actor to the others in a given network.

the network. The resource component is concerned with the specific characteristics of the actors, which make them different from each others. The normative component is the set of norms and rules that governs the conduct of the actors within a given network. Lastly, the dynamic component regards the change of networks over time. As trading networks are 'living things' extremely sensitive to changes, the dynamic component is crucial. The analysis considers the dynamic dimension as a fundamental element, and acknowledges the catalysing power of some events, such as the outbreak of pebrine and the launch of the *Madras & Mysore Silk Company*, which were responsible for the major modifications which occurred in the network's structure. Although the aforementioned analytical tools have been specifically designed for exploring social networks, they can be adapted and employed for exploring trading-networks, which are a type of economic network, which is, in turn, a sub-type of social network characterised by a specific *content*²⁸⁴.

Before proceeding with the analysis of the structure of the De Vecchi's trading network, it is worth singling out the type and number of actors involved in the network. Until now we have seen only some of the members who were actually part of the network at work, namely Achille and Henry De Vecchi, and the Mustan family. They represented the main nodes²⁸⁵, but the 'Indian' network included other actors as well. The firm of D. D. Dymes and A.F. Pater, for instance, was already part of the De Vecchis 'network before the two brothers settled in Mysore and continued to play an important role not only during the Indian 'sojourn' of the Italian silk- traders, but for a much longer period. In the course of its evolution, the network incorporated new members. The incorporation of other, occasional actors, who were not permanently part of the network, responded to a transitory 'need' of the main members. The firm *G. Sidloo Chetty & Co.*, which entered the network quite late when a process of formalisation of the cooperative relations was under way, is a case in point. The network of Achille and Henry De Vecchi also included other Italian businessmen active in Madras, and in other parts of India., Unfortunately, only scattered information these people is available. It is therefore very hard, not to say impossible, to explore their connections with the De Vecchi brothers in detail.

The relations that linked the actors within the network can be schematised into 'principal' and 'secondary'. For convenience sake letters of the alphabet are employed to refer to each group of actors: A for De Vecchi brothers; B for the Mustan family; C for the *Dymes & Co.*; and D for the Chettiars. Given that A and B were the principal actors, and the ties they forged between them are

²⁸⁴ The *content* of a network is the type of relations linking the actors. In an economic network the main relations among the actors belong to the sphere of the exchange (exchange of commodities, capital, information and so forth).

²⁸⁵ Members or actors have been used interchangeably to refer to the individuals or groups of individuals involved in a network. In sociological terminology actors are also known as 'nodes'.

those which need to be investigated in-depth. C and D were in some regards secondary actors. C was a member of the network of A but its relations which B were indirect, and always mediated by A. D was part though indirectly of the network of B and entered the network of A and B only when special conditions came into being. D was connected to A through the intermediation of B and the relations between B and D were far denser that those between A and D. The relationship between A and B was the neuralgic point of the network. Secondary ties developed respectively by A and B with other actors inside and outside the network could be of extreme importance, but they were in any case subordinated to the main relationship. Of course, the importance of the linkages forged by A and B is measured in relation to the Indian network of the Italians silk-traders, which was a segment of a much broader network. Within this broader network other ties attained the same or even greater significance. One example is the connections that the De Vecchi had in Italy whose importance overshadowed all the others. The centrality of the relations between A and B explains why the main focus of the analysis is precisely on their ties. From this perspective, it could be argued that De Vecchi's network was essentially a dyadic network, with A and B playing a major role in the definition and purpose of the cooperative relations. Other actors functioned as satellites orbiting around a main planet.

The documentation available suggests that in the formation phase, corresponding roughly to the years between 1860-1865, the network was not yet a well-articulated system of mutual cooperation. Ties between the De Vecchi brothers and the Mustans were asymmetric with the latter having a rather marked 'advantage' over the former. The asymmetry in ties noticeable at the onset of the network was the direct outcome of an asymmetry in information which derived from the difference resources at disposal of each member. The Italians needed the resources possessed by the Mustan family, ie., its knowledge of the local market for raw silk. The De Vecchis' need for the resources of the Mustans gave an advantage to the latter. This advantage, which was basically an 'advantage of resources' (the Mustans knew local sericulture and local market while the Italians did not) turned, within the network, into a 'power advantage'. This explains why the cooperative relations established in the beginning were unbalanced in favour of Mysorean silktraders. By contrast, once consolidated the network displayed a structure characterised by symmetric ties. In fact, from 1865-66 onwards the network evolved as an horizontally-structured organization marked by a fairly evident symmetry in the relations between the Italians and the Mustans. No member seemed to have, within the network, a 'power advantage' over the other. As already stressed, this transformation was mostly due to the outbreak of pebrine which acted as a balancing factor. The Mustans' advantage over the Italians was no longer absolute, but became relative, as the propagation of pebrine made the Mustans growingly depended upon the competence, and expertise

of the De Vecchi. Within the network the Italians' scientific expertise counterbalanced the knowledge about local sericulture possessed by the Mustans. It was precisely this counterbalancing that determined the symmetric ties in the second stage of the network's evolution. Once stabilised, the network rested upon such symmetry. However, the development of symmetric ties within the network did not remove the 'advantage of resources' outside the network, which remained an important feature of each member' profile. This 'advantage', in fact, retained profound significance. The resource component of the De Vecchi's network was quite heterogeneous. Each member was identified by a certain number of resources. The goal of cooperation was precisely that of making available the resources of one member to the others. The Italians had the technical and scientific expertise about silk-production; the Mustan family had knowledge about raw silk production and trade in Mysore; the Dymes & Co. had close links with the colonial administration, and with the trading circuits of the British-sponsored trade. The G. Sidloo Chetty & Co. possessed financial resources and were linked to the indigenous circuits of credit in South India. This is obviously an oversimplified scheme, but for the moment it is important to focus on one single element, the advantage of resources that each actor had in its own delimited, and definable sphere of influence. In order to achieve its goals, each actor needed, at some point, to enter other actors' sphere of influence. This could be done either through competition or cooperation. From a mere profit-making perspective the latter is strategically more convenient, and it is so for several easily understandable reasons. When cooperative relations can be established, economic operators prefer to negotiate their own interests with others and collaborate with them rather than engaging in a competition which can be a time-consuming and costly activity. All the actors had an advantage in their own sphere of influence that the other did not have. When the cooperative relations from which the network soon after originated were established due to the initiative of the Italian silk-traders, each actor knew quite well which was its own advantage, and which was that of the others. A concrete contextualization of this scheme helps clarify the argument.

The first step towards the establishment of the network was taken by the De Vecchi brothers. When they established themselves in Mysore they needed to get access to the local market for raw silk, and local channels of silk-production. Access to production was essential for their business to work out. Therefore their search for local trading partners was primarily the result of a concrete need. The existence of an objective, and clearly identifiable necessity, however, does not downplay the importance of the rational character of the De Vecchis' choice about cooperation. The Italians, in fact, could have tried to enter silk-production in Mysore and South India without the help and support of local partners, but it would not have been a strategically convenient decision, as they were well-aware of the fact that sericulture was embedded in a rural world about which they knew nothing, but of

which they could sense the impenetrability if there was no one to mediate between them, and local silk-producers. The need that the Italians had for the Mustans' intermediation, however, did not match, in the beginning, with the Mustans' need for the Italians. For the Mustan family cooperation was primarily seen as a matter of profit (to work jointly with the Italians represented, in effect, a fairly easy way to earn extra-profit). Under this circumstances, the Mustans were in a more favourable position, as for them cooperation did not originate from a need. Initially, this fact gave them an advantage over the Italians. Due to the lack of substantial documents we don't know whether Mysorean silk-traders actually leveraged on their 'power advantage' in the early stage of the trading network. Probably they did not have the time to use this power to impose their own arrangements within the network.

Sociological analysis concerned with exchange networks have conceptualised power differently²⁸⁶. In some research, for instance, power has been seen as the ability of a member to achieve its goals, and get the most out of the network relationship. The basic assumption underlying these researches is that the main aim of actors involved in an exchange network is to maximise profits. Other motivations are, of course, contemplated, but members of network are mostly considered as maximising actors who seek to get the best material gain (profit)²⁸⁷. In the case of the De Vecchi's trading network, power has been mostly considered as deriving from an advantage of resources, and as such it has been defined as the ability to influence the network from within on the basis of an external asset. The greater a member's power, the greater its capacity to impose arrangements conducive to the achievement of its own goals.

Despite being the initiators of the trading network, the Italians were initially in a weaker position. The search for and the collaboration with local trading partners was of vital importance. In the very first phase of the network's evolution hierarchy is perceptible: the Mustans had the upper hand, and the Italians, who relied heavily rely upon them, were forced to accept an initial unequal relationship. The configuration of actors and ties was, therefore, decidedly unbalanced. The propagation of pebrine, however, impeded the consolidation of the network as a hierarchical organization within which one group of actors overpowered the other group because of its resources. In effect, only when *pebrine* made its appearance in Mysore, did the specific resources of the Italians rebalance the relations within the network. The outbreak of *pebrine* neutralised, at least inside the network, the power advantage, which, nonetheless, continued being an important factor outside the

²⁸⁶ Cook, K. S. and R. M. Emerson, 'Power, Equity and Commitment in Exchange Networks', in *American Sociological Review*, Vol. 43, (October 1978), pp. 712-739; Cook, K. S., R.M. Emerson, M. R. Gillmore and Toshio Yagamashi, 'The distribution of Power in Exchange Networks: Theory and Experimental results', in *American Sociological Review*, Vol. 89, (1983) pp. 275-305.

²⁸⁷ Whitemeyer, J. M., 'Power and Network. Measuring power in exchange networks', in *Sociological Perspective*, Vol. 44, no. 2 (Summer 2001), pp. 141-162.

network, and generated what has been named a 'reciprocal necessity'. This reciprocal necessity planted the seeds of a mutual cooperation which was characterised from then onwards by the absence of hierarchical relations. Therefore, the evolution of this trading network can be described as a transition from a hierarchical to an equal form of cooperative organization. Interestingly enough, in the second stage of the network's evolution both the De Vecchis and the Mustans had an amazingly clear perception of their own needs and of those of the others. Recognition of reciprocal necessity was not felt as a constraint but rather as an opportunity which led member to reflect on the long-term potential benefits that might arise from the network relations. Furthermore, the recognition of the reciprocal necessity significantly shaped the decision-making process within the network, as well as individual entrepreneurial strategies. Therefore, the reciprocal necessity represented a crucial input for the stabilisation of the network. What is the utility of signalling 'reciprocal necessity' as one of the linchpin elements in the consolidation of the trading network? Focusing on the reciprocal necessity highlights the fact that economic exchanges embedded in network-type relations may entail a host of relations which are not always economic. Achievements of pure economic goals often go through other kinds of relations. Any economic exchange is never merely 'economic', it is frequently determined and governed by non-economic factors.

Although the network stabilised around symmetric ties which neutralised the power advantage that one actor had over the others, the advantage of resources remained an element of latent disruption which could easily have impinged upon the symmetry of the ties between the Italians and the Mustans. The synergy between the 'advantage of resources' and the 'reciprocal necessity' in the correct functioning of the network-based organization made this network greatly dependent on forms of internal negotiation, and re-negotiation which were usually meant to redistribute benefits in order to keep all the members satisfied and thereby safeguard the cohesion of the network. Moreover, negotiation of the terms of cooperation were needed for adjusting the structure of the network to new needs which could arise at any time. Processes of negotiation emerge from the data, but it is not possible to detect them systematically, and very often what the historian gets in the end is simply the final result with no clues about the initial or intermediate phases of such processes. The spread of pebrine, and the launch of a limited liability company were, for instance, crucial moments of renegotiation of the cooperative relations. Besides being a reminder of the dynamism of trading networks, processes of negotiation evince the capacity of the actors to neutralise competition, and efficiently handle a complex system of cooperation within the network. As the trading network was not fixed but was conceived, and shaped as a flexible tool which could simultaneously respond to internal needs and external inputs, it could be liable to more or less substantial modifications.

Transition from one stage to another was a delicate period, because it was precisely when the members of the network sought new agreements which could suit them all, that the terms of the cooperation were questioned and if necessary re-negotiated. In these moments of transition cooperation was certainly more fragile and competition was more likely to occur.

By and large, competition is harder to detect in trading networks. Cooperation is generally more evident, and therefore scholars tend to put too much emphasis on it. When dealing with trading networks the impending danger is precisely that to look at the macroscopic phenomena, giving only passing attention to other aspects, perhaps less evident, but equally important. Competition is an aspect that often receives scant consideration. As a good portion of the methodological and theoretical tools that scholars use to approach trading networks from historical perspective ensue from a number of works mostly concerned with trade Diaspora, the issue of competition has not been accurately addressed. Usually depicted as competition-free systems (competition belongs to the external sphere, is part of the market logic) the trading networks built by Diaspora communities are mostly understood in economic terms as a device to better pursue economic interests at the expense of possible competitors from outside the network. This view, however, cannot be uncritically applied to any type of network. Trade diasporas represent a specific typology which differs from the object of the research here presented. In effect, the trading network of the De Vecchi brothers was in its essence profoundly different from the prototypical Diaspora networks, where the internal cohesion, and a set of shared norms and beliefs were the backbone of the overseas commercial activities of a given merchant community. Within each community competition was kept to an acceptable minimum, and cooperation was, for obvious reasons, privileged. Competition pertained to the sphere of trading exchanges between communities, but even in that case it was limited by the control exerted by each community over its own members.

The study of the Indian trading network of the Italian silk-traders' presents different problems, which, in turn, force the historian to take another perspective, and look at other, perhaps hidden, aspects. In the De Vecchi's trading network small groups of individuals engaged in forms of cooperation by gradually building socio-economic linkages independently from their membership of a given merchant community. In effect, what makes this trading network diverse is the absence of a community behind individual traders. Trading exchanges in the mid-nineteenth century had a more marked individualistic character than before. Communities intervened several times in the De Vecchi's network, and for the Indians, were they traders or financiers, community membership still mattered greatly. In spite of this fact, the ties forged by traders did not simply rely upon interaction between communities, or communities' capacity to oversee individual conduct.

Competition, therefore, could certainly be a major factor of destabilisation in trading networks like that of the De Vecchi brothers. It was important for all members to keep it under control by renegotiating and re-organising, , the cooperative relations on a more satisfactorily way, if and when the need for doing so was felt

When a joint venture governed by contracts enforced according to European-type law -which gave in better guarantees to all the parties involved case of dispute- was established, the cooperative relations were strengthened, and little room was left for competition. Competition is undoubtedly more difficult to identify, however, it is often present within trading networks. The partial reconfiguration of the actors within the De Vecchi's network, and the negotiation of the terms of cooperation suggest that far from being the realm of harmonious cooperative relations, a trading network could be a battlefield where actors, at times, had to struggle to make arrangements beneficial to all, and keep collaboration going on.

As the relationship with the Mysorean silk-traders was so fundamental for the Italians, the forging of cooperative linkages are, understandably enough, central to this study. When going deeper into the ties which linked the De Vecchi brothers to the Mustan family, it has to be acknowledged that cooperation between the two was forged on the basis of reciprocal trust. Although also present in earlier stage of the network, from 1865 onwards trust became the underpinning of the relations between the Mustan family and the Italians. Trust, or better that form of trust which has been named 'real trust' fully operationalised the network in its second evolutional phase, and allowed members to work jointly with no more fear of unfair competition, malfeasance or cheating.

5.2. The normative component, and the construction of trust.

The type of network that the De Vecchi brothers set up fits well in the definition of network as 'any collection of actors that pursue repeated, enduring exchange relations with one another and, at the same time, lack a legitimate organizational authority to arbitrate and resolve disputes that may arise during the exchange' 288.

The second statement in this definition addresses one of the main problems that the type of trading networks here dealt with presents: the lack of a formal system of supervision and control of

²⁸⁸ Podolny, Joel M. and Page, Karen L. 'Network forms of organization' in *Annual Review of Sociology*, Vol. 24, (Aug 1998) pp. 57-76.

settle disputes, and guarantee the transparency and members' behaviour. No authorities could correctness of the transactions. The pronounced informality of the cooperative relations that the De Vecchis and the Mustans established – as far as we know contracts were never signed between the two -meant that the members' commitment to fulfil obligations was not governed by any external institutional authority. As we shall see, the enforcement of contracts according to Anglo-Indian law was considered only when a relevant exchange of money was needed, and more actors joined the network. This happened to occur when it was necessary for the Italian traders to raise capital on the spot in order to widen their business. The exchange of financial resources was a very problematic issue. It could not be handled exclusively on the basis of trust. Therefore, the best strategy to secure everybody's interests- also bearing in mind the diversity and multiplicity of the entities involved in the network, Hindu, Muslim and British traders- seemed to be the creation of formal business ventures. There is a tendency to consider the 19th century, and even more so the 20th century as periods characterised by a degree of evolution of international legal, and economic devices sufficient to diminish or even remove the need for informal cooperation. In those which are perceived as highly developed economies, cooperation based on ad hoc informal agreements seems to have been deleted by the presence of institutions able to guarantee through detailed rules, and coercion, if necessary, the correctness of economic transactions by dictating precise norms about the conduct of economic actors. However, it is profoundly wrong to consider the progress in commercial law, and the implementation of more uniform rules governing economic exchanges as factors which reduced the impact of non-institutionalised forms of economic cooperation. Still nowadays forms of organisation based on informal network-like relations can be observed in a wide-range of differing economic contexts. The endurance, and pervasiveness of such forms in present-day economies have been noted, in particular, by scholars concerned with the business activities of certain expatriate communities. The success of overseas Chinese communities, for instance, has infused new lymph to the study of informal economic cooperation strengthened by ethnic ties²⁸⁹. At the same time, the emergence in many developed countries of ethnic-based economies created by immigrants whose tightly knitted communities bear strong resemblance to Diaspora communities, have offered a interesting breeding-ground for theories about the interrelated issues of a networklike economic organisation and ethnicity²⁹⁰. Along the same line, another strand of scholarly inquiry

Rae, I., and Witzel, M., *The Overseas Chinese of South East Asia. History, Culture, Business,* Basingstoke, 2008; Menkhoff, Th, *Trade routes, trust and trading networks: Chinese small enterprises in Singapore,* Bielefeld, 1993; Rauch J. E., Trinidade V., 'Ethnic Chinese Networks in International Trade', in *The Review of Economics and Statistics,* Vol. 84, no. 1(Feb 2002), pp 116-130;

²⁹⁰ Landa, Tai J., *Trust, Ethnicity and Identity: Beyond the New Institutional Economics of Ethnic Trading Networks*, Ann arbour, Michigan, 1994; Kotkin, J., *Tribes: How race, religion and Identity determine success in the New Global Economy*, New York, 1992.

has concentrated on the inter-firm cooperation, and informal mechanisms which favour cooperativeness between firms in certain economic sectors²⁹¹. Research in the above-mentioned fields has restated the importance of informal linkages between economic actors as tools to favour and make easier economic exchanges broadly understood. If such linkages are still important in highly developed economies characterised by a gamut of services which improve the security and the correctness of trading exchanges, this must have been even more the case in economic contexts lacking specifically designed legal frameworks to secure trading transactions.

previously stressed, was far from being an ideal environment for cooperation and culturally different economic operators. Anglo-Indian contract law made between ethnically, trading relations across cultural, religious and communal borders problematic. This does not mean that there was no inter-cooperation between Indian mercantile groups. The activities of the Mustan family, and their solid and long-standing socio-economic connections with Hindu traders and bankers are an undeniable sign of the resilience and importance of inter-communal relationships even in a colonial socio- cultural environment which favoured communalism, and separation along religious and ethnic boundaries²⁹². However, it is a matter of fact that the Anglo-Indian legal system made economic interaction more difficult if not strictly conducted in accordance with the rules set by the In 19th century India network-based cooperative relations between Europeans, and Indians were a hybrid which lacked legal instruments to resolve disputes and litigations. This was because British courts had exclusive jurisdiction on contracts enforced according to the Anglo-Indian law. On the other hand, customary law could not be applied to European citizens. In such an environment extra-communal relationships were a risky business. Under these conditions the only viable option for safeguarding business would have been to organise economic activities conventionally, and secure transactions by signing contracts. But in practice this was not always possible, and for several reasons informal connections continued to be a defining feature of many economic activities.

If outside the De Vecchi's network there was an absence of institutions of which the members could avail themselves, inside the network the different origin of members made the emergence of a self-enforcing system of control like those typical to cohesive, and homogeneous mercantile

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²⁹¹ Hite, J.M., Hesterly W.S. 'The Evolution of firm networks: From emergence to early growth of the firm', in *Strategic Management Journal*, vol. 22, No. 3 (Mar 2001), pp 275-286; Richter, F.-J., *Strategic networks: the art of Japanese interfirm cooperation*, London, 1999; Roessl, D., 'Family businesses and Interfirm Cooperation', in *Family Business Review*, Vol. 18, No. 3, (Sept. 2005), pp.204-214; Farrell, H., 'Trust and Political Economy: Institutions and the Sources of Interfirm Cooperation', in *Comparative Political Studies*, Vol. 38, No. 5, (Jun. 2005), pp. 459-483.

²⁹² On the construction and evolution of communalism in India see Shani, Ornit, *Communalism, caste and Hindu nationalis*, Cambridge, 2007; Pandy, G, *The construction of communalism in colonial North India*, Oxford, 2006; Thapar, R., 'Communalism and the historical legacy: some facets', in *Social Scientist*, Vol. 18, No. 6/7 (Jun-Jul 1990), pp. 4-20; Sahrma, R. S., 'Communalism and India's past', in *Social Scientist*, Vol. 18, No. 1/2 (Jan-Feb 1990), pp 3-12.

communities, impossible. Therefore, the De Vecchi brothers and the Mustans could not count on formal legal instruments to regulate their relations, and, at the same time, lacking a shared culture meant that they were deprived of those instruments that traders belonging to a religion or ethnic-based community could employ to control members' behaviour, and enforce equality and justice from within.

When dealing with the type of trading- network here analysed- that is a network established by actors who engaged in cooperative relations not governed by any set rules or institutions - and more generally with all those economic networks which are not based on pre-existing cultural, social or religious ties between the members, the analysis of the normative component is harder. The De Vecchi's network, in fact, seems to lack a real normative component.

Exchange relations apart, in the beginning, the members of this network were not bound together by any other type of ties. They did not belong to the same mercantile community; they did not profess the same religion; they did not share the same cultural beliefs. In short, what united them restricted to a common interest in silk production and trade. Cooperation between actors who differed so much was not easy to emerge. Therefore, building cooperative relations must have been rather difficult during the formation phase of the network. By and large, cooperation is more likely to arise in contexts where actors know each other or have a number of features in common which make the construction of cooperative relations safer. When 'complete strangers' engage in economic interaction unprotected by appropriate legal instruments, how can they cooperate? What makes the actors secure enough to place their confidence in the hands of strangers? The trading network established by the De Vecchis presents itself as a very interesting case in order to explore how economic actors can cooperate informally by building trust between them. In this trading network trust operationalised cooperation and, at the same time, acted as a norm of (good) conduct. If there were no shared cultural or religious beliefs, and no pre-existing social ties which constrained and compelled the network's members to behave properly and honestly, the question that immediately stems to mind is how was trust constructed? What was its function, and significance?

Trust is fundamentally a relationship of reliance. As difficult as it may be to find a comprehensive definition, trust is a crucial element of the formation, and structuring of trading networks. In the field of social research there is a plethora of overlapping and often conflicting theories about trust. D. Gambetta in his book *Trust: making and breaking cooperative relations*²⁹³, has provided a definition of trust which is abstract but effective in touching upon its very nature. He defines trust as 'a particular level of the subjective probability with which an agent assesses that another agent or group of agents will perform a particular action, both before he can monitor such action (or independently of

²⁹³ Gambetta, D., Trust; making and breaking cooperative relations, Oxford, 1988

his capacity ever to be able to monitor it), and in a context in which it affects his own action. When we say that we trust someone or that someone is trustworthy, we implicitly mean that the probability that they will perform an action that is beneficial or at least not detrimental to us is high enough for us to consider engaging is some forms of cooperation with him'. Trust, as the definition given by Gambetta evinces, has a quite marked psychological component, which makes it even more difficult to detect and assess, as we never know to what extent someone really trusts someone else. Trust is certainly a key-factor in a trading network. It has been conventionally considered as the main element which operationalises networks, and makes them working properly through an internal self-enforcing system that prevents members from misconduct²⁹⁴. There is little doubt that trust is generally speaking the underpinning of any type of cooperative relationship.

To detect trust within the trading network of the Italian silk-traders has been quite hard as the documents available deal prevalently with economic transactions – silk-skeins to be sold or to be purchased; prices of raw silk; *seed* to be distributed and so forth-, therefore, it is necessary to read between the lines, and concentrate on the modalities of the trading exchange rather than on the exchange as such. This is not an easy task to accomplish, and it is necessary to focus on apparently insignificant elements to get an idea, sometimes only approximate, of the level of trust between the actors. This is often a complicate process, which implies to compare and cross-check different sources over and over again until when a jigsaw made of apparently unrelated pieces takes slowly shape. Furthermore, given that trust is such an elusive concept with a marked psychological dimension, measuring the level of trust between actors is almost impossible. The only element which can reasonably be taken as a measurement of trust is the good functioning of the network, its health, we could say.

Despite being an overwhelmingly important element in the structuring, and good functioning of a trading-network, trust does not strictly pertain to the sphere of the economic exchange, it has rather to do with the socio-cultural dimension, and the level of personal interaction between actors. Trust is precisely that element which ultimately serves to articulate a non-exchange based economic mechanism relative the coordination through networks. On the other hand, trust can also be a powerful norm of conduct which can make up for the lack of a formal or semi-formal system of individual behaviour's control.

The experience of the De Vecchi 's network shows that trust may evolve over time, and change its nature. In this specific case the evolution of trust paralleled the general evolution of the network. To a given stage in the network's evolution corresponded, in fact, a 'type' of trust. In the formation period trust between the De Vecchi and the Mustans was 'fictive'. Soon after, when the network was

²⁹⁴ Ibidem.

consolidated, trust became 'real, ' and acquired all its defining characteristics, among which, thorough knowledge between the members; trustworthiness; profound faith in respective honesty and competence. In the final stage of the trading network, when a formalisation of some cooperative relations was necessary, trust was partially replaced by distrust.

