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THE MARITIME COMMUNITY OF LA CIOTAT (1851 - 1914)

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Table of Contents

ACKNOWLEDGEMENTS	5
ABBREVIATIONS.....	7
LIST OF IMAGES.....	8
LIST OF MAPS.....	9
LIST OF FIGURES	10
LIST OF TABLES	13
INTRODUCTION.....	16
CHAPTER 1. The city of La Ciotat in the pre-industrial era: an overview.....	29
1.1 Introduction.....	29
1.2 The French Mediterranean in the Eighteenth century: the maritime economy of the region and its system of ports	30
1.2.1 The port of Marseilles as a dominant port in the French Mediterranean	30
1.2.2 The secondary ports and smaller ports of Provence as essential components of the transport system of the region	32
1.3 The maritime culture of La Ciotat in the <i>long durée</i>	44
1.4 The maritime economy of Provence in decline: the case of La Ciotat	52
1.5 Conclusion	55
CHAPTER 2. The advent of steam in La Ciotat: the first phase (1836 - 1851).....	57
2.1 Introduction.....	57
2.2 Factors for the establishment of shipbuilding industry in La Ciotat.....	60
2.2.1 The demand: the emergence of industrialisation and the market forces.	62
2.2.2 Factors that influence the location decision.	65
2.3 The process of adaptation: the externalities of industrial growth	68
2.3.1 The Company of Louis Benet: evolution and capital development.....	69
2.3.2 Accumulation of knowledge	72
2.3.3 Productivity externalities	78
2.4 The maritime economy of the port in transition: Shipbuilding production.....	84
2.4.1 The transition from sail to steam in the shipbuilding activity of La Ciotat.....	84
2.4.2 The process of innovation: From the first engines from Great Britain to the independent manufacture of steam-engines in La Ciotat	89
2.5 The novelty of the business venture of Louis Benet in the Mediterranean basin	91

2.6	The decline of the activities of Louis Benet.....	95
2.7	Conclusion	98
CHAPTER 3. The second phase of transition: The <i>Compagnie des Messageries Maritimes</i> and the full industrialisation of La Ciotat (1851 - 1916)		100
3.1	Introduction.....	100
3.2	The <i>Compagnie des Messageries Maritimes</i> in the port of La Ciotat.....	101
3.2.1	The establishment of the <i>Compagnie des Messageries Nationales</i>	101
3.2.2	The acquisition of La Ciotat's shipyards	105
3.3	The metamorphosis of the port: The formation of an industrial shipbuilding complex in La Ciotat	108
3.4	The shipbuilding production in La Ciotat	117
3.4.1	The evolution of production in the second half of the nineteenth century: vertical integration and state subsidies.....	117
3.4.2	The decline of production in the shipyards at the beginning of the twentieth century: the final period of <i>Messageries Maritimes</i> in La Ciotat	124
3.5	Factors of productivity in the shipbuilding centre of La Ciotat: An overview	130
3.5.1	Average tonnage, gRT per man employed, and distribution of ships per tonnage class...	130
3.5.2	The fluctuation of the workforce in the shipyards	136
3.5.3	The level of the technological evolution of the shipbuilding industry in La Ciotat as an indicator of productivity.....	138
3.6	The port of La Ciotat during the industrial era	142
3.6.1	The alteration of the function of the port	142
3.6.2	The port of La Ciotat into a new port system.....	146
3.7	Conclusion	152
CHAPTER 4. The town in transition: demographic restructuring of La Ciotat (1831 - 1911).....		153
4.1	Introduction.....	153
4.2	Methodological aspects: sources and databases.....	154
4.3	The formation of a new labour market in La Ciotat by the <i>Compagnie des Messageries Maritimes</i>	158
4.3.1	Employment strategies to increase and retain the labor force in La Ciotat: the <i>cit� ouvri�re</i> Notre-Dame-des-Victoires.	160
4.3.2	The process of formation of a new labour market: the <i>livret d'ouvrier</i> and education patterns.	166
4.4	The demographic dynamics of La Ciotat.....	171
4.4.1	Population growth and urban expansion.	171

4.4.2	Immigration as a central factor of demographic growth: population mobility towards the maritime industrial region of Provence.....	175
4.5	The population composition: demographic dynamics into transition.	184
4.5.1	Sex ratios.....	184
4.5.2	The age-sex structure of La Ciotat’s population, shown through age pyramids.....	187
4.5.3	Marital status.....	189
4.6	The control of the <i>Compagnie des Messageries Maritimes</i> into the demographic behaviours in La Ciotat	196
4.7	Conclusion	199
CHAPTER 5. The town in transition: the socio-professional structure of La Ciotat (1831 - 1911) 201		
5.1	Introduction.....	201
5.2	Methodological issues: towards a social analysis of the occupational structure.....	202
5.3	The general image: the recapitulation datasets of the nominative censuses	205
5.4	The occupational distribution of La Ciotat through the systematic analysis of professional categories.	211
5.4.1	The occupational categories of 1831, 1851 and 1911.....	211
5.4.2	From sail to steam: the decline of the traditional and the rise of an industrial maritime community in La Ciotat	216
5.5	The change of professional landscape in La Ciotat: the case of Joseph-Édouard Vence	224
5.6	Conclusion	227
CHAPTER 6. The seafaring population of La Ciotat in transition..... 229		
6.1	Introduction.....	229
6.2	The Inscription Maritime	230
6.2.1	The administrative division of the coastline of France: the Admiralties and the maritime departments during the <i>Ancien Regime</i>	230
6.3	Studying the seafarers of La Ciotat: sources and methodology	236
6.3.1	The <i>matricules de gens de mer</i> in the <i>Inscription Maritime</i>	236
6.3.2	Through a quantitative analysis of the seafarers: the databases.....	238
6.4	The <i>inscrits maritimes</i> in La Ciotat in transition: the sailors	239
6.4.1	The variety of the maritime activities of the sailors of La Ciotat	239
6.4.2	From the deck to the machine: the disappearance of the profession of the sailor in La Ciotat	243
6.4.3	The role of Messageries Maritimes on the transformation of the seafaring landscape in La Ciotat	248

6.4.4	Through the colonial routes of France: from the Atlantic to the Indian Ocean	255
6.4.5	Starting their career: from ship-boys to provisional enrolled seamen.....	257
6.4.6	The origins of the sailors as an indicator of change of the maritime community	260
6.5	The <i>inscrits maritimes</i> in La Ciotat in transition: the captains of La Ciotat	262
6.6	The reasons of decline: the role of the large steam navigation companies and the insufficient education of merchant captains.....	265
6.7	The professional transformation of La Ciotat’s seafarers.	270
6.8	Conclusion	274
CHAPTER 7. The maritime community of La Ciotat into industrial capitalism: an overview of a social transformation.		276
7.1	Introduction.....	276
7.2	The changing elite of La Ciotat.....	276
7.3	Demographic changes and social relations: the immigrants within the city.	281
7.4	The social character of the port: violence, prostitution and cultural diversity.	284
7.5	Ship launchings as the major ceremonies in the town	289
7.6	The rise of syndicalism in La Ciotat and the strikes of 1911: “Toute la ville est en grève”.	293
7.7	Conclusion	301
CONCLUSION		303
APPENDIXES.....		312
SOURCES AND BIBLIOGRAPHY.....		417
SOURCES		417
BIBLIOGRAPHY		427

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ABBREVIATIONS

Archives Départementales des Bouches-du-Rhône: AD BdR

Archives du Musée Ciotaden: AMC

Archives French Lines: AFL

Archives Municipales de La Ciotat: AMLC

Bibliothèque Nationale de France: BNF

Chambre de Commerce et d'Industrie Marseille-Provence : CCIMP

Journal JEV: Journal Joseph-Édouard Vence

Service Historique de la Défense-Toulon: SHD-Toulon

LIST OF IMAGES

Image 3.1. Construction of the dry-dock, La Ciotat (1867).....	113
Image 4.1. The <i>cité ouvrière</i> “Notre-Dame-des Victoires” in the end of nineteenth century.....	163
Image 4.2. Plan of the <i>cité ouvrière</i> of La Ciotat.....	164
Image 4.3. Gathering the workers and employees of Messageries Maritimes in front of the iron bridge during the launching of the steamship <i>Ville de La Ciotat</i> , April 1892	171
Image 7.1. Launching of a ship of <i>Messageries Maritimes</i> , La Ciotat, mid-nineteenth century.....	292
Image 7.2. The parade of women and men to the tax collector’s office in order to burn their tax sheets (June 1911).....	300
Image 8.1. The shipyard of <i>Messageries Maritimes</i> , the dry dock with its rolling crane in La Ciotat....	310
Image 8.2. Emile Loubon, The port of La Ciotat (1841).....	311
Image 8.3. The shipyard of La Ciotat and the town present day.....	312

LIST OF MAPS

Map 1.1. Christophe Tassin, Carte particulière des costes de Provence, 1638.....	33
Map 1.2. The ports of Provence.....	35
Map 3.1. Plan général du port de La Ciotat et des ateliers, 1916.....	116
Map 3.2. La Ciotat, 1851.....	144
Map 3.3. La Ciotat ,1891.....	144
Map 4.1. Illustration of the place of birth of the inhabitants of La Ciotat, 1911.....	182
Map 6.1. Place of birth of sailors born in 1800-10; 1840-50, and 1865-1875.....	261

LIST OF FIGURES

Figure 2.1. Apprentices in the shipyard of La Ciotat (1832 - 1845).....	77
Figure 2.2. Number of workers and labour days in the shipyards of La Ciotat (1831 - 1845).....	82
Figure 2.3. Production per net tonnage of sailing ships and steamships the periods 1815 - 1830 and 1831 - 1847.....	85
Figure 2.4. Shipbuilding cost per tonnage (1832 - 1845).....	88
Figure 3.1. Total tonnage of the fleet of the <i>Compagnie des Messageries Maritimes</i> constructed in La Ciotat or purchased (1851 - 1916).....	127
Figure 3.2. Quinquennial average yearly output (in gross tonnage) and productivity gRT/man of the shipyards of La Ciotat (1856 - 1915).....	132
Figure 3.3. Distribution of ships built in La Ciotat per tonnage class (1852 - 1915).....	134
Figure 3.4. Average monthly staff employed in the shipyards of La Ciotat (1855-1910).....	137
Figure 4.1. City of acquisition of the first <i>livret</i> for the workers employed in the shipyards the years 1856, 1861 and 1866.....	168
Figure 4.2. Apprentices employed in the shipyards of Messageries Maritimes (1855 - 1910).....	169
Figure 4.3. Evolution of the population in La Ciotat (1831 - 1911).....	172
Figure 4.4. Population on the urban section and rural section in La Ciotat (1851 - 1911).....	174
Figure 4.5. Distribution of the population of La Ciotat according to nationality (1851 - 1911).....	176
Figure 4.6. The population of La Ciotat given its place of origin in % (1876, 1881, 1886).....	181
Figure 4.7. Sex ratios calculated on the aggregated data of population for the years 1851, 1856, 1861, 1876, 1881, 1886.....	185
Figure 4.8. Sex ratio by age groups in La Ciotat (1851, 1876, 1881, 1885).....	187

Figure 4.9. The age pyramid of the population of La Ciotat in 1851.....	188
Figure 4.10. The age pyramid of the population of La Ciotat in 1876.....	189
Figure 4.11. Distribution of unmarried male population by age group (1851, 1876, 1881, 1886).....	192
Figure 4.12. Distribution of married male population by age group (1851, 1876, 1881, 1886.....	193
Figure 4.13. Distribution of female unmarried population by age groups (1851, 1876, 1881, 1886).....	194
Figure 4.14. Distribution of married women population by age groups (1851, 1876, 1881, 1886).....	195
Figure 4.15. Members of household connected to the shipyards in relation to the total population of the town (1831 - 1911).....	196
Figure 5.1. The share in % of total occupations of the population in La Ciotat (1851, 1876, 1886).....	206
Figure 5.2. The share in % of male occupations of the population in La Ciotat (1851, 1876, 1886).....	208
Figure 5.3. The share in % of female occupations of the population in La Ciotat (1851, 1876, 1886).....	208
Figure 5.4. Calculation of the total number of members of the households related to each professional sector by percentage % for the years 1876, and 1886.....	210
Figure 5.5. Workers in the shipyards of La Ciotat by profession the years 1833, 1836, and 1845.....	222
Figure 5.6. Employment in the shipyards of <i>Messageries Maritimes</i> by profession (1911).....	223
Figure 6.1. Distribution by % of work on board by service sectors of the total number of sailors.....	240
Figure 6.2. Distribution of maritime activities by sector and % sailors.....	241
Figure 6.3. Time spent on board for the sailors that worked mainly on shipping, by generations (calculated by months and %)......	242
Figure 6.4. Total service onboard steamships and sailing ships by % on the three samples.....	243

Figure 6.5. Repartition of work by percentage (on deck, engine crew, and engineers) given total careers of sailors in the last two sample generations.....245

Figure 6.6. Number of captains of La Ciotat who worked on sailing ships, steamships or both.....264

Figure 6.7. Repartition on work onboard steamships for the seamen enrolled in the captains' registers born 1840-60265

LIST OF TABLES

Table 3.1. Value of works in La Ciotat for both the facilities and machineries and tools.....	110
Table 3.2. Productivity in the shipyard calculated in quinquennial years (average gRT/average staff) (1856 - 1910).....	131
Table 3.3. Technical characteristics of four ships constructed in La Ciotat in 1853, 1869, 1884, and 1897.	138
Table 3.4. Port traffic in La Ciotat (1850 - 1913).....	143
Table 3.5. Traffic of the port of La Ciotat in 1896 based on vessels with cargo and vessels on ballast.....	143
Table 4.1. Variables registered in the database “Census - La Ciotat” for the years 1831, 1851 and 1911.....	156
Table 4.2. Evolution of the population of some of the littoral towns of Provence (1851, 1901) and their Compound Annual Growth Rate (CAGR).....	173
Table 4.3. Houses and households of La Ciotat (1851 - 1911).....	175
Table 4.4. Birthplace of the workforce in %, by year of first employment (1855, 1865, 1875 and 1885)	183
Table 4.5. Marital status of the population of La Ciotat in the years 1851 to 1886 (in absolute numbers and Compound Average Growth Rate (CAGR) in %).....	190
Table 5.1. The rise of workers, labourers, and daily workers [<i>ouvriers, manoeuvres, journaliers</i>] in the occupational structure of La Ciotat (% calculated on the active population in the years 1851, 1876, 1886).....	209
Table 5.2. Occupational distribution in La Ciotat in 1831 & 1911 (absolute numbers and percentage % according to heads of households).....	213
Table 5.3. Occupational distribution of population in La Ciotat, 1851 & 1911 (absolute numbers and percentage % according to active male population).....	214

Table 5.4. Occupational distribution of professions related to seafaring by head of household in 1831 and 1911.....	216
Table 5.5. Occupational distribution of professions related to seafaring by active male population in 1851 and 1911.....	216
Table 5.6. The distribution of fishing sector in the occupational activities of La Ciotat by the head of households (1831 & 1911) and by active male population (1851 & 1911).....	217
Table 5.7. Occupational distribution of professions related to wooden shipbuilding by head of household in 1831 and 1911.....	219
Table 5.8. Occupational distribution of professions related to wooden shipbuilding by active male population in 1851 and 1911.....	219
Table 5.9. Occupational distribution of professions related to machinery manufacture and operation by head of household in 1831 and 1911.....	220
Table 5.10. Occupational distribution of professions related to machinery manufacture and operation by active male population in 1851 and 1911.....	210
Table 5.11. Occupational distribution of professions related to metalworkers by head of household in 1831 and 1911.....	221
Table 5.12. Occupational distribution of professions related to metalworkers by active male population in 1851 and 1911.....	221
Table 6.1. Evolution of sailor’s profession on board by generations (%).....	247
Table 6.2. The employment of engineers in the steamers of Messageries Maritimes.....	254
Table 6.3. Number of captains enrolled in La Ciotat given their date of birth.....	263
Table 7.1. Seafarers registered in the steamers anchored in the port (1886 - 1911)	285

INTRODUCTION

The small port-town of La Ciotat, located forty kilometres to the east of Marseilles' shores, had always been firmly connected with the sea. A strong geographical deterministic link to a bay surrounded by steep cliffs, formed for the population, a profound cultural appropriation with the sea. During the sailing era, La Ciotat participated actively in the maritime economy of Provence, including the sectors of fishing, coastal and deep-sea going shipping, and shipbuilding. It produced famous and skilled captains and sailors, who often sailed to the Eastern Mediterranean and the Atlantic Ocean, while local shipbuilders constructed some of the most beautiful (and largest) wooden sailing ships of Provence. During the second half of the nineteenth century, the maritime community of La Ciotat experienced an enormous metamorphosis prompted by the introduction of steam power. Already by 1836, the port began to transform into an industrial shipyard, subsequently performing an intense transition during the second half of the nineteenth century, with the establishment of the technical section of the *Compagnie des Messageries Maritimes*¹ (the largest steam navigation company of France), and the formation of a large-scale complex of industrial shipyard and workshops for the construction of company steamers. In this vivid context, this thesis aims to examine the process and incremental economic and social change of the maritime community of La Ciotat during the second half of the nineteenth century, due to the introduction of novel technologies in shipping.