'Fictive' trust which informed the earlier stage of the network can be defined as a relationship of 'forced' reliance. Achille and Henry De Vecchi trusted the Mustans because they were obliged to do so. Their need for intermediation, and cooperation compelled them to rely upon local economic actors, namely the Mustan family. As a descendent of the Mustan family rightly put it, when browsing his family's documents regarding the activities of Henry De Vecchi, 'he had to depend for support and help on us²⁹⁵. And to depend on someone meant to trust him to a certain extent. On the other hand, the Mustan family's decision about cooperation was not driven by any real 'need', it rather appeared as an 'act of will'. In this case, a tension between 'will' and 'need', with one group of actors in need for cooperation, and the other one who willed to cooperate, is evincible in the network organisation. The Mustans wanted to cooperate with the Italians because of the profits that the cooperation offered. But in order to establish cooperation they had to place their confidence in the hands of strangers, or at least whom they did not know well enough. Although the Mustans' decision about cooperation was determined by their will to cooperate, and was not subjected to a real, impelling need, they were in any case obliged, precisely like the Italians, to trust someone else. The will of and the need for cooperation, although sharing no common origin, led to the same outcome: the necessity of trust to set of cooperative relations. Trust, in that moment of the network's evolution, was somewhat compulsory because cooperation could not occurr without a certain degree of trust between the cooperating parties. The high degree of informality in the relations between the Italians and Mysorean silk-traders, moreover, made trust even more essential to start cooperation. As none of the actors could really ponder its decision about cooperation on the basis of concrete, and exhaustive information regarding individual honesty, reliability and competence, cooperation within the network was initially governed by a 'forced' trust.

Information picked up by the Italians about the Mustans made the former aware of the potential trustworthiness of the latter, but did not give any absolute assurance. The same goes for the Mustans. The little information they had probably collected about the De Vecchi combined with the family's good memories about past cooperation with other Italian silk-traders made the Mustans inclined to believe in the trustworthiness of the De Vecchi, although they had not yet any concrete evidence of the latter's honesty and reliability. Trust, therefore, was initially constructed mostly on the basis of a reciprocal acknowledgement of the necessity of trusting in network-like cooperative relations.

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²⁹⁵ Fayaz M. A. Quddus, (1923), op.cit.

Trust between the Mustans and the De Vecchi was in the early stage of the trading network forced, and as such fundamentally fictive.

When reflecting on the nature of trust in broader contexts, it is soon possible to grasp that a variety of relations categorised as 'trust relations' are determined by a forced trust which has very little to do with real confidence, and intimate knowledge between actors.

The forced trust which is detectable in the first years of the De Vecchis' trading network in India bears some resemblances to the concept of trust as 'encapsulated interest'. R. Hardin has and defined this particular class of trust relations²⁹⁶, within which the parties, the truster and the trusted, trust each other because the trusted's interests encapsulated to some extent those of the truster. In Hardin's approach, however, trust is mostly tackled as an individual-level problem, and this makes it only partially applicable to De Vecchi case-study. In fact, trust in trading networks was never a merely individual problem. Decisions about whom to trust, and why were not exclusively made on the basis of individual considerations. Economic actors, in fact, made choices not only according to their rationality²⁹⁷, but also according to their culture and traditions, which were basically collective factors. Combination of individual considerations and expectation, and cultural determinants related to the practice of trading concurred to shape decisions about whom to trust, and to what extent. The system of reputation, which has been referred to above, was an important factor, and, although it could not give full assurance about the rectitude, and reputability of individual traders, it still mattered. It was precisely this system that allowed the De Vecchi to asses the Mustan family as potential trustworthy trading partners. Of course, trustworthiness must have been checked, and the trusted party, in this case the Mustans, had to prove their reliability, rectitude and expertise in order to demonstrate that the De Vecchi's confidence was well placed. On the other hand, the De Vecchi had to show the same qualities to their Indian trading partners.

In India the collective system of reputation was widespread, and deeply rooted in the traditions and practices of mercantile trading groups, such as the Parsis and the Marwaris who were known for their good reputation. Of course not all the members of these communities were equally honest and competent, nonetheless all benefited from the reputation for honesty and competence in business that their communities had acquired over time.

The importance of non-individual factors in constructing trust explains why Hardin's model can be used only to a certain extent in the case of the De Vecchis' trading network. Trust in trading networks

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²⁹⁶ Hardin, R., Trust and Trustworthiness, New York, 2002.

²⁹⁷ It has to be noted that the need and the will for cooperation can both be understood as expression of an 'economic rationality' – rationality about the benefits inherent to cooperation- which characterised and guided the activities of each actor.

also has a collective dimension. In the Early Modern Period such a collective dimension enabled merchants to handle long-distance trade quite effectively.

But if an individual-level approach to trust formation, and consolidation cannot entirely account for the emergence of trust in the De Vecchi' network, nor can mere collective explanations of trust, like those proposed by scholars working of trade Diaspora communities, elucidate this aspect.

Trust is often conceived in the frame of a network-based organization of long-distance trade as an element to save on transaction costs. The role of trust among members of a trading network has been mostly tackled by scholars working on the Diaspora traders: groups of individuals with a highly homogenous ethnic, religious and linguistic background who settled at the endpoints as well as at transhipment points of a trade route. Trade Diasporas have been the breeding- ground of several theories on networks. As Cohen pointed out, a trade Diaspora creates trust by establishing a "moral community" on the basis of a shared set of norms²⁹⁸. Although research in this field has yielded very fruitful results in the assessment of trading practices based on reciprocal trust, some of the conclusions drawn by scholars from the experiences of Diaspora merchant communities cannot be applied to trading networks of the type surveyed here. This is due to the diverse ethno-cultural background of the people involved in the network.

In the second stage of the De Vecchi's network evolution, trust between the members is somewhat different. After some years of intensive cooperation, both the Mustans and the De Vecchi had had the chance to know each other in-depth, and construct a relationship based on intimate and thorough knowledge characterised by a certain degree of personal affection. It is precisely the affection demonstrated by the Mustans when they referred to their Italian trading partners that evinces that the relations between them became, at some point, something more than a mere economic cooperation. The outbreak of pebrine and the transfer of sericultural know-how gave to the network stability. The correspondence between Achille De Vecchi and Muhammad Mustan Sahib from late 1865 clearly shows that their relationship was at that time marked by informality and confidence, which in turn denotes a high degree of trust. From then onwards cooperative relations were based on reciprocal respect, esteem and (real) trust.

²⁹⁸ See Cohen, A., 'Cultural strategies in the organization of trading diasporas' in Meillassoux, C., *The development of indigenous trade and markets in West Africa*, London, 1971. Curtin, Ph. D., *Cross-cultural trade in World History*, Cambridge, 1984.

5.3. Re-conceptualising trust in trading networks. Lessons from the De Vecchi's casestudy.

The De Vecchi's case-study stimulates considerations about trust relations as central components of trading networks, and more generally it invites reflection on the formation and function of trust. In effect, the trading network built by the De Vecchi brothers in South India is in many regards an ideal ground from which to explore the formation and consolidation of trust between actors engaged in exchange relations.

Trust is intangible, but intangibility and elusiveness along with its intrinsic importance in sustaining social and economic structures have made it a particularly explored topic. The literature on trust is immense, covering different fields and crossing transversally several disciplines²⁹⁹. Sociologists, in particular, have invested considerable resources and energy in the exploration of trust in a variety of highly differing contexts, and situations³⁰⁰.

Economists have also been concerned with trust as well. Trust as a form to curtail transaction costs; trust as the underpinning of market activity; trust between sellers and consumers; trust as precondition for inter-firm cooperation. Economists have analysed the emergence, and the necessity of trust between economic actors in relation to the development of markets and evolution of economic systems. Very recently the rise of the e-commerce has refreshed the interest in trust, restating its importance in commercial transactions, in this case via internet 301

Although this study has greatly benefitted from the wide-rage of results yielded by research on trust conducted both in economics and sociology, it tries to develop a specific line of inquire fitted for the special case here explored. The huge body of theoretical knowledge about trust

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²⁹⁹ It is not possible to cite the enormous number of works produced by sociological research on trust, therefore, only books considered particularly representative have been included in following list. Hardin, R., *Trust and Trustworthiness*, New York, 2002; Trust, Cambridge, 2006; Cook, K. S. and R. M. Kramer (eds), *Trust and Distrust in organizations: dilemmas and approaches*, New York, 2004; Khalil, Elias L. (ed), *Trust*, Cheltenham, 2003; Ostrom Elinor and James Walker (eds), *Trust and reciprocity: interdisciplinary lessons from experimental research*, New York, 2003; Ullmann-Margalit, E., *Trust, Distrust and in between*, Jerusalem, 2001. Cook, K. S., R. Hardin, M. Levi, *Cooperation without trust?*, New Yor, 2005; Cook, K. S. (ed), *Trust In Society*, New York, 2001; Markova, I. and a. Gillespie (eds), *Trust and Distrust. Socio-cultural Perspectives*, Charlotte, 2007.

³⁰⁰ Casson, M. and M. Della Giusta, 'The economics of trust, in *Handbook of Trust Research* edited by R. Bachmann and Aks Zaheer, Cheltenham, 2005; Shionoya, Yuichi and Kiichiro Yagi (eds), *Competition, trust and cooperation. A comparative study*, Berlin, 2000.

³⁰¹ Camp, Jean L., *Trust and Risk in Internet Commerce*, Boston, 2001; Prins, J.E.J. et alia (eds), *Trust in electronic commerce: the role of trust from a legal, an organizational, and a technical point of view*, The Hague, 2002.

and trustworthiness, in fact, has been utilised only partially, and a more empirical approach has been preferred.

The De Vecchi' case-study offers the chance to develop a model for investigating trust formation, and consolidation in contexts in which trust seems difficult to emerge. The model proposed here has a markedly explorative character, and as such it needs to be further tested in trading networks similar to that here illustrated in order to be improved. This model is based on two main assumptions: trust is the precondition for cooperation, and, at the same time, is the product of successful cooperation; trust can change over time, therefore different forms of trust must be distinguished. While the first assumption is clearly borrowed from general sociological studies on trust³⁰², the second is derived from empirical analysis.

The fundamental aspect that the exploration of the De Vecchi's trading network brings to light is the mutable nature of trust. From this crucial quality further considerations about trust derive. If trust is mutable, trust relations can undergo processes of modification over time as a consequence. Such processes are usually linked, though this is not a set rule, to the general evolution of the exchange relations within a given network. In the specific case here, the modification of trust went hand in hand with the evolution of the exchange relations between the actors. The first form of trust detectable in the trading network is connected to the climate of uncertainty that permeated the initial stage of the cooperative relations between the two main actors, namely the Mustan family and the Italians. Trust had, in that precise moment, a rather marked fictive character as it was the result of the constrictive nature of cooperation, which necessitates that someone trusts someone else about doing something. Both the Mustans, and the De Vecchi brothers were forced to trust each other, trust being an essential precondition Although they had some instruments to partially asses for cooperation. reciprocal trustworthiness, which were the very same instruments that traders had adopted for centuries to handle trade, and especially long-distance trade³⁰³, they could not be sure that the other party was in effect honest and reliable. For the Italians, however, it was easier to trust the Mustans

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³⁰² Sztompka, Piotr, *Trust. A Sociological Theory*, Cambridge, 1999.

³⁰³ Pomeranz, K., and Topik, S. (eds), *The World that Trade created. Society, Culture, and the World Economy*, New York, 2006; Dahl, G., *Trade, Trust, and Networks: Commercial culture in Late Medieval Italy*, Lund, 1998; Farber, L., *An Anatomy of Trade in medieval Writings: Value, Consent and Community*, Ithaca and London, 2006; Greif, A., *Institutions and Path to the Modern Economy: Lessons from Medieval Trade*, Cambridge, 2006; Curtin, P., (1984) *op. cit.*; McCabe Baghdiantz, Ina, Harlaftis, G. and Minoglou Pepelasis, I. (eds), *Diaspora Entrepreneurial Networks*, Oxford and New York, 2005; Trivellato, F., "The 'Port Jews' of Livorno and their Global Networks of Trade in the Early Modern Period." *Jewish Culture and History*, 7.1-2 (2004): 31-48; Juifs de Livourne, Italiens de Lisbonne et hindous de Goa: Réseaux marchands et échanges culturels à l'époque moderne." *Annales HSS*, 58.3 (2003): 581-603.

since they probably counted upon the fact that these merchants were exposed to the control of their community, and therefore, were forced to act honestly because of restraining social and cultural norms. The Mustan family had a long-standing reputation for rectitude, ability in business, and honesty, and their firm had records which proved its reliability. The preservation of high standards of good reputation was crucial for the Mustans, and prevented them from acting deceitfully. The De Vecchi brothers knew that normative obligations which dictated trustworthiness and honesty implemented by mercantile communities were a potent deterrent against misconduct. To assess one merchant's honesty and credibility in this way was a very old practice. For centuries traders have interacted with, and trusted each other relying on the powerful system of control over individual conduct that mercantile communities used to enforce internally.

On their side, the Mustans could not make similar considerations when they agreed to cooperate with the Italians. The Italians were foreign traders in a country which temporarily hosted their activities, their home-country was far away, and although they were linked to a community back in Italy, this could not supervise their behaviour and push them to act honestly. The lack of a community behind the Italians corresponded to the lack of an internal effective system of control over individual behaviour. It must be said, however, that news about fraudulent and malfeasant conduct of Italians in India could echo back in Italy. At the time of the pebrine crisis, in fact, there were many Italian sericulturists active in several parts of India, and they used to keep themselves well informed about the activities of their fellow countrymen. Inside the circle of these silk entrepreneurs and traders, news about cases of frauds involving Italians would have an impact in Italy as well. The circulation of news regarding Italian traders' misconduct and dishonesty in India, however, would have affected their reputation and activities in Italy only marginally, as the case of the G. B. Gorio & Co. amply confirms. Although the firm was active in India much later, during the early 20th century, when greater means were at disposal of traders to check on others' honesty and reliability, rumours of the scandal in which it was involved did not echoes back in Italy. This demonstrates quite clearly that it was possible to misbehave abroad and mantein an immaculate reputation at home.

Between 1914-1917 the *Gorio & Co*. Italian firm was involved in a scandal about smuggling of cement from Austro-Hungarian territories, and other products from Germany. The Anglo-Indian Custom reported on the violation of laws regarding importation:

At the beginning of the war this department (Customs Department) had some grounds for suspecting that the firm of Gorio & Co. might attempt to trade with the enemy, 304.

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³⁰⁴ Report from the Collector of Customs, 27th Nov 1917, Political and Secret Department Records (PSDR), OIOC, BL.

At the onset of the First World War, British authorities had forbidden the importation into British India of any products from the territories of the enemy countries. In spite of this import ban, the Gorio & Co. continued to sell cement produced by the *Societa' Anonima Cemento Portland* of Bergamo in its factory in Salona, near Spalato in India ³⁰⁵. The cement, which was technically produced in the territory of the Austro-Hungarian Empire, carried certificates of origin issued in Italy, therefore was classified as an Italian product³⁰⁶.

'This firm (B. G. Gorio & Co.) is the sole agent here for the 'Excelsior Brand Cement' which manufactured by the Societa' Anonima Cemento Portland dell'Adriatico at Bergamo and Senigallia, among other places in Italya and at Salona in Dalmatia. Among a consignment of 3,000 casks of Excelsior Cement which arrived in Bombay for Messrs B. G. Gorio & Co., on the 15th January 1915 there were between 200 and 300 casks which bore two labels, one indicating that the cement was made in Austria and the other pasted over it, professing to show that it had been manufactured in Italy'³⁰⁷

Giovanni Gorio was the owner of the firm, and, at the same time, the Italian consul in Bombay. It was therefore necessary to inform the Italian Ministry for Foreign Affaires directly. Soon after this, G. Gorio was charged with further accusations regarding the improper use of his position as Italian consul to favour his private business:

'Bombay Government reported that intercepted correspondence shows that Manzato³⁰⁸ who is the manager of the Bombay Brach of the B. G. Gorio & Co., has prompted home-firm to arrange supply of Germans and Austrian goods for Bombay, traded under false certificates of origin and fraudulently marked "Made in Italy". Further, with a view to evading censorship, business letters of the firm and private persons unconnected with the Consulate have been dispatched under protection of the consular stamp.³⁰⁹.

News about the scandal involving the B. G. Gorio & Co. circulated in Italy as well³¹⁰, but this did not affect the activities that the firm had in Milan, Brescia and in Mysore³¹¹. Giovanni Gorio's reputation in Italy was not spoiled, and he pursued an enviable career as private and

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³⁰⁵ The *Società Anonima Cemento Portland* was headquartered in Bergamo and had two factories, one in Senigallia (Ancona) and another in Salona (Spalato).

³⁰⁶ According the dispositions of the British Authorities at the onset of the First World War, all products destined to Great Britain and her colonies had to carry certificates of origin issued by British consular authorities to be legally imported.

³⁰⁷ Letter from L. Robertson, Secretary to Government of Bombay, to the Political Secretary to the Government of India, Foreign and Political Department, 31st March 1915, PSDR, OIOC, BL.

³⁰⁸ Alfredo Manzato was also the Italian Vice-consul in Bombay.

³⁰⁹ Letter from the Viceroy of India to the Bombay Government, 20th April 1915 Political and Secret, OIOC,

³¹⁰ The British consul in Milan enquired into the honesty of the firm in Italy, and people who had contacts with the firm were interviewed.

³¹¹ The firm was engaged in silk-trade in Myore. The activities the firm handles were many and diverse, ranging from importation of *seed* into Kashmir and Mysore to silk-waste spinning.

public entrepreneur³¹². The case of the *B. G. Gorio & Co.* shows that India was, after all, far away, and it was possible to maintain a good reputation in Italy in spite of the firm's bad records in India³¹³.

In effect, the condition of the De Vecchi left, in principle, more room for trickery, and although there was the concrete risk that their dishonest and malfeasant conduct could have some echoes in Italy, the distance between the latter and India made things safer. For the Mustans, things were rather different, and their reputation needed to be immaculate in order not to loose the esteem of their community and trading partners. The Mustans could not permit themselves to jeopardise their position, and reputation by cheating on the De Vecchi. So in this sense, unlike the Italians, they were compelled to adopt decent conduct in order to protect their business. Although the De Vecchi brothers perceived the collective system of reputation as a partial assurance about the trustworthiness of the Mustans, they initially did not know to what extent they could trust their intermediaries. Uncertainty about other's behaviour, and fear of frauds were still strong. The Mustan family considered the De Vecchi potentially trustworthy because of the good records about precedent cooperation with other Italians, but they did not expect to have a sort of communitarian system of control over the Italians' behaviour. At the same time, they were aware that their help was essential for the Italians. The fact that Achille, and Henry De Vecchi were clearly dependent upon their Mysorean trading partners, gave the latter enough assurance about the honesty of former. The hierarchical character of the exchange relations in the early stage of the trading network allowed the actor who was in a more advantageous position to consider cooperation safe enough because of the other actor's need for cooperation. This was certainly a logical consideration; no one who is so clearly depended upon someone else for the success of his business would ever dare to jeopardise the relationship by cheating. And in effect, the De Vecchi brothers regarded the cooperation with the Mustans as the main tool to operate successfully in the local silk market, and were therefore about handling the cooperative relations correctly and showing predisposition for cooperativeness.

The form of trust that emerged in the first years of the cooperation between the De Vecchi brothers and the Mustans was fictive because it was a type of trust which did not entail any intimate knowledge or confidence. Moreover, it was not equally based on incontrovertible

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³¹² Giovanni Gorio became the President of the *Ente Nazionale Serico* in the 1930s.

³¹³ The B. G. Gorio & Co. was also involved in another scandal regarding the commercial attaché to the Italian consulate in Bombay, Mr. Cavazzani, who was negotiating the sale of a submarine with the Japanese authorities. Some British firms in India were also involved. *Departmental Papers: Political and Secret Annual Files*, PSDR, OIOC, BL.

evidence of actors' probity and integrity. Fictive trust was based on a constraint inherent to cooperation, since trustwas a prerequisite for starting cooperation. Evidence of the fictive character of trust that emerged in the first stage of the trading network, can be found in the constant monitoring that both the Mustans and the De Vecchi brothers implemented. Reciprocal control was made possible by their simultaneous presence in the same place for a certain period. The fact that the cooperating parties were in the same place for a period of time long enough to enable them to check on their respective honesty, competence and trustworthiness, made it possible to turn fictive trust into real trust in a relatively short span of time. Needles to say, this was a very peculiar situation, as the great majority of trading networks were usually long-distance networks comprising traders who very often never met. This is the case, for instance, of the inter-group coalition of Western Sephardim, Italians in Lisbon and Hindus in Goa studied by F. Trivellato³¹⁴. These traders handled trade relations for over thirty years on the basis on an intense exchange of letters which helped establish close ties based on reciprocal trust, and esteem. But they never met each other in person.

De Vecchi's trading network the members not only knew each other, but they collaborated for several years, meeting regularly. This was, of course, an exception and did not represent the typical situation of trading networks. The geographical proximity of network's members profoundly shaped the process of trust consolidation, and made the transformation of trust from fictive into real more rapid. The fact that the members had the opportunity to monitor each other almost everyday, meant that if one of the two parties was not completely satisfied with the other's work or if one party had the impression of being cheated or mistreated, it could stop cooperation immediately. During the first years in Mysore, Henry De Vecchi, who unlike his brother Achille, resided in Bangalore more stably, used to personally check the purchases of raw silk made by the Sowcar Muhammad Mustan Sahib, and destined to the Italian silk-factory at Kingherry. As previously pointed out, he was in the habit of keeping himself informed about the quantity and quality of cocoons- crops in the Bangalore district through alternative channels of information. This attitude suggests that although he was working with the Mustans he did not trust them completely. He was continued to check the Mustan family's conduct and reliability, in order to make sure that a sounder cooperation could be built. Until the 1865, a year which represents a watershed in the relations between the Italians and the Mustans trust between the two was not yet real trust. Both actors, in fact, still feared that one party could cheat or misbehave.

³¹⁴ Trivellato, F., *The familiarity of Strangers: The Sephardic Diaspora, Livorno and Cross-cultural Trade in the Early Modern Period*, New Haven, 2008.

Generally speaking, controlling actors' conduct in exchange relations is a time-consuming, and costly activity. Monitoring overseas agents, or commercial intermediaries, for instance, usually implies additional costs. Trust is supposed to neutralise the necessity of repeated control over the behaviour of actors, generating a climate of mutual reliance and confidence. In the case of the De Vecchi's network, the first years of cooperation were a period of constant and reciprocal monitoring during which actors learned to know and deal with each other. Such monitoring, however, was not costly. The presence of both members in the same place favoured processes of reciprocal monitoring which did not entail any substantial extra-costs. The routine of daily collaboration naturally encouraged forms of partial or total control of other's activities with no significant extra-costs.

In the De Vecchi's trading network, real trust, that is a relationship of reliance based on intimate and thorough knowledge, and intensive frequentation finally emerged in the years between 1865-1866. This was, as already stressed, the first turning point in the network's evolution. The intensive cooperation of the first years, and the outbreak of pebrine which showed on the one hand, the De Vecchi's competence, and genuine interest in local sericulture, and on the other, the irreproachable conduct of the Mustans made clear to both parties that they could trust each other without fearing frauds, malfeasance or trickery. The relations between Achille and Henry De Vecchi and the Sowcar Muhammad Mustan Sahib and his relatives became closer, and in some ways resembled 'friendship'. A more intimate knowledge between the Italians, and the Mustans favoured the creation of ties based on reciprocal respect, esteem, consideration and gratefulness. In retrospection, real trust was to a great extent the product of the successful cooperation of the previous years.

Once consolidated, real trust became the glue of the exchange relations, and acted as a norm of conduct within the network. A high level of reciprocal trust, in fact, seemed to have prevented members from dishonest behaviour, and at the same time, it appears to have guaranteed the proper functioning of the network in the following years. Although it is not concretely possible to measure the level of trust, and even if it was possible to do so any measurement would be somewhat approximate because of the preponderant psychological dimension of trust, some signs which give a clear idea as to what extent members of this trading network trusted each other. Perhaps, the clearest of these signs is the fact that the Mustan family helped their Italian trading partners finding capital to widen their business in a crucial moment of their activities in South India. In doing so, they not only demonstrated that they trusted the De Vecchi brothers beyond any doubts, but they also showed that they were ready to guarantee their honesty, and solvability if the necessity arose. This shows that within the networks the main

members had managed to reach a high level of trust within few years. By making the Italians part of their own network comprising Indian traders and bankers the Mustans intended to show a vast array of feelings ranging from an emotional attachment comparable to r friendship, to appreciation and gratitude. This was, in the end, an expression of unconditional trust. It was a practical 'act' with a relevant symbolic value that evinces the density and complexity of the ties these traders had progressively developed. This fact clearly provides the historian with unmistakable evidence of the significance that the mutual cooperation had acquired for both traders. Additionally it serves a demarcation line in the trading network's evolution, representing, in fact, the culmination of the cooperative relations between the Mustans and the De Vecchi brothers.

Trust in the De Vecchi's trading network evolved in parallel with the exchange relations which it complemented, making them stronger. The changing character of trust, and its capacity to evolve along with the exchange relations is crucial to understand the modification that this network undergone. From the second evolutional stage, the De Vecchi's trading network became also a trust network 315 within which the main actors planned and carried out their activities according to norms of individual conduct shaped by reciprocal (real) trust. Trust generated a sort of moral commitment which pushed the members towards forms of fair and honest cooperation. At that point of the cooperation both the Mustans, and the De Vecchi brothers were released from the necessity of constant monitoring and control. Freed, once and for all, from suspicion and watchfulness, the network's members interacted in a more relaxed atmosphere which favoured further predisposition to cooperate. Real trust unleashed new forces within the network, and favoured the transfer of sericultural know-how that began only in the second phase of the network's evolution.

The experience of the De Vecchi brothers in South India tells us important things about trust. First of all, it draws attention of the constrictive character of trust in early cooperative relations established by complete strangers. Trust can be initially the result of a constrain intrinsic to cooperation. Secondly, it shows that trust can undergo processes of modification, and change over time. This should lead us to reflect on the changing nature of trust which is not fixed, but rather mutable. Thirdly, in absence of external or internal systems of control over members behaviour, trust can have in a trading network a normative power. In other words it can govern network-type informal exchange relations rather efficiently. Trust takes its normative power from the moral obligation that members felt, and pushes them towards good conduct and fair cooperation. This is not a novelty, of course. Most studies on trading networks have

³¹⁵ Tilly, Charles, *Trust and Rule*, New York, 2005.

emphasised the capacity of trust to act as a norm of conduct. What it is new in this case study and therefore, important to acknowledge is the power of self-created trust in atypical trading network which do not comprise diaspora traders or traders closely linked to a specific mercantile community. In most of the trading networks explored by scholars ethnically different traders interact with each other on the basis of a general interaction between mercantile communities, and the power that each of these communities had on its members provided sufficient assurance to other traders to start cooperation. The communitarian aspect of trade is crucial in the formation of trading networks comprising ethnically and religiously diverse traders. What guaranteed the correctness of the exchange and the honesty of traders was not their personal commitment to their trading partners, but rather their obligation to their own community and the fear of possible punishments, and in worst case, even banned from the community.

The communitarian aspect of trade interaction is only partially present in the De Vecchi's trading network, and can be fully applied only to the Mustan family. The commitment of its members to fulfil obligations, and honour informal arrangements contracts was a commitment towards the network itself, and its components. In this perspective this trading network displays a more individualistic character. In effect, it was an interesting mixture of individualistic, and collective elements. This hybrid character informed the network from its origin, and it is especially noticeable in the construction of trust. As we shall see, it was precisely the prevalence of individualistic aspects and the weakness of the collective dimension that led to some point to the partial institutionalisation of the network under the form of a limited liability company.

5.4. Formalising the trading network: the *Madras & Mysore Silk Company*, 1868-1872.

Setting up of the silk-factory at Kingherry constituted a huge investment for the Italians, as they equipped it with advanced, and therefore expensive machineries, which were shipped from Europe. Moreover, the importation of seed from Japan, and from Italy must have drained out a good portion of the financial resources of the De Vecchi brothers. This explains why, at some point, they began to search for capital while widening their activities.

In 1868 the Italians purchased two new silk-farms, one in Oossoor –Hosur- in the Salem district, and another one in Maddoor in the Mysore district. The silk-farm at Oossoor was in co-proprietorship with the *D.D. Dymes & Co.*, while that at Maddoor – Maddur- belonged exclusively to the De Vecchi

brothers. Soon after the purchase of the land where the Oossoor silk-farm was implanted, the Italians launched a limited liability company under the name *Madras & Mysore Silk Company*.

The scattered documents on the organization of the firm reveal that a significant share of the startup capital was raised among British, and Indian partners: Daniel David Dymes and Albert Foster Pater³¹⁶ of the D.D. Dymes & Co.³¹⁷, and G. Narasimooloo Chetty and G. Sidloo Chetty of the G. Sidloo Chetty & Co. . The financial contribution of Indian businessmen, in particular, seems to have been relevant. The firm G. Sidloo Chetty & Co., which was owned by a family of the merchant caste of the Chettiars³¹⁸, propped up the new company by providing financial resources. As already anticipated, the links with the Chettiars were established through the intermediation of the Mustans. It seems that it was the Hindu bankers (to whom the Mustans were linked) that put the Italians in touch with the firm of Sidloo Chetty. Those links enabled the Italians to benefit from the extensive network of the Chettiar community³¹⁹. In the second half of the 19th century the Chettiars -especially the Nattukottai Chettiars- began to gain a prominent position in the Indo-European credit market. West Rudner in his insightful survey on the Nattukottai Chettiars, has highlighted their outstanding capacity of efficiently mobilizing large-scale finance in India as well as throughout South-east Asia. He has put emphasis on the 'complex network of financial debts, opportunities, and possibilities that indigenous moneylenders and bankers could activate outside of Western-style banks through relationships of kinship and caste in a variety of religious and secular institutions 320°. Likewise other Indian communities which combined trade and banking, the Nattokottai Chettiars organised their activities on the joint-family basis. Agents were the underpinning of the Chettiars organisation. The agency system developed by the Nattukottai Chettiars had several special characteristics which allowed them to reduce the overhead charges to a low level, and provide incentives for honesty and commitment to work. In South India, the Nattukottai Chettiars advanced money to agriculturists and traders, but their business was smaller in comparison with that which they handled in Burma, Straits Settlements, Malaysia and Ceylon.

³¹⁶ A.F. Pater was the manager of the *Dymes & Co.*. He was member of the Madras Chamber of Commerce. ³¹⁷ *Dymes & Co.* was a Madras-based firm engaged in a wide range of trading activities. The firm also acted as agent of the *Eastern Insurance company of Bombay, Western insurance Company of Bombay, Hercules Insurance Company, Marine Dept., Liverpool, London and Globe Fire and Life Insurance Company, Lancashire Insurance Company, and Imperial Fire Insurance Company. Thacker's Bengal directory, 1869-1884.*

³¹⁸ The *Chettiars*, and especially the Telugu-speaking *Komati Chettiars* and the Tamil-speaking *Nattukottai Chettiars*, were amongst the most important economic elite in South India, deeply involved in a wide range of financial and banking activities.

³¹⁹ During the 18th and 19th centuries the Chettiars had progressively expanded their financial networks towards South East Asia. Large communities of Chettiars were strongly present in Singapore, Ceylon, Hong Kong, Malaysia, and Indonesia.

³²⁰ West Rudner, D., Caste and capitalism in colonial India. The Nattukottai Chettiars, Berkley, 1994.

The connections between the De Vecchi brothers, and members of the Chettiars community are particularly revealing of the overriding role that linkages with Indian bankers and merchants played in the making of the economic activities of Italian traders in India. In the second half of the 19th century, Italian silk-traders active abroad were in the habit of raising capital to invest in new business within their own locality-based network. Credit was a very sensitive issue, and financial resources could be exchanged only by people who had a thorough knowledge of each other, usually underpinned by family ties which strengthened intra-group relations. The locality-based networks of Italian silk-traders were particularly effective in providing their members with the capital they required in a very short time. A good example of the efficiency, and rapidity of these micro-networks were the *ad hoc* companies launched to purchase large quantities of *seed* in Japan³²¹.

Nonetheless, the De Vecchi brothers decided to turn to Indian bankers rather than search for capital back in Italy. Why? The first answer that springs to mind is that raising capital on the spot was more convenient. Capital available in loco was in fact, all that Italian traders, regardless of their economic activities, wanted to have. But when seeking capital in India, Italians were confronted with the discriminative policy of the formal credit system dominated by British-owned banks. Due to the rigidity in lending rules, the Anglo-Indian banking system was not really an option for Italian traders. The lack of long-term lending policy, and the high and variable rates of short-term lending made access to credit very difficult. Short-term loans, which were essential for traders because of the seasonality of many Indian products, remained mostly limited to British-sponsored trade, and thus to British-based companies. Moreover, British-owned banks were not usually so inclined to deal with foreign traders -especially small and medium size companies- which could meet the banks' requirements regarding guarantees of solvability with difficulty. Only by the end of the 19th century, did Anglo-Indian banks begin to be partially accessible to Italian traders, thanks to the intermediation of Italian credit institutions, such as Banca Commerciale Italiana and Credito Italiano. But even with the mediation of such institutions, discounting bills of exchange- which were the most common tool to conduct overseas economic transactions- in India was not cost-effective for Italian traders. The informal credit market still remained a more practicable way to raise capital in India. It was certainly a convenient option, especially in terms of flexibility, as native bankers could meet the requirements of their customers more easily. But it was also risky, as Indian bankers and moneylenders had their own business practices, and contracts were usually enforced according to a specific system inside each community (hundi³²² system). If something went wrong, and a dispute

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³²¹ Zanier, C., (2006), op. cit.

³²² *Hundi* is technically an unconditional order in writing made by a person directing another person to pay a certain sum of money to a person named in the order. Although normally considered as bills of exchange, Hundis were more often used as equivalent of cheques issued by indigenous bankers.

arose, there was little chance to appeal to British courts, as Anglo-Indian Merchant Law was not meant to govern Hundis, which therefore fell under the jurisdiction of the customary law. Among the Indian bankers of South India, the Chettiars were those who had developed a very efficient, and farranging system for mobilizing capital, and lending money within their community in India. Chettiars used to exchange financial resources within their own caste through a system of "loan on trust" 323. However, when setting trading transactions with non-Chettiars, they required some guarantees. In the case of the De Vecchis, the connections they had indirectly established with the silk-merchants served as an initial guarantee of the solvability and reputability of the Italians. Without the intermediation of Sowcar Muhammad Sahib, and the bankers to whom the Mustan family was linked it would have been very difficult, if not impossible, for Achille and Henry De Vecchi to approach the Chettiars. In discussing the role of Indian bankers in supporting the economic activities of the Italians, another important element had to be taken into consideration. The case of the De Vecchis, is a very special one, since they were co-propietors of a London-based firm, and could thus gain access to the London credit market – at that time the cheapest one in Europe- and through it to the British-owned banks in India as well. If they opted for the native banking system, it was in consideration of the possibility not only to get money for financing the new enterprise they intended to start up, but also the chance to forge links with powerful trading partners who could help them in many others ways. The Italians bore in mind, among other things, the possibility that members of the extensive Chettiars network might help them handle seed-trade from Japan.

When importing Japanese *seed* into India, it was not possible to have *seed* cardboards shipped directly to Madras. The normal maritime route included a stop-over in Singapore, where cargoes were loaded on steamers leaving for India. Singapore was, in fact, an important transshipment point where seed-cardboards were usually transshipped in order to be sent to Madras or to other Indian sea-ports. Because *seed* was a very perishable and expensive commodity –loosing a cargo of seed-cardboards meant loosing a significant sum- it was convenient to have someone there who could take care of the cardboards. Italian sericulturists engaged in *seed* trade were in the habit of following the cardboards they purchased in Japan from departure to the arrival, in that way ensuring that the *seed* had a safe trip. Achille De Vecchi probably followed the *seed* he had purchased in Japan only in 1862-1864. In the following years he ceased to travel to Japan to get fresh *see*. He had probably entrusted someone to select, purchase and ship *seed* on his behalf. This meant that *seed* cardboards travelled from Japan to India without supervision. There some hints in the documentation about the

³²³ In Tamil கடன் கொடுத்தல், - *kaTan koTuttal*, literally 'to lend money to a person without security, depending on his honesty'.

possibility that on behalf of the De Vecchi brothers the kaaTu kanakku pillai 324 of the firm G. Sidloo Chetty & Co. in Singapore, where the Chettiars community was already quite powerful among the large number of South Indians who were growingly migrating there, took care of the seedcardboards arriving from Japan and destined to India. By accepting G. Sidloo Chetty and his firm in the network the De Vecchi brothers not only and simply gained fresh capital but also other services which helped them carry out their business more successfully. In retrospective, the choice of Chettiars as trading partners shows all the De Vecchis' shrewdness, and demonstrates their capacity to understand the dynamic of the trading world of Indian merchants as well as the mechanism of intergroups relations.

With the launch of a company under the jurisdiction of Anglo- Indian law the De Vecchi's network became a semi-informal network³²⁵. The need for capital forced the Italians to reorganise the cooperative relations in a more formal way. The enlargement of the network, with new actors joining it, and the formalisation of some cooperative relations called for a realignment of the network itself. Furthermore, for several reasons the fact that the Italians were planning to address a proposal to the Madras Government for the importation of Japanese seed made it more convenient to have a single could contain some of the informal cooperative relations the Italians had organisation which previously established. British authorities would have better appreciated an offer made by a firm, as opposed to one addressed by congeries of economic operators linked to each other by difficult traceable links. But the main reason for the partial institutionalisation of the network lay in the difficulty of raising funds locally. The Nattukottai Chettiars required solid guarantees to advance money to the Italians. Indigenous banking firms did not enjoy a legal status, and the Hundi system was granted no legal recognition. Anglo-Indian courts had neither the right nor the competence to arbitrate disputes over Hundis. This type of disputes fell under the jurisdiction of customary law which applied only to natives. To bring to court European customers for insolvency was practically impossible. On the other hand, it was equally impossible to set a dispute between Europeans, and Indians according to customary law. This explains why the Chettiars that backed the De Vecchi had much to fear in lending money to them. Under these circumstances, the best possible option was to include the firm of Siddloo Chetty in the new enterprise, and strengthen the linkages with them by creating a limited liability company. According to the few existing data, the firm's Board of Directors included Achille De Vecchi, Albert Foster Pater, Narasimooloo Chetty, and W. T. Taylor, who had

³²⁴ In the banking agency system of the Chettiars, kaaTu kanakkupillai (in Tamil **5**11(k) கணக்குபிள்ளை, literally an 'accountant from the country') indicated the 'field staff' in overseas settlements. ³²⁵ Sugiyama, S., and Grove, L. (eds), *Commercial Networks in Modern Asia*, Richmond, 2001.

some connections with the Bank of Agra. This was a solution that seems to have pleased everybody and offered sufficient guarantees to all the actors.

5.5. The *Madras & Mysore Silk Company* and its activities in the Madras Presidency: 1868-1872.

Already from early 1868, before the launch of the *Madras & Mysore Silk Company*, the Italians had begun to work on a proposal for the revival and improvement of local sericulture to be addressed to the Madras Government. In their view such improvement should be effected mostly by the introduction of healthy *seed* from Japan, and other countries on the one hand, and by the improvement of native system of silk-reeling on the other. The De Vecchi brothers must have been thinking of this proposal since their arrival in South India. But they preferred to carry out their activities gradually, and, therefore, left the plans they had about the Madras Presidency aside for a while, concentrating initially on Mysore, where they probably found more conducive conditions for their business to thrive. In 1868 they were already members of the Chamber of Commerce of Madras, and had forged linkages with other Italian traders³²⁶ present in the city as well as with other Europeans. Their business in Mysore was going quite well, and they felt themselves ready to undertake a new enterprise. This was, in its essence, an ambitious enterprise, as the Italians planned programmes of amelioration larger than those proposed to the Chief Commissioner of Mysore.

The first proposal addressed to the Madras Government was submitted by Achille De Vecchi and Alfred Foster Pater as representatives of the *Madras & Mysore Silk Company* in September 1869³²⁷. The proposal, under the form a long letter, can be summarised as follows:

- 1- Improvement of silk-cultivation in districts where it was already carried out, and introduction of sericulture in districts where it did not exist.
- 2- Introduction of new silkworm breeds to replace native races considered sickly and degenerated.
- 3- Free distribution of healthy *seed* among carefully selected silkworm rearers.
- 4- Improvement of native methods of reeling silk.

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 $^{^{326}}$ Among the Italians to whom the De Vecchi brothers were linked there was E. Zuccani Jr. , an entrepreneur active in Madras and Calcutta.

³²⁷ Letter from A. De Vecchi and A. Foster Pater to the Chief Secretaryto the Government, 13th Sept. 1869, Proc. No. 272 A, 18th Dec. 1869, M.R.D, OIOC, BL.

The first proposal was rather vague with regards to some crucial points, but it clearly showed that the underlying intention of the Italians was to convince the Government to start large programmes for the amelioration of sericulture. In order to carry out their project the company asked the Madras Government for aid, especially in the selection of the best silkworm rears, and in the distribution of the new eggs among them:

"Our next object is to distribute the new eggs throughout the country, and we venture to hope that the Government will lend us its assistance in carrying out this object³²⁸".

In December 1869, a new letter was sent to the Madras Government, recapitulating the main points of the proposal³²⁹. After having met some members of the Madras Board of Revenue, in February 1870 the *Madras & Mysore Silk Company* outlined a second proposal. The letter, which was set as a blueprint of the previous one, differed from the latter only in one point: the company offered to supply the Government with 500 cardboards of *seed*, for 10,000 Rs. The price was to be paid only after the successful hatching of the *seed*:

'We shall be prepared to supply a quantity of cartoons (cardboards), not less than 500, of good eggs, and will guarantee that a fair proportion of the said eggs shall germinate. (...) We have already made a similar arrangement to that now proposed with the Government of Mysore, and shall be glad to undertake the duty for the Madras Government for a sum of Rupees 10,000, to be paid to us after we have distributed the cartoons of eggs, and obtained a successful germination in this country³³⁰.

In the first letter sent to the Madras Board of Revenue in September 1869, the Italians had made no mention of money, and simply asked for logistic aid:

'We simply asked for Government assistance to enable us to circulate new seed, and stated that we should not ask Government for any compensation until it was proved that we had been successful in renovating the silk trade which has fallen to so low a point in this Presidency in consequent to disease and epidemic³³¹

Some months later, in their second proposal, they made more explicit their intentions, and tried to convince the British authorities in the Madras Presidency to finance programmes of amelioration in some districts. The importation, and distribution of 500 cardboards in the area around Oossoor was a mere experimental attempt in order to show the advisability of starting plans for the betterment of local sericulture. The two proposals were not, in their essence, substantially different from that

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³²⁸ Ibidem

³²⁹ Letter from A. De Vecchi and A.F. Pater to the Chief Secretary to the Madras Government 15th Dec. 1869, Proc. No. 292, 21st Dec. 1869, M. R. D., OIOC,BL.

³³⁰ Letter from A. De Vecchi and A. F. Pater to the Acting Secretary to the Board of Revenue, 5th Feb. 1870; Proc. No. 1,151 19th Feb. 1870, M.B.R., OIOC, BL.

³³¹ See note 331.

already addressed to the Chief Commissioner of Mysore a few years before. However, the experience that the Italians gained in Mysore led them to rethink some of the modalities of their programme. First of all the sum of 10,000 Rupees was to be paid for only if the experiment was successful. It is interesting to note that the 10,000 Rupees was a high price even for the best seed. Probably the Italians overpriced the silkworms eggs in order to obtain larger profit margin, counting upon the ignorance of British colonial authorities about the current prices of Japanese seed. Secondly, the Italians required the intervention of peons³³² for the supervision of the distribution and rearing of seed:

'As soon as the eggs arrive, they ought to be sent to our factory at Oossoor and from there will be available for distribution to such ryots and cultivators as Government may appoint. Government peons and coolies from the districts which have to be supplied with eggs, should be in attendance when asked for, and a requisition for their services will be duly lodged at the Cutcherry³³³.

This was a novelty with regards to the agreements negotiated with the Mysore authorities. Although in the letter it was declared that this was the system that they had already successfully used in Mysore, there are no direct data on the adoption of similar methods of seed distribution in Mysore. This statement was probably made to convince the Madras Government to implement a strict supervision over the cultivators who were to be supplied with eggs. The request of the intervention of peons and other Government officers in the distribution and supervision of the new seed evinces the Italians' and reflects to some extent the negative experience they had had in Mysore. But it also concern. brings to light, once again, the De Vecchis'low opinion of local cultivators.

The Madras Government did not favour the Madras & Mysore Silk Company with a reply until the end of 1871, continually postponing the final decision. The reasons for such a prolonged postponement must be sought in the delay with which the Madras Board of Revenue was examining large number of reports on silk-cultivation in the Presidency's districts received by the Government. Besides this delay in the reviewing process, the Board of Revenue intended to collect more information on the activities of the De Vecchi brothers and their partners. For this reason in the summer of 1870, the collector of the Coimbatore district, Mr. H. E. Sullivan, who was personally interested in the improvement of the local sericulture in his district, was granted official permission to visit the Italian experimental silk-factory at Kingherry. The collector wrote a very interesting report to the Board shortly after his return from Kingherry. He was particularly impressed by the efficiency of the Italian silk-factory, and remarked that norms of cleanness and hygiene were meticulously

³³² In India the word *peon*, from the Portuguese peao, was originally used in the sense of a 'foot-soldier'. In South India the term was employed for men on police service. See William Crooke (ed), Hobson-Jobson: A glossary of Anglo-Indian words and phrases, and kindred terms etymological, historical, *geographic and discursive*, London, 1903. ³³³ See note 332.

observed in the rooms where the silkworms were reared. Each phase of the silkworms life cycle was carefully supervised, and the temperature always regulated :

"In the establishment of Messrs. De Vecchj and Company at Kingheri, the temperature is carefully regulated and, as is also the feeding day and night, and all refusal is carefully removed³³⁴.

Mr. Sullivan was also impressed by the *beautiful machine* (the silk-reeling machine) that the Italians had at Kingheri. In effect, in comparison with the native system of silk-reeling that the collector had seen in some villages of his districts, the machine must have appeared to him as something amazingly perfect. The report written by the collector is a repository of precious information about the Italian silk-factory at Kingherry, and their activities. But it is also a valuable source to understand the attitude of British colonial authorities towards sericulture.

In 1872 the Board of Revenue made a decision, and let the De Vecchi brothers know that, although the Government acknowledged the social and economic role of raw silk production in many of the territories under its rule, it was not its intention to undertake any long-term and large-scale programme to ameliorate sericulture. In the Madras Presidency the Italians did not succeed in gaining contracts with the Madras Government, but nonetheless they continued to pursue their own business, and became involved in a number of experimental activities with Japanese and Italian *seed* which they imported and introduced mostly in the Oossoor taluk.

5.6. Final considerations about the De Vecchi's trading network: failure or success?

The launch of a limited liability company, and the consequent partial institutionalisation of the trading network may appear, at first glance, as a failure of the network as a form of business organisation. However, it would be an error to consider the *Madras & Mysore Silk Company* a sign of the failure of the informal cooperative relations previously established. If one looks deeper into the junctures of the system that enabled the Italians to pursue their activities in South India, it is immediately clear that the company they created in 1868 was the direct offspring of the trading network that they had previously established. In other words the *Madras & Mysore Silk Company* originated, and evolved inside the network. It was precisely the network with its solidness, and efficiency that created the preconditions for the establishment of the company, providing financial as well as human resources. The formalisation of some of the relations which had been handled mostly informally until then,

³³⁴ Proc. 442-444, 29th March 1871, M.R.D. (OIOC, BL).

should be assessed under the light of the special circumstances that came in to being. The need for capital, and the consequent incorporation of new actors in the network forced Achille, and Henry De Vecchi to seek alternative arrangements which could satisfy everyone. The only satisfactory agreement which could safeguard each member's interests and be, at the same time, beneficial to all was the creation of a limited liability company. The Madras & Mysore Silk Company, therefore, was not the outcome of a dysfunction inherent to the network, but was rather the acme of the cooperative relations that the De Vecchi had managed to establish in the years they worked in Mysore. In this perspective, the new firm they launched was a clear sign of the success of the trading network they had gradually built. The effectiveness and strength of the linkages they had forged within their network allowed them to widen their business, gain access to local financial channels, and finally launch a firm. The importance, and efficiency of the network was not absolutely undermined by the formalisation of some of the cooperative relations it comprised. On the contrary, it was a step forward the strengthening of those relations as well as a way to keep under control possible competition. As far as the business activities of the De Vecchi brothers are concerned, it is obvious that the trading network they set up was the backbone of such activities. In effect, the relatively high success of the De Vecchi's enterprise was determined precisely by the dense and steady ties with a variegated range of economic actors that they established year by year during their stay in India.

If the institutionalisation of the trading network is considered in relation to trust, things become more complex. In effect, the formalisation of some cooperative relations denotes a lack of trust sufficient enough to enable the actors to conduct their activities informally. In this sense the launch of the Madras & Mysore Silk Company represented a failure of the network as a trust network. In analysing the failure of trust, and trust relations within the De Vecchi's network, one should bear in mind the extreme complexity of the exchange of financial resources, and high level of risk that such exchange implied. In network comprising actors that did not belong to the same community, differed so much from each other it was almost impossible to exchange 'money' on the basis of trust. Although the high level of trust, patiently, and gradually constructed, acted as a norm of conduct within the network, and pushed the actors towards honest behaviour, this was true only for the main actors. The strengthening of trust relations, in fact, involved only some of the network's members, namely the Mustans and the Italians. The inclusion of new members inevitably posed problems about trust. The need for capital available in short time, and the linkages forged with some Chettiars through the intermediation of the Mustan family made the network more complex, and created some concrete difficulties. Because the relationship between the Italians, and the firm of Sidloo Chetty was the result of a double intermediation it was too difficult to base present, and future relations on an informal system of cooperation. They could not trust each other so easily and rapidly, therefore, it was

necessary to find an arrangement which could reassure both actors. The creation of a limited liability company appeared as a convenient agreement which offered sufficient guarantees to everyone. By binding actors to contracts, the problem of trust was radically eliminated. Under this light the Madras & Mysore Silk Company was a triumph of distrust. The emergence of distrust, however, did not involve all the network's members. It must be noted, in fact, that the main actors in any case never formalised their links. These continued to be highly informal, and based on an unchallenged reciprocal trust.

But the launch of the new company may also have other reasons. It is possible that the Italians did not want to bear the burden of the new business venture and wanted to share the risks and profits among the shareholders. Such an off-loading of the risk was a very shrewd choice which allowed the Italians to retain control of the company without jeopardizing their financial foundations.

In conclusion, the for the Italians silk- traders active in South India the network form of business organisation was an inexhaustible source of benefits; an adaptable tool which allowed them to operate comfortably in the local market, and penetrate the local trading world. As some scholars have rightly pointed out, the economic benefits of the network form of business organization mostly its adaptability to unanticipated and unpredictable environmental changes 335. Generally speaking, by conveying greater information than the market does, trading networks favoured greater coordination in the faces of rapid and unexpected changes whose importance, and their impact cannot be fully grasped through market signals. In the case of the De Vecchi enterprise, the trading network they had built up was able to respond rapidly the sudden changes brought about by the outbreak of pebrine, and the Italians' need for capital. Given that the confines of networks are usually easier to adapt, it is simpler to modify the composition of network organisation to rapidly respond to changes, and new inputs. The pliability of the network as well as its steadiness allowed the Italians to cope with hardships and changes. The realignment of the network immediately before the launch of the Madras & Mysore Silk Company did not jeopardised its stability. The institutionalisation that the network underwent clearly demonstrates the capacity of the actors to turn even a difficult situation to their advantage and get the most out of it on the basis of the linkages previously forged. But it also evinces that those linkages were solid, flexible, and rapidly adaptable to a wide-range of situations.

³³⁵ Powell, W.W., 'Neither market nor hierarchy: network forms of organisation', in *Research in Organizational Behaviour*, Vol. 12, pp. 295-336, 1990.

PART TWO

CORAL TRADE AND ITALIAN CORAL-TRADERS IN BENGAL 1880s-1920s

<u>6.</u>

MEDITERRANEAN CORAL IN THE INDIAN OCEAN: MARKET, TRADE AND CULTURE

6.1. Some introductory notes on Mediterranean red coral.

Red coral (*corallium rubrum*) is typical to the Mediterranean Sea, and coral fishing has been a traditional activity for the peoples living on its costs since very ancient times.

The term coral indicates some coelenterates of a polyploidy shape, belonging to the class of the *Anthozoas*. Despite being considered a stone for centuries, coral is, in effect, an organic substance manufactured by living, minute, soft polyps that multiply by budding and live in colonies supported by a solid, calcareous medial internal core required for the growth. Such an internal core is created by extracting calcium carbonate from seawater. Coral is the internal skeleton made of calcium carbohydrate which develops a treelike form and cements to rocks or other solids at the bottom of the sea. Corals live in colonies. The Mediterranean Sea hosted very large colonies of red coral clustered in cays.