Maritime communities in history

In French historiography, the social history of maritime populations and their littoral societies has been the focus of research since the 1980s. Michel Mollat, with his studies on the life of seafarers on the Atlantic coast in the period between the ninth and sixteenth centuries', was the

¹The company was founded in 1851 as *Service Maritime des Messageries Nationales*. A year later, at the beginning of the French Second Empire, it was named *Compagnie des Messageries Impériales*. With the end of the French Second Empire and the beginning of the Third Republic, the name of the company changed again to *Compagnie des Messageries Maritimes*. For this thesis, in order to avoid confusion, the analysis will only use the name *Compagnie des Messageries Maritimes* to refer to the company.

first to put seafarers at the centre of an historical study.² A social and cultural exploration of the characteristics and social representation of seafarers was the approach of Alain Corbin.³ Together with these, the research of Timothy Le Goff mainly concerns the study of French maritime labour in the eighteenth century.⁴ However, the total renewal of this research field occurred with the pioneering works of Alain Cabantous, who focused on the cultural and socio-economic aspects of seafarers and their families.⁵ The novelty of Alain Cabantous's research is also related to the use of the *Matricules de gens de mer*, the registers of seamen maintained in the *Inscription Maritime*, the institution responsible for maritime regulation on the French coast, and the administration of maritime labour.⁶ His approach influenced research on cultural, social, and economic aspects of seafarers, their families, and their littoral societies. In relation to these aspects, this thesis will consider as reference works, those of Gerard le Bouëdec and Thierry Sauzeau for the Atlantic coast, and Gilbert Buti for the Mediterranean coast of France, focusing mainly on the period of *Ancien Regime*.⁷ Recent studies, such as the Ph.D. thesis of Claire Boër covering the history of maritime labour during the *Ancien Regime* in Provence, offer essential insight into the formation and practices of maritime labour along the Mediterranean coast of France.⁸ Thus, the history of

²Michel Mollat, *La vie quotidienne des gens de mer en Atlantique (IX^e-XVI^e siècle)* (Paris: Hachette, 1983).

³Alain Corbin, *Le territoire du vide. L'occident et le désir du ravage* (Paris: Aubier, 1988).

⁴Timothy J.A. Le Goff, "Offre et productivité de la main-d'œuvre dans les armements français au XVIII^e siècle," in *Guerre et commerce en Méditerranée, IX^e-XX^e siècles*, ed. Michel Vergé-Franceschi (Paris: Editions Veyrier et Kronos, 1991), 279–308.

⁵Alain Cabantous, *Le Ciel dans la Mer. Christianisme et Civilisation maritime (XVI^e-XIX^e siècle)* (Paris: Editions Fayard, 1990); Id., *Le vergue et les fers. Mutins et déserteurs dans la marine de l'ancienne France* (Paris: Editions Tallandier, 1984); Id., *Les citoyens du large. Les identités maritimes en France (XVII^e-XIX^e siècle)* (Paris: Aubier, 1995).

⁶A profound analysis on the role and evolution of *Inscription Maritime*, as well as related archival material, can be found in chapter six.

⁷Gérard Le Bouëdec, *Activités maritimes et sociétés littorales atlantiques (1690-1790)* (Paris: Armand Colin, 1997); "La pluriactivité dans les sociétés littorales XVII^e-XIX^e siècle," *Annales de Bretagne et des pays de l'Ouest*, no. 109 (2002): 61–90; Thierry Sauzeau, *Les marins de la Loire dans le commerce maritime nantais au XVIII^e siècle* (Rennes: Presses Universitaires de Rennes, 2007); Gilbert Buti, *Les Chemins de la mer. Un petit port méditerranéen : Saint-Tropez (1650–1850)* (Rennes: Presses Universitaires de Rennes, 2010).

⁸Claire Boër, "Parcours, expériences et cadres de vie des marins de Provence au XVIII^e siècle" (PhD diss., Université d'Aix-Marseille, 2019).

maritime communities and their seafarers during the period before industrialisation had been largely researched by French historians.

In the rest of the Mediterranean, studies concentrating on a specific maritime community or an ensemble of maritime communities, were not as common as in France. However, there were some relevant exceptions. Amelia Polonia focused her research on the maritime communities of Portugal, in a cultural and social approach, during the sixteenth and seventeenth centuries.⁹ In Greece, the work of Eudokia Olymbitou regarding the maritime community of the island of Kalimnos, constitutes an excellent example of interdisciplinary research in maritime history.¹⁰ Alexandra Papadopoulou's Ph.D. dissertation was the first research to deal with a Greek island (the island of Spetses) as a maritime community, examining (mainly) shipping businesses, and their entrepreneurial networks and organisational connection to regional and international trade and shipping, in the middle decades of the nineteenth century.¹¹ In Anglo-Saxon literature, a recent research project entitled 'Port towns and urban cultures', led by Professor Brad Beaven (based at the University of Portsmouth), further improved our understanding of the socio-cultural history of port-towns and sailor towns as an urban space, by focusing on the nature of land-based maritime cultures, and the representations of port towns. The contributions of the collective volume derived from this project offer great insight into the cultural representation of port-towns in Sweden, Finland, the United Kingdom (UK), Australia, New Zealand, and South Africa.¹²

⁹Amélia Polonia, "The Sea and Its Impact on a Maritime Community: Vila do Conde, Portugal, 1500-1640," *International Journal of Maritime History*, no. 1 (2006): 199–222; Id., "L'historiographie portugaise sur les gens de mer et les communautés littorales. Une approche de synthèse," *Revue d'Histoire Maritime*, no. 11-12 (2010): 175–194.

¹⁰Eudokia Olymbitou, *Σπογγαλιευτική δραστηριότητα και κοινωνική συγκρότηση στο νησί της Καλύμνου (19ος-20ός αι.)* [Sponge-fishing activity and social structure on the island of Kalymnos (nineteenth–twentieth centuries)] (Athens: Ethnikiko Idrima Erevnon, 2014).

¹¹Alexandra Papadopoulou, "Ναυτιλιακές επιχειρήσεις, διεθνή δίκτυα και θεσμοί στην σπετσιώτικη εμπορική ναυτιλία, 1830-1870. Οργάνωση, διοίκηση και στρατηγική" [Shipping businesses, international networks and institutions in the merchant shipping of Spetses, 1830-1870: Organisation, management and strategy] (Ph.D. diss. Corfu, 2010).

¹²Brad Beaven et al., eds., *Port Towns and Urban Cultures: International Histories of the Waterfront, c.1700-2000* (Basingstoke & New York: Palgrave Macmillan, 2016).

In relation to the study of maritime communities and their social transformations during industrialisation, the topic remains under-explored. Historical research focused mainly on the impact of industrialisation on shipping, seafaring labour, and work onboard ships.¹³ In French historiography, the work of Nicolas Cochard represents an essential step in the study of sailors and their integration into the urban society of Havre during the period of transition from sail to steam.¹⁴ Together with this, the ongoing ERC project, *SeaLiT: Seafaring Lives in Transition. Mediterranean maritime labour and shipping during globalisation, 1850s-1920s*, led by Dr. Apostolos Delis (of which this thesis is part), fills a significant gap in relation to the social history of Mediterranean maritime communities during the transition from sail to steam shipping. In this context, the research of Leonardo Scavino, for the Ligurian port-town of Camogli, Eduard Page for Barceloneta, and Katerina Galani for the Greek island of Galaxidi, are important contributions to the history of Mediterranean maritime communities during industrialisation.¹⁵

¹³Enri Garcia-Domingo, *El mundo del tranajo en la marina mercante espanola, 1834 - 1914* (Barcelona: Universitat de Barcelona & Icaria Editorial, 2017); Id., “The impact of mechanization on Spanish Maritime Labour (1834 - 1914): from seamen to sea workers,” in Apostolos Delis et al., *Seafaring Lives in Transition. Mediterranean Maritime Labour, Communities, Shipping and the challenge of industrialization (1850s-1920s)* [forthcoming]; Richard Gorski, ed., *Maritime Labour: Contributions to the history of work at sea (1500-2000)* (Amsterdam: Amsterdam University Press: 2007); Eric W. Sager, *Seafaring Labour: the Merchant Marine of Atlantic Canada (1820 - 1914)* (Kingston: McGill-Queen’s University Press, 1989); Yrjo Kaikuainen, *Sailing into twilight: Finish Shipping in an Age of Transport Revolution, 1860-1914* (Helsinki: SHS, 1991); Christophe Boutin et al., eds. *Gens de mer au travail*, (Caen: Maison de la Recherche en Sciences Humaines de Caen: 2007).

¹⁴Nicolas Cochard, *Les marins du Havre. Gens de mer et société urbaine au XIX^e siècle* (Rennes: Presses Universitaires de Rennes, 2016).

¹⁵Leonardo Scavino, “The Mediterranean maritime community of Camogli: evolution and transformation in the age of transition from sail to steam (1850s - 1910s)” (PhD diss. Universita degli studi di Genova, 2021); Id., “Camogli as a maritime community in the age of transition,” in Apostolos Delis et al., *Seafaring Lives in Transition. Mediterranean Maritime Labour, Communities, Shipping and the challenge of industrialization (1850s - 1920s)* [forthcoming]. In the same volume see: Eduard Page Campos, “The metamorphosis of Barceloneta. The effects of industrialization and liberalism on the maritime district of Barcelona”; Katerina Galani, “From traditional maritime communities to maritime centres. Urbanization, social hierarchies and labour market in the age of steam. The case study of Galaxidi, 1850 - 1910s”.

What is a maritime community?

For this research, it is necessary to define how this thesis approaches a maritime community. As Gelina Harlaftis describes, maritime community could be considered a maritime locus, a *nautotopos* (*naus*: ship, *topos*: locus), where the largest part of the population is dependent on the sea.¹⁶ Karel Davids, similarly defines a maritime community as a small town or a neighbourhood where a substantial part of the population earns its livelihood wholly or partly by work at sea, or is directly dependent on the shipping sector for its income.¹⁷ Alain Cabantous and Gilbert Buti refer to the *gens de mer*, meaning those who navigate or have navigated, while Gérard Le Bouëdec's research primarily concerns littoral societies and maritime population. Together with the above, maritime communities are characterised by a strong maritime culture, known as *maritimité*. This is the complex relationship between people and the sea, in particular, the cultural and economic appropriation of the population with the sea, either by seafaring professions, or by a wide-range of maritime activities ashore which formulated a strong maritime identity, and formed specific social patterns and norms that defined the character of the city, and the identity of the inhabitants.¹⁸

For a focus on the nineteenth century, it is necessary to reformulate the concept of maritime communities. Alain Cabantous questions who is included among the *gens de mer*, and observes the differences the contemporary era imposes on this concept, given population growth, immigration, and urbanisation of the nineteenth century.¹⁹ Gérard Le Bouëdec, in his article about the evolution of the perception of the coastal zone during the nineteenth century, underlines the profound transformation of littoral societies and maritime activities confronted with

¹⁶Gelina Harlaftis, "Maritime History: A new version of the old version and the true history of the sea," *International Journal of Maritime History* 32, no. 2 (2020): 383–402.

¹⁷Karel Davis, "Local and global: Seafaring communities in the North Sea area, c. 1600-2000," *International Journal of Maritime History* 27, no. 4 (2015): 631.

¹⁸Françoise Péron and Jean Rieucou, eds. *La Maritimité aujourd'hui* (Paris: Editions L'Harmattan, 1996); Lydia Carol-Dekker, "Maritime culture: A sociological perspective," *International Journal of Maritime History* 30, no. 2 (2018): 302–14.

¹⁹Alain Cabantous, "Histoire maritime et histoire sociale? L'approche des gens de mer," *Drassana: revista del Museu Marítim*, no. 15 (2007): 84–96.

industrialisation, and the reconfiguration of maritime trade.²⁰ Nicolas Cochard emphasises the need to remind ourselves of the particularities of the history of seafarers in the nineteenth century, since generalised mechanisation reshaped the world of the sea in a profound manner.²¹ The fundamental social restructuring during industrialisation reshaped the maritime culture of littoral populations and, therefore, altered the perception of littoral societies. Together with this, some of the port-towns/cities became industrial centres, with decisive social effects that totally transformed the maritime population. The industrial maritime activities ashore shaped the identity of maritime communities, and formulated new norms connected with industrial work, extensive port infrastructures, new management structures, and immigration.

La Ciotat represents a unique paradigm of economic and social metamorphosis. This is due to two main aspects. Firstly, La Ciotat experienced an enormous and incremental industrial growth that transformed it into a highly industrialised port from the 1870s. Secondly, the establishment of France's largest private steam shipping company (strongly subsidised by the state), formed strong patterns of dependency related to new management structures, and state protectionism. In addition, the transformation of the maritime community of La Ciotat, which was due to the formation of a large shipbuilding centre, affected the socio-economic and labour patterns both at sea and ashore. It transformed the century old relations of labour and shipping in the age of sail, and also had significant effects on the town, with new infrastructures, a profound urban transformation, large-scale immigration, and the presence of large numbers of maritime workers ashore.

In this framework, the particularities of the evolution of the maritime community of La Ciotat, related to many different aspects, leads to the consideration of the whole town as a unique maritime community, a *nautotopo per se*, where everything depended on the relationship of the inhabitants with the sea: the seafaring families awaiting husbands, fathers, or sons to return from their voyages; the shipbuilding workers, dependent on the demands that the maritime economy imposed; the storekeepers and dealers of the town, whose economic stability was based on other

²⁰Gerard le Bouëdec, "L'évolution de la perception des zones côtières du XV^e siècle au XX^e siècle," in *Terres Marines*, eds. Frédéric Chauvaud and Jacques Péret (Rennes: Presses Universitaires de Rennes, 2006), 27–37.

²¹Nicholas Cochard, "L'histoire des populations maritimes à l'époque contemporaine: la géographie au service de l'historien," *EchoGéo*, no. 19 (2012) [Online: <http://journals.openedition.org/echogeo/12991> (accessed in: 21/08/2021)].

maritime professions; and the notaries, signing contracts between captains, sailors, shipbuilding workers, and peasants. The existence of the town was largely dependent on the sea. The unique case of La Ciotat's evolution, strongly connected to the establishment of an industrial shipyard in the port, and the formation of maritime activities on land, brings our focus to life on the coast and the economic, demographic, and social transformation of the town at large. Consequently, this thesis intends to enlarge the concept of maritime community, extending it to maritime workers on land and the transformation of the whole town of La Ciotat. It is about accompanying the town and the population during a transformative and evolving period in shipping.

Objective, research questions and sources of the present thesis

To this end, the objective of this doctoral thesis is to examine the process of transformation of the La Ciotat maritime community, and the socio-economic transition from the sailing to steam era. The thesis aims to explore the dynamics of change from both an economic and social perspective – this will be investigated through two main questions: i) the process of change; and ii) the long-term impact of this change on both the economy and society. From the economic perspective, the analysis will question why specifically the town of La Ciotat experienced such a radical change towards industrial shipbuilding. How did the economic and technological transformation take place, and what was the impact of this transition on port function, and urban structure? As regards society, the thesis will examine how the town adapted to the new economic reality, and the impact of this transformation on population dynamics, the occupational structure of the town, and the change of seafaring labour trajectories. The analysis leads us to a reflection, entwined throughout the thesis, of the role a private steam shipping company played in affecting this transformation. The final question that this thesis considers is related to the new identity of La Ciotat's maritime community. How had the perception of La Ciotat changed during the second half of the nineteenth century?

The frame of this study coincides with the period of economic transformation of the town which had a profound effect in reshaping the identity of La Ciotat. This period encompasses the foundation of an industrial shipyard, the construction of the first steamer (1836), and extends until the end of the technical section of *Messageries Maritimes* in the port (1916). The geographical

boundaries of this work are chiefly the town of La Ciotat, considered within the port system of Provence, and the Mediterranean at large.

In order to conduct this research, four main field research trips took place in France from winter 2017 to autumn 2018. Research was conducted in the cities of Paris, Le Havre, Marseilles, La Ciotat, Aix-en-Provence, and Toulon, while archival material was collected from the *Archives Départementales des Bouches-du-Rhône*, the *Archives Municipales*, and the *Chambre du Commerce et d'Industrie Marseille-Provence*, in Marseilles, the *Archives Municipales* and the *Archives du Musée Ciotaden* in La Ciotat, the *Service Historique de la Marine* in Toulon and Paris, as well as the *Archives Nationales* in Paris, and the *Archives French Lines* in Havre. Together with the archival institutions this research included visits to many relevant libraries, such as the *Bibliothèque Nationale de France* and the *Bibliothèques de Sorbonne* in Paris, the *Médiatèque du Maison Méditerranéenne des sciences de l'homme* in Aix-en-Provence, and the *Bibliothèque Municipale de Marseille*. Significant printed sources (including newspapers) were collected as well as useful secondary literature. In addition to the above institutions, the Library of the Institute of Mediterranean Studies, and the Library of the University of Crete in Rethymno, which both have a well-informed bibliographical collection related to French economic, social, and maritime history, were of great help for this research. Together with the above, the websites of the *Bibliothèque Nationale de France* of digitised sources (Gallica.fr), and newspapers (retronews.fr) were indispensable tools, especially during the COVID-19 pandemic period that did not permit further research in France.

This research is based on a combination of qualitative and quantitative sources. In regards to the quantitative material, which constitutes the backbone of the research, three main sources have been used, and registered within databases. Firstly, the population census data for La Ciotat in the period from 1831 to 1916 [in French “*listes de dénombrement de la population*”], from which the complete nominative censuses of the years 1831, 1851, and 1911 were processed as a database source (Database ‘Census - La Ciotat’). In total, 16.736 names, including associated information (depending on the year of the census) were registered.²² In addition, the recapitulative data sets found at the end of specific nominative censuses (concerned with the aggregated

²² Further information in regards to the use of this source and the formation of this database can be found in chapter four.

calculation of marital status, age, gender, and nationality), were digitised within separate databases to expand the thesis analysis.