Unlike the great majority of corals which can be found in other parts of the world, Mediterranean coral can be manufactured in order to produce a large variety of differently shaped beads or artworks of different kinds. This meant that coral from the Mediterranean in particular, has long been appreciated worldwide. The other types of coral which can be easily processed are the *Corallium Secundum* or *Dana*³³⁶, commonly known as Japanese coral³³⁷ and extensively commercialised from the early 1880s, and *Midway*, *Garnet*, *Miss* e *Deep Sea*, all varieties discovered in the second half of the 20th century in the Pacific Ocean. In the Mediterranean basin the presence of coral cays was particularly abundant in areas like Sardinia, Corsica, Sicily, North Africa (especially Algeria and Tunisia), and the Greek islands of the Ionic Sea.

³³⁶ Dana, James D., *Coral and coral reefs*, London, 1870.

The Japanese coral commercialised can be other than the *Corallium Dana. Corallium japonicum* (red), *Corallium elatius* (pink), and *Corallium Konojoi* (white) are the other varieties commonly used.

Exactly like silk, coral has been a global commodity with a market that included virtually the entire and coral trade has for centuries been a fundamental part of the economy of many globe, Mediterranean regions. But unlike silk which was, at least in Europe, a luxury commodity until the 18th century when it was 'democratised' and made available for a larger number of consumers, has long had the sttus of both mass and a luxury product. Its consumption cut classes and cultures transversally. Set in gold or silver, and embellished with other gemstones to create elaborate jewels, coral was worn by aristocrats; simply polished and shaped into beads, it was worn by countless numbers of people all over the world. F. Braudel has pointed out how some commodities slowly evolved from luxury goods destined to a small number of people who could afford them into products of mass consumption that anyone could buy 338. Interestingly enough, for coral this process of transformation never happened. Coral has retained its fundamental peculiarity, that of being a commodity consumed, under different forms and with diverse purposes, by an amazingly wide-range of consumers. The great variety of coral, which could vary in quality and prices, could satisfy many different tastes and respond to diverse needs; it could suit, for instance, the demanding and costly taste of European courts as well as that of African tribal people who adorned themselves with long strings of coral beads. Coral was, in many regards, a very pliable product that was used to create exquisite pieces of jewellery and elaborate artworks, and at same time was largely utilised to make very plain and less expensive ornaments destined for large swathes of less demanding consumers. This characteristic, peculiar to coral, implies that the networks that served its trade and distribution had to be very well formed to meet the needs of so many different customers.

The twofold nature of coral as a commodity makes it an ideal lens through which it is possible to explore the material life of different classes, and civilisations first of all that of the Mediterranean. Coral-fishing and manufacturing, in fact, have been the mainstay of many peoples living on the Mediterranean rim. Coral manufacturing and trade, on the other hand, have sustained the economies of several important seaports including Genoa, Trapani, Marseilles, Leghorn, not to speak of those on the African shores of the Mediterranean. Coral has ever been one of the most important commodities exchanged by humans since ancient times.

³³⁸ Braudel, F., Civilisation matérielle, économie et capitalisme (XV- XVIII siècle). Les structure du quotidien : le possible et l'impossible, Paris, 1979.

6.2. Coral trade between the Mediterranean and the Indian Ocean before the 19th century.

In the past, the coral trade has been characterised by a long-standing history of complex and articulated cross-cultural exchanges which are difficult to summarise. What follows is an overview of the most important aspects of the coral trade between the Mediterranean and the Indian Ocean before the 19th century.

Coral trade between the Mediterranean and the Indian Ocean dates back to antiquity. Since then, in fact, the Indian demand for coral was massive. Reference to the use of coral in everyday life can be found in a wide-range of ancient Indian texts, among which the Rgveda and the Atharvaveda³³⁹. In the Laws of Manu, a metrical recast of material dating from ca 1500-1000, the word coral appears several times in different chapters:

A golden vessel which shows no stains, becomes pure with water alone, likewise what is produced in water (as shells and coral), what is made of stone, and a silver (vessel) not enchased³⁴⁰.

To subsist during twelve days on (uncooked) grains (is the penance for stealing) gems, pearls, coral, copper, silver, iron, brass, or stone³⁴.

A man who out of greed has stolen gems, pearls or coral, or any of the many other kinds of precious things, is born among the goldsmiths³⁴².

Those above are just a few of the many examples that could be given of the recurrence of the world coral in this text which demonstrates that the Indo-Aryans knew coral, and used it extensively. Coral and coral jewels are mentioned in the ancient Tamil poetry, which attest its usage among Tamil people. One example can be found in the *Akananuru*³⁴³, a collection of love poems. The second of the three parts in which the anthology is divided is entitled 'A string of corals interspersed with gems' (*Manipadai-pavalam*)³⁴⁴.

³⁴³ The Akananuru, அ**க்நானுறு**, belongs to one of the two great collections of ancient Tamil poems, the Ettuttokai எட்டுத்தொகை, (the Eight Anthologies). See Zvelebil, Kamil, The Smile of Murugan, Leiden, 1973.

Sani, S. (ed), *Rgveda. Le strofe delle sapienza*, Venezia, 2000; Orlandi, C. and Sani, S. (eds), *Inni magici. Atharvaveda*, Torino, 1992. In English see Shastri, J.L, *The Hymns of the Rgveda translated with a popular commentary by Ralph T. H. Griffith*, Delhi, 1973; 'The Hymns of the Atharva-Veda translated by Maurice Bloomfield' in Max Muller (ed), *Sacred Books of the East (Vol.42)*, Oxford, 1897.

by Maurice Bloomfield' in Max Muller (ed), Sacred Books of the East (Vol.42), Oxford, 1897.

340 The Laws of Manu translated by G. Buhler in Sacred Books of the East: The Laws of Manus (Vol. 25), Oxford, 1886, Chapter 5.

³⁴¹ *Ibidem*, Chapter 11.

³⁴² *Ibidem*, Chapter 12.

³⁴⁴ In Tamil the word for coral is **பவளம்**, *pavalam*.

The value of coral, in ancient times, was so high that it was one of the few products that the Romans could exchange in India for luxury goods such as textiles and precious stones. Coral was, in fact, a product that fetched a very high price, and was always in great demand.

Often bartered with pearls (it is interesting to note that coral and pearls very often appeared together in ancient texts because both originated in the seawaters)³⁴⁵ with which Roman women loved to adorn themselves, coral was brought to India along with gold, horses, dye pigments, and wines³⁴⁶. Traces of the brisk trade between the Roman Empire and India have been found especially on Coromandel Coast ³⁴⁷, and the ancient Tamil texts of the so-called Sangam period, especially the *Madukuraikkanchi* and the *Pattinapalai* recorded it in many passages³⁴⁸. In these poems coral trade with the *Yavanas* – the ancient name under which Greeks and Romans were known in the Tamil-speaking region- is mentioned alongside trades in other western commodities. It must be noted, however, that when coral and coral trade were mentioned the reference was not only to the West but also to the East, which represented an alternative source of coral. This information is inferred from the *Pattinapalai* that mentions 'pearls coming from the southern seas and coral from the eastern seas'³⁴⁹.

In the Middle Ages, with a significant intensification of coral-fishing in the Mediterranean basin, coral trade between the West and the East grew stably. Arab merchants carried with them Mediterranean coral, and sold it in different Asian markets, from India to China³⁵⁰. The intermediation of those traders favoured a greater circulation of Mediterranean coral in the Indian Ocean as well as in Central Asia as Marco Polo reported in his travel account 'Il Milione³⁵¹'. Maghribi Jews also partook in this trade, benefiting from the closeness of coral cays along the North Africa shores.

In the 15th century Florentine and Genoese merchants were particularly active in coral trade thanks to the contracts they had gained with the Portuguese who were deeply interested in this Mediterranean

³⁴⁵ Donkin, R. A., *Beyond Price: Pearls and pearl-fishing: Origins to the Age of Discoveries*, Philadelphia, 1998

³⁴⁶ Begley, Vimala and De Puma, Richard Daniel (eds), *Rome and India: The Ancient Sea Trade*, Madison, 1991; Daffina', Paolo, *Le relazioni tra Roma e l'India alla luce delle più recenti indagini*, ISMEO, Roma, 1995; Warmington, E.H., *The Commnerce Between the Roman Empire and India*, rev. ed.,New Delhi, 1974.

³⁴⁷ Mukund, Kanakalatha, *The Trading World of the Tamil Merchant*, Hyderabad, 1999.

The *Madukuraikkanchi* and the *Pattinapalai* are both part of the *Pattuppattu*, **Ljagiulii (**Ten Idylls). See *Pattuppattu: Ten Tamil Idylls*, translated into English by J. V. Chelliah, Colombo, 1946; In Italian see the excellent translation by E. Pannattoni, *Dieci Canti. Pattuppattu*, Vols. 2, Milano, 1995-1997.

³⁴⁹ Uruttirankannanar, Kaṭiyalūr, *Pattinappalai*, Chennai, 1975, lines 189; the word used in the text to refer to coral is not *pavalam* but *tukir*, துகிர்.

³⁵⁰ Sparti, Aldo, Fonti per la storia del corallo nel Medioevo mediterraneo, Palermo, 1986.

³⁵¹ Polo, Marco, *Il Milione*, Novara, 1999.

product. Coral was, in fact, a very important commodity in the Indo- Portuguese trade, Goa soon became the main market for Mediterranean coral in the Indian Ocean.

From the 15th to the 17th century Genoa, Leghorn and Trapani were among the most important centres for coral manufacturing in Italy. Outside the Italian peninsula, Marseilles was the main market for coral. Over the course of the 17th century Leghorn gradually arose as the principal market for coral, and its annual coral fair was a point of reference for all the economic operators engaged in this industry. Coral fished in the different parts of the Mediterranean was sent, at the end of the fishing season, to the Tuscan sea-port to be sold and then processed³⁵². In the 18th century coral fished by the *coralline*³⁵³ fleet from Torre del Greco-at that time a very important coral-fishing centre— was almost entirely brought to Leghorn and sold there usually through the mediation of Neapolitan merchants. When the fishing season was over, in October, the boat managers and owners left the crew at Torre del Greco and sailed again for Leghorn where they sold their harvest. The coral fair in Leghorn was an important moment of economic integration. During the fair, in fact, different phases of coral production (coral-fishing, manufacturing and distribution) were integrated³⁵⁴.

But it was also a meeting point for all those who were active in one of the three phases that characterised the production of coral. On these occasions economic operators - while taking care of their own business- used to exchange opinions, gather information, establish new commercial relations and strengthen old ties. In other words, the fair had not only an economic importance but also a social significance which was of key importance for the coral trade.

The coral market in Leghorn was almost entirely dominated by Jewish merchants. '(...) l'impulso determinante a questa manifattura venne dai mercanti ebrei, insediatisi a Livorno in seguito agli straordinari privilegi concessi loro nel 1591-93³⁵⁵. In effect, during the Early modern period most of the activities concerning coral manufacturing and trade in many parts of Italy, and even outside Italy were usually in the hands of Jews. The predominance of Jews, Sephardic Jews in particular, characterised coral trade until the late 18th century. They controlled Italian coral industry, except coral-fishing, for several centuries. These Diaspora traders handled complex trading circuits for the sale of coral in the West as well as in the Orient.admirably, and with an unusual acumen In the 17th and 18th centuries coral trade with India became linked to diamond trade, and bartering coral for diamonds was typical to many transactions of that period. Sephardic Jews took the lead of such trade by playing significant role in this branch of the commercial traffics between the Mediterranean

³⁵² Trivellato, F., 'La fiera del corallo (Livorno, secoli XVII e XVIII): istituzioni e autoregolamentazione del mercato in età moderna', in Paola Lanaro (ed), *La pratica dello scambio. Sistemi di fiere, città e mercanti in Europa (1400-1700)*, Venezia, 2003.

³⁵³ Coralline is the traditional Italian name of boats for coral fishing.

³⁵⁴ Trivellato, F., (2003), *op. cit*.

³⁵⁵ *Ibidem.* pp.116-117.

and the Indian Ocean³⁵⁶. To exchange Mediterranean coral with Indian diamonds was a traditional business in which several families of Italian Jews were involved. Most transactions were conducted through the intermediation of Portuguese traders, and Goa was with Leghorn and Lisbon one of the three neuralgic points of that trade.

The huge demand for Mediterranean coral in the 17th and 18th centuries India, despite the seesaw in is confirmated in the documents of the English East India Company. Many of these documents deal with the shipping of coral belonging to private merchants (Jewish in most cases) on board the EIC's ships sailing for India 357. But there are also documents concerning the purchases of red coral made by the company's agents in Italy and then shipped to Surat or Fort Saint George (Madras)³⁵⁸. Coral, in fact, was one of the main products exported to India by the EIC throughout the 17th century. Coral purchased in Italy, usually in Leghorn, and through the intermediation of Portuguese, Italian and Jewish merchants was destined to India where it was bartered for precious stones, or other luxury goods, usually textiles. The direct involvement of the EIC in coral trade was due to the fact that along with weapons, coral was, the sole Western product which could be successfully sold in India without forcing it into the market. The natural demand for Mediterranean coral in the Indian market made it a particularly suitable commodity for the two-way trade between Great Britain and India, and the perfect counterpart of diamonds. '(...) the coral-diamond trade fitted well with the interest of the Company – the bulky coral was taken on the outward journey, when ships had space enough to spare, while diamonds, taken on the return journey, when ships were fully laden, presented no problem of storage, 359.

The English usually shipped their coral to their factory in Surat from where they sent it to Goa for sale. For a good part of the 17th century, the Goan market for coral was dominated by the Jain *banian* Virji Vora³⁶⁰, who created problems for the EIC's agents attempting to sell their coral. During the 17th century the English East India Company's interests in coral trade did not waned. When, in the last

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³⁵⁶ Trivellato, F., 'Jews of Leghorn, Italians in Lisbon, and Hindus of Goa: Merchant Networks and Cross-Cultural Trade in the Early Modern Period', in Curto, D. R. and Molho, A. (eds), *Commercial Networks in the Early Modern World*, EUI Working Papers, 2, 2002.

³⁵⁷ Mentz, S., 'English Private Trade on the Coromandel Coast, 1660-1690: Diamonds and Country Trade', in *Indian Economic and Social History Review* Vol., 33, (June 1996), pp. 155-173.

East India Company Correspondence with the East, Letter Books, 1626-1753, IOR/E/3/ 84-111, OIOC, BL.

³⁵⁹ Yogev, G., *Diamonds and coral. The Anglo-Dutch Jews and Eighteenth- century Trade*, Leicester, 1978, pp. 124.

³⁶⁰ On Virji Vora, one of the a leading merchants in 17th century Gujarat, see Pearson, M.N., *Merchants and Rulers in Gujarat*, Berkeley, 1976; Vadarajan, L., 'The Brothers Boras and Virji Vora' in Journal of the Economic and Social History of the Orient, Vol. 19, No. 2 (May, 1976), pp. 224-227; Barendse, R. J., *The Arabian Seas: The Indian Ocean World of the 17th century*, New York, 2002.

decades of the 17th century, the project for the creation of an Italian-Portuguese East India Company³⁶¹ were being negotiated between the Portuguese crown and the Medici, the EIC feared that the new trading company, which amongst other dealings in all probability would have handled also coral trade, would have blocked the supply channels for Mediterranean coral. Fortunately enough for the British the Italian-Portuguese Company was never launched.

In the course of the 18th century the East India Company progressively abandoned coral trade, and handed it over to private merchants. In that period the great majority of traders engaged in coral traders were Jews who had established themselves in London. The attempts made by the EIC to dominate coral trade were vain, and ultimately destined to fail.

Coral, unlike other commodities, required traders with special expertise when buying and selling it. Such expertise could not be gain overnight, and to handle coral trade efficiently, and profitably implied a profound connoisseurship of the product, its numerous varieties, markets trends, consumers taste and so forth. Special expertise was essential and explains why Jewish merchants, who have gained the necessary know-how generation after generation, managed to run such business in a very satisfactorily and profitable way. Their trading networks were tailored to allow them to know which type of coral was in greatest demand in India – Indian customers were demanding- and, at the same time, were designed to keep them well informed about supply markets in Leghorn, and Marseilles or elsewhere.

Coral was not, and could not be an 'imperial commodity' as the EIC envisaged because of the expertise that was necessary to posses to handle coral trade, Such expertise could be gained only by those traders who had been engaged in coral production, and trade for decades. In spite of the fact that coral trade was left to private traders, the East India Company's interest for coral remained, as the attempts made in the Mediterranean in the late 18th century show.

During the 18th century coral trade between the Mediterranean and the Indian Ocean underwent a number of significant modifications. Being tightly linked to diamond trade, coral trade was affected by the change in the international market for diamonds subsequent to the discovery of diamond mines in Brazil. Until the 18th century India was the largest supplier of diamonds (diamond mines were also found in Borneo; and diamonds produced there contributed to the Euro-Asian diamond trade), soon after the openings of the Brazilian mines—the trade in Indian diamonds underwent significant modifications. The European market ws flooded with a new product which was in most cases less refined than that of India, but which was more readily available. The equilibrium of diamond and coral trade between Europe and the Indian Ocean changed dramatically. The changes that occurred in

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³⁶¹ Project for an Italian- Portuguese East India Company, State Paper Office, State Papers Foreign: Portugal, 1675, SP 89/13, National Archive, London, UK.

the end of the 18th century led to the big shift in the 19th century, when, as we shall see, coral trade was re-organised along different patterns.

Given its importance in sustaining a substantial part of trades between Europe and India in the Early Modern Period, coral trade has been the object of investigation of several works. Unfortunately enough, the great majority of studies concerned with coral trade neglect the analysis of the Asian domestic systems for retailing Mediterranean coral in the inner regions. In India, for instance, those traders who received coral in exchange for diamonds or purchased it from the English East India Company or the VOC -which was also partially engaged in coral trade- retailed it through domestic distribution networks which covered wide geographical areas. Very little is known about these pervasive networks which allowed the circulation of coral throughout India. Scholars who have approached the study of coral trade in the Indian Ocean have usually paid scant or no attention to this specific aspect. This is understandable if one considers that what most historians have probably found appealing in coral trade is its connection with the other activities that Europeans carried out in India and more in general in the Indian Ocean. Because of this, what happened to coral soon after it was purchased by Indian traders was of relatively little interest to them since this was not directly linked to the economic activities of the Europeans, it was part of the Indian domestic trade, and trading circuits which served it were not necessary intelligible to European merchants. Nor did the latter need to know these domestic trading circuits in order to run their businesses successfully. But for interested in exploring the global organisation of coral trade, it is essential to know how the domestic distribution of coral was carried out.

The activities of Italian coral traders from Torre del Greco can help cast light on this specific aspects, at least for a good portion of the 19th century. The relations they established with the intermediaries they had in Calcutta and Bombay and the wholesalers to whom they sold coral for retailing offer a number of hints about how coral imported by the Italians reached virtually every corners of the Indian subcontinent. But coral trade in the 19th century had its own specific features, and the relations between Italian coral traders and their Indian agents and commercial intermediaries were rather different from those observable in the previous centuries. The modifications which began to occur by the end of the 18th century changed the trade in Mediterranean coral with India dramatically. In contrast, the Indian demand for coral remained practically unaltered.

6.3. The symbolism of coral, and its traditional uses in India.

The great and steady demand for coral that characterised Indian market for centuries can be fully understood only by taking into account the specific symbolic value that coral had in Indian civilisation, and more generally in Asian cultures. Because of its red colour, which was considered to be particularly auspicious, coral was widely used in the manufacture of jewels, talismans, and other body ornaments as well as for sacred artworks.

According to the Indian traditional division of gemstones, coral belonged to the *uparatnani* (lesser stones) in contraposition with *maharatnani* (greater stones). Known in ancient India as *pravala*³⁶², coral has always been considered a gemstone with a great power. It was believed to have the power to dispel the malignant effects of the evil eye, and thus was considered a very good amulet against curses. It was often used as a substitute for rubies, which were more expensive and rarer.

For centuries red coral from the Mediterranean has been widely used in Indian jewellery, primarily as beads. The *mangalasutra*, the traditional necklace worn by Indian brides, for instance, was and still is made of coral. Hindu rosaries were also made of coral. The *navaratna*³⁶³, a jewel made of nine gemstones as the name indicates, and used as a talisman, contains coral along with diamonds, pearls, rubies, emeralds, blues sapphires, cat's eye, hessonite and yellow sapphire. Each gemstone is associated with a planet, coral is associated with Mars. Mars, which is related to the blood, is red in colour exactly like coral. Corals of different shades were attributed to each of the four *varna* (castes) in which Indian society was traditionally divided. For *Brahmins* corals of vermillion colour were preferable; *Kshatrya* wore corals of scarlet-red colour; Orange red or ochre coral was suited for Vaishya; Shudra, at the bottom of the social pyramid, could wear only dark or dull corals. While all the shades of red are considered desirable, differently coloured corals, such as black

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³⁶² Praavaala (प्रावाल)or vidruma (विद्रुम) are the ancient Sanskrit words for coral. Those who sold coral were known as praavaalika, प्रावालिक.

³⁶³ Ratnaa (ব্রা) in Sanskrit means gemstone, while nava (ব্রব) indicates the number nine

or white corals, were considered unsuitable and even prohibited by the *Shastra* like in the case of white coral. Only in Bengal was white coral appreciated and used.

That red-coloured coral has always been preferred in the Indian market is confirmed by the correspondence between Italian coral manufacturers and Indian traders. The following passage of a letter addressed to the *Raffaele Costa & Co.*, a Genoa- based coral-manufacturing firm, to order a supply of corals destined to a Parsi firm of Bombay is an example:

'The average colour of your supply must be red in preponderance, there should not be any excess of white pieces' 364

But coral was not only used in the production of jewels and talismans, it was also a fundamental component for the preparation of traditional medical treatments because of its healing power. The use of red coral in traditional medicine has always been particularly important all over Asia. In the Middle East, for instance, coral necklaces were supposed to heal from epilepsy, and gout, and to protect children from the evil eye, from wicked men and *jinn*³⁶⁵. Burnt coral was believed to be useful to clean and bleach teeth and fortify gums. Pulverised coral was drunk in order to guard against palpitations; coral made blood fluid, and helped against heart diseases. Ahmad al-Tifasi in his *Azhar al-afkar fi gawahir al-ahgar*³⁶⁶ defined coral (*margan* in Arabic) as something between the stone, and the tree with a marked curative power. In the Middle East the good qualities red coral was thought to possess made it a very common substance in the traditional medicine, as testified to by the great number of books devoted to mineralogy and gemstones written by Islamic authors between the 10th and the 15th century³⁶⁷. The usage of coral in the healing practices of the Middle East has been recently studied in relation to the role that animals and animal derivates have

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³⁶⁴ Letter from Jeejibhoy & Co. to *Raffaele Costa & Co.*, Genoa, dated 27th October 1923. Private Archive of Basilio Liberino, Torre del Greco, Naples. The firm of Basilio Liverino purchased the business records of the *Raffaele Costa & Co.*, an old and renowned coral manufacture of Genoa.

³⁶⁵In the Arabian pre-Islamic mythology a jinn is a genie that can have good or bad inclinations. The world is also mentioned in the Qumran, in which jinn are said to have been created out of fire by Allah.

³⁶⁶ Azhar al-afkar fi gawahir al-ahgar, (The Handbook of gemstones) by Ahmad al-Tifasi. Here the Italian translation by Ida Zillio-Grandi has been consulted. See Zillio-Grandi, Ida (ed), *Il Libro delle Pietre Preziose di Ahmad al-Tifasi*, Venezia, 1999.

³⁶⁷ Kitab al-Shifa (The Book of Healing) by Avicenna, Kitab al-gamahir fi ma'rifat al-gamahir (The quintessence of gemstones) by al- Biruni, and Nuhab al-daha'ir fi ahwal al-gamahir (The choice of treasures in the field of gemstones) by Ibn al-Akfani are only some examples of the interest that Islamic scholars had in the healing qualities of minerals and gemstones to which coral was usually associated. See Zillo-Grandi, Ida (1999), op.cit.

in the local traditional medicine. Seven main animal sources have been identified as traditionally used in the indigenous medicine throughout history: honey, wax, adder, beaver testicles, musk oil, coral, and ambergris' ³⁶⁸. Coral, which was considered exotic, was rather expensive and constantly in great demand.

In India the usage of animals, and animal derivates as well as gemstones was an important part of the Ayurvedic medical practices³⁶⁹. 'A good coral that is related to the planet Mars and recommended by astrologers, gem therapists, and jewellers is a deep red coral, which resembles well-ripened bimb fruit or an unripe cherry'³⁷⁰. In Ayurveda medicine coral oxide (*bhasma*) was and still is commonly employed. It is considered particularly efficacious to heal some of the following: coughs; bone fractures; eye irritations; headaches; liver diseases; smallpox. The links between coral and smallpox is particularly evident in Bengal. In this region coral was related to the worship of the Goddess Sitala, who was supposed to protect from such disease³⁷¹.

The other form of medical preparation for coral was *pishthi* (paste), which was supposed to be, in some cases, even more powerful, and better than oxide. Coral paste is said to be useful against the first stage of tuberculosis and for preventing miscarriage³⁷². Even nowadays a significant portion of the coral (coral waste) exported from Torre del Greco to India is destined for medical use³⁷³.

The great demand that coral enjoyed in India should also be understood in light of the symbolic value that coral had in Tibet and Nepal. In fact, a great portion of the Mediterranean coral that reached the Indian shores was destined for the Tibetan and Nepalese markets. The Indo-Himalayan area was the recipient of large quantities of red coral which was particularly appreciated by local peoples. In Buddhism coral is believed to be good, and the Tibetans and Nepalese thought that buying coral ornaments, and jewels was a good investment as those who wear coral were supposed to be successful in life. The ethno-anthropological aspects of the use of red coral in Tibet were connected to the complex Buddhist symbolism. In Tibetan Buddhism coral symbolizes the vital force, and is considered especially sacred. The chromatic symbolism of Buddhism (monks' clothes are red, as are

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³⁶⁸ Lev, Efraim, 'Healing with animals in the Levant from the 10th to the 18th century' in *Journal of Ethnobiology and ethnomedicine*, Vol. 11, No. 2, 2006; Lev E., 'Traditional healing with animals (zootherapy): medieval to present-day Levantine practice' in *Journal of Ethno-pharmacology*, 2003, No. 86, pp. 107–118.

³⁶⁹ Unnikrishnan, P. M., 'Animals in Ayurveda', in *Amruth*, 1998, pp. 1-15; Karambelkar, V.W., *The Atharva-veda and the Ayur-veda*, Nagpur, 1961.

³⁷⁰ Johari, Harish, *The Healing Power of gemstones in Tantra, Ayurveda and Astrology*, Rochester, 1996, pp. 77.

Ralph W. Nicholas, 'The Goddess Sitala and Epidemic Smallpox in Bengal', in *Journal of Asian Studies*, Vol. 41, No.1 (Nov., 1981), pp. 21-44.

³⁷² Johari, Harish (1996), *op.cit*.