Secondly, a further source used was the Employment Registers (*Registres Entrées*) of the shipyards of the *Compagnie des Messageries Maritimes*, retained in the Archives of the Museum of La Ciotat (*Archives du Musée Ciotaden*). The archival collection of the *Compagnie des Messageries Maritimes* can be found in two main archives: the *Chambre de Commerce et d'Industrie Marseille-Provence* (CCIMP), in Marseilles, where minutes of the shareholders' general assemblies and travel reports are preserved; and the *Archives French Lines* in Havre, where personnel files, minutes of the general assemblies, and subventions signed by the Company can be found. Moreover, this research brings to the fore an undiscovered part of the history of the *Compagnie des Messageries Maritimes*: a collection found in the Archives of the Museum of La Ciotat (*Archives du Musée Ciotaden*). A number of passionate local historians and museum personnel managed to gather part of the documents related to the technical section of the *Compagnie des Messageries Maritimes* that were stored in the shipyard until their closure in 1987. Following significant voluntary work, the historians and personnel of the museum managed to form an archive related to the period of the *Compagnie des Messageries Maritimes* in La Ciotat. This archive consists of: the employment records of the shipyards (*registres entrées*) as well as files related to personnel; and a collection related to infrastructure and facilities in the shipyard and workshops. The employment records of the shipyards are a valuable and unexplored source for the history of the workforce in the shipyard, and workshops of *Messageries Maritimes*, where the complete registers of worker recruitment from 1851 to 1912 (44.000 entries in total) are available. In the framework of this thesis, the detailed data of the workforce employed each decennial from 1855 to 1905 was entered into another separate database created for this research. The database includes around 5000 workers with all their personal, familial, and profession information (Database 'Shipyard's Employment Registers - La Ciotat').²³

The third database concerns the registers of seamen (*Matricules de gens de mer*) retained in the *Service Historique de la Defence* in Toulon. This source is a complete record of seafarers careers including their personal and marital details, as well as all the data related to each voyage

²³For further information for this source see chapter four.

they embarked upon.²⁴ Two databases were formed for this research: the first refers to the sailors of La Ciotat enrolled from the 1850s to the 1920s. This numbers 1410 sailors in total, from which, three statistical series related to the year of birth of the sailor were formed. In this way, the full career of 150 sailors was registered (Database ‘Inscription Maritime, La Ciotat - Sailors’). Similarly to sailors, the data of captains enrolled in the registers of La Ciotat (*Matricule des capitaines*) were entered into a separate database (111 captains in total), where the full career of those born between 1840 and 1860 was registered (Database ‘Inscription Maritime, La Ciotat - Captains’).

Apart from the above databases, various qualitative sources have been used: such as the proceedings of the *Compagnie des Messageries Maritimes*, found in the French Archives in Havre; the town council minutes retained in the Municipal Archives of La Ciotat; and the correspondence found in the archives of Toulon, between the Port Commissionaire and the seafarers of La Ciotat and the central administration in Toulon. In addition, the detailed statistical reports (*mémoires statistiques*) of the period 1817 - 1845 sent by the Port Commissionaire of La Ciotat to the central administration of *Inscription Maritime* in Toulon, consisted of important documentation related to the first period of transition. Additionally, a very useful source were the police and prefecture archives, found in the *Archives Departementales des Bouches-du-Rhône*, which includes well maintained reports and correspondence between the mayor, the police commissionaire, and the population of La Ciotat, with the prefect of the region (based in Marseilles). A further important source for this study were personal journals. The first journal is of Joseph-Édouard Vence, ship constructor in La Ciotat, and includes the years 1835 to 1875.²⁵ The second journal, covering the years from 1867 to 1924, belongs to Augustin Chateigner, commissionaire in *Messageries Maritimes*, and La Ciotat’s correspondent for the Marseilles *Soleil du Midi* newspaper.²⁶ These are important and primordial sources for the study of the social and economic history of La Ciotat,

²⁴A full report on this source and its history as well as the methodology behind the formation of this database can be found in chapter six.

²⁵The journal was transcribed and annotated by Yves Laget, and retained in the Museum of La Ciotat. Appreciation to Professor Olivier Raveux for providing this journal.

²⁶Augustin Alexandre Théophile Chateigner was born in 1842 in Barjols (Var) and died in 1934 in La Ciotat. He kept his personal journal with events related to La Ciotat from 1867 until his death. The journal was transcribed and annotated by Jean Jeansoulin, and kept in the Municipal Archives of La Ciotat.

related to shipbuilding changes, as well as the changes in the everyday life of the maritime community. The newspapers of the period are also an important aspect of this research. Primarily, the *Semaphore de Marseilles*, *Le Petit Provençale*, and *Le Petit Marseillais* published in Marseilles, as well as the *Bulletin Democratique* and *Travailleur*, published in La Ciotat.

Thesis Structure

The thesis is structured in seven chapters. The pre-industrial era in La Ciotat is the focus of Chapter One, which provides an historical overview of the maritime community during the *Ancien Regime*. Chapter One examines the function of the port and position within the system of ports of the French Mediterranean and Provence, in particular during the eighteenth century. In addition, the Chapter presents the characteristics of the maritime community and the relationship with the sea prior to industrialisation. It concludes with a discussion of the decline of the maritime economy of Provence, and therefore, of La Ciotat, at the end of the *Ancien Regime*.

The following six chapters examine the main research questions of our analysis and seek to explore the transition of the maritime community from sail to steam. In this respect, Chapter two and three focus on the economic transition of La Ciotat. Chapter Two concerns the emergence of steam in La Ciotat, and examines the first phase of transition from 1836 to 1851. By using the tools of Economic Geography, this Chapter examines the factors behind the establishment of industrial shipbuilding activity in La Ciotat, the process of adaptation of the local economy to the new demands, and shipbuilding production during the first phase of transition. In order to demonstrate the importance of this industrial development, the chapter analyses the novelty of business development in the Mediterranean, offering a comparative approach with Mediterranean ports. Chapter Two concludes with the decline of shipbuilding activities in La Ciotat, and the end of this first phase of transition.

Chapter Three concerns the second phase of transition, during the presence of the *Compagnie des Messageries Maritimes* in the port, from 1851 to 1916, and the widespread economic metamorphosis of La Ciotat. This Chapter examines the process of incremental industrial growth, and the total transformation of the economic function of the port. The transition of port facilities and infrastructure, the evolution of shipbuilding production, and the productivity

of the shipyard, are the subject of the first part of this Chapter. The alternation of port function and the integration into a new system of ports related to the formation of a new industrial maritime cluster in Provence during this period, is the subject of the second part of Chapter Three.

Having studied the economic transformation of the town, the focus of the thesis moves to the population of La Ciotat. Chapter Four examines the demographic transformation of the population. With the use of relevant tools, the Chapter assesses the evolution of demographic dynamics in the town. Together with this, the Chapter considers the immigration influx as a central aspect of demographic change together with the transformation of population structure, through the study of demographic indicators that affect composition, namely gender, marital status, and age. The role of the *Compagnie des Messageries Maritimes* in affecting and influencing the demographic dynamics is central to this analysis, in order to understand the reasons for the profound transformation.

Chapter Five examines the evolution of the occupational structure of the town. With a detailed categorisation of the professions registered in the database 'Census - La Ciotat', the Chapter studies the changes in the occupational patterns of the town, and their impact on the maritime community of La Ciotat. Chapter Six shifts to seafaring professions and their transition. Firstly, the evolution of the management of seafaring labour markets in France and the institution of *système de classes*, later *Inscription Maritime* is considered. Together with this, Chapter Six explores the reconfiguration of seafaring professions in La Ciotat. Focusing on sailors, the Chapter investigates their professional trajectories, including: the general restructuring of their professional careers seen through time spent onboard ships; changing seafaring occupations; the evolution of their career; their voyage directions; the beginnings of their career; and their education. The captains are also examined through their career trajectories, including: the decline of their profession; and the role that the large steam shipping companies played in this deterioration of status.

Chapter Seven (the final chapter) presents an overview of social transformation in La Ciotat, and the impact that the transition had on the identity of the maritime community, and everyday life in the town. This Chapter examines the evolution of the town elite, and completes an analysis of the changing social patterns seen through the relationship of immigrants and local inhabitants, the rise of violence, cultural diversity, and prostitution. Chapter Seven concludes with

the rise of trade unionism and the strike of 1911 that marked the end of a transformative cycle, which had lasted throughout the second half of the nineteenth century.

CHAPTER 1. The city of La Ciotat in the pre-industrial era: an overview

1.1 Introduction

In order to analyse the profound socio-economic transformation that occurred in the town of La Ciotat and its maritime community due to the arrival of steam and technological innovations in shipping, post 1830, one should first understand the general characteristics of La Ciotat and the French Mediterranean in the pre-industrial age. In this regard, chapter one aims to provide an overview of the French Mediterranean and La Ciotat in the eighteenth century, prior to industrialisation.

Firstly, this chapter will examine the port system, of which La Ciotat stands as an essential component. The established port system in the French Mediterranean, their role and their interdependencies in the pre-industrial age will be analysed, focusing on the role of secondary ports and coastal towns and their maritime communities as an essential component for the function of the maritime transport system of the region. The analysis of the port system of Provence, in particular, is a necessary path to interpret the growth and decline of La Ciotat during the *Ancien Regime*. Secondly, focusing in at a micro-level, this chapter will provide an overview of the characteristics of La Ciotat's maritime activities during the sailing era, including the formation of a strong maritime culture as an essential component of the littoral society. Finally, this chapter will conclude with the decline of Marseilles at the end of the *Ancien Regime* and its impact on the economy of La Ciotat.

It is not the purpose or remit of this introductory chapter to analyse the maritime economy of the Mediterranean during the early modern era, nor to describe Marseilles' commercial and economic history in great detail. However, through the analysis of the ports system, including a description of the region's maritime economy, the aim is to understand the role of secondary ports and in the process, the formation of strong maritime communities along the coast of Provence. This will help create a clear understanding of maritime affairs, together with an affirmation of Marseilles, and the subsequent effects on secondary ports. The analysis will provide a clear interpretation of how the transition took place, and in addition, how the new technological and

economic conditions present within the contemporary era, affected the maritime community of La Ciotat.

1.2 The French Mediterranean in the Eighteenth century: the maritime economy of the region and its system of ports

1.2.1 The port of Marseilles as a dominant port in the French Mediterranean

In the seventeenth and eighteenth centuries, the further expansion of transoceanic trade altered the existing port hierarchy in Europe and encouraged a clustering phenomenon, which benefitted a small number of major ports.²⁷ In France, the major commercial ports of Nantes, Bordeaux, Marseilles, and Le Havre-Rouen, while affirming their international trading status and their role as the main engines of the maritime economy, exercised constant supervision over smaller ports situated within their immediate geographical environment. This led to the construction of seaport areas, namely port systems that interconnected the main commercial port with the other ports of the region, which depending on their size and economic function, were linked with the major port as either secondary ports, or smaller ports/coastal towns.²⁸ The growth of these spheres was largely based on relations with the colonies located in the Antilles, within the framework of what Philip Curtin called ‘the plantation complex’.²⁹ The four dominant ports of France monopolised 79% of French colonial importations in 1739, 84% in 1753, and 92% in

²⁷Jacques Bottin et al., “Acteurs sociaux et dynamique des places portuaires,” in *Les Français, la terre et la mer (XIII^e-XX^e siècle)*, eds. Alain Cabantous et al. (Paris: Fayard, 2005), 300.

²⁸In French historiography it is referred as “*aires portuaires*”; term that was introduced by Gérard Le Bouëdec. See: Gérard Le Bouëdec, “Le réseau portuaire du Grand Ouest du XV^e siècle à la Seconde Guerre mondiale,” *Annales de Bretagne et des Pays de l’Ouest* 108, no. 1 (2001): 117–24 and Gérard Le Bouëdec, “Small ports from the sixteenth to the early twentieth century and the local economy of the French Atlantic coast,” *International Journal of Maritime History* 21, no. 2 (2009): 103–26.

²⁹Philip Curtin, *The Rise and Fall of the Plantation Complex: Essays in Atlantic History* (Cambridge: Cambridge University Press, 1990).

1787.³⁰ In this framework, the port of Marseilles became the leading financial and trading centre of the French Mediterranean, exercising total economic superiority over the region. This position was reinforced by the privileges offered by the state, particularly in regards to commerce with the Levant (Eastern Mediterranean).³¹ The port and its Chamber of Commerce enjoyed numerous privileges, including a French trade monopoly with the Levant, which in effect amounted to free port status post 1669.³² The historian Charles Carrière, in his work for the merchant elite of Marseilles, described the capitalism of Marseilles as "sufficient", meaning that in regards to capital accumulation, commercial institutions, and capital mobilisation, the merchants of Marseilles had a dominant influence on the maritime economy of the region.³³

The Levant (Eastern Mediterranean) and Barbary States (North Africa) had a leading position in the commercial activity of Marseilles from the seventeenth century onwards. The conquest of Levantine markets by the merchants of Marseilles was reinforced by the textile industries of Languedoc; the latter were particularly successful thanks to the development of the *londrins seconds*, a wool of intermediate quality, which had gained favour amongst Ottoman consumers.³⁴ The Levant, Italy, Spain, and the Barbary Coast were considered (in descending order) the four pillars of the Mediterranean seaborne trade of Marseilles.³⁵ It is worth noting that Marseilles was also an important hub for the French colonies, however, the main centre of trading activity remained within the Mediterranean Sea. In 1719, Marseilles received the privilege to trade freely with the French Caribbean colonies, beginning to import sugar from Saint-Domingue. The

³⁰ Bernard Michon, "Les 'aires portuaires' françaises au XVIII^e siècle: approche comparative," in *Nuevo Mundo Mundos Nuevos*, Workshops, (2016) [Online: <http://journals.openedition.org/nuevomundo/69935> (accessed in 30 November 2020)].

³¹ Jeff Horn, *Economic development in early modern France: The Privilege of Liberty (1650-1820)* (Cambridge: Cambridge University Press, 2015), 141.

³² Robert Paris, *Histoire du Commerce de Marseille*, Vol. 5, *Le Levant (de 1660 à 1789)* (Paris: Librairie Plon, 1957), 3–24.

³³ Charles Carrière, *Négociants marseillais au XVIII^e siècle. Contribution à l'étude des économies maritimes*, (Marseille: Institut Historique de Provence, 1973), 927.

³⁴ Ethem Eldem, "French Trade and commercial Policy in the Levant in the eighteenth-century," *Oriente Moderno*, no. 79 (1999): 28. See also: Paul Masson, *Histoire du commerce français dans le Levant au XVII^e siècle* (Paris: Hachette, 1911), 209–18.

³⁵ Bottin et al., "Acteurs sociaux et dynamique des places portuaires," 346.

number of ships sailing annually towards the colonies at the beginning of the eighteenth century numbered no more than twelve, however by the end of the century this figure had exceeded one hundred.³⁶ Even though oceanic trade had stimulated Marseilles growth, the prominent sphere of interest still remained the Mediterranean Sea. Simultaneously, Marseilles combined colonial and Levantine trade by re-exporting various colonial commodities (including items in high demand) to the Eastern Mediterranean, such as coffee, sugar and cochineal³⁷.

The development of Marseilles as both a port and hub of major commercial activity led to the emergence of a modern transport system, including the formation of trade networks at local, regional and international levels. From this perspective, the economic rise of Marseilles made the other ports of the French Mediterranean lose the possibility and opportunity of commercial development, and they became partially dependent on the transport system created by Marseilles. The other ports of Provence formed strong inter-connections with Marseilles, and therefore created a well-structured port system, where Marseilles played the leading role at the centre of the French-Mediterranean's maritime and commercial activities.