³⁷³ I am grateful to Antonino and Gioia De Simone of the *Antonino De Simone S.r.l.* for providing me with this information during my visit to their coral factory in Torre Del Greco.

are the statues of Buddha, especially the Amithaba Buddha)³⁷⁴ is centred around the colour red which is connected with blood as vehicle of life. The larger and redder flawless the pieces of coral were, the more they were appreciated among Tibetans.

In Tibetan traditional iconography the 'eight-branches coral tree' is a symbol of the *dharmachakra*, the doctrine's wheel. Because of the wide-range of symbols and values with which coral was loaded, it was commonly used to make jewels, and decorate religious artworks. But coral was also utilised as a remedy in the Tibetan traditional medicine. The ancient textbooks of Tibetan medicine ascribe a number of therapeutic qualities to red coral very similar to those observable in the Ayurveda.

Unfortunately an extensive, and accurate anthropological study on the importance of coral in the Indian cultures is missing. A study of this sort would help clarify not only the complex religious symbolism of coral in Hinduism and Buddhism, but, more importantly, it would cast light on the multiple function of the millenary usage of red coral, and would also clarify some hidden aspects of its trade which still remained unexplored or little known.

6.4. The market for red coral in 19th century India.

The coral market in 19th century India was rather different from that we have observed in the previous centuries. Due to several modifications that had occurred by the end of the 18th century, coral became a commodity sold, and distributed outside the commercial circuits of British – sponsored trade. Supply and distribution channels were beyond the reach of the British Empire³⁷⁵, and were independently handled by Italians, and Indians. In the 19th century coral was, in fact, a sort of 'anti-imperial' commodity', a product which could still fetch a relatively high price but which was absolutely separated from the interests of the major European traders, and left in the hands of a few Italian firms. For this reason, coral was profoundly different from all the other products in which Italian traders used to trade. Coral trade was an activity in which Italians feared no competition as they had a sort monopoly over it. Throughout the 19th century, in fact, coral trade in India became gradually monopolised by Italians and more specifically by coral traders from Torre del Greco. The competition of Japanese coral was felt by the Italians as a real threat to their virtual monopoly only by the late 1880s.

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³⁷⁴Polichetti, M.A., 'La simbologia del corallo in Tibet', in *Coralli Segreti. Immagini e miti dal mare tra Oriente e Occidente*. Potenza. 2006.

Oriente e Occidente, Potenza, 2006.

375 Only very few international trading houses dealt with coral in the second half of the 19th century and Indian marked was virtually dominated by Italians traders.

Apart from the rise of traders from Torre del Greco as the major suppliers of coral for the Indian market in the second half of the 19th century, other crucial changes had occurred before. The first important change was the definitive separation of the coral and diamond trade. In the 19th century the two trades were no longer linked, and coral trade in India acquired new, specific characteristics. The second crucial modification which must be noted is the withdrawal of Jewish merchants from the coral trade. Those who had powerfully dominated this trade for several centuries were no longer so predominant. The only exception was represented by some trading houses in Leghorn, such as that Chaiez Giovacchino F. (also spelled Chayes) 376 which still traded in coral and was also involved, in the last decades of the 19th century, in the Japanese coral trade³⁷⁷. In the first half of the 19th century, according to the census of 1841, Jewish firms active in coral manufacturing in Leghorn were approximately ten³⁷⁸. They included Hadsa Moise, Levi Beniamino, Medina Aron, Moreno Angelo, Roques Angelo, Velletri Daniel and Moise, Leone Israel. In the second half of the century, registered in the lists of the Chamber of Commerce were only the following: Ambron Emanuele e Sonsino; Ambron G. e E.; Mirandola Abramo; Chayes Giovacchino F³⁷⁹. If the number of Jewish corallari diminished, the number of those coming from the Neapolitan region, like the firm of Ascione Zaira, grew noticeably.

The third remarkable change was the rise of Calcutta as the most important outlet market for coral. While in the previous centuries first Goa, and Madras later had been the major centres for coral, during the 19th century Calcutta became the main coral market on the Indian subcontinent. This shift probably had much to do with the modification of political, and economic equilibriums in British India. However, it might be also have been determined by the practical needs of the Indian domestic market, such as the pressing demand from the Indo-Himalayan region, which could be supplied with coral more easily from Calcutta rather than from western or southern India. Changing patterns of indigenous trade – distribution throughout Indian was a business for indigenous merchants in which the Italians took no part- played a role in this shift, though it is difficult to say to what extent. One thing, however, is certain, with the emergence of Calcutta as the main market for coral, the Gujarati merchants who had dominated coral trade in India were replaced by other trading groups. Merchants like the Kamats (Camotim), for instance, who had played such an important role

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³⁷⁶ Chayes Giovacchino F., , 'Antiche ditte Livornesi', (ASCCL) F. 789.

³⁷⁷ 'La pesca del Corallo in Giappone', Rapporto del Conte Carlo Arrivabene, Consigliere della Regia Ambasciata di Tokyo, Giugno 1912 in *Bollettino della Direzione degli affari commerciali: Rapporti e relazioni*, Roma, 1912, ASD, MAE.

³⁷⁸List of the Jewish Families of Leghorn in 1841. *Elenco delle famiglie ebraiche livornesi nel 1841, Censimento nominativo della comunità di Livorno*, Archivio di Stato di Firenze (ASF), Stato Civile f. 12.130.

³⁷⁹ 'Antiche ditte Livornesi', Archivio Storico della Camera di Commercio di Livorno (henceforth ASCCL), Livorno, 2007.

in coral trade in the previous centuries were replaced by other traders, such as the Parsees, who bought coral from the Italians and retailed throughout India. But it was also the separation between coral and diamond trade that favoured the emergence of new Indian trading groups as purchasers and distributors of coral on the Indian subcontinent. Although Calcutta emerged as the principal centre for coral trade in the Indian Ocean, Bombay and Madras continued to be important centres, and coral traders from Torre del Greco had agents there to serve local customers.

The fourth noteworthy change regarded the practice of selling coral. Before the 19th century coral reached India via Lisbon or London where it was loaded on board of ships departing for the Indian Ocean. This was usually done through the mediation of different agents here and there who took care of the different phases of coral trade. It was a complex chain of commercial intermediation that linked Indian buyers to European sellers and producers. In the 19th century this came somehow to an end, and coral was shipped from Mediterranean directly to India where Italian coral traders had established themselves, and handled sales on the spot. With Italian firms established in India, the articulated chain of intermediation which had characterised coral trade between the Mediterranean and the Indian Ocean in the past was no longer necessary, and the relations between producers and buyers became more direct. The direct, and constant contacts between suppliers and customers allowed the former to provide the latter with specifically tailored products which could fully satisfy their taste, and needs. Italian coral traders in Calcutta acted as wholesalers as well as retailers. On the one hand, they wholesaled raw and manufactured coral, on the other they also sold coral jewels especially designed for Indian customers. Another important novelty in the organisation of coral trade was the presence of Indian agents in Torre del Greco who purchased coral directly from producers and shipped it to India. There are no documents on the earlier presence of such agents in town or in Italy before the 19th century, therefore this should be considered as an entirely new aspect of coral trade.

Some of the aforementioned modifications in the Indian coral market have to be put into relation with the emergence of Torre del Greco as the main centre for coral-fishing and manufacturing. The rise of Torre del Greco as the most important place for coral production was reflected in the predominance of its coral traders in India. In effect, the data regarding coral trade in British India show that in the second half of the 19th century the Indian market for coral was almost entirely dominated by traders from Torre del Greco³⁸⁰, who, in the meanwhile, had come to gain a predominant position in the Italian coral industry.

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³⁸⁰ Thacker's Directory for Bengal, 1885; Asylum Almanac Madras, 1889-1905; Bombay almanac, directory and register, 1880-1900, OIOC, BL.

6.5. Italian coral industry, and the rise of Torre del Greco in the 19th century.

Before the late 18th century Torre del Greco which had long been an important centre for coralfishing, had hardly any coral manufactures, and raw coral fished from its fleet was traditionally sent to other places for manufacturing. Those who fished coral in Torre del Greco were forced, for instance, to turn to the coral fair in Leghorn. The lack of an indigenous industry which could process raw coral was a matter of complaint, and was generally perceived as a great disadvantage³⁸¹. This situation, which was cause of so many complaints by local people who risked their lives at sea to receive a meagre salary in the case of sailors or to gain low profits (comparably much lower than the profits earned by those who processed coral and re-sold it) in the case of ship-owners, was to come to an end in the 19th century, when an indigenous industry for manufacturing raw coral finally took off. By the late 18th century some attempts to create local manufactures which could use the raw product so abundantly available were made. In 1788 Memoria per la nuova Compagnia del Corallo che si vorrebbe stabilire a Napoli per potersi vendere e lavorare una sì ricca produzione del mare was published by Michele De Iorio. In his memoir the author, a jurist, gave voice to all those engaged in coral-fishing in Naples, and its neighbouring areas hoped to see the creation of a local industry for coral manufacturing. He claimed the necessity of establishing coral manufactures as not to sell raw coral in Leghorn or Trapani where 'quei negozianti ebrei si arricchiscono alle spalle dei pescatori torresi, 382.

The Bourbons were not deaf to such requests, and the first initiative they undertook was to regulate coral-fishing in their Kingdom. For this purpose a special code – *Codice Corallino*- was promulgated on April 1790:

' la pesca de' Coralli che da più secoli si esercita da un considerabile ceto di Marinari, specialmente nella Torre del Greco, ha richiamata tutta l'attenzione si S. M, e ne ha meritata la sua Real protezione. Questo ramo

di commercio, quanto ricco, altrettanto mal regolato, ritrovatasi in una estrema confusione, e disordine per

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mancanza di regolamento e di opportune provvidenze ^{5,383}.

³⁸¹ Supplica degli Eletti e dei cittadini di Torre del Greco per l' istituzione di un Consolato per la pesca del corallo, trasmessa al Supremo Magistrato di Commercio, il 5 Aprile 1780, dal Marchesa della Sambuca, Supremo Magistrato di Commercio, f. 1729, ASN, 1780. The document is published in its original version in Tescione, G., (1963), op.cit.

³⁸² Cited in Ascione, Mauro, 'Il Corallo di Torre del Greco', in Pignataro, Giancarlo (ed), Le fabbriche dei Borbone di Napoli: appunti di viaggio tra le sete di San Leucio, le porcellane di Capodimonte e i coralli di Torre del Greco, Roma, 2002, pp. 16-21.

³⁸³ Codice Corallino di Ferdinando IV di Borbone, Caserta, 1790, in Il corallo e la sua pesca : trattato sui coralli di Pietro Balzano, Codice Corallino del 1790, regolamento sulla pesca del corallo del 1856 , Napoli, 1870

In the meanwhile the Reale Compagnia del Corallo³⁸⁴, supported by the monarchy, was established:

'Non contento il Re N. S. di aver riordinata la pesca de' Coralli collo stabilimento di tante provvide leggi, pubblicate sotto il titolo di Codice Corallino, ha rivolto ancora il suo clementissimo sguardo alla maniera, onde poter smaltire una sì ricca produzione del mare. Ha considerato, che la pesca del Corallo, che nel Mediterraneo si esercita quasi tutta dai soli Torresi, è ' uno degli articoli più importanti del Commerci, che la medesima introduce nel Regno poco meno d' un mezzo milione ogni anno col venderlo solamente alla maniera, come e' in natura, alle

Piazze estere : che importerebbe assai più, se i Pescatori non fossero costretti a trattenersi tanto tempo fuori dal Regno per attendere alla vendita, e non fossero obbligati alla necessità a ricever talvolta, anzi per lo più, durissime leggi per parte de' Sensali, e de' compratori, e soffrire altre spese non leggiere di senseria, cambio, ed altro. Tali inconvenienti cesserebbero, se la vendita seguisse nel Regno, dove finalmente verrebbero a colare ricchezze immense, se vi si piantasse la fabbrica del Corallo in quella maniera come si vede in altre parti, e che ha estremamente arricchito chi attende ad un tal negozio³⁸⁵.

The new company was organised as a joint stock company (società' per azioni), with a starting-up capital of 600,00 ducats as reported in the statute:

' Nascerà la Compagnia col nome della Real Compagnia del Corallo sotto gli auspici di S. m., e sotto la sua Real protezione. (...) La Compagnia dovrà avere un fondo di ducati seicentomila, il quale dovrà essere sempre effettivo, ed esistente, senza che si potesse diminuire in menoma parte di ducati cinquecento. Lo stesso fondo dovrà consistere in danaro contante, e si dovrà intestare alla Compagnia colla distinzione delle azioni, che saranno assegnate ad ogni azionario³⁸⁶,

According to the statute, one third of the capital (200,00 ducats in total) was especially reserved for people from Torre del Greco provided that they were able to raise that amount by December 1790.

'Sopra il fondo di ducati seicentomila saranno aperti a tutti solamente ducati quattrocentomila e gli altri ducati duecentomila saranno privatamente riserbati a' soli Cittadini della Torre del Greco; purché questi però per lo mese di Dicembre di questo anno adempiscano al pieno di ducati duecentomila³⁸⁷

Some facilities were also granted to foreigners who wanted to buy shares of the new company.

' Anche sarà lecito a Forestieri, non sudditi di S.M., di qualunque rango, e qualità di prendere interesse nella Compagnia per quante azioni ad essi piacerà. (...) Le azioni de' Forestieri saranno franche, e libere da ogni diritto di confisca, rappresaglia, o altro simile per qualsivoglia altro titolo, quando fossero Sudditi di Principi esteri, coi quali S.M. potrebbe essere in guerra³⁸⁸'.

 $^{^{384}}$ Senigallia, Leone Adolfo, Sul codice corallino di Torre del Greco e sulla Real Compagnia del corallo : contributo storico allo studio del contratto alla parte e della societa' per azioni, Napoli, 1936.

³⁸⁵ Statuto della Compagnia del Corallo , approvato con editto del di' 8 ottobre 1790, republished in Tescione, G. (1963) op.cit., Appendix, pp. 362.

³⁸⁶ Ibidem.

³⁸⁷ Ibidem.

³⁸⁸ Ibidem.

The Real Compagnia del Corallo was granted the right to select the most suitable place where to establish a coral manufacture:

'La medesima potrà, secondo le sue circostanze, piantare la fabbrica del Corallo, o nella Torre del Greco o in Napoli o dove meglio le parrà, e chiamare a tal effetto da tutte le parti quelle persone che saranno più proprie per lo lavoro di una mercanzia cosi preziosa '.

The Bourbons granted a number of financial facilities to the Company. Shares were tax-free, as well as all the material indispensable to carry out coral-fishing such as ropes, fishnets and so forth:

' Dovrà essere franca da qualunque dazio ogni sorta di spago, o funi, che la Compagnia somministrerà per la pesca del corallo. Ogni azione si dovrà riputare per sempre esente da ogni sorta di tassa, imposizione, o imposta, o da imponersi per qualsivoglia causa ³⁸⁹ '.

The governing body of the company was formed by three directors and four governors:

' La Compagnia sara' amministrata da tre Direttori, e da Quattro Governatori e da altri Uffiziali sotto la loro dipendenza: il tutto, in quella forma, come qui si stabilisce³⁹⁰.

The main requisite to be eligible as director was to possess at least 20 shares of the company. first three directors were appointed by the king himself. Directors could hold their office for 3 years. At the end of their mandate, they had to appoint their successors:

' (...) Sua Maestà destinerà per la prima volta tre Direttori Generali della Compagnia, uno almeno dei quali dovrà essere pubblico Negoziante di Ragione e che abbia corrispondenza colle Piazze estere, dove, o debbano seguir pagamenti in nome della Compagnia, o si dee smaltire il Corallo. Niuno però potrà essere Direttore, se non sia interessato nella Compagnia almeno in venti azioni. Il loro impiego durerà per lo spazio di tre anni, dopo del qual tempo ognuno di essi nominerà il suo successore col farne la terna successiva, ma che abbiano gli stessi requisiti, così rispetto ad uno della qualità di pubblico Negoziante di Ragione, come per tutti delle venti azioni³⁹¹, .

Unlike directors, the four Governors could hold their office for two years only. They were initially appointed by the king, and were thereafter selected in the same way Directors were. Among the eligible persons there were those who owned at least five shares of the company:

La Compagnia avrà ancora quattro Governatori, i quali saranno da S. M. nominati per la prima volta, il cui impiego durerà per anni due, dopo del qual tempo si procederà all'elezione de' successori nell' istessa maniera, come si e stabilito per quella de' Direttori. Non potranno essere Governatori quelli che non sono padroni di cinque azioni ³⁹².

³⁹⁰ Ibidem.

³⁸⁹ Ibidem.

³⁹¹ Ibidem. ³⁹² Ibidem.

The promulgation and enforcement of a special code for regulating coral- fishing, and the establishment of a company deputed to handle coral trade were the two first concrete state-sponsored attempts to create a coral industry in Naples and its surroundings.

Despite lacking a coral industry comparable to that existing in other parts of Italy, the Neapolitan region was not completely alien to forms of coral manufacturing. The first documents attesting to the existence of activities connected to coral manufacturing date back to the late 15th century³⁹³, when a group of Jews from Trapani, at that time a renowned place for coral manufacturing and the production of coral artworks³⁹⁴, settled in Naples and began to work there³⁹⁵. However, it was only in the 19th century that the Neapolitan coral industry took-off.

The attempts made by the end of the 18th century did not yield the results expected. 'Queste iniziative, comunque, non ebbero nessun esito. Non ci sono infatti, documentazioni circa l'attività di queste fabbriche a Torre, e se anche furono attive già da allora, non dovettero andare oltre la produzione del liscio³⁹⁶'.

It was only in the early 19th century, when Paolo Bartolomeo Martin, a Frenchman of Genovese origins, established himself at Torre del Greco and opened up the first coral manufacture in the town that the coral industry in the region began to develop. Martin was a coral manufacturer in Marseilles but in 1805, after having received a special charter from Ferdinand IV, began his activities in Torre del Greco by opening the *Real Fabbrica di Coralli di Torre del Greco*. One year later the charter was confirmed by Joseph Napoleon who gave his official approval to the new enterprise³⁹⁷. Since when the first coral manufacture was established the development of the new industry was amazingly fast. In 1837 only 8 manufactures were active in Torre del Greco; in 1864 the number had grown to 24, and less then twenty years later it went up to 82³⁹⁸. The transformation of Torre del Greco from a place chiefly devoted to coral-fishing into a worldwide renowned centre for coral manufacturing was extremely rapid. In few decades the number of coral manufactures multiplied, and by the 1880s Torre del Greco had already an internationally established reputation for coral manufacturing and trade. In the 19th century Torre Del Greco combined coral-fishing with coral manufacturing, covering in a complete way all the different phases of the production chain from fish to commercialization.

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³⁹³ Filangieri di Straiano Gaetano, *Documenti per la Storia, le arti e le industrie delle province napoletane*, Napoli, Vols, 6, 1883-1891 (republished by the Società Napoletana di Storia Patria, 2002); Ascione, Gina Carla, *Storia del corallo a Napoli dal XVI al XIX secolo*, Napoli, 1991.

³⁹⁴ Daneu, A, L'arte trapanese del corallo, Milano, 1964.

³⁹⁵ Tescione, G., L' industria del corallo nel regno di Napoli dal secolo 12. al secolo 17, Napoli, 1938.

³⁹⁶ Ascione, Mauro (2003), *op.cit.*, pp.18.

³⁹⁷ Tescione, G, (1963), op.cit.

³⁹⁸ Mazzei Megale, G., L' Industria del corallo in Torre del Greco, Napoli, 1880; Peruzy, L., Il corallo e la sua industria, Napoli, 1923.

<u>7.</u>

ITALIAN CORAL TRADERS IN BENGAL 1870s-1920s

The rise of Torre del Greco as the main centre for coral-fishing and manufacturing explains why the great majority of coral traders active in the 19th century India were from there or nearby areas. The first traces of their massive presence in 19th century India date back to the late 1870s when some *corallari* opened up branch-offices in Calcutta³⁹⁹, and sent agents to Madras and Bombay. However, it must be noted that some Italian trading houses active in India used to import and sell, among many other Italian products, also coral. This was typical to Genoese firms, such as *Casella & Oliva*, and *Acerboni & Co.*, which sold along with wines, marbles, and foodstuff, also raw coral. But the practice of shipping some corals from Genoa to India as part of a general import-export trade had nothing to do with the business set up by coral traders from Torre del Greco. By the late 19th century these traders came to handle an intense and highly profitable trade, which was organised as to perfectly respond to the needs of Indian customers. It was a thriving trade, as coral was the most important Italian product exported and consumed in India.

The opening of the first branch-offices in India was concomitant with the crisis occurred in the coral producing-sector soon after the discovery of the Sciacca's coral cays which shook the Italian market for coral. In the early 1870s very rich coral cays were discovered some miles away from the coast of Sciacca in Sicily. The coral cays were not made by living corals but were the accumulation of dead corals favoured by certain streams coming from the Calabria's coast. The cumulous of dead coral was colonised by other corals. The corals which lay on the top of the Sciacca cays were, therefore living creatures, but those positioned at the bottom were dead and not stuck to the underwater rocks. The Sciacca's coral was of a rather atypical colour, with nuances that ranged from pale rose to salmon. Its quality was not particularly good, but the quantity and ease with which it could be fished made it extremely popular within few years.

³⁹⁹ Thacker's Directory for Bengal, 1880-1900.

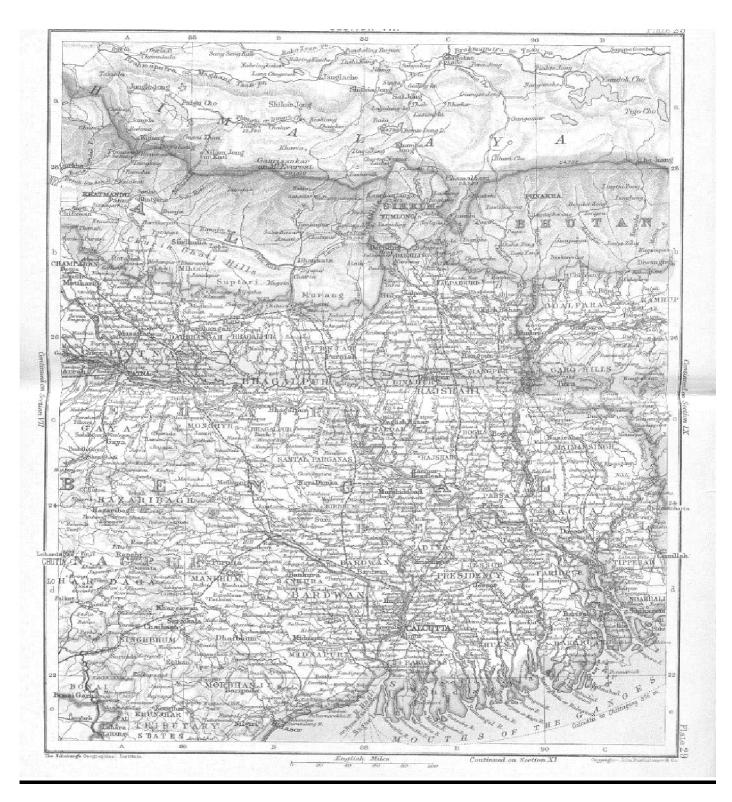


Fig 7.1. Map of Bengal, Constable's Atlas, Plate 29, Section VIII, Bengal, Nepal, Sikkim and West Assam London, 1893.

According to the available statistics confirmed by the family's memories of most coral producers from Torre del Greco, the amount of coral fished in the Sciacca cays was huge, and caused an overproduction which very soon glutted the market. The immediate consequence was a sharp drop in prices. The prices for both raw and manufactured coral were very high until 1883-84. Between 1872 and 1879 the price of 1kg of raw coral was around 350 Italian Lire, in 1882 it dropped down to 40 Lire, and in 1884 the price plummeted to 16 Lire. In 1878 the price for 1Kg of manufactured coral not set in gold was 750 Lire, in the 1884 the price was less than the half, 300 Lire. From 1887 to 1900 the price for manufactured coral remained relatively low, around 175 Lire⁴⁰⁰. By the turn of the 19th century the price of manufactured coral had a slight rise, but it was far away from being as high as it was in the 1870s⁴⁰¹. In the first decade of the 20th century, it stabilized at 240 *Lire*.

The drop in the prices consequent to the discovery of the Sciacca's coral cays meant a significant decrease in profits. The difficult conjuncture in which the Italian market for coral was languishing pushed some coral producers to establish themselves in India, opening branch-offices there to handle the massive trade with India.

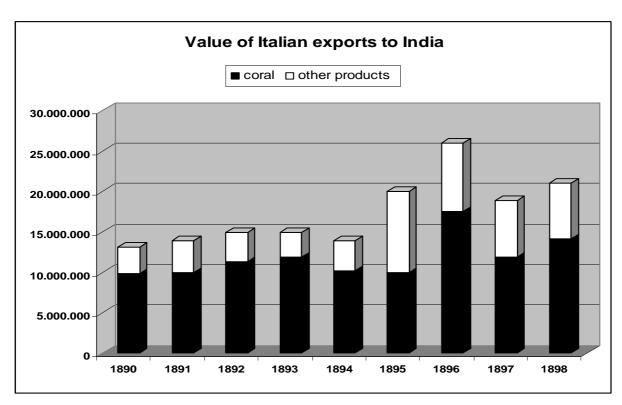
7.2. Coral trade between Italy and India.

Despite a noteworthy growth in the volume and value of export-trade with India in the last decade of the 19th century (Fig 7.2.), until the 1920s coral remained the principle product exported to India, accounting roughly for the 80% of the total value (merchandise only) of Italian exportations (Fig 7.3.). Coral was undoubtedly the most important product that Italy exported beyond Suez. Coral, along with glass-beads mainly exported from Venice by the *Società Veneziana per l'Industria delle conterie* 402, was the only Italian product that was specifically designed for Indian consumers. All the other Italian products, with the exception of a few chemical or mechanical products such as dyestuff, and machineries which were meant for industrial uses, were mainly for European consumption.

⁴⁰⁰ Necco, A., La curva dei prezzi delle merci in Italia negli anni 1881-1909, Torino, 1910.

⁴⁰¹ In 1902, 1kg of manufactured coral (not set in gold) was priced 200 Italian Lire, in 1905 it increased to 240 Italian lire

⁴⁰² Società veneziana per l'Industria delle conterie : Atto di Costituzione, Venezia, 1899, Pubblicazioni Minori, BNCF, Firenze.



<u>Fig.7.2.</u>The graph shows how important was the export of coral in the last decade of the 19th century. Source: *Movimento commerciale del Regno d'Italia (1890-1898)*, Ministero delle Finanze, BNCF, Florence.