1.2.2 The secondary ports and smaller ports of Provence as essential components of the transport system of the region

The south coast of France is a geographic region stretching from the borders of Liguria and the French town of Menton, to the borders of Catalonia and the city of Narbonne at a distance of 1,703 km.³⁸ The French Mediterranean is divided into two main interconnected complexes of ports. In the west, the region of Languedoc, from Catalonia to Aigues-Mortes, and in the east the region of Provence, from Arles to the borders of Liguria. The Rhone River divides the two sub-maritime regions of the French Mediterranean and benefitted the development of the large

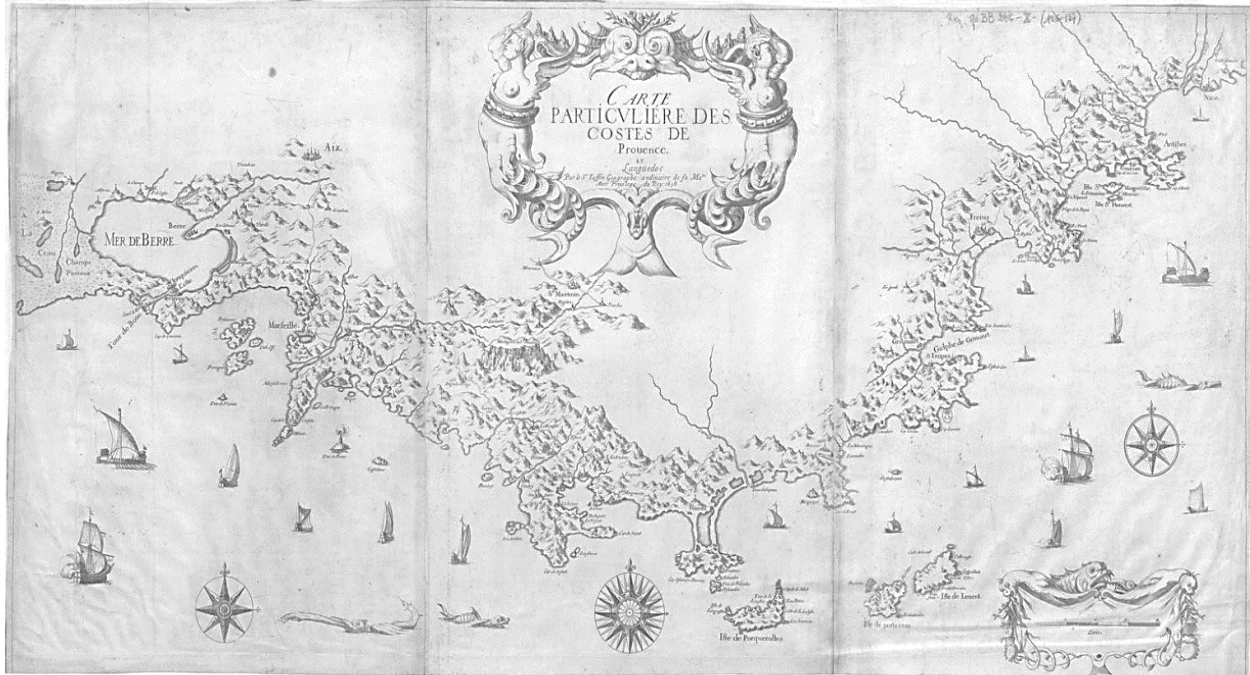
³⁶Bottin et al., "Acteurs sociaux et dynamique des places portuaires," 346.

³⁷David Celetti, "France in the Levant: Trade and Immaterial Circulations in the 'long eighteenth century'," *Journal of Early Modern History*, no. 24 (2020): 387–88.

³⁸Alain Cabantous et al., "Des terres et des mers ou le tumulte des relations," in *Les Français, la terre et la mer (XIII^e-XX^e siècle)*, eds. Alain Cabantous et al. (Paris: Fayard, 2005), 15.

commercial port of Marseilles.³⁹ From a geographical perspective, the Mediterranean seafront did not present any unity since it juxtaposes two very distinct coastal areas. The Pyrenees and Provence are characterized by an elevated area surrounded by relatively compact mountain ranges as is depicted in the seventeenth-century map (Map 1.1).⁴⁰

Map 1.1. Christophe Tassin, *Carte particulière des costes de Provence*, 1638.



Source: Bibliothèque Nationale de France (BNF). [Online: gallica.bnf.fr/ BnF].

The Languedoc coastline was characterized by large lagoons and harbours where it was challenging to construct new infrastructures. The superiority of Languedoc, however, was based primarily on its textile industries; they produced the *londrins seconds*, an important Levantine trading commodity. Marseilles' monopoly on providing quarantine for ships returning from the Levant, and the requirement that the wool exported to the Ottoman Empire be inspected in

³⁹Alain Cabantous et al., "Des terres et des mers ou le tumulte des relations," in *Les Français, la terre et la mer (XIII^e-XX^e siècle)*, eds. Alain Cabantous et al. (Paris: Fayard, 2005), 15.

⁴⁰Ibid. 19.

Marseilles, did not allow Languedoc ports to grow an independent maritime economy.⁴¹ For example, the port of Sète, like many other ports had constructed a lazaret (or quarantine) and could in theory trade directly with the Levant. However, the privileges enjoyed by Marseilles, such as the 20% tax on goods shipped directly to other ports, minimised Sete's chances of development potential.⁴² The Sète council of commerce criticised the privileges enjoyed by Marseilles as contrary to "common right and natural liberty which gives to all men the incontestable right to undertake the same commerce".⁴³ Reluctantly, the maritime region of Languedoc limited its activities to an active coastal trade with Marseilles and the coast of Catalonia, mainly from the ports of Narbonne and Agde, together with relevant trade to the Antilles.⁴⁴ Once Marseilles had developed a monopoly over trade with the Levant, the merchants of Montpellier – who were highly important in the seaborne trade of Languedoc – directed their activities towards the French colonies, mainly through the port of Sète.⁴⁵

In the maritime region of Provence, which is at the centre of our analysis, the main commercial port of Marseilles together with the naval base of Toulon were interconnected with a series of secondary ports and smaller ports or coastal towns which, even though they did not have the commercial importance of Marseilles, contributed in a particularly vital way to the economic life of the Mediterranean area.⁴⁶ Densely urbanised, the littoral of Provence consisted of significant numbers of skilled seafarers as part of the broader maritime community. The limited development of the road network and the peculiarities of the rocky coastline, where cliffs, capes, and harbours

⁴¹Horn, *Economic development in Early Modern France*, 152.

⁴²The March 1669 edict created a 20% ad valorem surcharge on goods from Levant unloaded in ports other than Marseilles or Rouen.

⁴³Horn, *Economic development in Early Modern France*, 162.

⁴⁴Silvia Marzagalli and Christian Pfister-Langanay, "La navigation des ports français en Méditerranée au XVIII^e siècle: premiers aperçus à partir d'une source inexploitée," *Cahiers de la Méditerranée*, no. 83 (2011): 16; Jean-Claude Gaussent, "Les gens de mer à Agde au XVIII^e siècle," *Annales du Midi*, no. 147 (1980), 161–78.

⁴⁵Louis Dermigny, "Saint-Domingue et le Languedoc au XVIII^e siècle," *Revue d'histoire des colonies* 41, no. 142 (1954): 48–9.

⁴⁶Gilbert Buti, "Ville maritime sans port, ports éphémères et poussière portuaire. Le golfe de Fréjus aux XVII^e et XVIII^e siècles," *Rives Méditerranéennes*, no. 35 (2010): 12.

follow one another, created interconnected maritime communities along the coast, which supported the development of a dispersed but also unified maritime economy of Provence.⁴⁷

Map 1.2. The ports of Provence.



All along the coast from Arles to Antibes, more than forty secondary ports and coastal towns participated in these short-distance coastal exchanges. The commercial activities of Marseilles were complemented and supported by these ports, depending on the size of their fleets, the number of seafarers, resources available, and of course, resource needs. The seven most important secondary ports were Antibes, Cannes, Saint Tropez, La Seyne-sur-mer, La Ciotat, Martigues and Arles, while smaller ports or coastal towns with lesser and irregular activities, interspersed along the coast included Fréjus-Saint-Raphaël, Hyeres-Le Lavandou, Six Fours, Sanary, Bandol, Cassis and Port-de-Bouc⁴⁸ (Map 1.2). These coastal towns comprised the essential sub-strata of the economic, socio-professional, and cultural organization of the coastal fabric.

⁴⁷Alain Cabantous, “Ponant et Levant aux XVII^e et XVIII^e siècles: des communautés halieutiques semblables?,” in *Le Languedoc, le Roussillon et la mer*, eds. Jean Rieucan and Gérard Cholvy (Paris: L’Harmattan, 1992), 184.

⁴⁸Buti, “Ville maritime sans port,” 12.

The French Mediterranean consisted of a variety of inter-port complementarities, and seaport networks.⁴⁹ In order to understand the function of a secondary port or coastal town, it is important to place it into a regional and inter-regional port system and examine all the types of complementarities and established networks that link the secondary and smaller ports with the major commercial port of Marseilles.⁵⁰ The secondary and small ports fit into the port dynamics of the shoreline, constituting a component of systems and networks of different scales.⁵¹ The dominant commercial ports often relied on local inter-port networks; and, *vice versa*, while the secondary or small ports of a region were often dependent on the maritime economy of the dominant port, and developed complementary inter-dependencies and characteristics not always related to the main port of the region. The analysis of the system of ports in the South of France is essential for our understanding of the organisation of the coastline and their maritime communities.⁵² In order to conduct a socio-economic analysis of the port of La Ciotat, the study needs to put forward and evaluate the specific relationship between maritime activities and regional development, together with the regional and interregional interactions inside the port system in which La Ciotat was a significant component.⁵³

⁴⁹For the concept of seaport networks, see Margrit Schulte Beerbühl and Jörg Vögele, eds. *Spinning the Commercial Web. International Trade, Merchant and Commercial Cities, c. 1640 - 1939* (Frankfurt am Main: Peter Lang, 2004), 247–376; Amélia Polónia, “European seaports in the Early Modern Age: concepts, methodology and models of analysis,” *Cahiers de la Méditerranée*, no. 80 (2010): 17–39. [Online: <http://journals.openedition.org/cdlm/5364> (accessed on 07/09/2020)].

⁵⁰See the works of Amélia Polónia, “European seaports in the Early Modern Age,”; Id., “The Northwestern Portuguese Seaport System in the Early Modern Age,” in *Making global and local connections: historical perspectives on ports*, eds. Tapio Bergholm et al. (St John’s Newfoundland: International Maritime Economic History Association, 2008), 113–36.

⁵¹Le Bouëdec, “Small ports from the sixteenth to the early twentieth century,” 106.

⁵²Gérard Le Bouëdec, “Les petits ports bretons du XVI^e au XIX^e siècle,” *Rives Méditerranéennes*, no. 35 (2010): 61.

⁵³See, for instance, the analysis of Poul Holm, “Maritime Dependency in Ribe and Aalborg 1450 - 1800,” in *Concentration and Dependency: The Role of Maritime Activities in North Sea Communities, 1299 - 1999*, eds. David J. Starkey and Morten Hahn-Pedersen (Esbjerg: Fiskeri-og Søfartsmuseet, 2002), 47–68.

In this regard, the concept of trade networks, as described by Werner Scheltjens in his book, *Dutch Deltas*, is an important tool to understand the dynamics between central and secondary ports⁵⁴. He writes in the introduction of his book:

*The goal of trade is to generate added value by exchanging goods; the goal of transportation is to generate added value by facilitating the exchange of goods. [...] Trade networks are defined as sets of locations interconnected through the exchange of people, goods, and information by communities[...].*⁵⁵

The distribution of commodities across extended distances led to the emergence of maritime transport service clusters, that is, the secondary and small ports that were spatially concentrated within the same region.⁵⁶ These communities constituted main nodes on the seaport networks of the region and specialized in the supply of transport services across a variety of fields. The port system of the coastline, this *poussiere portuaire*,⁵⁷ constituted the substratum of the connection with the sea of the littoral population.⁵⁸ As Gelina Harlaftis points out, maritime transport systems are the mechanisms that integrate maritime regions and port cities in a world

⁵⁴Werner Scheltjens, *Dutch Deltas. Emergence, functions and structure of the Low Countries' maritime transport system ca. 1300-1850* (Leiden-Boston: Brill, 2015) and Id., "The Dutch Republic as Example of Maritime Transport Services Clusters in Preindustrial Europe (ca. 1650 - 1800)," in *Reti Marittime come fattori dell'integrazione Europea/Maritime networks as a factor in European integration*, ed. Giampero Nigro (Firenze: Firenze University Press, 2019). According to Scheltjens, "Transport systems are complexes of physical attributes (rivers, roads, canals, seas, etc.) and communities populating them, thus allowing for the exchange of people, goods and information between the locations of a trade network". Ibid. 8.

⁵⁵Scheltjens, *Dutch Deltas*, 8.

⁵⁶Fernand Braudel described the Mediterranean as a cluster of smaller seas in which life is a product of the interconnection of land and sea. Fernand Braudel, *The Mediterranean and the Mediterranean world in the age of Philip II* (New York: Harper & Row, 1976), 9–10.

⁵⁷Gérard Le Bouëdec uses the expression «poussiere portuaire» to describe the complex of ports in the Atlantic coast of France that form an inter-dependent maritime region. See: Gérard Le Bouëdec, "Les trajectoires portuaires en Bretagne du XV^e au XX^e siècle," *Nuevo Mundo Mundos Nuevos*, [online <http://journals.openedition.org/nuevomundo/69922> (accessed on 30/10/2020)] and Gérard Le Bouëdec, "Le réseau portuaire du Grand Ouest du XV^e siècle à la Seconde Guerre mondiale," *Annales de Bretagne et des Pays de l'Ouest* 108, no. 1 (2001): 117–26.

⁵⁸Le Bouëdec, "Les petits ports Bretons," 63.

economy.⁵⁹ The analysis of the “operators” of these “lines that connect the nodes in the network”⁶⁰, namely the maritime communities of the coastline, help us to define the structure and the function of the maritime transport system.

From the perspective of the French Mediterranean, the leading maritime centre of the region, namely the port of Marseilles, could not maintain its position without the support of secondary and smaller ports. In the port system of French Provence, the ports specialised in four main aspects related to maritime transport services. Firstly, the operation of the regional coastal transport service known as *cabotage*, including participation in Levant trade, through the *caravane maritime*.⁶¹ Secondly, the logistical networks comprising Marseilles’ needs on fleet and crew that were covered by secondary and smaller ports. Thirdly, the nautical complementarities concerning the needs of skilled seafaring labour in order to participate in long-distance and coastal trade (these are indispensable for the function of the transport sector), and finally, shipbuilding and ancillary industries.⁶² These functional complementarities reveal the role of the ports of Provence in supporting and developing the economic system of the region, through several maritime activities adapted to the needs and demands of the dominant port of Marseille.

As Gordon Jackson noted in his article on the significance of “unimportant” ports, meaning the ports that did not have the economic significance of the main commercial ports, “while shipments between two big ports might be convenient and cost-effective, those between many small ports and one large also serve an essential economic function that is often underestimated and sometimes ignored”.⁶³ This is the *cabotage*, the coastal trade and shipment between the ports of Provence, and the north coasts of Mediterranean, mainly between France, Italy and Spain. In

⁵⁹Harlaftis, “Maritime history: A new version of the old version,” 398. See also: Gelina Harlaftis, “Greek Shipping as a Unification Factor of Markets: The Methodology,” in *Η ναυτιλία των Ελλήνων, 1700-1821* [Greek Shipping, 1700-1821: The Heyday Before the Greek Revolution], eds. Gelina Harlaftis and Katerina Papakonstantinou (Athens: Kedros, 2013), 39–90.

⁶⁰Scheltjens, *Dutch Deltas*, 8.

⁶¹For the practice of the *caravane maritime* see: Daniel Panzac, *La caravane maritime. Marins européens et marchands ottomans en Méditerranée (1680-1830)* (Paris: CNRS, 2004).

⁶²This model of analysis has been introduced by Amelia Polonia in her article “Seaports”.

⁶³Gordon Jackson, “The significance of unimportant ports,” *International Journal of Maritime History* 13, no. 2 (2001): 7.

the eighteenth century, shipowners from the port of Marseilles deliberately participated in the operation of regional coastal trade with nearby secondary ports and smaller ports (through ownership of vessels within this fleet), in order to support the transportation needs of the region.⁶⁴ The operation of coastal shipping (*cabotage*) revealed both strong relationships, and the functional complementarities of the smaller ports within the sphere of the larger port. This also testified to the nautical competencies, demonstrated by their ability to cross ridges that were particularly dangerous along the coastline.⁶⁵ Those involved in coastal trade were responsible for transporting goods for local consumption through imports and exports between regional ports, as well as for the supply of deep sea going shipping.⁶⁶ Simultaneously, coastal trade was a fundamental component of the economic function of the small ports of Provence, where the terrestrial connections were limited due to the geographical restrictions of the region's hinterland.

In his book on the maritime activities and seafarers of Saint Tropez, the historian Gilbert Buti provides precise data on Marseilles shipping traffic related to *cabotage* from the ports of Provence in 1787.⁶⁷ Out of the 2,104 registrations of ship entries in Marseilles, the port of Arles and Saint Tropez come first with 263 entries each (12.5%), followed by La Ciotat (11.5%), Toulon (10.4%), Martigues (8.4%) and Fréjus (8.1%). An essential part of coastal trade includes the coast of Liguria and north Tuscany with 636 entries (30%) as well as Corse (10%).⁶⁸ In her study of the sailors of Arles, Patricia Payn-Échalier established that on the eve of the French Revolution,

⁶⁴Laurent Pavlidis, "Construction navale traditionnelle et mutations d'une production littorale en Provence (fin XVIII^e-début XX^e siècle)" (PhD diss., University Aix-Marseille, 2012), 95.

⁶⁵Gérard Le Bouëdec, "Les petits ports bretons," 67. [Original: Ce sont en fait des sites littoraux et d'estuaires, souvent dépourvus d'installations portuaires, des havres d'arbi, pas nécessairement de chargement ou de déchargement, ni même de désarmement. Leur localisation relève du trait d'union entre des espaces maritimes et de la complémentarité fonctionnelle dans l'orbite d'un grand port et témoigne d'une compétence nautique particulière].

⁶⁶Gilbert Buti, "Activités maritimes et gens de mer à Saint-Tropez (milieu XVII^e s.-début XIX^e s.). Contribution à l'étude des économies maritimes" (PhD. diss., École des Hautes Études en Sciences Sociales, 2000), 481–82.

⁶⁷This data was taken by: AD BdR, 200 E (606-607), Enregistrements de la "navigation à la coté".

⁶⁸Gilbert Buti, *Les chemins de la mer. Un petit port méditerranéen: Saint-Tropez (XVII^e-XVIII^e siècles)* (Rennes: Presses Universitaires de Rennes, 2010), 498.