Europeans in India were in fact the target of Italian exporters, while Indians were for their culture, religion and taste little considered as potential consumers of Italian products. Coral was thus an exception, and was specifically tailored for satisfying Indian customers.

Coral exported to India was usually of two types: raw coral and manufactured coral. The latter could be "corallo di fabbrica" (oval-shaped polished coral beads) or "camolato" (spherical beads of porous coral)⁴⁰³. Italian coral traders also made coral jewels on demand for clients who could afford them, being the exportation duties for coral set in gold, or silver quite high. Apart from some jewels and special artworks, the bulk of coral sold by Italians in India was of the two aforementioned types. Coral waste was also largely sold, being an important component of traditional medicaments, but official statistics do not provide information to quantify the trade in coral waste. In general coral waste was included in the category of 'raw coral', which comprised also coral not polished or processed (often small branches of coral). Therefore the statistical data available concerns the entire

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⁴⁰³ *Corallo di fabbrica* refers to the shape, while *camolato* refers to the quality (porous coral was obviously of low quality and therefore pretty cheap).

category, but do not give further information on the subtype of coral. This makes impossible to calculate the exact amount of coral waste exported to India. According to the records of some coral manufactures in Torre del Greco the quantities of coral waste shipped to India were huge. Obviously enough, coral waste did not fetch the same price of *corallo di fabbrica* or *camolato* in the Indian market.

In the last decades of the 19th century, when coral trade with India was particularly prosperous, the annual average quantity of manufactured coral (both *camolato* and *corallo di fabbrica*) exported was 62.300 Kg (value 11 millions of Italian Lire), while that of raw coral was much lower being only 5.300 Kg (378.000 Italian Lire). After a decade of relative stability, in the 1896 there was a sudden rise in the volume of manufactured coral exported to India (97.260 Kg, value 17.507.000 Italian lire). In the following years the trend remained quite stable, with a slight increase at the very end of the 19th century.

Coral trade between Italy and India underwent an important modification when Japanese coral made its appearance in the international market. The Italians initially perceived this new variety of coral, which was bigger than the Mediterranean coral⁴⁰⁴, as a threat to their business. Japanese coral, in fact, was more easily available and cheaper. But within few years, they realised that Japanese coral could be an opportunity rather than a threat.

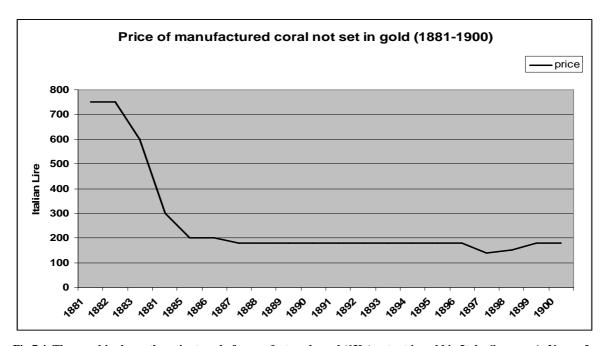
The large-scale introduction of Japanese coral in India was probably conducted systematically by coral traders from Torre del Greco. However, there are several hints that Indians knew coral from the Chinese Sea well before the late 19th century. At least on the Coromandel coast this must have been a product commonly traded already at the time of the early Chola Dynasty. References to coral coming from the eastern sea is made in Tamil leaf-palm manuscripts. It is interesting to note –possibly a sheer coincidence, possibly not- that the place where the Italians saw the first stocks of Japanese coral was Madras. It is highly probable that South India had since the antiquity an constant flux of coral trade with East Asia, but there are no data on the volume of such trade, on how it was conducted and by whom.

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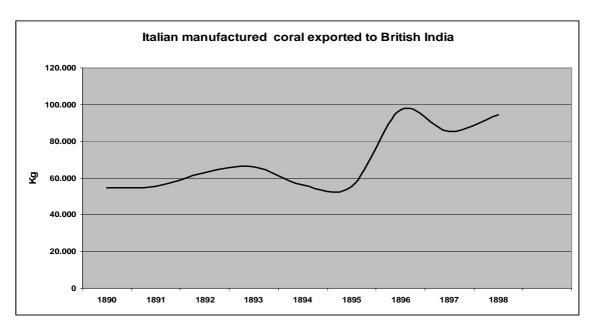
⁴⁰⁴ Japanese coral was different in colour, height (it could be 2 meters in height) and hardness from the Mediterranean one.



<u>Fig. 7.3.</u>Considering Italian exports to British India in the period between 1890-98 as a whole I (132.000.000 millions of Italian Lire in total), the manufactured coral accounted for the 82% (107.000.0000 millions Italian Lire) of the



<u>Fig.7.4.</u> The graphic shows the price trend of manufactured coral (1Kg) not set in gold in Italy. Source: A. Necco, *La curva dei prezzi delle merci in Italia negli anni 1881-1909*, Torino, 1910.



<u>Fig.7.5.</u>Volume of coral trade with India. Quantity of manufactured coral (not set in gold) exported to British India. Source: *Movimento commerciale del Regno d'Italia (1890-1898*), Ministero delle Finanze, BNCF, Florence.

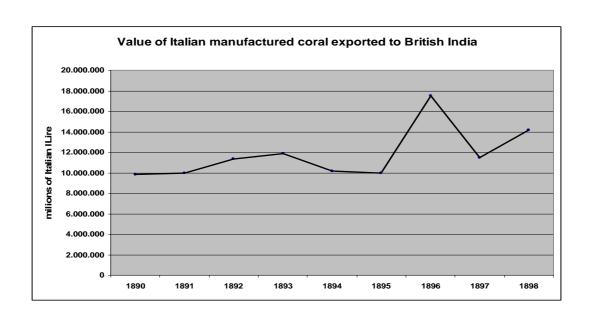
Italian companies active in India pioneered the trade in Japanese coral from Japan to Italy via Calcutta. Those who first travelled to Japan to purchase stocks of the local coral were coral traders from Torre del Greco. Some members of the *Mazza* family⁴⁰⁵ with other coral merchants active in Calcutta⁴⁰⁶ went to Kobe and to Osaka where they bought Japanese raw coral and shipped it to Torre del Greco for being manufactured and then shipped back to India.

In the beginning the quantity of raw coral which was purchased in Japan was limited since the Italian manufactures were initially averse to process the new kind of coral. But within a decade the quantity of Japanese coral imported into Italy grew hugely. From 1886 to 1895 roughly 15.000 Kg per annum were imported from Japan⁴⁰⁷, and by the end of the century the quantity arose even more so. In the years between 1896 and 1905 the annual average was 40.000 Kg. Most of the coral imported from Japan to Calcutta and from there to Italy, was reshipped again to Calcutta after being manufactured as 'corallo di fabbrica' to be sold in the Indian market.

⁴⁰⁶ Andrea and Michele Scognamiglio from the *Gallo & Scognamiglio* firm, which operated in Calcutta in the 1880s.

⁴⁰⁵ Leonardo and Mattia Mazza, who managed the Calcutta office of *Bartolomeo Mazza & Co.*.

⁴⁰⁷ Imports from Japan, 1890-1920, in *Movimento commerciale del Regno d'Italia (1890-1898*), Ministero delle Finanze, BNCF, Florence.



<u>Fig.7.6.</u> Value of manufactured coral (not set in gold) exported to British India. Source: *Movimento commerciale del Regno d'Italia (1890-1898)*, Ministero delle Finanze, BNCF, Florence.

Japanese coral became within a couple of decades extremely important for the Italian coral industry, and in the early 20th century Italy became entirely depended upon the supplies of coral from Japan:

'Dopo l'ultima esposizione di Parigi, dove il corallo ritornò di moda, l'Italia è divenuta interamente tributaria di tale materia prima al Giappone (...)⁴⁰⁸

The paucity of coral in the Mediterranean basin due to over-exploitation gave unexpected chances to the Japanese coral. Once understood that the trade in Japanese coral was the last frontier in the business of coral, Italian coral traders in India began to import it systematically and to make extensive use of it. The involvement in this new branch of coral trade widened the activities of many coral traders active in Calcutta and allowed the earn higher profits.

The triangular coral trade comprising Italy, Bengal and Japan, inaugurated by the Italians worked on the basis of the linkages that these traders had established first in Calcutta, later in Japan, where they hired agents to buy coral directly from coral-fishers. In order to handle more efficiently and

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⁴⁰⁸ La pesca del Corallo in Giappone', Rapporto del Conte Carlo Arrivabene, Consigliere della Regia Ambasciata di Tokyo, Giugno 1912 in *Bollettino della Direzione degli affari commerciali: Rapporti e relazioni*, Roma, 1912, ASD, MAE.

conveniently the trade in Japanese coral, the Italians established close relations with the *Mitsui Bank*, which supported them in all the financial transactions necessary to buy coral on the spot⁴⁰⁹.

The outbreak of the First World War and the enforcement of the 'Limitation Act' which prohibited the importation into British India of products from enemy countries hit badly the activities of the Italian coral traders. The letters addressed to them by their India trading partners confirms that the conjuncture was particularly difficult. Moreover prices had began to go down, and only low-priced corals were in demand, as suggested by a Madras -based Indian coral merchant to the Genoese firm *R*. *Costa & Co.*:

'(..) you can send samples with the lowest prices,410.

The trend in coral prices continued to be negative also in the 1920s. In 1923 a Parsi firm from Bombay, which used to buy coral from Italy, informed its Italian coral supplier that they would have accepted only coral stick and pieces with the lowest prices⁴¹¹. The restrictions imposed to Italian traders after the involvement of Italy in the First World War greatly penalised the businesses of coral traders. Although most believed that the end of the war would have changed the situation, and coral business would have thrived again, the conjuncture remained, in fact, negative for many other years. With the First World War coral trade between Italy and India ceased to be as profitable as it was before, and coral traders began to look for more opportunities elsewhere, and in markets where coral could still offer high profits.

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⁴⁰⁹ Ibidem

⁴¹⁰ Letter from C. Jeeyer of the *C. Jeeyer & Co.* to Raffaele Costa, Madras, 8th may 1913, Business correspondence of the *R. Costa & C.*, in the private archive of Basilio Liverino, Torre del Greco, Naples. ⁴¹¹ Letter from the *K. Jeejibhoy & Co.*, see note 364.

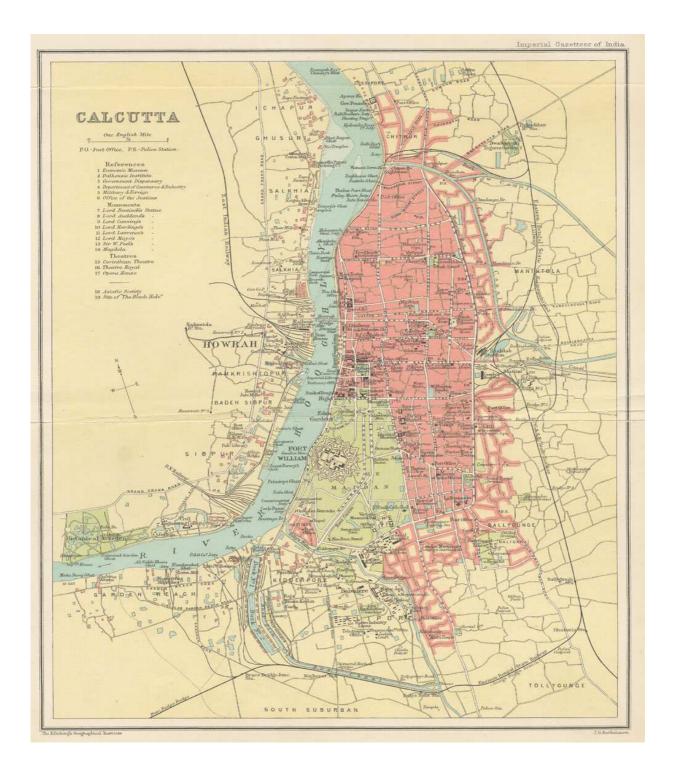


Fig. 7.7. Map of Calcutta by J.G. Bartholomew, Imperial Gazetteer of India, Clarendon Press, 1907-1909.

7.3. The organisation of the business community of Italian coral traders in Calcutta: between cohesion and competition.

In the second half of the 19th century coral traders from Torre del Greco came to dominate the Indian market for coral. Other firms were active in India in the same period such as the Checcacci & Co from Leghorn, and the Raffaele Costa & Co. from Genoa, but those from Torre del Greco were certainly preponderant. The largest companies active in Calcutta in the second half of the 19th century were the Bartolomeo Mazza & Co., and M. Palomba & Co., the Indian branches of two of the most important firms engaged in coral fish, and manufacturing in Torre del Greco. The Mazza family owned in their hometown one of the biggest corala manufactures as well as a fleet of coralline, ships used to fish coral⁴¹². The *Palomba* family was active both in Torre del Greco and in Naples. It employed several agents that took care of their business in the major Indian cities. Other smaller coral traders were active in Calcutta, along with a great number of Italian agents who dealt in coral. The organization of the companies which traded in coral embodies somehow organisational pattern of Italian traders in India. The family was at the core of the business; it was the hub of every activities. It provided human resources as well as capital; it gave to the firm the suitable stability and the necessary flexibility to comfortably operate abroad. The link between the branches and the mother house were particularly tight, and the latter supervised all the commercial activities. However, such control was not all-embracing, and the branch-offices had the chance to operate quite autonomously according to their knowledge of the marketplace. The overseas branch-offices were usually entrusted to one or more male members of the family. They settled in India in order to manage the branch and supervise the sales, but also to get in touch directly with Indian intermediaries and customers. Coral was stocked in Calcutta, but as a product in great demand all over India, it had to be distributed to other places. Indian agents and intermediaries opened the door of the domestic distribution channels to the Italian companies, allowing them to widen their operating-range towards

Being, perhaps, the only homogenous group within the Italian business community in Calcutta⁴¹³, coral traders from Torre del Greco tended to stick to each other and meet regularly. The convergence of interests, and the shared geographic origin made this group of traders quite similar to a trade Diaspora. In fact, among all the Italian economic operators active in India in the 19th and 20th centuries, coral traders from Torre del Greco were the only ones who displayed in their social and economic

inner marketplaces, which otherwise would have been to far away and difficult to access.

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⁴¹² Giuseppe Mazza was one of most important ship-owners of Torre del Greco. He owned more than 100 ships and a renowned coral manufacture.

⁴¹³ Calcutta was the only city in India with a population of Italians large enough to justify the use of the term community.

organisation features which are usually typical to trade Diaspora. However, they were not 'technically' Diaspora traders, nor their networks were diasporic. In effect, if we accept the definition of trade diaspora given by Abner Cohen, 'a nation of socially independent, but spatially dispersed communities' 414, coral traders do not fit the model in any way. They were not a nation, and did not form dispersed, independent communities in host societies. They were rather a subgroup within the Italians – who represented in this case the real national group, although in this case it might be questioned whether the use of the terms nation and national can be really applied to Italy in the second half of the 19th and early 20th century- who worked in India for a certain period that could range from few years to two or three decades. But in spite of the length of their stay in India, they had a place to go back home once the business was settled or when they decided to retire and leave the management of the firm to sons or relatives. Their stay was always transitory, and considered as a way to strengthen certain economic relations and widen their business. For these reasons, coral traders cannot be considered as a 'real' trade diaspora on the basis of Cohen's definition. Nonetheless they acted as if they were part of a community which recognised itself not only in the main activity they were all carrying out, that but in the commonality of interests, in a long-standing tradition of coral's production and trade, in the common geographical origin, and in a shared sense of cultural belonging. However, in spite of an organisation which resembled to a great extent that of the diaspora traders' communities, Italian coral traders had also a marked individuality which pushed them, in some cases, to conduct their business highly individualistically regardless of the unspoken and informal rules that the community had adopted in Calcutta. Competition was always round the corner. The will and desire to make higher profits were important inputs for many coral traders, who tried to improve their performances at the expenses of other coral traders. But the difficulties in which they often found themselves when operating in India helped reduce 'anti-communitarian' feelings, and kept competition under control, without, however, neutralised it. Cohesion inside the group, and solidarity between its members which is visible, for instance, in the collaborative way in which they initially handled trade in Japanese coral or in the creation of the Banca di Credito Popolare di Torre del Greco (bank meant to support financially coral producers)⁴¹⁵, did not prevent them from competing with each other. Commercial rivalry within the Calcutta-based community of coral traders, although socially ostracised, was always a significant factor in the definition of the economic

⁴¹⁴ Cohen, A., 'Cultural strategies in the organization of trading diasporas', in Claude Meillasoux (ed), *The Development of Indigenous Trade and markets in West Africa*, London, 1971.

⁴¹⁵ The *Banca di Credito Popolare di Torre del Greco* was founded in 1888. The links between the evolution of this credit institution and coral production and manufacturing are the focus of an ongoing research-project patronised by the bank's president.

strategies, and became, after the First World War, which badly hit the activities of the Italian traders in India, determinant.

Competition seems to have been little considered by scholars concerned with trading diasporas, who privileged, in most cases, analyses focused on the cooperative character and communitarian aspects of conducting business, emphasising the benefits of an organisation based on shared ethnic origins and cultural and religious beliefs. The experience of Italian coral traders from Torre del Greco in Calcutta shows that even within small and rather cohesive groups competition can evolve in a more or less evident way and influence short and long-term entrepreneurial strategies. The necessity to safeguard common interests and achieve common goals, among wich the further development of the coral industry in Torre del Grec, just to name the most important one, acted both as a deterrent against a wild competition, and as a glue that kept together the group. This tension between the need to preserve the business of the entire community, and the individual will to exploit the market as much as possible was a characteristic of the environment from which coral traders came. Such tension was reproduced, and probably amplified in the Calcutta settlement, where the distance from home, and the temporary character of business heightened conflicts. But the documentation scrutinised suggest that when conflicts and competition arose, coral traders tried to solve them, and work towards the achievement of common benefits.

Trade in Japanese coral, which marked the end of an era, and offered new opportunities to Italian coral traders was, after the first initial difficulties that showed the capacity of coral traders to act cohesively, a moment during which competition emerged inside the Calcutta's community. And it must have been a fierce competition, if it was noticed even by some members of the Italian embassy in Japan⁴¹⁶. However, coral traders managed to control such competition and develop the new activities linked to the trade in Japanese coral in a manner beneficial to all. This communitarian spirit and the sense of 'redistribution of benefits' within the community originated from the background that coral traders shared in common, and was not simply the product of a cohesiveness generated by the convergence of interests. It was the outcome of a common historical path, shared models of socioeconomic aggregation, and long-lasting cultural traditions of cooperativeness. It was, in a nutshell, the result of the evolution over centuries of a town which had centred its economic and social life on coral-fishing first, and coral –manufacturing later. Within the community of coral traders in Calcutta this pattern of development was reproduced, and partially adjusted to better fit in the new environment, but maintained its basic, defying feautures.

⁴¹⁶ Bollettino della Direzione degli affari commerciali: Rapporti e relazioni, Ambasciata Italiana di Tokyo, Roma, 1912, ASD, MAE,

7.4. Trading networks of Italian coral traders and their relations with Indian merchants.

Italian coral traders in India organised their business in two different ways: they could either establish themselves in India, (Calcutta), or hire agents to sell their coral in the Indian main cities. The first way was usually adopted by those companies which had the financial means to afford the opening of overseas branch-offices. Coral manufactures like *Palomba M. & Co.*, *Mazza B. & Co.*, *Gallo & Scognamiglio*, were among them. Their Calcutta-based offices were opened and managed by family members, and by agents when necessary. Firms which had not the resources to establish branch-offices in India used to hire agents. Many coral manufactures from Torre del Greco, such as the *Giovanni Ascione & Figlio* and the *Antonio De Simone*, handled their commercial relations with India through agents on the spot. Those agents, usually Italians, sold coral on behalf of many different coral manufactures. One agent, usually settled in Calcutta, could manage the trading transactions of many different coral producers, as in the case of *Enrico Gianquitto*, who in the early 20th century sold coral in the Calcutta market 'per conto dei signori torresi' Some agents could also be Indian, and they acted as intermediaries between the Italians, who supplied coral, and Indian merchants who bought and distributed coral domestically.

Once they sold coral to Indian merchants, the Italians did not interfere with the local networks of distribution which were entirely in the hands of natives. The Indian domestic distribution chain of coral was very articulated, and comprised different phases as well as different alternative patterns. The channels of distribution, in fact, changed according to the different usage to which coral was destined. Indian coral merchants who purchased manufactured coral in the shape of beads or sticks re-sold it as they stood or wholesaled them to jewels-makers. Those who bought raw coral re-sold it through a distribution network that touched centres of traditional medicine scattered all over India as well as centres where craftsmen combined with other precious, and semi-preciuos materials to make a wide range of decorative ornaments and artworks.

Who were the Indian merchants who handled domestic coral trade?

To answer this question accurately would imply a detailed study of the Indian domestic market for coral, which is beyond the aims and possibilities of the present work. The records of Italian coral traders allow us to attempt an answer which is not in any way exhaustive. It is rather a partial answer

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⁴¹⁷ Letter from Enrico Gianquitto to Raffaele Costa, Calcutta 5th Jun. 1913. Business correspondence of the *Raffaele Costa & C.* in the private archive of Basilio Liverino, Torre del Greco, Naples.

based on a number letters of Indian merchants who were directly in contact with the Italians, but they were not evidently the only ones who traded in coral on the Indian subcontinent. On the basis of the documentation scrutinised, which corresponds only to a part of the documents available as a whole – not all coral manufactures from Torre del Greco open their business archive to scholars- it appears that the purchasers of Italian coral were Parsi in Bombay (*K. Jeejibhoy & Co.*, for instance), and Tamil (*C. Jeeyer & Co.*) or Gujarati merchants in Madras. These merchants were in most cases engaged in general import-export trade, and among the products in which they traded there was also coral.

In Calcutta, where the community of Italian coral traders was headquartered, there was a wider range of traders who dealt with coral, included European firms, such as the *Jules Karples & Co.*, which supplied the local market with coral coming directly from Italy. Indian merchants, on their side, bought coral directly from the Italians *in loco* or were in contact with coral manufactures in Italy from which they were supplied. In Calcutta, particularly active was the Indian firm of *Hariram Dinanath*, who had contacts with Italians coral traders in the city as well as with coral producers in Italy. This firm operated in the Calcutta market where it bought mostly manufactured coral, and in Amritsar where considerable quantities of that coral was sold afterward. It purchased coral from the *Antonino De Simone*, the *R. Costa & Co.*, from the manufacture of the *Liverino* family and from others.

Among the Indian merchants who both coral from the Italians and were, therefore, part of their trading networks, some groups were overrepresented. This is the case of Parsi merchants who were the principal group with which Italians had contacts in Bombay. They most probably control large swathes of the distribution chain of coral on the entire western coast, leaving distribution in the hinterland to other traders (retailers) to whom they re-sold coral bought from the Italians. The functioning of the micro-channels of local distribution can be difficultly reconstructed. It was a pervasive net that included exclusively Indians, and there are no traces of it in the records of Italian coral traders who did not partake in it. Those who retailed coral throughout India remained unknown to the Italians, who dealt only with wholesale merchants in the main urban centres. In some cases Indian wholesalers could be also retailers of coral, especially if they had branch-offices in more than one city, like in the case of the firm *H. Dinanath*. With the Indian merchants that handled the first stage of Indian domestic coral trade the Italians established close ties from which trading networks, comprising usually one Italian firm and its many referents, originated. Not all these referents were actually members of their trading networks, some were only occasional trading partners. But the great majority were traders with whom the Italians established long-lasting cooperative relations chracterised by reciprocal respect and trust.

How did the Italians forge ties with Indian merchants?

The main tool to establish relations with Indian merchants was through a network of information about the reputability and honesty of the firm. Information about Italian firms circulated in the bazaar, where information on Indian merchants could also picked up. It must be noted that in coral trade there was very probably an uninterrupted chain of information consolidated after centuries of trading interaction. Information circulated quite easily among merchants, and stratified to form a 'baggage of commercial knowledge' that allow to make the right choice when it came to decide which the firm was to be trusted. Personal relationships, friendship and kinship made the rest. The firm of *Jeejibhoy & Co.* justified their first letter to the *R. Costa & C.* to order a certain quantity of coral as follows:

'we (...) owe your esteemed address to the recommendation of a business friend⁴¹⁸.

Economic and trading relations were thus established on the basis of friendship ties, personal and thorough knowledge, and were maintained through face-to-face agreements or letters, if the parties were too far away from each other to meet in person. Business correspondences enabled many coral traders from Torre del Greco that had not branch-offices in India to keep in contact with their overseas trading partners and agents. The firm of *Ascione & Figlio*, with is rich collection of business correspondences, is perhaps one of the best example of how coral traders handled long-distance relations with their Indian agents through letters⁴¹⁹.

The information network that backed the trading networks of Italian coral traders worked efficiently and properly, conveying updated news on traders and firms. The constant and intense exchange of letters which helped maintain and strengthen long-distance commercial relations, favoured the dissemination of information among Italian as well as Indian traders.

It must be noted that apart from information on firms' reputability and traders' trustworthiness, the trading networks that the Italians set up served also other purposes, equally important. They helped the efficient, and rapid transfer of information regarding taste, fashion and other aspects of the local patterns of consumption. Although distribution did not directly pertain to the sphere of the Italians' business, they had to know what Indian customers liked and what they did not like. The Indian market was so important for Italian coral traders that some firms from Torre del Greco were highly specialised in creating products exclusively for India. This is the case, for instance, of the manufactures owned respectively by *Vincenzo Carlone, Aniello Gentile,* and *Francesco Ciaravolo*. The objects or jewels created by those *corallari* were tailored on the basis of the Indian taste and fashion. Indian agents suggested to the Italians the models and shapes more popular among the Hindu customers, as they could create a unique customer- oriented product.

⁴¹⁸ See note 364.

⁴¹⁹ Private archive and Museum of Coral of the Ascione family, Torre del Greco, Naples.

In the case of traders who established themselves in Calcutta, direct and recurrent contacts with local merchants replaced the letters, which were employed to keep in touch with the mother-house in Italy and with relatives. This type of letters did not serve the purpose of consolidating links with Indian trading partners, but were essential for the good functioning of the trading networks that coral traders developed, because the firm's headquarter in Italy had to be constantly informed about all the issues regarding demand, prices, and trends in fashion in the Indian market. Additionally, these letters were also a tool to keep coral producers in Italy updated about the activities of other Italian coral traders in Calcutta and in India in general, and conveyed information about those traders who were to be trusted, those with whom it was advisable to have trading relations, those who were to avoid and so forth. Trust was, therefore, constructed through either letters and/or direct and prolonged contacts. Those who happened to operate on the Indian subcontinent were obviously facilitated, as they could select personally trading partners and agents. For those who remained in Italy the experience of coral traders already active in India was an essential instrument to assess Indian traders' reliability. Furthermore, Italian agents who were sent to India provided additional information on Indian market and traders. Within the community of the Italian coral traders in Calcutta, information was shared among the members in order to safeguard individual as well as collective interests. In this regard, the small community worked, once again, likewise trading diaspora did, disseminating information among its members to preserve and safeguard everyone's business. The level of trust and confidence that coral traders manged to reach with their Indian trading partners seem, in general, very high, but given that each trader or firm operated in India according to its own peculiar trajectory, it is plausible that levels of trust varied from network to network. Such variability was normal, and among Italian coral traders there were those who were able to establish trading relations with Indian merchants based on real trust and streghtened by prolongued interaction. Obviously enough, those who were in India were in a more favourable position, and as in the case of Italian silk-traders in Mysore, could constantly monitor at least some of their trading partners, and check upon their trustworthiness. For those who remained in Italy and handled long-distance trading relations, things were more complicated, but as alredy pointed out, the cohesion of the coral traders' community, and the habit to work collectively for common goals, reduced difficulties and helped establish a climate of reciprocal trust

and confidence also between Italian-based traders and Indian merchants.

7.5. Some final considerations on the trading networks of Italian coral traders in India.

When considered in retrospective, the trading networks that Italian coral traders established in India seem to have served efficiently the purposes for which they had been created. The roots of the intrisinc success of this type of trading networks lay not only in the ability of the Italian traders to forge stable and close cooperative ties with Indian economic operators, but in a series of 'preconditions'. Under the headline 'preconditions' can be listed the background of the Italian coral traders on the one hand, and nature of coral trade as such on the other.

The background of coral traders had immense influence on thestrategies and,

The organisational models and the economic stratgies that they followed were dictated by their habit to work within elaborated systems of cooperation within which common benefits were always higly considered. Such systems originated in the urban tissue from which coral traders came. It is the peculiar development of their home-town, and the hardiships that its emergence as the main centre for coral trade implied that influnced their socio-cultural behaviour, determining a remarkable inclination to operate through trading networks. The broadness of many of these trading networks, which is often the first aspect that attracts external observers, may convey the deceptive idea that cooperativeness and predisposition to cooperation was an innate quality of these traders, while, in reality, it was the product of the specific and altogheter artypical historical trajectory of an entire town.

The development of Torre del Greco shaped the attitudes and the character of its economic operators favouring process of aggregation and cooperation based on networks. When projected onto a host society, namely Indian society, the habit to work within forms of business organisation based on networking turned into a concrete advantage which helped establish ties with local traders.

Italian coral traders benefited also from the 'longevity' of the business in which they were engaged. Coral trade is, in effect, one of the most ancient trades that have ever linked the Mediteranean countries to Asia. It is reasonable to assume that after centuries of constant exchanges traders who dealt with coral developed special skills and consolidated practices and information circuits to communicate with each other. It is precisely this long-standing system of knowledge and practices that enabled different merchant communities to build up networks of cooperation, and collaboration to handle coral trade. The continuity and fluidity of the systems of commercial interaction between the Mediterranean and the Indian Ocean, though essential, should not be stressed too much as fractures and changes occurred. It is crucial to highlight that long-standig mercantile practices hid a common 'baggage of knowledge' on the basis of which traders operated and forged linkages with

each other. Such knowledge circulated among different merchant groups –mercantile communities were never completely separted from each other – and enabled the creation of systems of multiple trading relations. In the Indian Ocean these systems were particularly brisk and vibrant and kept the it in connection with other economic areas, among which the Mediterranean. The latter, in turn, was a region dense with inter-communal exchange relations, where merchants were used to live and operate in a socio-economic environment made of broad interconnected netwoks.

Coral traders give us a practical exemple of how to use some of these systems of trading relations to operate more confortably in a host economy and safeguard the integrity and profitability of their business

CONCLUSIONS

The analysis of the activities of Italian traders in India leads to three different sets of considerations. The first set regards the trading networks as forms of business organisation in general, and their capacity to create complex and endurable economic ties between merchant groups across continents. The other two sets of considerations are concerned with issues which have been touched upon only indirectly but which play an important role in the definition of the trading networks established by the Italians: India and Indian economy under the British rule on the one hand; Italy and the processes of political and economic unification on the other.

Let us start with some reflections on the function of trading networks, and on their significance from a long-run perspective. The experience of the De Vecchi Bros. and that of the coral traders from Torre del Greco, although diverse in many regards, hint that economic operators can promote forms of economic globalisation rooted in extensive networks characterised by extremely articulated nets of relationships able to connect diverse peoples in different parts of the world. 'Contrary to many a current belief, the integration of world economy, the soc-called globalization of modern economic life, does not owe its present character solely to the actions (and omissions) of the colonialism and imperialism of prominent Western or eastern powers' 420. Trans-national, multi-ethnic and multicultural economic and trading networks have ever performed a crucial function in the integration of different economic areas into a 'global' system. The forms of globalisation promoted by traders are often parallel to or in contraposition with those created and favoured by States. Sometimes trading networks as peculiar forms of economic globalisation are created and handled within the geo-political context dominated by a single state that becomes, in this case, an ideal 'container' which favours the processes of economic exchanges set in motion by the networks themselves. The British Empire, for instance, has been a favourable container for Greek Diaspora traders in the 19th century. Those traders profited by the facilities and services that the empire offered and exploited its economic channels, but at the same time they opened new trading circuits and pioneered new patterns of economic exchanges for the empire's benefit, and for theirs own of course. In other cases, however, forms of economic globalisation promoted by traders can clash with existing political entities or simply circumvent them by creating multiple systems of economic interaction across countries which are independent from state-sponsored commercial circuits or in even conflict with them.

⁴²⁰ Baghdiantz McCabe, Ina, Harlaftis, Gelina, and Pepelasis Minoglou, Ioanna (eds), *Diaspora entrepreneurial networks*, Oxford and New York, 2005, pp. xix.

The capacity of stretching across vast areas and binding to each other diverse mercantile cultures - which is perhaps the greatest achievement of trading networks as well as its strength- is not a peculiarity of the trading networks of the modern period. On the contrary, it appears as typical to all trading networks in all epochs. The interconnection, and the interchange of merchant cultures across the Eurasia landmass, in fact, dates back to the post-Bronze Age, 421 when extensive and highly interdependent trading routes and networks began to sustain and favour the then emerging urban civilisations.

From a long-run perspective the persistence over centuries, from antiquity to modern times, of merchant networks underlying large-scale economic exchanges may be taken as a confirmation of the existence of interrelated economies which displayed, at least in their mercantile aspects, some characteristics typical to capitalism. To consider the enduring presence of trading networks and their practices and strategies as a confirmation of forms of capitalistic economy would make appear capitalism not simply as the specific outcome of the Industrial Revolution – which however boosted it up, and favoured its transformation into more sophisticated forms- but rather as a 'traditional' product of most human societies. Capitalism embodied in merchant cultures and exchanges is certainly different from the industrial capitalism, and aspects of a capitalistic economy, when they emerge in pre-industrial societies, can be detected only by looking at the interaction of two or more economies, and at the interrelation of merchant cultures. This explains why trading networks are an ideal standpoint to detect and appreciate early capitalistic forms of pre-industrial economies, which if considered in their entireness and without their links with other more or less contiguous economies, seem to lack any forms of capitalism.

The second aspect that should be highlighted is the continuity, and endurance of long-standing mercantile practices epitomized by commercial correspondences. Traders used to carry out their business and dealt with other traders usually through letters. Commercial letters, therefore, represented the main tool to establish and strengthening economic relations. The Telegraph and telephone became an alternative only much later. But even when the technological progress made available faster means of communication they were used to check orders or speed delivery, but not for establishing and keeping contacts with trading partners and overseas agents. Letters remained until recently the most important instrument to forge and maintain commercial relations.

As testified to by the letters of the Italian traders in 19th century India, in particular those written by and addressed to coral traders, the modalities of writing commercial letters seem to have changed little from the early modern period onwards.

421 Goody, J., Capitalism and Modernity. The Great debate, Cambridge, 2004.

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For instance, if compared with the letters of coral traders of 18th century Leghorn – like those cited by F. Trivellato in her work⁴²²- those exchanged in 19th and early 20th centuries between Italian coral traders and Indian merchants appeared as amazingly similar. Similarity is evincible in a number of recurrent expressions, and phrases used by traders in their correspondence that suggest the existence of a common language to interact and cooperate. The standardisation of such language suggests, in turn, that there was an already accepted way of writing commercial letters that had been elaborated over centuries and to which traders conformed themselves. Comparison between letters written in the 18th, 19th and early 20th centuries confirms that the standardisation of commercial correspondence occurred in the early modern period continued to be an efficacious instrument to handle international business between traders who did not know each other personally.

When more confidence emerged between trading partners, then the language and the tone used in the commercial letter can vary significantly, as in the case of the correspondence between Achille De Vecchi to Muhammad Mustan Sahib. But the letters that the two exchanged during the time of their cooperation are very special, because of the personal ties the actors had forged while cooperating. The high level on informality evincible in these is an exception deriving from the close relationship they had managed to establish within few years. It is difficult to find the same type of informality in the letters of the Italian coral traders who were characterised by a formal tone and retained many of the features of the typical standardised commercial letter.

Apart from considerations regarding the trading networks as such, the exploration of the economic and commercial activities of the Italian traders leads also to reflect on the economic environment in which they operated, that is India, and on their economic background, that is Italy.

The activities of the Italian traders, and particularly their use of native channels of production and distribution shows that Indian economy, and especially those sectors outside the commercial circuits controlled by the British, was very brisk and able to find new ways of prospering even under a colonial regime. On the other hand, seen through the lens of the activities of the Italian traders the empire's grip on Indian economy seems less invasive and pervasive that it might be thought. Such grip appears to be concentrated in few sectors which were strategically important for the British but their importance for the Indian economy as a whole should not be overestimated. At the same time, it should not be downplayed the capacity of Indian economy to cope with the modifications determined by the emergence of a colonial economy, and reorganise itself according to different patterns. Indian economic operators continued to handle most of the trading traffic which linked India to other Asian markets (which were by far more important than those in Europe), and this was done in many

⁴²² Trivellato, F., (2008), op. cit.

case independently from the Empire, and often in competition with it. Of course, British rule over India brought about significant changes but the tendency to read such changes as irreversible and detrimental to the overall Indian economy is misleading. The capacity of the British colonial regime to fully control, and divert India's economy by putting it into a condition of total dependence is to be demonstrated with more consistent evidence. This is, however, beyond the possibilities and aims of this work, which simply tries to suggest, as an alternative, for the study of Indian economy under the British Raj, the exploration of the multiple, and difficulty identifiable linkages that connected India to Asian and European countries beyond British influence. Studies of this sort could help unveiling many 'hidden aspects' of Indian economy and may show its strengths and its ability of re-organising itself under colonial domination.

Considerations about the relationship between Italian traders and Italy are probably harder to draw. To look at Italy and her political and economic development from the point of view of economic operators active abroad is certainly challenging but also problematic. As previously pointed out, Italian traders raised a harsh criticism against their home-government and its commercial policies. Such criticism, which may appear as an overreaction to a number of problems that could have been dealt with differently, needs to be interpreted under the light of different factors, first of all the political climate of the post-unification Italy. When the process of unification was successfully concluded, it seemed to great majority of the Italian traders that the new state they were part of would offer plenty of opportunities. The end of the political and economic fragmentation would lead, in the opinion of many Italians, to the rise of Italy as a new power in Europe and in the Mediterranean. The new state was expected to actively sustain policies of economic and commercial expansion, and favour the

The expectations about the opportunities that the unification of the Italian peninsula offered were soon disappointed by the choices of the government. In practice, the post-unification Italy far from creating more conducive conditions for the activities of traders, especially those active in import-export trade, represented in many regards a real drawback. By hindsight it appears quite clearly that most of the problems these traders had to face derived from the process of unification and its short and long-term effects. Quite interestingly, although most traders acknowledged that the economic unification of the peninsula was conducted along unsuitable lines, they never questioned such process and its importance. Imbibed with the Risorgimento's ideals, Italian traders considered the Italian unification as a great achievement as well as a great opportunity, but at the same time they criticised its effects on the Italian economic and commercial life and, therefore, on their own activities, without seeing the profound contradiction that this entailed. The recurrent complaints in the shape of reports and

dossiers addressed to the Italian government or to the competent Ministries by Italian traders in India, and more in general by all those engaged in import-export trade with Asia, can be read as a form of resistance against an entire system of handling maritime trade, commercial policies, and the economic development that was considered essentially wrong, but also as a critique *tout court* to the process of political and economic unification of the Italian peninsula as conducted in practice.

The relationship between Italian traders in India and the Italian government was characterised during the years on which this research focuses by a series of difficulties that ranged from lack of concrete support; lack of communication with Italian authorities; lack of infrastructures; lack of facilities and services. What the lack of all the aforementioned things concealed was a profound disinterest showed by the state when dealing with most of the problems that affected Italian import-export trade with non-European countries.

The memories of the Italian traders in India, their travel accounts and their commercial correspondences and the dossiers they produced to inform their government of difficulties they were facing invite to reflect on the process of Italian unification, and to re-think its political meanings on the one hand, and its concrete economic effects on the other. The relationship between Italian traders in India and the Italian government was made more complicate by the lack of a clear national identity among the Italians. Although the values of the Risorgimento prevailed, none of these traders really acted as Italian, that is a member of a community that recognised itself in certain practices and beliefs. In everyday life the patterns of sociality and sociability of the Italians in India mirrored an identity made of abstract values and imagined traditions. What is striking is their habit to create subgroups within the national group their belong to. These sub-groups, which included traders coming from the same place in Italy -the Genoese traders and coral traders from Torre del Greco in Calcutta are the best example of this habit- was the real carrier of a shared identity in which each trader recognised itself. The sub-group, which was not as closed as it could be thought, became also the main socio-economic unit on which the embryonic ties that formed their trading network were built up. In a nutshell, it was the contraposition between nationalism and localism that characterised the socioeconomic life of Italian traders in India, with the former being proclaimed, very idealistically, at a superficial level, and the latter prevailing in the business practices, market strategies and in many other aspects of everyday life. Interestingly enough, it was precisely this marked localism exemplified also by some aspects of their trading networks that became over time the hallmark of Italian national identity.

BIBLIOGRAPHY

PRIMARY SOURCES *

1-ORIENTAL AND INDIA OFFICE COLLECTION (OIOC), BRITISH LIBRARY (BL):

• East India Company, Letter Books:

```
E/3/84, 1626-1669
E/3/85, 1657-1661
E/3/86, 1661-1666
E/3/87, 1666-1672
E/3/88, 1672-1678
E/3/89, 1678-1682
E/3/90, 1682-1685
E/3/91, 1685-1688
E/3/92, 1688-1697
E/3/93, 1698-1709
E/3/94, 1699-1709
E/3/95, 1702-1706
E/3/96 1706-1710
E/3/97, 1710-1713
E/3/98, 1713-1716
E/3/99, 1716-1719
E/3/100, 1719-1721
E/3/101, 1721-1723
E/3/102, 1723-1725
E/3/103, 1725-1727
E/3/104, 1727-1730
E/3/105, 1730-1733
E/3/106, 1733-1736
E/3/107, 1736-1739
E/3/108, 1739-1743
E/3/109, 1743-1745
E/3/110, 1747-1751
E/3/111, 1751-1753
```

• Calcutta Directory and Annual Register (1817-1900)

• Bengal Directory and Annual Register (1870-1900)

^{*}Primary sources on coral from private archives are not included in this bibliography. When reference to them has been made in the text, they have been cited in the footnotes.

- Asylum Almanac Madras (1862-1872)
 - Bombay Directory and Annual Register (1860-1880)
- Bengal Commercial and Shipping Consultations
- Bengal Financial Department
- Bengal Board of Revenue (Miscellaneous) Proceedings
- Madras Revenue Department, Index:

```
Z/P/2654, 1867.
```

Z/P/2655, 1868.

Z/P/2656, 1869.

Z/P/2657, 1870.

Z/P/2658, 1871.

Z/P/2659, 1872.

• Madras Revenue Department, Proceedings 1868-1872:

P/44O/15

P/440/25

P/440/26

P/335

P/336

P/337

P/338

P/339

P/340

P/341

Madras Board of Revenue, Index :

Z/P/2893, 1868.

Z/P/2894, 1869.

Z/P/2895, 1870.

Z/P/2896, 1871.

Z/P/2897, 1872.

ī	P/440/60
	P/440/61
	/440/62
P	/441/1
P	/358
P	/359
P	/360
P	/361
P/	362
•	Madras Financial Department, Proceedings 1870-1871:
	P/441/38
	P/424
•	Mysore Agricultural Proceedings 1871
	P/32
• (N/1 Benga	Returns of Baptisms, Marriages and Burials, 1698-1969, 1, 1713-1948).
2-ITALIAN MINISTRY OF FOREIGN AFFAIRES, HISTORICAL AND DIPLOMATIC ARCHIVE (Ministero degli Affari Esteri, MAE, Archivio Storico e Diplomatico, ASD).	
• (MOSCATI VI):	'Le Scritture del Ministero degli Affari Esteri del Regno d'Italia dal 1861 al 1887'
	- ASD, MAE; Moscati VI, B.906, Consolato di Singapore.

Madras Board of Revenue, Proceedings, 1860-1872.

- ASD, MAE; Moscati VI, B.601, Consolato di San Francisco (U.S.A.).
- ASD, MAE; Moscati VI, B.561, Consolato di Madras (India).
- ASD, MAE; Moscati VI, B.885, Consolato di Madras (India).
- ASD, MAE; Moscati VI, B.881, Consolato di Hong Kong.
- ASD, MAE; Moscati VI, B.612, Consolato di Yokohama.
- ASD, MAE; Moscati VI, B.545, Consolato di Hong Kong.

3-NATIONAL ARCHIVES, LONDON, UNITED KINGDOM

- STATE PAPER OFFICE
- Secretaries of State, Sate Papers Foreign, Portugal, 1675, SP/

4- NATIONAL LIBRARY OF FLORENCE (Biblioteca Nazionale Centrale di Firenze)

- Pubblicazioni Minori
- -Consorzio Italiano pel commercio coll' Estremo Oriente, Nuovo Statuto, 1899.
- -Relazione sull'agenzia di Bombay, 1896.
- -Banca Commerciale Italiana, Cenni statistici sul movimento economico dell' Italia, 1912-1925.

SECONDARY LITERATURE

Chapter 1

- Armstrong, J. and Jones, S., Business documents: their origins, sources and uses in historical research, London, 1987.
- Bagchi, A. K., The evolution of the State Bank of India, 2 Vol., Bombay, 1987.
 - 'European and Indian entrepreneurship in India, 1900-30, in Leach E. and S.N. Mukherjee (eds), *Elites in South Asia*, Cambridge, 1970
- Balachandran, G. (ed), *India and the World Economy*, 1850-1950, Oxford University Press, New Delhi, 2003.
- Banerji, A.K., Aspects of Indo-British economic relations, 1858-1898, Bombay, 1982.
- Barratt Brown, M., *The economics of imperialism*, London, 1974, *Essays on Imperialism*, London, 1972
 - Basu, S.K., The managing Agency system in prospect and retrospect, Calcutta, 1958.
- Basu, D., *The Banyan and the British in Calcutta, 1800—1850*, Bengal Past and Present 1973.
- Bayly, C.A. and Subrahmanyam, S., *Portfolio Capitalist and the Political economy of Early Modern India*, in 'Indian economic and Social history Review, 25, 4, pp. 403-424, 1988.
- Boggs, Th. H., "The Government of India", in *Political Science Quarterly*, Vol. 26, No. 2 (Jun. 1911).
- Broeze F., *Underdevelopment and dependency: maritime India during the Raj*, in "Modern Asian Studies", Vol. 18, No. 3, pp.429-457, 1984.
- Brown, R., Capital and entrepreneurship in South-East Asia, Macmillan, London, 1994.
- Cain, P.J. and Hopkins, A.G., *British imperialism: innovation and expansion 1688-1914*, Longman, London, 1993.
- Cain, P.J. and A.G. Hopkins, "The Political Economy of British Expansion Overseas, 1750-1914" in *The Economic History Review*, Vol.23, No. 4, Nov. 1980
 - Canyngham-Brown, S., *The traders*, Newman-Neam, London, 1970.
 - Caron, F., Entreprise et entrepreneurs, XIX-XX siècles, Paris, 1983.
 - Carus Wilson, E.M. (ed) Essays in economic history, vol. 1, 1962.
- Casson, M., *Institutional Diversity in overseas enterprise: explaining the free-standing company* in 'Business History, 36 (1994), pp. 95-108.

- Chapman, S., *Merchant enterprise in Britain*, Cambridge University Press, Cambridge, 1992.
- Chapman, S.D, 'British-based investments groups before 1914', in *The Economic History Review*, Vol.38 (may 1985), pp. 230-251.
- 'Investment groups in India and South Africa', *The Economic History Review*, Vol. 40. (May 1987), pp. 275-280.
- Charlesworth, N., *British rule and the Indian economy*, *1800-1914*, The Macmillian Press LDT, London, 1982.
- Chaudhuri, K.N. (ed), *The Economic development of India under the East India Company, 1814-1858*, Cambridge University Press, Cambridge, 1971.
- The trading world of Asia and the English East India Company 1660-1760, Cambridge University Press, Cambridge, 1978.
- Cohn, Bernard S. Colonialism and its forms of knowledge. The British in India, Princeton, 1996.
- Cottrell, P.L., *British overseas investment in the 19th century*, Macmillan, London, 1975.
 - Curtin, Ph. D., Cross-cultural trade in World History, Cambridge, 1984.
- Dale, S. F., *Indian Merchants and Eurasian global World of Indian Merchants, 1750-1947: Traders of Sind from Bukhara to Panama*, Cambridge University Press, Cambridge, 2000.
- Islamic society on the South Asian Frontier: the Mappilas of Malabar 1498-1922, New York, 1980.
- Das Gupta, A. and Pearson, M. (eds), *India and Indian Ocean, 1500-1800*, Calcutta, 1987.
- Das Gupta, A., *Malabar in Asian Trade 1740-1800*, Cambridge University Press, Cambridge, 1967.
 - Davar, Sohrab R., Indian Mercantile Law including Industrial Law, Bombay, 1966.
- Day, D.H., The Nattukottai Chettiars of Tamilnadu: Explorations in the economic history of an entrepreneurial community, in "South Asia Varia", pp.65-77, Syracuse University Occasional Paper Series, No.1, Syracuse, N.Y., 1972.
- Dewey, C. and Hopkins, A.G., (eds), *The Imperial Impact: studies in the economic history of Africa and India*, Athlone Press, London, 1978.
- Dobbin, C., Asia's entrepreneurial minorities: Conjoint Communities in the making of World Economy, 1570-1940, Curzon, London, 1996.

- Eggertson, T., Economic behaviour and institutions, Cambridge, 1990.
- Ferguson Niall, Empire: the Rise and the Demise, London, 2004.
- Fieldhouse, D.K., *The theory of capitalist imperialism*, London, 1967, *Economics and empire*, 1830-1914, London, 1973.
- Fischer, W., McInnis, R.M. and Schneider, J. (eds), *The emergence of World Economy*, 1500-1914, Wiesbaden, 1986.
- Fuchs, C. J., *The trade policy of Great Britain and her colonies since 1860*, London, 1905.
- Furber, H., *Rival Empires of trade in the Orient 1600-1800*, University of Minnesota Press, Minneapolis, 1996.
- Furubotn, E. G., Institutions and Economic Theory: the contribution of the New Institutional Economics, 2005
- Gomes, L., The economies and ideology of free trade: a historical review, Cheltenham, 2003.
 - Hertner, P. and Jones, J., *Multinationals: theory and history*, Aldershot, Gower, 1986.
- Hirschman, Albert O., *National power and the structure of foreign trade*, Los Angeles, 1980.
- Hollingsworth, R. J., and R. Boyer, (eds), *Contemporary capitalism: the embeddedness of institutions*, Cambridge, 1997.
- Jones, C.A., *International business in the nineteenth century. The rise and fall of a cosmopolitan bourgeoisie,* Wheatsheaf Books, London, 1987.
 - Jones, G., *The multinational traders*, Routledge, London, 1998.
 - Merchants to multinationals. British trading companies in the nineteenth and twentieth centuries, , Oxford and New York, 2000.
 - The evolution of International business. An introduction. London, 1996
- Jones, G. and Davenport-Hines, R.P.T. (eds), *British business in Asia since 1860*, Cambridge, 1989.
- Jones, G. and Wale, J., *Merchants as business groups: British trading companies in Asia before 1945*, University of Reading Working Papers, 1998.
 - Jones, S., Merchants of the Raj, Macmillan, London, 1992.

- Kenwood, A. G. and Lougheed, A. L., *The growth of the International Economy 1820-1890*, Routledge, London, 199.
- Klein, I., English free traders and Indian tariffs, 1874-1896, in "Modern Asian Studies", Vol. 5, No. 3, pp. 251-271, 1971.
- Kling, Blair, B., *Partner in Empire: Dwarkanath Tagore and the age of enterprise in Eastern India*, University of California, Berkley, 1976.
- Krasner, Stephen D., 'State power and the structure of international trade' in *World Politics*, vol. 28, No. 3, (April. 1976), pp. 317-347.
- Krishna, V., *Indigenous Banking in South India*, Bombay State Cooperative Union, Bombay, 1959.
 - Kuchal, S.C., *The industrial economy of India*, Allahabad, 1963.
- Lance E. Davis and Robert A. Huttenback, *Mammon and the pursuit of empire : the political economy of British imperialism*, 1860-1912, Cambridge, 1986.
- Latham, A. J. H., *The International Economy and the Underdeveloped World, 1865-1914*, London, 1914.
- Macdonnel, J., 'The codification of the Commercial Law of the empire', in *Journal* of the Society of Comparative Legislation, New Series, vol. 16, No. 2 (1916), pp. 265-282.
- McGillvray, F., *International trade and political institutions: instituting trade in the long 19th century*, Cheltenham, 2001.
- Markovits, C., *The Global World of Asian Merchants, 1750-1947, traders of Sind from Bukhara to Panama*, Cambridge University Press, Cambridge, 2000.
- Mathew, Kuzhippalil S., *Mariners, merchants and ocean: studies in maritime history*, Manohar, New Delhi, 1995.
 - Mitchell, B. R., *British historical statistics*, Cambridge, 1988.
- Mitchell B. R., International historical statistics: Africa, Asia & Oceania, 1750-2000, New York, 2003.
- Mollat, M.(ed), Sociétés et compagnies de commerce en Orient et dans l'océan indien, Paris, 1971.
- North, Douglass C., *Institutions, institutional change and economic performance*, Cambridge, 1990.