Marseilles was the main destination for the fleet of Arles, since 80% of its ships entered the port of Marseilles at least once a year.⁶⁹

As part of the transport system of the French Mediterranean, the smaller ports played a pivotal role with regards to seaborne trade with the Eastern Mediterranean, in particular, the *caravane maritime*, the practice of chartering western ships by the Ottoman Empire, in order to execute Levant trade.⁷⁰ The *caravane maritime* was a form of coastal shipping, a “port-to-port trade” where the shipowners put their ships at the disposal of charterers established in the Levant, the Barbary Coast, and Malta. The practice of the *caravane maritime* brought together a provider of a service, the European captain of a ship, and an Ottoman charterer, either alone or in association with others. During this period, the Ottoman Empire, not being able to protect its seaborne trade and shipping lanes due to frequent conflicts with Venice, requested European fleets to maintain essential maritime connections between Ottoman Empire provinces.⁷¹ Consequently, from the end of the seventeenth century until the beginning of the nineteenth century, domestic Ottoman seaborne trade was largely ensured by European ships chartered by Muslim traders.⁷² In 1686, a *firman* from the Sultan to the French ambassador regulated the practice of the *caravane maritime* between the Gate of Felicity and the Palace of Versailles. During the second half of the eighteenth century, almost 50% of French ships that left Smirne (present day Ismir) were caravaners.

⁶⁹Patricia Payn-Échalier, “Les marins d’Arles de la fin du XVI^e siècle à la fin du XVIII^e siècle” (PhD diss., Université d’Aix-Marseille, 2005), 167.

⁷⁰See: Panzac, *La caravane maritime*; Gilbert Buti, “Allez en caravane: le cabotage lointain en Méditerranée (XVII^e et XVIII^e siècle),” *Revue d’Histoire moderne & contemporaine*, no. 52-1 (2005): 7–38 ; Maria Fusaro et al., eds. *Trade and Culture Exchange in the Early Modern Mediterranean. Braudel’s Maritime Legacy* (London/New York: I.B. Tauris, 2010); Robert Paris, *Histoire du commerce de Marseille*, vol. V, *Le Levant* (Paris: Plon, 1957); P. Perrignon de Troyes, “Le port de La Ciotat,” *Revue de la marine marchande* (Paris: Juillet 1917): 383.

⁷¹The Ottoman Empire concentrated its naval power propagating the war with Venice. They requisitioned approximately three to four hundred ships to ensure the transport of weapons and troops to Crete. Simultaneously, the Venetians with an important naval superiority succeeded in cutting the lines of communication between the Ottoman ports, in order to attack the convoy of Alexandria, to chase commercial ships, and frequently block the entrance to Dardanelles. The Ottoman fleet responsible for maritime commerce were the frequent victims of the Venetian navy and their allies. See: Eldem, “French Trade and commercial Policy in the Levant,” 27–47.

⁷²Panzac, *La caravane maritime*, 20.

Similarly, 87% of French ships leaving Alexandria in 1785, and 91% of French ships leaving Constantinople in 1790.⁷³

The role of Marseilles was essential in this operation. In order to organise their expeditions, the merchants and shipowners of Marseilles used their ships to facilitate Levant trade on behalf of the Ottoman Empire. The brothers Baux, Solier, and Seimandy, and the house of Roux, usually with the three-masted ships *Cérès*, *Benjamin* and *Hirondelle*, entrusted the flourishing operation to a Captain through specific orders and charters.⁷⁴ Apart the port of Marseilles, the secondary ports of Provence such as Martigues, Saint-Chamas, Cassis, La Ciotat, Sanary, Six-Fours, La Seyne, Toulon, Saint-Tropez, Cannes, Antibes and of Languedoc (Agde and Sète) occupied a significant position on the *caravane maritime*.⁷⁵ More specifically, the fleet, the captains, and the crew of the four ports of La Ciotat, La Seyne, Marseilles, and Saint Tropez covered 70% to 80% of French participation in this activity.⁷⁶ In this regard, the secondary ports of the French Mediterranean were an essential constituent part of French commerce with the Levant.

Furthermore, the needs of the port of Marseilles on fleet and crew were facilitated and maintained through (logistical) networks between the merchants of Marseilles and the secondary port fleets, together with shipowners and captains of the secondary/smaller ports.⁷⁷ The maritime communities of Provence were famous for their knowledgeable captains who worked closely with the merchant community of Marseilles. The captains often had merchant and/or financial liabilities during their voyage, and were responsible for the recruitment of a number of seafarers from their own port in order to cover the needs of Marseilles shipping activities.⁷⁸

⁷³Firman of 1686, cited by Daniel Panzac, *La marine ottoman: De l'apogée à la chute de l'Empire (1572 - 1923)* (Paris: CNRS, 2008), 175–76. Although this indicates the importance of the French in Levantine trade, recent studies have indicated that most grain trade was facilitated by Greeks as Ottoman or Venetian subjects. See: Harlaftis and Papakonstantinou, *Η ναυτιλία των Ελλήνων 1700 - 1821*. [Greek shipping, 1700 - 1821].

⁷⁴Buti, “Allez au caravane,” 12.

⁷⁵Ibid.

⁷⁶Panzac, *La caravane maritime*, 45.

⁷⁷Polónia, in her article “European seaports in the Early Modern Age” uses the term “logistical patternships” to define the assistance of captains for the recruitment of seafaring labour.

⁷⁸For the role of captains in the merchant marine see: Gilbert Buti et al., eds. *Entrepreneurs des mers. Capitaines et marinières du XVI^e au XX^e siècle* (Paris: Editions Riveneuve, 2017).

This latter point led to a third and perhaps more vital reliance of Marseilles upon the smaller and secondary ports along the coast, namely the creation of local maritime labour markets to service the French Mediterranean. In logistical terms, large fleets demanded significant crew throughput and were easily recruited from the seafaring population around Provence. In fact, without nearby maritime communities, it is difficult to see how major ports could have managed to respond to the demands of maritime labour.⁷⁹ The maritime communities of secondary ports contributed to the maritime economy of the region in numerous ways, for example, fishing, local coastal trade, labour supply, larger coastal shipping, and deep-sea going voyages to the Levant or America.⁸⁰ The smaller ports and their seafaring communities also participated actively in this commercial activity. Apart from coastal trade, these seafaring populations supplied ships and labour to Marseilles, and in turn travelled to those destinations where Marseilles merchants were commercially active. As Alain Cabantous points out in his research for seafarers on the Atlantic coast, the secondary and small ports or coastal towns reveal “*les petites mains des activités maritimes*”.⁸¹ The historian Claire Boër indicates that in terms of pure numbers, the two main ports, Marseilles and Toulon, accounted for and supplied the most sailors within the region of Provence: for example, in 1777, Marseilles supplied 2,627 sailors (30% of total sailors), while Toulon supplied 1,793 sailors (21% of total sailors) respectively.⁸² The remaining maritime labour supply was sourced from secondary ports, mainly La Ciotat (11%), La Seyne-sur-mer (12%), Arles (5.5%), Martigues (7%), and Saint-Tropez (8%). Additional labour supplies, albeit to a lesser extent, were sourced from Cannes, Antibes, and Cassis.⁸³

⁷⁹Jackson, “The significance of unimportant ports,” 12. For various countries, see n Paul C. van Royen et al., eds. *‘Those emblems of hell’? European sailors and the maritime labour market, 1570 - 1870* (St Johns, Newfoundland: International Maritime Economic History Association, 1997).

⁸⁰Buti, “Marseille, la péninsule ibérique et les empires américains,” 287.

⁸¹Alain Cabantous, *Les Citoyens du large. Les identités maritimes en France (XVII^e-XIX^e siècle)* (Paris: Editions Aubier, 1995) and Gerard Le Bouëdec, “Intra-european coastal shipping from 1400 to 1900. A long-forgotten sector of development,” in *A deus ex machina revisited: Atlantic colonial trade and European economic development*, eds. Peter Emmer et al. (Leider: Brill Academic Publisher, 2006), 89–107.

⁸²See: Boër, “Travailleurs de la mer. Parcours, expériences et cadres de vie des marins de Provence au XVIII^e siècle,” 58–9, Document 11: La répartition des officiers-mariniers et des matelots en Provence en 1737 et 1777.

⁸³Ibid. 57–8.

Even though half of the total numbers of seamen in Provence were concentrated in the bigger ports, the smaller ports formed important seafaring communities. As Gilbert Buti pointed out, in Saint Tropez, La Seyne-sur-mer and La Ciotat, almost two thirds of men were seafarers during the second half of the eighteenth century.⁸⁴ The maritime professions were thus the main means of survival for the littoral societies of the maritime region of Provence. For example, in 1777, in Marseilles, sailors represented only 3% of the total population, whilst in Toulon this figure rose to 7%. However, in La Seyne-sur-mer, a much more significant 26% were registered as sailors, similarly in La Ciotat, 14.5%, Saint Tropez, 25%, Martigues, 8.5%, tailing off with Antibes at 7%, Cannes at 6%, and Arles at 2%.⁸⁵ From this perspective, the smaller ports around Marseilles and Toulon shaped a strong maritime culture: the sea was at the core of society, and their business and seafarers represented an essential part of their economic and social life.

The complementarities of both large and small ports formed the seaport networks of the French Mediterranean, and were reflected in the shipbuilding production of some secondary ports. The ports around Marseilles, such as La Ciotat, La Seyne-sur-mer, Martigues, and Saint Tropez sourced (post seventeenth century) the maritime transport demands of Marseilles, and supplied the arsenal of Toulon with a skilled workforce. In the years 1762 to 1782, the secondary ports of Provence comprised 75% of the total shipbuilding production capacity of the region. This excludes the production of naval ships by the arsenal at Toulon.⁸⁶ In the eighteenth century, La Ciotat, together with La Seyne-sur-mer, Marseilles, and Saint Tropez had significant shipbuilding production, in fact, they were the only ports of Provence that produced all classes of ships, including those of more than 250 tons, those destined for fishing, for pleasure, for coastal trade, and indeed, deep-sea going (including Oceanic) trade. Already, by the eighteenth century, La Ciotat, together with La Seyne-sur-mer built almost one-third of all the ships of Marseilles.

⁸⁴Gilbert Buti, "Entre 'fortunes de mer et honnêtes profits'. Marins provençaux au XVIII^e siècle," in *Los niveles de vida en Espana y Francia (siglos XVIII-XX)*, eds. Gérard Chastagnaret et al. (Alicante: Publicaciones de la Universidad de Alican, 2010), 269.

⁸⁵Boër, "Travailleurs de la mer," 60. Document 12: Les officiers mariniers et matelots dans les villes provençales en 1777.

⁸⁶Timothy J.A. Le Goff and Jean Meyer, "Les constructions navales en France pendant la seconde moitié du XVIII^e siècle," *Annales. Economies, sociétés, civilisations*, no. 1 (1971): 178.

The function of the port system of Provence, and the inter-relations and inter-dependences between the port of Marseilles and the secondary and smaller ports along the coast, strengthened the seafaring communities all along the coastline, and helped to connect and enhance the transport system of southern France. The economic development of these maritime communities was mostly based on their connection with the sea, which, in turn, defined their social character. The port of La Ciotat became a fundamental component of the Provence port system. During the modern era, the connection with the port of Marseilles, and the maritime activities of La Ciotat, as described below, created strong ties with the sea, and profoundly affected its maritime culture.

1.3 The maritime culture of La Ciotat in the *long durée*

The relationship between the population of La Ciotat and the sea was forged through a plethora of maritime activities, which established a strong maritime identity. This formulated patterns of behaviour and social norms that defined the town's character and its collective memory.⁸⁷ The maritime culture of La Ciotat was apparent through all aspects of city life. Those activities were closely associated with the development of the town as a fishing port in the fifteenth century. The sea remained at the core of the local economy especially after the separation of the town from Ceyrestre, following an order of 1675, and the formation of a separate administrative body.⁸⁸

The geography of La Ciotat was undoubtedly a key factor in its maritime development with natural barriers to its hinterland that restricted inland communication, thus influencing its outward connection with the sea. The city is surrounded by high cliffs that fall directly to the sea: in the west it is bordered by Cap Canaille, in the north by the ridgeline of Ceyrestre, and in the east by

⁸⁷Lydia Carol-Dekker, "Maritime culture: A sociological perspective," *International Journal of Maritime History* 30, no. 2 (2018): 302–14; Madeleine Brocard et al., "L'identité maritime des villes portuaires," *Géographes associés*, no. 20 (1997): 71–8.

⁸⁸La Ciotat was the administrative part of the city of Ceyrestre. In 12 June 1675, published written orders granted the separation of La Ciotat from Ceyrestre and the formation of two separate communities. See: Paul Masson, ed. *Encyclopédie départementale des Bouches-du-Rhône*, vol. XV, *Monographies Communales* (Paris: Champion & Marseille: Archives départementales des Bouches-du-Rhône, 1933), 34–5.

the hills that separate La Ciotat from Saint-Cyr.⁸⁹ The port position and its proximity to Marseilles, together with the absence of land routes, constituted an essential component for developing a strong maritime identity within the town. From 1690 onwards, there was only a narrow track accessible by carriages and carts, which connected La Ciotat with the city of Aubagne, situated 17 km to the north.⁹⁰ The difficult terrain left little option but to travel by sea and gave La Ciotat a sense of an island community, this contributed to the formation of its maritime culture.

La Ciotat thrived through the resources of the sea and the maritime activities of its people.⁹¹ Through fishing, seaborne trade, shipbuilding and its ancillary industries, La Ciotat formed a strong seafaring community that defined the social characteristics of the town. The port developed during the fifteenth century mainly as a fishing port. In fact, from 1459 onwards, the fishermen of La Ciotat organised a juridical body, the *prud'homie*, a Mediterranean institutional organisation, which regulated fishing activities, and access to fishery resources in coastal areas.⁹² The *prud'hommes*, who were elected by all household heads in the city, established an important social influence. They were charged with managing and controlling the fishing activities of their coastal zones through regulatory, jurisdictional, and disciplinary powers. Fishing activities had been at the core of the city's economy during the modern period. In 1571, the city counted approximately 60 captain fishermen that owned boats and fishing apparatus (*patrons pecheurs*). In 1631, 400 to 500 families were now living from the fishing industry.⁹³ Fishermen focused their activities on traditional fishing, coral fishing, and the practice of the *madragues* - a fishing technique for capturing tuna using large and strong nets to trap the fish during their migration period. Later, in the nineteenth century (c.1830), the city counted eight salted fishing businesses, which employed

⁸⁹Brigitte Vasselin, ed. *La Ciotat, de Citharista aux chantiers navals. Histoire et archéologie, Activités maritimes et gens de mer de La Ciotat aux XVII^e et XVIII^e siècles* (Valensole: Aurorae Libri, 2017), 13.

⁹⁰Ibid. 56.

⁹¹Gilbert Buti, "Activités maritimes et gens de mer de La Ciotat en XVIII^e siècle," in *La Ciotat, de Citharista aux chantiers navals*, ed. Vasselin, 117.

⁹²This form of fishermen' organisation also existed in Spain (Cofradías), and in Italy (Fraglie). In the ports of Provence, prud'homies were founded in Marseille in 1431, La Ciotat in 1459, Toulon in 1618, Cannes in 1721, Saint Tropez and Martigues in 1791, Antibes in 1803 and La Seyne (the year XI). See: Alain Cabantous, *Les citoyens du large*, 30–5.

⁹³Etienne-Michel Masse, *Mémoire historique et statistique sur le Canton de La Ciotat*, Département des Bouches-du-Rhône (Marseille: Caranud Fils, 1842), 180.

approximately 40 individuals.⁹⁴ Together with fishing, the fishermen usually possessed land, vineyards or pine trees, and were active trading along the north coast of the Mediterranean, between Barcelona and Livourne.⁹⁵

From the seventeenth century onwards, the economic development of La Ciotat was extensively influenced by the maritime economy of Marseilles, and its trade networks. La Ciotat created links with the maritime entrepreneurs of Marseilles, actively engaging in their maritime trading activities. During the seventeenth and eighteenth centuries, the commercial activity of the port was enhanced due to dynamic participation in the *caravane maritime*, in particular through links established with those captains and sailors originating in La Ciotat.⁹⁶ Having strong ties with Marseilles, the captains mostly commanded ships registered in the port. They did not only have maritime skills, but also commercial skills that helped them conduct all necessary financial and commercial operations in the ports of the Levant. In the eighteenth century, La Ciotat, provided more sailors and captains to the commerce of Levant than Marseilles. As Gilbert Buti indicates, of the 937 charter parties signed on to the Vice-Consul of Alexandria⁹⁷ between 1753 and 1768, the details reveal that 36.4% of captains originated in La Ciotat, 21% in Saint Tropez, and 11.5% in Marseilles.⁹⁸ The practice of the *caravane maritime* played a pivotal role in the development of a prosperous maritime employment environment, and contributed to the economic and demographic growth of associated ports. In particular, from 1716 to 1765, the population of La Ciotat grew by 35.1%, Saint-Tropez by 33.8%, and La Seyne-sur-mer by 31.7%.⁹⁹

Although historical records do not possess detailed data regarding the fleet of La Ciotat during the seventeenth and eighteenth centuries, historiography describes the fleet as one of the

⁹⁴SHD-Toulon, 14 P 121, Mémoire Statistique 1830.

⁹⁵Buti, "Activités maritimes et gens de mer de La Ciotat," 117.

⁹⁶Masson, *Encyclopédie départementale*, vol. XV, *Monographies Communales*, 35–6.

⁹⁷In order to clarify the regulations and obligations of each part and to avoid later disputes, the two parties (European and Ottomans) drew up a written contract which was precise and detailed; its form was almost identical regardless of the nationality of the captain. It was signed in the port of departure, in the chancellery register in the consulate of the country to which the captain belonged. See: Daniel Panzac, "International and domestic maritime trade in the ottoman empire during the eighteenth century," *International Journal of Middle East Studies*, no. 24 (1992): 198.

⁹⁸Buti, "Allez en caravane," 20.

⁹⁹Panzac, *La caravane maritime*, 118–9.

most important in the number of ships, and tonnage of Mediterranean France.¹⁰⁰ Evidence suggests that the fleet of La Ciotat was held in the hands of the shipowners of Marseilles, and was operated on behalf of their powerful trading houses, such as the Roux, the Audibert, and the Hugues.¹⁰¹ On the eve of the French Revolution, a report indicates that the fleet of La Ciotat was composed of 70-100 vessels as follows: 25 to 30 vessels of 150 to 200 tons engaged in the *caravane*, 30 to 40 polacres, bricks or bombardres of 100 to 150 tons involved either in north African or Italian trade, and 25 to 30 small ships of 60 to 80 tons involved with coastal trade.¹⁰²

The Marseilles Chamber of Commerce, at the end of the seventeenth century, revealed its close connection to the deep-sea going fleet of La Ciotat: “We challenge those interested in the ships of La Ciotat to justify the fact that they have never dispatched a single ship without the need to ask for assistance from the merchants of Marseilles [...]. It is because the merchants, represented by the Chamber of Commerce, who maintain the shipping of La Ciotat”.¹⁰³ The city was more independent in coastal trade activity, engaging seventy boats in 1789.¹⁰⁴ With small boats of less than 100 tons, they traded the products of their land such as wine, olive oil, wood and stones for buildings, and also redistributed merchandise loaded in the big ports of Marseilles and Toulon.¹⁰⁵

The captains of La Ciotat (famous for their merchant abilities and nautical competence acquired through the *Ecole d'Hydrographie* that opened in La Ciotat in 1694¹⁰⁶), often mastered

¹⁰⁰See: Buti, “Activités maritimes et gens de mer de La Ciotat,” 117.

¹⁰¹Ibid. 118.

¹⁰²Marius Deidier, *Histoire de La Ciotat: Des origines à nos jours* (La Ciotat: Imprimerie du Vieux Moulin, 1965), 71.

¹⁰³Paris, *Histoire du Commerce de Marseille*, 8 [Original: On défie les intéressés aux bâtiments de La Ciotat de justifier qu'ils aient jamais expédié un seul bâtiment qu'ils n'aient eu besoin de réclamer le secours des négociants de Marseille (...). Ce sont les négociants représentés par la Chambre qui font subsister la navigation de La Ciotat].

¹⁰⁴Deidier, *Histoire de La Ciotat*, 80.

¹⁰⁵Buti, “Activités maritimes et gens de mer de La Ciotat,” 117.

¹⁰⁶The *Ecoles d'Hydrographie*, were nautical schools established all around France during the period of reformation of the Marine Royal by Colbert, the secretary of State and Minister of the Marine, in the seventeenth century. The chapter VIII of the first book of the Grande Ordonnance of 1681, formalized nautical education in France. The role of nautical schools was to educate those wanted to become captains through a theoretical approach, such as learning how to navigate according to the stars, to use the compass and the tides, how to read and draw a map, learning information regarding beaches and seas, and acquiring practical knowledge of navigation. Consequently, several *Ecoles*

deep-sea goingships involved in Levant and French colonial trade; they of course played a pivotal role in the recruitment of seamen.¹⁰⁷ Some prominent captains and officers of the town were closely connected to the powerful trading houses of Marseilles, such as the Icard and Brunet families associated with the house of Roux; they served as ship masters, and they supervised the construction of wooden vessels on behalf of the Roux family in the La Ciotat shipyard.¹⁰⁸ An indicative example that reveals the excellence of La Ciotat's seamen is the case of one of the first French pioneering seafarers (Captain Etienne Marchand, originating from La Ciotat) who circumnavigated the globe with the expedition of the tree-masted *Solide* of the house of *Baux* from Marseilles. The ship set sail in December 1790 from Marseilles and finished its trip in August 1792 in Toulon – it conducted fur trade between the Northeast coast of America and China.¹⁰⁹ This symbolic event underlined the maritime superiority of the port of Marseilles, and the importance of La Ciotat's captains.¹¹⁰

In addition, wooden shipbuilding had formed an essential part of the local economy. Already by the seventeenth century, maritime trade encouraged the development of prosperous shipyards, including in the *quartier de l'Escalet*, on the west side of the port. With minimum infrastructure, as was normal in most Mediterranean ports during this period, the shipyards of La Ciotat constructed many large commercial ships required mainly by the shipowners of Marseille (for example, the Roux family).¹¹¹ The shipbuilding industry was promoted by the proximity of the port of La Ciotat to Marseilles and its *maisons de negoce*. Some noble families of La Ciotat were strongly connected to powerful trading houses in Marseilles, and they supervised the

d'Hydrographie were created in the Mediterranean coast of France such as in the port of Saint Tropez (1791), Marseille (1571), Collioure (1792), Narbonne (1781), Agde, Cette (Sète) (1682), Arles, La Ciotat (1697), Toulon, Antibes, Bastia, and Ajaccio. For the Ecoles d'Hydrographie see: René-Josué Valin, *Nouveau commentaire sur l'ordonnance de la marine du mois d'août 1681* (Paris: Chez Joubert, 1841), 219.

¹⁰⁷Buti, "Activités maritimes et gens de mer de La Ciotat," 119.

¹⁰⁸See: Gilbert Buti and Alain Cabantous, *Etre marin en Europe occidentale (1550 - 1850)* (Rennes: Presses universitaires de Rennes, 2016), 26; Masson, *Encyclopédie départementale des Bouches-du-Rhône*, vol. IX, *Le mouvement économique*, 644.

¹⁰⁹Joseph Boniface, "Le premier tour du monde par le Drapeau tricolore," *Revue Provence Historique* 1, no. 3 (1951): 162–78.

¹¹⁰Jacques Bottin et al., "Acteurs sociaux et dynamique des places portuaires," 343.

¹¹¹Buti, "Activités maritimes et gens de mer de La Ciotat aux XVII^e et XVIII^e siècles," 118.

construction of ships ordered by the shipowners.¹¹² The shipyards took on great importance as their reputation grew and made them known all along the coast.¹¹³ The most prominent shipbuilders, including carpenters and caulkers, were often sought by the arsenal of Toulon, in order to assist in naval force ship construction.¹¹⁴ Essential ancillary industries were established, including rope and sail making. By the end of the eighteenth century, the port continued to maintain and increase shipbuilding activity.

The link between La Ciotat and the sea delivered a significant number of seafarers, engaged on many kinds of seaborne trade activity combined with fishing. As mentioned above, in 1777 the town accounted for 938 permanently registered sailors, which constitutes 14.5% of the total population of the town.¹¹⁵ The notion of absence was fundamental in these maritime societies, particularly apparent in the absence of men from the city during periods at sea. In the *memoire statistique et historique de La Ciotat* it was pointed out that during baptismal ceremonies, “[...] [If] the father of the child is at sea, which happens very often, someone is kindly asked to attend the baptism in order to represent the father. [...]”.¹¹⁶ In 1736, Barnabé Jeanseaume, a bourgeois and a consul in La Ciotat, created a charity for the families of sailors – this was called *Mont-de-piété*. The foundational act, cited by Paul Masson, gives a clear insight into the living conditions of the seafarers in the city:

The inhabitants of La Ciotat, whose livelihood comes from their activities at sea are often exposed, either by their service in the Navy of its Majesty, for which La Ciotat provides almost more sailors than any other department or quartier of Provence, or their

¹¹²For instance, the Icard and the Brunet families regularly led the ships of the shipping house of Roux (maison Roux). Gilbert Buti, “Activités maritimes et gens de mer de La Ciotat aux XVII^e et XVIII^e siècles,” 118.

¹¹³Francis Frey, “Les Chantiers navals de La Ciotat,” *Méditerranée* 28, no. 1 (1977): 55.

¹¹⁴Deidier, *Histoire de La Ciotat*, 33.

¹¹⁵Claire Boër, “Entre terre et mer. Cadre de vie, culture matérielle et destins de marins provençaux au XVIII^e siècle,” *Revue d’Histoire Maritime*, no. 21 (2015): 297.

¹¹⁶Masse, *Mémoire historique et statistique sur le Canton de La Ciotat*, 228 [Original: Lorsque le père de l’enfant est à la mer, ce qui arrive fort souvent, on prie une personne d’assister au baptême pour y représenter le père].

*service on board commercial ships; in this way they cannot send any aid to their families which obliges them to resort to moneylenders who ruin them.*¹¹⁷

Besides maritime activities, the population of La Ciotat were active in the agricultural sector. The city was surrounded by fertile land, and consisted of olive trees, almond trees, and vineyards. The harvested grapes produced Muscat wine, a famous and important product of La Ciotat. The inhabitants also cultivated cereals and saffron, and combined this with the breeding of pigs, sheep, and goats.¹¹⁸ In La Ciotat, the combination of maritime and land activities was apparent throughout the modern era, “the sailors [...] were men of the sea and men of the land”.¹¹⁹ The *pluriactivité* of the population, that is, the practice of associating various professional activities, was a common phenomenon in the coastal societies of the French Mediterranean.¹²⁰ The agricultural-maritime relationship was therefore very apparent in the town. Maritime labour was often a seasonal occupation and the use of the land remained important. The pluriactivity of an individual (or a family) was a means to manage the seasonality of maritime and agricultural activities since the sea did not allow sailing throughout the year.¹²¹ The inter-connection of professions such as sailor, fisherman, farmer, innkeeper, baker, or even general labourer were a

¹¹⁷Ibid. 217–8 [Original: Les habitants de la Ciotat, dont toute la subsistance vient du trafic qu'ils font sur mer, sont souvent exposés, soit pendant leur service dans les armées navales de Sa majesté, pour lesquelles la Ciotat fournit presque plus de matelots qu'aucun autre département ou quartier de la Provence, soit pendant leur navigation à bord des navires de commerce, à ne pouvoir envoyer des secours à leurs familles, ce qui met celles-ci dans le cas de recourir à des prêteurs qui les ruinent].

¹¹⁸Masse, *Mémoire historique et statistique sur le Canton de La Ciotat*, 161.

¹¹⁹Ibid. 164. [Original: Les matelots [...] étaient alors hommes de mer et hommes de champs].

¹²⁰For the concept of pluriactivity see: Gérard Le Bouëdec, “La pluriactivité dans les sociétés littorales. XVII^e-XVIII^e siècle,” *Annales de Bretagne et des pays de l'Ouest*, no. 109-1 (2002): 61–90; Le Bouëdec, “Small ports from the sixteenth to the early twentieth century,” 103–26; Gilbert Buti, “Gens de mer et du terroir: capitaines-vignerons et marins-forestiers de la France méditerranéenne au XVIII^e siècle,” in *Entre terre et mer. Sociétés littorales et pluriactivités (XV^e–XX^e siècles)*, eds. Christophe Cérino et al. (Rennes: Presses universitaires de Rennes, 2004); Thierry Sauzeau, “La pluriactivité des marins du long cours au XVIII^e siècle,” *Annales de Bretagne et des Pays de l'Ouest*, no. 120–22 (2013), 65–78; Jordi Ibarz Gelabert, “Migration in the formation of the labour market in Barcelona Docks (1910-1947),” *Journal of Mediterranean Studies* 19, no. 2 (2010): 271–92.

¹²¹Le Bouëdec, “Small ports from the sixteenth to the early twentieth century,” 121.

common phenomenon. The figure of the captain/wine-maker, and the sailor/peasant takes shape by the study of the notarial deeds of the period.¹²² Gilbert Buti shows how captain Philippe Martin from La Ciotat, some fifteen days before sailing his ship for the Levant, bought a piece of land with vines and olive trees.¹²³ Antoine Brémond, a sailor who passed away in Port-Vendres, owned land, vines, and olive trees in La Ciotat and in Cassis.¹²⁴ The seasonal immigration from the mountainous areas of Provence towards the coastline was also a common phenomenon. Every winter, peasants from the villages of Haute-Provence, arrived in the city to cultivate the land or work as labourers during harvest.¹²⁵ The children of farmers often turned towards maritime professions, or they worked in the shipyard.¹²⁶

The *maritimité*, as firstly described by French geographers, that is, the cultural and social affiliation of the littoral societies with the sea, was evident in La Ciotat.¹²⁷ Even though the maritime community was composed of an internal hierarchy, and a distinctive socio-professional diversification, depending on the types of shipping (deep-sea going, coastal, or fishing), and the rank of the seafarers, some general characteristics defined the identity of the town at large, for example, the absence of men, and the risks common to all seafarers.¹²⁸ The identity and culture of La Ciotat had been formed by the sea, and had the characteristics of the maritime communities of the sailing ship period, such as the absence of men, the risks at sea, and the combination of sea and land activities. The seafaring community of La Ciotat participated actively in coastal trade, the *caravane maritime*, and the long-distance seaborne trade of the port of Marseilles. They constituted

¹²²Gilbert Buti, “Vigne et cabotage en Méditerranée nord-occidentale au XVIII^e siècle,” in *La vigne en Méditerranée occidentale, Actes du 128^{ème} Congrès National des Sociétés Historiques et Scientifiques*, ed. Antoine Casanova (Paris: Editions du CTHS, 2008).

¹²³Gilbert Buti, “Notaires de la côte. Le notaire, le marin et la mer à Cassis et La Ciotat au milieu du XVII^e siècle,” in *L'historien et l'activité notariale*, ed. Gabriel Audisio (Toulouse: Presses Universitaires du Mirail, 2005), 162.

¹²⁴Ibid. 163.

¹²⁵Masse, *Mémoire historique et statistique sur le Canton de La Ciotat*, 166.

¹²⁶Ibid.

¹²⁷Péron and Rieucan, *La Maritimité aujourd'hui*.

¹²⁸See: Alain Cabantous, “Histoire maritime ou histoire sociale? L’approche des gens de mer,” in *Drassana: revista del Museu Marítim*, no. 15 (2007): 84–96 [Online: <https://www.raco.cat/index.php/Drassana/article/view/104719> (accessed on 10/09/2020)] and Alain Cabantous, *Les citoyens du large. Les identités maritimes en France (XVII^e–XIX^e siècle)* (Paris: Aubier, 1995).

a vital component of the maritime transport network, dominated by the central port of Marseilles. The primary sectors of fishing and agriculture were also important components of city activities. Simultaneously, shipbuilding and its specialised labour force defined the industrial character of the city, and opened the path that led to changes to the future formation of La Ciotat during the industrial era.

1.4 The maritime economy of Provence in decline: the case of La Ciotat

Towards the end of the eighteenth century, the maritime community of La Ciotat faced a significant economic and demographic downturn directly related to the economic and political downturn experienced by Marseilles. Like most other French ports, Marseilles was almost completely shut down during the period 1793 to 1814. This was both partly due to the British blockade, and also, as a result of the Reign of Terror (1793-1794), a circumstance imposed by the Revolutionary French government following opposition to the overthrow of the French monarchy in 1792. France was subject to a strict sea blockade by the British that completely cut off its ports from overseas markets.¹²⁹ Therefore, the most valuable part of their seaborne trade was destroyed. The Reign of Terror initiated a tumultuous period in Marseilles history, with significant civil disorder leading to a restructuring of the social status-quo, previously established over a long period of time. In this process, much of the commercial elite of the city were either physically exterminated or ruined financially.¹³⁰ Simultaneously, the revolt of slaves in Saint-Domingue (present-day Haiti) in 1791, and the loss of the colony in 1804, together with the loss of Martinique in 1794 (which passed into the hands of the English), had a severe effect on French commercial

¹²⁹François Crouzet, “Wars, Blockade, and Economic Change in Europe (1792 - 1815),” *The Journal of Economic History* 24, no. 4 (1964): 569.

¹³⁰Marseilles became a “city without a name” [ville sans nom] with a decree of January 6, 1794, and was then subjected to a military commission whose task was to attack the merchants who supported the rebellion. A total of 1654 suspects were judged until the 9 Thermidor (27th of July 1794) and 745 guillotined. Among them were several well-known merchants such as J. Seimandy, J. Hugues, J-F. Rostand, Rolland the oldest, J. Payan, L-F Tarteiron, B. Samatan and J. Rabaud. The circumstances also led the merchant elite of Marseilles to emigrate: 185 merchants from Marseilles fled the city prior to the summer of 1794. See Laurence Americi and Xavier Daumalin, *Les dynasties Marseillaises de la révolution à nos jours* (Paris: Perrin, 2010), 13; Carrière, *Négociants marseillais au XVIII^e siècle*, 260–63.

interests, ruining the seaborne trade of Marseilles.¹³¹ In addition, the control of Gibraltar by the English fleet halted all oceanic trade with the Antilles.¹³² These circumstances practically ruined French seaborne trade and shipping.