-North Douglass C. A., 'Framework for analyzing the state in economic history' in *Explorations in economic history*, 16, 3, 1979, pp.249-362.

- Owen, R.G., and Sutcliffe, R.B. (eds), *Studies in the Theory of imperialism*, 1972.
- Prakash, Om, European commercial enterprise in Precolonial India, Cambridge, 1998.
 - Ram Gopal, British rule in India: and assessment, London, 1963.
 - Ray Kanta, R., Entrepreneurship and industry in India, 1800-1947, Delhi, 1994.
 Asian Capital in the Age of European Domination: the rise of the Bazaar, 1800-1914, Modern Asian Studies, Vol. 29, No.3, pp. 449-554, 1995.
- Rider, T. D., *The tariff policy of the Government of India and its development strategy, 1894-1924,* (PhD thesis), University of Michigan, 1977.
- Rothermund, D., An economic history of India: from pre-colonial times to 1991, Routledge, London, 1993.
- Roy, Tirthankar (ed), *Cloth and commerce: textiles in colonial India*, Altamira Press, New Delhi-London, 1996.
- Rungta, R.S., *Rise of Business corporations in India, 1851-1900*, Cambridge University Press, Cambridge, 1970.
- Schlote, W., The tariff policy of the Government of India and its development strategy, 1894-1924, Oxford, 1952.
- Seth, S., *Empire of free trade: the East India Company and making of the colonial marketplace*, University of Pennsylvania Press, Philadelphia, 1998.
- Sketch of the commercial resources and monetary and mercantile system of British India, published by Smith Elder & Co., Cornhill, 1837.
- Shigeru Akita (ed.), Gentlemanly Capitalism, Imperialism and Global History, New York, 2002.
- Shin' Ichi, Yonekawa and Hideki, Yoshihara (eds), Business History of General Trading Companies, Tokyo, 1987.
- Singer, M. (ed), Entrepreneurship and modernization of occupational cultures in South Asia, N.C. Duke University, Durham, 1973.
- Singer, M. and Cohn, B.S. (eds), Structure and change in Indian society, Chicago, 1968.
 - Singh, S.B., European Agency Houses in Bengal, Calcutta, 1966.
- Subrahmanyam, S. (ed), *Merchants networks in the Early Modern World*, Brookfield, Variorum, 1996.

- Sugiyama, S. and Grove, L. (eds), *Commercial networks in modern Asia*, Curzon, Richmond, 2001.
- The Cambridge Economic History of India, Cambridge University Press, Cambridge, 1982.
 - Tolliday, S.W. (ed), Government and business, Cambridge, 1991.
 - Tomlison, B.R., *The economy of modern India, 1860-1970*, Cambridge, 1987.
 - The political economy of the Raj, 1914-1947: the economics of decolonization in India, London, 1979.
- Tracy, J. (ed), *The rise of Merchants Empires: Long-distance trade in the Early Modern World, 1350-1750*, Cambridge, 1990.
 - Tripathi, A., Trade and finance in the Bengal Presidency, 1793-1833, Calcutta, 1956.
 - Tripathi, D., *The Oxford history of Indian business*, New Delhi, 2004.
- Tripathi, D., (ed), State and Business in India. A historical perspective, New Delhi, 1987.
 - Business and politics in India. A historical perspective, New Delhi, 1991.
 - Tyson, G., Bengal Chamber of Commerce, Calcutta, 1953.
 - Managing agency: a system of business organization, Calcutta, 1961.
- Vakil, C. N. and Muranjan, S.K., *Currency and Prices in India*, Bombay and London, 1927.
- Washbrook, D.A., "Law, State and Agrarian Society in Colonial India", in *Modern Asian Studies*, 15,3, (1981), pp. 649-721.
- Weerasooria, W.S., *The Nattukottai Chettiar Merchant bankers in Ceylon*, Tisara Prakasakayo, Dehiwala, 1973.
 - Werin, Lars Economic behaviour and legal institutions, Singapore, 2003.
- West Rudner, D., *Caste and capitalism in colonial India. The Nattukottai Chettiars*, University of California Press, Berkley, 1994.
 - Zamagni, V. (ed), Finance and enterprise, London, 1992.

Chapter 2

- Abrate, M. (ed), L'imprenditorialità italiana dopo l'unita. L'inchiesta industriale del 1870-1874, Milano, 1970.
- Akio Okochi, and Shigeaki Yasuoka, Family business in the era of industrial growth: its ownership and management: proceedings of the Fuji Conference / the International Conference on Business History, 10, Tokyo, 1984.
- Anderson, A. R., Sarah L. Jack, and S. Drakopoulo Dodd, 'The Role of family members in entrepreneurial networks: beyond the boundaries of family firm', in *Family Business Review*, vol. XVIII, no.2, June 2005.
- Anderson, B., Imagined communities: reflections on the origin and spread of nationalism, London, 1991.
 - Allegri, A., Credito e banche coloniali, Napoli, 1926.
 - Amatori, F., Impresa e industria in Italia dall'Unità a oggi, Milano,1999.
 - Annuario d'Italia per l'esportazione, Roma, 1899.
 - Are, G., *Alle origini dell'Italia industriale*, Napoli, 1974.
- Banti, A.M., La nazione del Risorgimento. Parentela, santità e onore alle origini dell'Italia Unita, Torino, 2000.
- Banti, A. M. and R. Bizzochi (eds), *Immagini della nazione nell'Italia del Risorgimento*, Roma, 2002.
- Baruchello, M., Livorno e il suo porto. Origini, caratteristiche e vicende dei traffici livornesi, Livorno, 1932.
 - Berta, G., L'imprenditore. Un enigma tra economia e storia, Venezia, 2004.
 - Biffi, G., Risorgimento, Stato laico e identità nazionale, 1999.
 - Bigazzi, D., Storie di imprenditori, Bologna, 1996.

- Bruno, C., Sulle condizioni della Marina Mercantile italiana al 31 Dicembre 1912 : Relazione a s. E. Il Ministro della Marina . Roma, 1914.
- Camperio, M., Agenzie del Consorzio industriale italiano pel commercio coll'Estremo Oriente, Milano, 1898.
- Capanna, A., and Messori, O., Gli scambi commerciali dell'Italia con l'estero dalla costituzione del Regno ad oggi, 1940.
- Cassis, Y., and Pepelasis Minoglou, I. (eds), *Entrepreneurship in Theory and History*, New York, 2005.
- Casson, M., *Entrepreneurial culture as a competitive advantage*, Discussions on papers in international investments and business studies, 124, University of Reading Working Papers, 1988.
 - -Entrepreneurship and business culture, Brookfield, 1995.
- Casson, M., and Cox, H., *Firms, Networks and International Business Enterprises,* Discussion Papers in International Investment & Business Studies, University of Reading Working Papers, Series B, Vol V (1993/93), No. 167.
- Castelnuovo, G., *Italiani all'estero: emigrazione e camere di commercio coloniali*, Roma, 1887.
 - Catalogo degli esportatori e importatori italiani, Milano, 1887.
- Chandler, A., The visibile hand: the mangerial revolution in American business, Cambridge, U.S., 1977.
- A.D. Chandler Jr., F. Amatori, and T. Hikino (eds), *Big Business and the Wealth of nations*, Cambridge, 1997.
 - Ciocca, P.L., Il progresso economico dell'Italia, Bologna, 1994.
 - Colli, A., *The history of family business*, 1850-2000, Cambridge, 2003.
- Comandu' G., Sulle condizioni della Marina Mercantile italiana al 31 Dicembre 1885 : Relazione a s. E. Il Ministro della Marina Roma, 1886.
- Cohen, A., 'Cultural strategies in the organization of trading diasporas' in Meillassoux, C., *The development of indigenous trade and markets in West Africa*, London, 1971.
- Corbetta, G., 'Patterns of development of family businesses in Italy ', in *Family Business Review*, vol. 8, no. 4, 1995.
 - Le imprese familiari. Caratteri originali, varietà e condizioni di Sviluppo, Milano, 1995.

- Corbino, E., *Il commercio estero italiano nel 1861-70*, 1928.
- Corte, P., Sull'opportunità della fondazione di Banche coloniali italiane: Relazione, Genova, 1894.
 - Cozzi, C., Gli indirizzi della politica commerciale italiana, Milano, 1913.
 - De Bianchi, M., L'Italia e l'Oriente, 1881,
- De Courten, L., La marina mercantile italiana nella politica di espansione, 1860-1914: industria, finanza e trasporti marittimi, Roma, 1989.
 - Della Loggia, Galli E., L'identità italiana, Bologna, 1998.
- De Luigi, G., Dei mezzi più adatti per favorire l'espansione economica dell'Italia all'estero e per facilitare le iniziative italiane in Estremo Oriente, Roma, 1911.
- De Maddalena, A., L'industria milanese dalla Restaurazione austriaca alla vigilia dell'unificazione nelle rilevazioni della Camera di Commercio di Milano, Milano, 1959.
- Drakopoulou Dodd, S., and E. Patra, 'National differences in entrepreneurship networking', in *Entrepreneurship and regional development*, 14, 117-134, 2002
- Dyer, W.G., and W., Handler, 'Entrepreneurship and family business: exploring the connections', in *Entrepreneurship: Theory and Practice*, 19 (1), 71-84., 1994
- Galasso, G., L'Italia s'e' desta: tradizione storica e identità nazionale dal Risorgimento alla Repubblica, Firenze, 2002.
 - Gambetta, D., *Trust*; making and breaking cooperative relations, Oxford, 1988.
 - Giannini, A., I trattati commerciali del Regno d'Italia, Vol. I and II, Roma, 1924-25.
- Glazier, A., *Il commercio estero del Regno Lombardo-Veneto dal 1815 al 1865*, in "Archivio economico dell'Unificazione italiana".
- Grave, A, and J., Salaff, 'Social networks and entrepreneurship', in *Entrepreneurship: Theory and Practice, 28 (19, 1-23, 2003.*
- Iannettone, G., Presenze italiane lungo le vie dell'Oriente nei secoli XVIII e XIX, nella documentazione diplomatico-consolare italiana, Napoli, 1984.
 - Ilari, V., Inventarsi una patria: esiste l'identità nazionale?, Roma, 1996.
- Istituto Italiano per l'espansione commerciale e Regio Museo commerciale di Venezia:

- Le adesioni di banche, società e ditte italiane al programma dell'Istituto italiano per l'espansione commerciale e coloniale e del r. Museo commerciale di Venezia, Venezia, 1917.
- Il governo ed il programma dell'Istituto italiano per l'espansione commerciale e coloniale e del R. Museo commerciale di Venezia: banche, società e ditte italiane aderenti a tutto ottobre 1916 al programma del R. Museo commerciale di Venezia e dell'Istituto italiano per l'espansione commerciale e coloniale, Venezia, 1916.
- Lechner, C., and M. Bowling, 'Firm networks: external relationships as sources for the growth and competitiveness of entrepreneurial firms' in *Entrepreneurship and regional development*, 15, 1-16, (2003).
 - Loromer, D., Merchants and reform in Livorno, 1814-1868, California, 1987.
 - Martignone, C., *Imprenditori protestanti a Milano*, Milano, 2001.
 - Masi, C., Italia e italiani nell'Oriente Vicino e lontano, 1800-1935, Bologna, 1936.
 - Mats, F. and J. Johanson, Manging networks in International business, Philadelphia, 1992.
 - Meazza, F., Progetto per la Costituzione di una grande linea di navigazione dall'Italia all'Estremo Oriente, Milano, 1890.
 - Misra, M., Business, Race and Politics in British India, c1850-1960, Oxford, 1999.
 - Miscellanea, *India inglese: il mercato di Calcutta e l'Italia*, Venezia, 1912.
 - Nocentini, L., L' Europa nell'Estremo Oriente e gli interessi dell'Italia in Cina, 1904,
- Ossola, R., Il ruolo del credito all'esportazione nel commercio estero italiano, Napoli, 1978.
 - Palomba, G., L'Italia commerciale all'estero, Cagliari, 1889.
 - -Sull'istituzione delle camere italiane di commercio all'estero, Cagliari, 1887.
 - Pescosolido, G., Unita nazionale e sviluppo economico, Bari, 1998.
- Petich, L., L'Italia e l'oriente nelle loro relazioni politiche e commerciali, Torino, 1863.
 - Porter, M., *The competitive advantage*, New York, 1985.

- Ramusack, Barbara N., *The Indian Princes and their States*, The New Cambridge History of India, Part III, Vol. 6, Cambridge, 2004.
- Ratti, G., Il Corriere Mercantile di Genova: dall'unità al fascismo: 1861-1925, Parma, 1973.
- Rauch, J. E., 'Business and social networks in international trade', in *Journal of Economic Literature*, Vol. XXXIX (Dec. 2001), pp. 1177-1203.
- Romeo, R., Gli scambi commerciali degli stati sardi con l'estero nelle voci più importanti della bilancia commerciale (1819-1859), Torino, 1975.
- Rossi, A., Interpellanza sulla Politica economica del Governo all'interno e all'estero e discorsi sulle convenzioni colla società di navigazione generale italiana per un servizio fra Brindisi e patrasso e fra Genova e batavia e sul bilancio d'assesta, Roma, 1889.
 - Salazar, L., Marina mercantile italiana, Napoli, 1889.
 - Sapori, A., Attività manifatturiera in Lombardia dal 1600 al 1914, Milano, 1959.
 - Sillani, T. (a cura di), L'Italia e l'Oriente medio ed estremo, Roma, 1935.
 - Sommario di statistiche storiche italiane, 1861-1955, Roma, ISTAT, 1958.
- Sombart, W., La politica commerciale italiana dall' unificazione del Regno, in Biblioteca dell'economista, serie IV, vol. 1.
 - Sorrentino, U., Bombay e il suo commercio coll'Italia, Napoli, 1895.
- Stewart, J., 'Help one another, use one another: toward an anthropology of family business', in *Entrepreneurship: theory and Practice*, 2003
- Stringher, B., Gli scambi commerciali con l'estero e la politica commerciale italiana dal 1860 al 1910.
 - Tabasso, Volterra E., L'India e la penetrazione economica italiana, Roma, 1915.
- -Commercio e colonie : Studi per l'espansione Internazionale italiana (Istituto coloniale italiano. Sezione studi e propaganda), Milano, 1920.
- -La strategia del commercio estero e il nazionalismo economico italiano, Milano, 1919.
 - Thompson G. F., Between Hierarchies and markets: the logic and limit of network forms of organization, Oxford, 2003.
 - Teso, A., L'Italia e l'Oriente: studi di politica commerciale, Torino, 1900.
 - Toniolo, G., Lo sviluppo economico italiano, 1861-1940, Bari, 1973.

- Virgilio, J., Il commercio indo-europeo e la marina mercantile italiana a vela e a vapour, Genova, 1869.
 - Volpi, A., Banchieri e mercato finanziario in Toscana, 1801-1860, Firenze, 1997.
 - Zaninelli, S., *L'ottocento economico italiano*, Bologna, 1993.
- Zuanelli, L., L'Italia nella conquista commerciale dell'estremo Oriente, Milano, 1911.

Chapter 3

- Cafagna, L., Dualismo e sviluppo nella storia d'Italia, 1989.
- Cavachiocchi, S. (ed), La seta in Europa sec. XIII- XX, Prato, 1993.
- Charsley, S.R., Culture and sericulture: social anthropology and development in South India livestock industry, London, 1982.
- Coussmaker, G., *Reports on the progress of tasar sericulture during the years 1880-82*, Bombay (Miscellaneous Official Publications), 1883.
- Davini, R., *Una conquista incerta. La Compagnia delle Indie e la seta del Bengala (1769-1833)*, Unpublished PhD Thesis, EUI, 2004.
 - Federico, G., An economic history of the silk industry, 1830-1930, Cambridge, 1997.
 - Gamble, J.S., Flora of the Presidency of Madras; L. Reeve & C., London, 1872.
 - Geoghegan, J., Some account of silk in India, Calcutta, 1872.
 - Hanumappa, H. G. (ed), Sericulture, Society and Economy, Bombay, 1993.
 - King, Brenda, *Silk and Empire*, Manchester, 2005.
 - Liotard, L., Memorandum on silk in India, Calcutta, 1883.

- Maxweell- Lefroy, H. and Ansorge, E.C., Report on an enquiry into the silk industry India, 3 Vols., Calcutta 1916,
 - Necco, A., La curva dei prezzi delle merci in Italia negli anni 1881-1909,
 - Mukhopadhyaya (Mukherjee), Nityagopala, *Handbook of sericulture*, Calcutta, 1899.
 - Suggestions on the improvement of silk reeling in Bengal based on a study of the systems prevailing in Kashmir and Bangalore, Calcutta, 1906.
 - Pinchetti, P., La industria serica in Italia e la concorrenza asiatica, Como, 1906.
- Ratan, Rawlley, C., The Silk Industry and trade. A study in the economic organization of the export trade of Kashmir and Indian Silks, with Special Reference to their utilization in the British and French markets, London, 1919.
- Sarada Raju, T., *Economic conditions of the Madras Presidency, 1800-1850*; Madras, 1941.
- Sinha, Sanjay, *The development of Indian silk: a wealth of opportunities*; Oxford & IBH Publishing, New Delhi, 1990.
 - •
 - Zanier, C., Alla ricerca del seme perduto, Franco Angeli, Milano, 1993.
- 'Silk culture in Western India: the Mutti experiment (1830-1847)', in *The Indian Economic and Social History Review*, 4, pp.463-497, 1984.
- 'Sericoltura e industria serica in India: una modernizzazione incompiuta', in *La modernizzazione in Asia e Africa*, Studi offerti a Giorgio Borsa, Viscontea, Pavia, 1989.
- Where the roads met: East and the West in the silk production processes: 17th to 19th century, Kyoto, 1994.
 - Semai. Setaioli Italiani in Giappone, (1861-1880), Padova, 2006.

Chapters 4 and 5

- Alamgir, M., Famines in South Asia, Cambridge (USA), 1980.
- Bachmann, R., and Aks Zaheer (eds), *Handbook of Trust Research*, Cheltenham, 2005.
- Bhatia, B. M., Famines in India: a study on some aspects of the economic History of India (1860-1945), New Delhi, 1963.
- Cook, K. S. and Kramer, R. M. (eds), *Trust and Distrust in organizations: dilemmas and approaches*, New York, 2004.

- Cook, K. S. (ed), *Trust in Society*, New York, 2001.
- Cook, K. S., Hardin, R. and Levi, M., Cooperation without trust?, New York, 2005.
- Gopal. M. H., Tipu Sultun's Mysore. An economic study, Bombay, 1971.
- Greif, A., *Institutions and the Path to the Modern Economy: Lessons from the Medieval Trade*, Cambridge, 2006.
- Hardin, R., Trust and Trustworthiness, New York, 2002.
 - Trust, Cambridge, 2006.
- Khalil, E. (ed), Trust, Cheltenham, 2003.
- Klein, D. B. (ed), Reputation: studies in the Voluntary Elicitation of Good Conduct, Ann Arbor, 1997.
- Kotkin, J., Tribes: How race, religion and identity determine success in the New Global Economy, New York, 1992.
- Landa, Tai J., Trust, ethnicity and identity: beyond the New Institutional Economics of ethnic trading networks, Ann Arbour, 1994.
- Markova, I., and Gillespie, A. (eds), *Trust and Distrust. Socio-cultural Perspectives*, Charlotte, 2007.
- Markovits, C., The global world of Indian merchants, 1750-1947, Cambridge, 2000.
- Menkhoff, Th., Trade routes, trust and trading networks: Chinese small enterprises in Singapore, Bielefeld, 1993.
- Pandy, G., The construction of communalism in colonial North India, Oxford, 2006.
- Prevost, L., Silk Grower's Manual, San Francisco, 1867.
- Ostrom, E., and Wlker, J. (eds), *Trust and reciprocity: interdisciplinary lessons from experimental research*, New York, 2003.
- Quddus, Fayaz M. A., The Mustan Family and its activities in Mysore, Bangalore, 1923.
- Rae, I., and Witzel, M., *The Overseas Chinese of South East Asia, History, culture, business*, Besingstoke, 2008.
- Robb. P., Sugihara, k. and Yanagisawa, H. (eds), *Local Agrarian societies in colonial India; Japanese perspectives*, New Delhi, 1997.
- Shani, O., Communalism, caste and Hindu nationals, Cambridge, 2007.

• Ullmann-Margalit, E., Trust, Distrust and in between, Jerusalem, 2001.

Chapters 6 and 7

- A.A. V.V. Coralli Segreti. Immagini e miti dal mare tra oriente e occidente, Potenza, 2006.
 - Ascione, G. C., Storia del corallo a Napoli dal XVI al XIX secolo, Napoli, 1991.
- Balzano, P., Il corallo e la sua pesca : trattato sui coralli di, codice corallino del 1790, regolamento sulla pesca del corallo del 1856, Napoli, 1870.
- Barendse, R. J., *The Arabian Sas: The Indian Ocean World of the 17th century*, New York, 2002.
- Begley, V., and De Puma, R. D. (eds), *Rome and India: the Ancient sea Trade*, Madison, 1991.
 - Bini, G., *La pesca delle spugne e del corallo*, Firenze, 1938.
- Braudel, F., ., Civilisation matérielle, économie et capitalisme (XV- XVIII siècle). Les structure du quotidien : le possible et l'impossible, Paris, 1979.
- Buonocore, F., La pesca del corallo nelle acque nordafricane prima dell'unita' d' Italia, Napoli, 1985.
 - Canestrini, G., *Il corallo*, Roma, 1883.
 - Casigliano, A., Il corallo: aspetto storico-geografico di una tradizione millenaria,
 - Ciavolino, C., La scuola del corallo a Torre del Greco, Napoli, 1988.
- Clara, Errico, and Montanelli, Michele, *Il corallo : pesca, commercio e lavorazione a Livorno*, Ghezzano, 2008.
- Daffina, Paolo, Le relazioni tra Roma e l'India alla luce delle piu'recenti indagini, ISMEO, Roma, 1995.
 - Dan, James D., Coral and coral reefs, London, 1870.

- Daneu, A., L'arte trapanese del corallo, Milano, 1964.
- Del Mare, C., and Vidale, M., Coral in Indian ethnic jewellery, Napoli, 1999.
- Dieci canti. Pattupattu, Vols,2 translated by E. Panattoni, Milano, 1995-1997.
- Gaugemi, M., La pesca del corallo nelle Realzioni della Marina mercantile Italiana (1885-1930), San Vito Lo capo, 2006.
- Donkin, R. A., Beyond Price: pearls and pearl-fishing: origins to the Age of discoveries, Philadelphia, 1998.
 - Ghidiglia, C., L'industria del corallo e la sua computisteria, Bologna, 1892.
 - Izzo, L., Il corallo e Torre del Greco: arte ed economia, Napoli, 1979.
 - Karambelkar, V. W., *The Atharva-veda and the Ayur-veda*, Nagpur, 1961.
- Johari, H., The Healing Power of gemstones in Tanta, Ayurbveda and Astrology, Rochester, 1996.
- Lanaro, P., La pratica dello scambio. Sistemi di fiere, citta'e mercanti in Europa (1400-1700), Venezia, 2003.
 - Liverino, B., Il corallo: esperienze e ricordi di un corallaio, Bologna, 1984.
- Marini, M. and Ferru, M. L., *Il corallo. Storia della pesca e della lavorazione in Sardegna e nel Mediterraneo*, Cagliari, 1989.
 - Mazzei Megale, G., L'industria del corallo in Torre del Greco, Napoli, 1880.
- Michel, E., Una controversia tra i governi di Napoli e torino per la pesca del corallo in Sardegna: 1766-17767, Cagliari, 1928.
- Minuto, Joseph, Descriptive account of corallium rubrum, or red coral, its growth, value, etc, London, 1867.
- Mosca, G., L'industria del corallo e della conchiglia: note di tecniche mercantili, Angri, 1921.
 - Mukund, Kanakalatha, *The Trading world of the Tamil merchant*, Hyderabad, 1999.
- Necco, A., La curva dei prezzi delle merci in Italia negli anni 1881-1909, Torino, 1910.
- Pastine, O., *L'arte dei corallieri nell'ordinamento delle corporazioni genovesi* (secoli XV-XVIII), Genova, 1933.

- Pearson, M. N., Merchants and Rulers in Gujarat, Berkeley, 1976.
- Peruzy, L., *Il corallo e la sua industria*, Roma, 1923.
- 'Pesca del corallo nei banchi di Sciacca: memoria compilata per cura della direzione generale della marina mercantile', in *Rivista Marittima*, Roma, dic. 1887.
- Pignataro, Giancarlo (ed), Le fabbriche dei Borbone di Napoli: appunti di viaggio tra le sete di San Leucio, le porcellane di Capodimonte e i coralli di Torre del Greco, Roma, 2002
 - Polo. M., *Il Milione*, Novara, 1999
 - Podesta', F., Il Trattato dei coralli di Pietro Balzano, Genova, 1880.
- Putaturo Murano, A. L'arte del corallo: le manifatture di Napoli e Torre del Greco fra Ottocento e Novecento, Napoli, 1989.
 - Sani, S. (ed), Rgveda. Le strofe della sapienza, Venezia, 2000.
 - Sani, S. and Orlandi, C., *Inni magici, Atharvaveda*, Torino, 1992.
- Senigallia, L. A., Sul Codice Corallino di Torre del Greco e sulla Real Compagnia del Corallo, Napoli, 1936.
- Shastri, J. L., The Hymns of the Riveda with a popular commentary by Ralph T. H. Griffith, Delhi, 1973.
 - Sparti, A., Fonti per la storia del corallo nel medioevo mediterraneo, Palermo, 1986.
 - Tartamella, Enzo, Corallo. Storia e arte dal XV al XIX secolo, Trapani, 2004.
- Tescione, G., L'industria del corallo nel Regno di Napoli dal secolo XII al secolo XVII, Napoli, 1938.
- Italiani alla pesca del corallo ed egemonie marittime nel Mediterraneo, 2. ed., Napoli, 1968.
- Sacred Books of the East: The Laws of Manu (vol. 25), translated by G. Buhler and edited by Max Muller, Oxford, 1886.
- Tornese, E., La città del corallo: Torre del Greco dall'Unita'alla seconda guerra mondiale, Milano, 1988.
- Warmington, T. H., *The Commerce between the Roman Empire and India*, New Delhi, 1974.
- Yogev, G., Diamonds and coral. The Anglo-Dutch Jews and the eighteenth-century Trade, Leicester, 1978.

- Zillio-Grandi, I., *Il libro delle pietre preziose di Ahmad al- Tifasi*, Venezia, 1999.
- Zvelebil, Kamil, *The smile of Murugan*, Leiden, 1973.