In addition, during the last quarter of the eighteenth century, the *caravane maritime* and the commercial routes of the Levant, by which many secondary ports were largely dependent, drastically decreased as Ottoman, Venetian/Ionian Greeks, and Ragusians replaced French activity.¹³³ The military defeat of the Ottoman Empire by Russia in the first Russo-Ottoman War of 1769 - 1774, led (from 1783) to the opening of the Black Sea to European ships. The resulting rise of the Ragusan and Ottoman Greek fleets in the Levant, and the Wars of the French Revolution, led to a decline of the *caravane maritime* and the disappearance of French caravaneers in the Mediterranean. At the beginning of the nineteenth century, a series of events, including the Greek War of Independence, the Egyptian rebellion led by Muhammad Ali, and the conquest of Algiers by France, led to the end of close maritime and trade relations between France and the Ottoman Empire. This relationship had characterised almost all of the seventeenth and eighteenth centuries.¹³⁴ The halt of commercial activity brought a radical reduction in shipbuilding activity. The port of Marseilles declined dramatically and the need for ship building services decreased.¹³⁵ Meanwhile, from 1802 to 1815, the shipbuilding workforce of the secondary ports, concentrated in Toulon, engaged in naval vessel construction for the French Navy.¹³⁶

Subsequently, all the ports of Provence that were dependent or closely related to the maritime economy of Marseilles saw a decline in their economies. Given the political and economic circumstances at the beginning of the nineteenth century, La Ciotat found itself in a

¹³¹Americi and Daumalin, *Les dynasties Marseillaises*, 16–7 and Silvia Marzagalli, “Commerce,” in *The Oxford Handbook of the Ancien Regime*, ed. William Doyle (Oxford: Oxford University Press, 2012), 260–61.

¹³²Roland Caty and Eliane Richard, *Le transport maritime: le port autonome de Marseille* (Marseille: J. Lafitte, 2003), 31.

¹³³See: Gelina Harlaftis, “The 'eastern invasion'. Greeks in the Mediterranean trade and shipping in the eighteenth and early nineteenth centuries,” in *Trade and Cultural Exchange in the Early Modern Mediterranean: Braudel's Maritime Legacy*, eds. Maria Fusaro et al. (London: I.B. Tauris, 2010), 223–52.

¹³⁴Panzac, “International and domestic maritime trade in the ottoman empire,” 202–4.

¹³⁵Laurent Pavlidis, “Construction navale traditionnelle et mutations,” 121–2.

¹³⁶*Ibid.* 114.

profound economic crisis. Town council minutes reported a general misery of unemployment. The population of La Ciotat decreased from 9,000 inhabitants at the end of the seventeenth century to 6,000 in 1780, and 5,000 in 1790.¹³⁷ Simultaneously, shipbuilding production drastically reduced with a causal decrease of commercial and shipbuilding activities in Marseilles. La Ciotat was in a sorrowful state.¹³⁸ During the period 1762 to 1787, the shipyard of La Ciotat constructed 225 ships (of 23,394 tons in total), whereas at the beginning of the nineteenth century, from 1802 to 1815, only 43 ships (of 10,957 tons) were constructed in total. The activity of the shipyard was “almost non-existent: the blockade obstructs the arrival of the wood”¹³⁹ and “the piers of the shipyard are totally torn down, and the docks are in a terrible condition”.¹⁴⁰

The district chief of La Ciotat, blamed the low shipbuilding production of 1820 on the stagnation of trade with the Levant. This led to significant unemployment and forced many to seek work in Toulon or Marseilles.¹⁴¹ In 1828, the annual statistical report for the port of La Ciotat stated:

*The price of the constructions is higher than last year. In general, the materials come from Marseilles by road. The road, which exists between Marseilles and La Ciotat, passing by Cassis, has been for some time in such a complete state of disrepair that the wagons can no longer pass through and those that arrive at us are obliged to go through the town of La Cadière. That means that now they cover 36 to 40 km instead of 20 km that is the distance from La Ciotat to Marseilles.*¹⁴²

The commercial and economic decline of Marseilles during the period 1793 to 1815 had an important impact on the maritime community of La Ciotat with strong consequences and a profound decline in its economy. In this respect, the decline confirms the impact of exogenous and

¹³⁷Vasselin, *La Ciotat, de Citharista aux chantiers navals*, 56 and Yves Laget, *Notre histoire de la Construction navale à La Ciotat : Des origines aux Messageries Nationales* (La Ciotat: Association Joseph-Édouard Vence, 2012), 95.

¹³⁸AMLC, DA.01.06 to DA.01.12, Registres de Délibérations du Conseil Municipal (1802 - 1833).

¹³⁹AMLC, DA.01.10, Registres de Délibérations du Conseil Municipal Council Minute of 1813 [Original: L’activité du chantier est quasiment nulle: le blocus empêche l’arrivée des bois].

¹⁴⁰AMLC, DA.01.10, Registres de Délibérations du Conseil Municipal Council Minute of 1813.

¹⁴¹SHD-Toulon, 14 P 121, Mémoire Statistique 1820.

¹⁴²SHD-Toulon, 14 P 121, Mémoire Statistique 1828.

endogenous factors in the dynamics of maritime services, and the evolution of secondary ports inside the seaport system of the Provence maritime region. The crisis of La Ciotat was mainly due to external factors of a political and economic nature, primarily due to the decline of Marseilles as a result of the British blockade, the consequences of the Reign of Terror, and the disruption of trade in the Eastern Mediterranean. However, from the 1830s onwards, several internal and external factors caused a positive change in relation to the reorientation of its activities that would affect its character until the present day.

1.5 Conclusion

During the pre-industrial era, the maritime economy of La Ciotat, as a coherent part of the port system of the French Mediterranean, combined oceanic trade, the inter Mediterranean *caravane maritime*, and coastal trade, and represented a fundamental component of the Provence transport system. Simultaneously, the port's economy, largely dependent on prominent shipbuilding activity, had complemented the needs of Marseilles. In this regard, the economy of La Ciotat was clearly connected to the sea, and formed a strong maritime culture that defined the population from the early origins of the town.

The dependence of the port of La Ciotat on the port system of Provence and its local, regional, inter-regional, and international networks, determined its economic development from the seventeenth century onwards, and later its decline at the end of the eighteenth century. The end of the eighteenth century in France was when new equilibriums on an economic, political, and social level questioned and/or abolished those of the *Ancien Regime*. The reforms of French governmental and political institutions between 1789 and 1791, based on the Declaration of the Rights of Man and the Citizen, opened the path to liberal principles of modern capitalism. This action ended the separate legal status of aristocrats, and altered the long-established privileges enjoyed by them, such as the trade monopoly of Marseilles.¹⁴³ The Revolutionary reforms, together with the Reign of Terror, and the two decades of warfare in the period 1789 to 1815, formulated

¹⁴³See Michel Stephen Smith, *The Emergence of Modern Business Enterprise in France (1800 - 1930)* (Cambridge, Massachusetts and London: Smith Harvard University Press, 2006), 24.

new conditions and circumstances that profoundly affected the economic and business development of France in the nineteenth century.

At the beginning of the nineteenth century, a combination of factors led to numerous changes in the shipping industry in the south of France. The political, economic, and technological changes and advances of the nineteenth century accelerated the restructuring of society, by offering new opportunities - this established a new status quo (for example, through the renewal of entrepreneurs, and the restructuring of business dynasties).¹⁴⁴ In this regard, technological changes, new ways of thinking, and productive structures came together to put an end to the old commercial order, and opened up the modern world. In this framework, the port of La Ciotat experienced a major shift that led to a complete metamorphosis of its character and its significance on the system of ports of the French Mediterranean.

¹⁴⁴Americi and Daumalin, *Les dynasties Marseillaises*, 13.

CHAPTER 2. The advent of steam in La Ciotat: the first phase (1836 - 1851).

2.1 Introduction

*“We announce that a powerful trading firm from Marseilles is going to establish an engine workshop in La Ciotat. This small port, almost lost in the Mediterranean, will acquire a completely new importance. At the same time, the national industry will take on new momentum, and commerce by steamships, which begins to take place in the Mediterranean, will not be identified with England”.*¹⁴⁵

Thus, the local press welcomed the new industrial development of La Ciotat and the region at large. Following an economic depression in the south of France, economic, technological, and political factors established a new reality. La Ciotat started to recover mainly from the 1830s onward due to the introduction of steam power and other new technologies. The town actively entered into the age of steam, experiencing huge economic and industrial development post 1836. These circumstances were created by the industrialist Louis Benet when he decided to establish business activities related to shipbuilding and machinery construction in the port. Benet (1805 - 1877), was a son of a merchant and shipowner who originated from La Ciotat and resided in Marseilles. Although he did not have an education in engineering, he had travelled to Liverpool, connecting with the shipyards of Buckley where the first steamships were constructed.¹⁴⁶ The technological advances experienced in Liverpool (and England more generally) and the potential for steam power strongly persuaded him of the advantages of these new technologies. In 1836, he founded the Company *Louis Benet et Cie*. The same year, in May 1836, the shipyards of La Ciotat,

¹⁴⁵*Le Semaphore de Marseille*, 29 Décembre 1835 [Original: On vous annonce qu’une puissante maison de commerce de Marseille va établir un atelier de machines à La Ciotat. Ce petit port, presque perdu dans la Méditerranée, va acquérir une importance toute nouvelle. En même temps l’industrie national prendra un nouvel essor, et le commerce qui commence à se faire dans la Méditerranée par bateau à vapeur, cessera d’être tributaire de l’Angleterre].

¹⁴⁶Xavier Daumalin and Olivier Raveux, “Aux origines de l’industrie modern marseillaise: l’œuvre de Louis Benet et de Philip Taylor (années 1830-1850),” *Rives méditerranéennes*, no. 45 (2013): 21.

under the supervision of Joseph-Édouard Vence (1803 - 1875), a renowned ship constructor of La Ciotat, launched their first paddle steamer, the *Phocéén*, with an engine supplied by Great Britain.¹⁴⁷ This period was the first phase of the transition towards industrialisation in the port and the beginning of enormous technical innovation, which led to profound industrial development in the town. Louis Benet and his associates succeeded in creating one of the most powerful industrial shipbuilding centres of the Mediterranean.

Like other French ports, Marseilles recovered slowly in the two decades after the fall of Napoleon, in 1814. Its merchants reestablished their commercial links with the Levant and the Antilles, and its shipowners made tentative moves into new areas such as the Indian Ocean, Africa, and South America.¹⁴⁸ During the Restoration, Marseilles rediscovered its traditional place of exchange: the Mediterranean Sea. By 1830, Marseilles was the most important port of the western Mediterranean, carrying the largest percentage of seaborne trade in the Mediterranean basin.¹⁴⁹ The conquest of North Africa following the expedition to Algiers in 1830, formed new commercial and political routes with the new colonies, and increased the seaborne trade of Marseilles.¹⁵⁰ The next thirty years proved exponential, with both the value and volume of Marseilles' trade (both commerce and shipping) tripling by 1860.¹⁵¹ In addition, from the 1830s onwards, the port of Marseilles and the region of Provence were actively engaged in the industrial revolution. Shipbuilding (including steamships), the manufacture of Mediterranean related agricultural products, and the manufacture of colonial related agricultural products (palm oil and raw sugar), constituted the main fields of industrialisation in Provence.¹⁵² These sectors generated further industrial production, including chemical products mining, metalworking, and machinery engineering works.

The industrial and economic history of Provence in the first half of the nineteenth century, has attracted a good deal of attention from French economic historians. The groundbreaking

¹⁴⁷Ibid. 22. *Le Phocéén*, 333 tonnage; dimensions: 50,75 x 6,89 x 4,25 m.

¹⁴⁸Smith, *The Emergence of Modern Business Enterprise in France*, 42.

¹⁴⁹Olivier Raveux, *Marseille, ville des métaux et de la vapeur au XIX^e siècle* (Paris: CNRS-Éditions, 1998), 27.

¹⁵⁰Smith, *The Emergence of Modern Business Enterprise in France*, 42.

¹⁵¹Ibid.

¹⁵²Daumalin and Raveux, "Aux origines de l'industrie moderne marseillaise," 164.

studies of Olivier Raveux¹⁵³ and Xavier Daumalin¹⁵⁴ on the history of industrialisation in Provence reflect the new directions of French historiography - especially since the 1990s - that overturned the previous interpretation of slow economic growth, and of Mediterranean underdevelopment, and further questioned the centre-periphery model.¹⁵⁵ The first phase of industrialisation in Provence and the case of Louis Benet holds an important place in the historiography of the industrialisation of France. The studies on regional industrial growth included the case of Louis Benet, as a relevant example of industrial development, focusing on the business history as well as on the technological innovation that took place in La Ciotat. However, the case of La Ciotat had also been investigated as part of regional growth alongside the port of Marseilles as a focal point, without concentrating on the exact process of industrialisation of a port, and its transition towards industrial shipbuilding.

The analysis in this chapter will focus on the years between 1836 and 1851. These are the chronological limits of the presence of the *Compagnie Louis Benet et Cie* in La Ciotat. This period was the first phase of the transition towards large-scale steam and iron shipbuilding in the town. The technological upheaval of shipbuilding was a process rather than an event, just like the industrial revolution of which this was a reflection.¹⁵⁶ The purpose of this chapter is to study exactly the process of technological transition in the port. A multi-dimensional approach is applied in order to analyse the determinants of the new business formation, and to examine the outcome of this industrial process. To that end, the factors that influenced the choice of La Ciotat as the location for the establishment of the firm will be considered and assessed. Secondly, the process of industrial adaptation will be examined through the externalities that determined the industrial

¹⁵³Olivier Raveux, *Marseille, ville des métaux et de la vapeur*.

¹⁵⁴Xavier Daumalin and Marcel Courdurié, *Vapeur et Révolution industrielle à Marseille (1831 - 1857)* (Marseille: CCIMP, 1997).

¹⁵⁵For the pioneering studies on this matter see: Marcel Roncayolo, *L'imaginaire de Marseille: port, ville et pôle* (Marseille: CCIMP, 1990); Gérard Chastagnaret, "La Méditerranée ou l'industrialisation masquée," *Alliages*, no. 24-25 (1995): 295-306; Michel Lescure, "Companies and Manufacturers of the First Period of Industrialisation of Marseilles," in *The Birth and Death of Companies: a historical perspective*, eds. Philippe Jobert and Michael Moss (Princeton: Princeton University Press, 1990) and Gérard Chastagnaret and Philippe Mioche, eds. *Histoire industrielle de la Provence* (Aix-en-Provence: PUP, 1998).

¹⁵⁶Frank Neal, "Shipbuilding in the Northwest of England in the Nineteenth Century," *Research in Maritime History*, no. 4 (1993): 117.

growth of the shipbuilding industry. Thirdly, the chapter will explore the process of transition through the analysis of the shipbuilding production output and the technological evolution of La Ciotat. In order to confirm the importance of La Ciotat in the maritime economic environment of the Mediterranean Sea, the analysis will provide evidence of its remarkable industrial growth through a comparative analysis with other Mediterranean ports. Finally, the decline of the activities of the Louis Benet company will be presented, concluding a fundamental cycle of economic and industrial development in the town that established the foundations of its further industrialisation.

2.2 Factors for the establishment of shipbuilding industry in La Ciotat

One of the key questions of this thesis is related to the reasons that led the port-town of La Ciotat and its maritime community, to experience such a profound transformation post 1836. Why did Louis Benet choose to establish his industrial activities in La Ciotat? We will use the tools of economic geography, focusing on the economics of agglomeration and location theory to explain the geographical choice.¹⁵⁷ Agglomeration economic theory examines why specific locations are chosen for particular economic activities, and emphasises the importance of the spatial distribution of activities for the growth of an industry.¹⁵⁸ It analyses the reasons that affect the development of a specific geographical region/city, and the factors that facilitate the development of a specific activity to enable investment. Agglomeration is made possible as the aggregate outcome of a number of individual decisions.¹⁵⁹ Hence, the first part of this chapter will focus on the determinants that affected Louis Benet's decision to establish his firm in this particular location.

¹⁵⁷Eric Schoenberger, "The management of Time and Space," in *The Oxford Handbook of Economic Geography*, ed. Gordon Clark et al. (Oxford: Oxford University Press, 2007), 317–32.

¹⁵⁸Masahita Fujita, "Economics of Agglomeration," *Journal of the Japanese and international economies*, no. 10 (1996): 329–78.

¹⁵⁹*Ibid.* 317.

In the mid-1830s, La Ciotat fulfilled all the requirements for the creation of a shipbuilding industry.¹⁶⁰ Louis Benet, in his report to the naval authorities in 1837, reveals the main factors that contributed to his decision to form a new shipbuilding industry in the town. He wrote:

The establishment of MM Louis Benet and company for the construction of steam engines will give to the port of La Ciotat an importance, as steam shipping will only increase in the future as a result of the development of our possessions on the African coast [...]

The preference that the company has attributed to La Ciotat for the foundation of this large factory is due to the position of the port, the convenience of having an available dock on site, and the advantage of managing workers in a small town. [...] [The Company] thought that the establishment placed between Marseilles and Toulon will be able to satisfy both the demands of commerce, the postal administration and above all the Royal Navy, which currently owns a good number of steamships.¹⁶¹

In this report, Louis Benet defined perfectly the socio-economic elements that determined his decision to locate his business in La Ciotat. On the one hand, the market forces linked to commercial and political reasons, established an important private and public demand that could reinforce the production process. On the other hand, the elements that influenced the decision were related to the geographical location of La Ciotat, the available land, the existing labour market,

¹⁶⁰SHD-Toulon, 14 P 122, Mémoires Statistiques (1831 - 1845). The series of *mémoires statistiques* of the port-town of La Ciotat were analytical statistical reports that were sent to the commissariat of the navy in Toulon between 1831 and 1845. The *mémoires statistiques* are of a great importance for the examination of the process of transition in the port of La Ciotat.

¹⁶¹SHD-Toulon, 14 P 122, Mémoire Statistique 1837 [Original: L'établissement de MM Louis Benet et compagnie pour la construction des machines à vapeur est une création qui ne peut manquer de donner au port de La Ciotat une importance que la navigation par vapeur ne fera qu'accroître dans l'avenir par suite du développement que vont recevoir nos possessions sur la côte d'Afrique. [...] La préférence que la compagnie a accordé à La Ciotat pour la fondation de cette grande usine est due à la position même de ce port, à la convenance d'y avoir trouvé disponible un emplacement sur le quai et à l'avantage qu'il y a toujours à diriger des ouvriers dans une petite ville. [...] Elle a pensé que l'établissement placé entre Marseille et Toulon serait dans le cas de satisfaire à la fois aux demandes du commerce, de l'administration des postes et surtout de la marine royale, qui possède actuellement un bon nombre de bâtiments à vapeur].

and the already established networks of Louis Benet. After all, his paternal family originated in La Ciotat, providing a convenient connection with the local population.

2.2.1 The demand: the emergence of industrialisation and the market forces.

A preliminary factor for the introduction of new technologies in traditional activities is the level of demand. The foundation of engineering works for the production of transport modes such as steamships and trains, created a demand that activated market forces and transformed production factors towards new technologies. The case of Provence and Marseilles underlines the importance of demand as a preliminary factor for industrialisation.¹⁶² From 1835 onwards, the development of new modes of transport encouraged the entrepreneurs of Marseilles to create a large engineering workshop and shipbuilding centre in the region. The first steamship companies created further investment opportunities for the production of steamships and steam engines for those entrepreneurs. Obviously, the introduction of steam generated self-propelled ships independent from both the winds and sea currents, offered speed and greater punctuality. During the early years of steam shipping, when sail ships remained resilient as a mode of transport, steamships were limited to servicing passengers, and mail services. Their introduction, however, represented an extension of the market for shipping services.¹⁶³ The port of Marseilles was linked with regular services to Naples, Genova, and Livorno, and c.1818, with the steamer *Ferdinando Primo* of the *Compagnia privilegiata per la navigazione a vapore Pierre Andriel & Cie*, from Napoli¹⁶⁴.

The shipowners of Marseilles were initially reluctant to invest in steam shipping, given the immense capital outlay for construction and repair, high coal consumption (especially with the first steamships), high overall operational costs, the significant risk of accidents involving steam

¹⁶²See: Xavier Daumalin and Olivier Raveux, "Marseille (1831 - 1865). Une révolution industrielle entre Europe du Nord et Méditerranée," *Annales. Histoire, Sciences Sociales*, no. 1 (2001): 153–76.

¹⁶³Sarah Palmer, "'The Most Indefatigable Activity". The General Steam Navigation Company, 1824 - 1850," *The Journal of Transport History*, no. 1 (1982): 1.

¹⁶⁴Hubert Giraud, *Les Origines et l'évolution de la navigation à vapeur à Marseille (1829-1900)* (Marseille: Société anonyme du Sémaphore de Marseille, 1929), 4.

engines, and importantly, the refusal of the state to subsidise the development of steam shipping (in contrast with Great Britain).¹⁶⁵ In the south of France (mainly in Marseilles), the first initiatives for the formation of regular steam services in the Mediterranean began c.1830s onwards. One of the reasons that accelerated the introduction of steam shipping in the south of France was the acquisition of new colonies, which began with the French conquest of Algiers. The need for constant and systematic military and commercial connections between Marseille and North Africa greatly boosted the creation of an economically viable steam navigation company.¹⁶⁶ The encouragement for acquisition and investment in steamships was also apparent in the local Marseilles press. In 1830, *Le Semaphore de Marseille*, announced with great satisfaction the construction of two steamships by the company *Charles et August Bazin* in the port of La Seyne-sur-mer. This opened a new regular service between Marseilles and Naples.¹⁶⁷ *Moniteur Universel* pointed out, in March 1835, the benefits of steamships from the perspective of speed and punctuality, in comparison to the uncertain, variable and irregular sail.¹⁶⁸

It is in this context that the first steamship lines emerged. In March 1831, the Bazin brothers, merchants from Marseilles, formed the company *Charles et August Bazin et Cie*, and launched the first steamship connecting Marseilles with Italy.¹⁶⁹ From 1826, *Aynard frères*, drapers from Lyon and already active in the fluvial fleet in the river Saone, founded a steam navigation company in the Rhône. From 1830, the *Compagnie Gérard* based in Toulon obtained a license to provide postal services, and created regular sea routes to Corsica while from 1833, the *Compagnie Valery* created a regular connection with North Africa.¹⁷⁰ In 1836, three companies began to specialise in coastal navigation with Languedoc, namely: the *Théophile Périer & Cie*, the *Auguste*

¹⁶⁵Olivier Raveux, *Marseille, ville des métaux et de la vapeur*, 54–5.

¹⁶⁶Pierre Guiral, *Marseille et l'Algérie (1830 - 1841)* (Gap: Orphys, 1957), 124.

¹⁶⁷*Semaphore de Marseille*, 25 février 1830.

¹⁶⁸*Moniteur Universel*, 24 mars 1835.

¹⁶⁹There are the two “twin” steamers *Henri IV* and *Sully* from the shipyards of La Seyne-sur-mer. The line opened in March 1831. See: Daumalin and Courdurié, *Vapeur et révolution industrielle à Marseille*, 106.

¹⁷⁰Dominique Brisou, “Les débuts de la navigation à vapeur en France au XIX^e siècle.” *Deux siècles de constructions et chantiers navals (milieu XVII^e-milieu XIX^e siècles)*, ed. Christiane Villain Gandossi (Paris: Editions du CTHS, 2002), 169.

et Guillaume Chanhel frères & Cie, and the Simon Thérond & Cie.¹⁷¹ From the French State perspective, the importance of the development of steam shipping, and the provision of mail subsidies for economic and military reasons in the Mediterranean, was significantly promoted during the July Monarchy. In 1835, the *Assemblée Nationale* promulgated a law for “the establishment of liners designed to transport mail in the Mediterranean between France and the Levant” and thus created the first public mail service between France, North Africa, and the Eastern Mediterranean operated by steamships of the French navy.¹⁷² The postal service began operations in 1837 with a service connecting Marseilles with Constantinople. By 1850, the French state was covering three main routes with thirteen steamers.¹⁷³

Louis Benet, in favor of the implementation of new technologies, formed strong networks with those entrepreneurs based in Marseilles who were keen to invest in his industrial activities. In 1835, he participated in a group of entrepreneurs who wanted to form a steam navigation company, the *Compagnie Marseillaise de la Méditerranée pour la navigation à vapeur*.¹⁷⁴ Even though this initiative did not come to fruition, Benet succeeded in making key links with businessmen who played an important role in subsequent steam navigation developments, for example, the *maison Jean Luce*, the companies of Marc Fraissinet and Joseph Roux, and indirectly, James baron de Rothschild. The opening of trade markets to steam shipping, and railway, created an impetus for shipbuilding, particularly steamships, and associated mechanical engineering industries in Provence.¹⁷⁵ The demand for shipyards able to construct and repair steamships together with workshops for steam engines and locomotives for both the private and state sectors, began in the mid-1830s and accelerated during the 1840s. The use of steam and iron formed new modes of partnerships and business networks between railways and shipping, and, subsequently, between the production of locomotives and the large-scale steam and metal shipbuilding industry.

¹⁷¹Daumalin and Courdurié, *Vapeur et révolution industrielle à Marseille*, 115.

¹⁷²Dominique Brisou, *Accueil, introduction et développement de l'énergie vapeur dans la Marine militaire française au XIX^e siècle* (Paris: Service historique de la marine, 2003), 612.

¹⁷³*Moniteur Universel*, 5 March 1851.

¹⁷⁴Raveux, *Marseille, ville des métaux et de la vapeur*, 133.

¹⁷⁵Bruno Marnot, “Le paradoxe de la construction navale dans la marine marchande en France de 1815 à 1914,” *Revue d'Histoire Maritime*, no. 7 (2007): 187.

By the end of the second decade of the first half of the nineteenth century, Marseilles had taken radical steps towards steam shipping. From the 1840s, the French state transformed its industrial maritime policy in favour of steam shipping, providing a prime of 33% *ad valorem* for those steamships adopting the French flag.¹⁷⁶ In 1845, Bruno and Albert Rostand founded the *Compagnie des Paquebot à Vapeur du Levant* connecting Marseilles to Constantinople and the Eastern Mediterranean.¹⁷⁷ In 1846, the Home of Fraissinet extended its services to Spain and Portugal. Between 1839 and 1855, sixteen new companies were formed, and approximately 30 million francs invested in steam navigation.¹⁷⁸ In 1839, steamships registered in French Mediterranean ports numbered 65, 18 of which were registered in Marseilles, and 20 in Toulon (to which 17 were used for the transportation of troops to Algiers).¹⁷⁹ In addition, Marseilles had the largest number of steamships registered in all Mediterranean ports. In 1839, steamships represented 8.5% of the total number of ships using the port of Marseilles, and 20% of the total tonnage.¹⁸⁰ By 1846, 90 steamships were registered in the port of Marseilles.¹⁸¹

2.2.2 Factors that influence the location decision.

Apart from market forces, several other elements influenced the choice of Louis Benet to locate his activities in La Ciotat. The geographical position of La Ciotat and its proximity to the commercial port of Marseilles, and the naval port of Toulon was a key factor for this choice and ultimately crucial to its development. It was also considered one of the main competitive

¹⁷⁶Raveux, “La construction navale et la mécanique marine en France au milieu du XIX^e siècle: l’exemple de la Société Taylor et fils,” *Deux siècles de constructions et chantiers navals (milieu XVII^e-milieu XIX^e siècle)* ed. Christiane Villain Gandossi (Paris: Editions du CTHS, 2002), 215. See also: Marnot, “Le paradoxe de la construction navale,” 183–211.

¹⁷⁷Raveux, *Marseille, ville des métaux et de la vapeur*, 89.

¹⁷⁸See Appendix 2.1.

¹⁷⁹Daumalin and Courdurié, *Vapeur et révolution industrielle à Marseille*, 118.

¹⁸⁰Xavier Daumalin and Olivier Raveux, “La marine marchande marseillaise en transition énergétique (1831 - 1851). Origines et enjeux d’un choix socio-écossystémique,” *Cahiers de la Méditerranée*, no. 57/1: 224 [Online: <http://journals.openedition.org/cdlm/10351> (accessed on 15/09/2020)].

¹⁸¹Raveux, *Marseille, ville des métaux et de la vapeur*, 92.

advantages, offering La Ciotat vital market access. In this way, the company of Louis Benet was able, with a minimum of transport costs, to supply the two ports – commercial and naval – with steamships. The geographical location was essential for market access to raw materials, especially wood. Wood was moving through La Ciotat from neighbouring towns such as La Seyne-sur-mer, Toulon, Arles and Beaucaire.¹⁸²

Another important factor that influenced this decision was the available space for new industrial units. La Ciotat was ideal for this industrial transformation from the perspective of available land. As argued in the first chapter, port activity had declined since the late eighteenth century and previous shipbuilding activities, particularly sailing ships, had been severely reduced. La Ciotat had experienced a deep economic crisis. The reduction in shipbuilding activity created excess space for the development of new economic initiatives. Apart from the free space in the port, the town council was keen to offer assistance in order to facilitate new economic development in the town and provide possibilities for spatial expansion. This policy can be attested by the agreement of the municipality in 1835 to the demolition of part of the town defensive walls to provide Benet with the opportunity to expand an area of workshops, and to use the demolished material for the construction of his steam engines workshops.¹⁸³ This need for land was instrumental in the view that the port of Marseilles had reached its limits. During this period, Marseilles did not possess enough space, particularly as the new *port de La Joliette* had yet to be created and the *Vieux Port* did not have enough available space to form industrial scale shipyards. The extension of the port to the north of the Marseilles coastline, and the creation of the *port de La Joliette* began in 1844 and only finished in 1853.¹⁸⁴

From a strategic perspective, as Louis Benet pointed out in his report, the choice of La Ciotat was contingent on control of the shipyard workforce. The limited space available within the port (and town) prevented the growth of other industrial activities and, therefore, the workforce did not have choice other than what the shipyards and port offered. In addition, the existence of a

¹⁸²In his personal journal, the ship constructor Joseph-Édouard Vence mentions many times his trips for buying or inspecting the wood for shipbuilding constructions.

¹⁸³AMLC, DA.04.07, Registre des actes de la mairie de la Ciotat, mai 1835.

¹⁸⁴Marie-Françoise Berneron-Couvenhes, *Les Messageries Maritimes. L'essor d'une grande compagnie de navigation française, 1851-1894* (Paris: Presses de l'Université Paris-Sorbonne, 2007), 56.

significant pool of experienced labour is an essential consideration for industrial location. Wooden shipbuilding expertise was a well-established part of the La Ciotat local economy since the seventeenth century. When Louis Benet founded the shipbuilding business, steamships were still wooden, therefore the skills of sail ship craftsmen remained necessary. The trajectory of La Ciotat as an important shipbuilding port in Provence, and the existence within the city of a skilled labour force created a strong path dependence. As Ron Martin pointed out, “*any evolutionary perspective on the socio-economy starts from an elementary but important fact, namely, that, in each period, a socio-economy inherits the legacy of its own past*”.¹⁸⁵ Path dependence explains the technology adoption process and industrial evolution through the adoption of its past economic activities stemming from its regional/local economic specialization.¹⁸⁶ From this perspective, La Ciotat had one more competitive advantage related to a historical conjuncture, and the evolution of its past economic activities.¹⁸⁷ Path dependence was visible both on shipbuilding workforce expertise together with the existence of available space for the necessary expansion of the port.

We can assume that the choice of La Ciotat by Benet was also connected to personal reasons, in particular his own family’s entrepreneurial path dependence and networks in the town. Louis Benet and his family owned a cotton manufacturing business that specialised mainly in the manufacture of sails. The shipowner Toussaint Benet (the father of Louis Benet) established this business in La Ciotat, with Louis assuming control in 1827, when he was just 27 years old.¹⁸⁸ Moreover, Toussaint and Louis Benet collaborated closely with Joseph-Édouard Vence, a renowned shipbuilder in La Ciotat. The personal journal of Joseph-Édouard Vence, maintained in the archives of the *Musée Ciotaden*, is an important document for understanding the socio-economic conditions of La Ciotat during this period.¹⁸⁹ In the journal, the connection between

¹⁸⁵Ron Martin, “Path Dependence and the Spatial Economy: A key concept in Retrospect and Prospect,” in *Handbook of Regional Science*, eds. Manfred M. Fischer and Peter Nijkamp (Berlin Heidelberg: Springer-Verlag, 2014), 610.

¹⁸⁶Paul Krugman, “History and Industry Location: The Case of the Manufacturing Belt,” *The American Economic Review* 81, no. 2 (1991): 80–3.

¹⁸⁷Richard A. Walker, “The Geography of Production,” in *A Companion to Economic Geography*, eds. Eric Sheppard and Trevor J. Barnes (Malden-Oxford-Victoria: Blackwell Publishing), 125–27.

¹⁸⁸Daumalin and Courdurié, *Vapeur et révolution industrielle à Marseille*, 67.

¹⁸⁹Journal annoté de Joseph-Édouard Vence, Transcription du journal original conservé au Musée Ciotaden, recherches et annotations par Yves Laget (henceforward: Journal JEV).

Louis Benet and the shipyard of La Ciotat was mentioned frequently: “01/01/1834: Design in the room of the size of the ship Luçon, shipowner Benet; 13/06/1834: project of a new ship to construct for Louis Benet; 24/01/1835: Louis Benet speaks favourably to my father of an alleged establishment that is going to be created for the construction of marine engines and steamships here”.¹⁹⁰

All of the above factors, including market forces, geography, available space, skilled workforce, the historical path dependence of the town, and the existing networks of Louis Benet made La Ciotat an excellent location for the establishment of a new industrial activity and the rebirth of its economy.

2.3 The process of adaptation: the externalities of industrial growth

In 1836, after forming the industrial shipyard in La Ciotat, the port underwent a broad industrial transformation. It was in this period that La Ciotat began a technological, economic, and social transition. What were the basic variables that contributed to the process of adaptation of La Ciotat to the new industrial economic reality? In order to understand both urban and regional growth in the area, the analysis will use the tools of the so-called new economic geography, and the theories of externalities of growth to provide essential methodological insights.¹⁹¹ With a combination of international trade, micro-economic, and spatial analysis theories, the new economic geography attempts to explain the uneven distribution of activities across geographical

¹⁹⁰Journal JEV [Original: 01/01/1834: Tracé à la salle du gabarit du navire Luçon, armateur M. Benet; 13/06/1834: Projet d’un nouveau navire à construire pour M. Benet; 24/01/1835: Monsieur Louis Benet parle avantagement à mon père d’un prétendu établissement que l’on créerait pour la construction des machines à vapeur et des navires ici].

¹⁹¹For pioneering works on NEG see: Paul Krugman, “Increasing Returns and Economic Geography,” *Journal of Political Economy* 99, no. 3 (1991), 483–99; Masahisa Fujita et al., *The spatial Economy: Cities, Regions and International Trade* (Cambridge, MA: MIT Press, 1999); and Anthony J. Venables, “New Economic Geography,” in *Palgrave Dictionary of Economics*, eds. Steven N. Durlauf and Lawrence E. Blume (London: Palgrave Macmillan, 2008): 4540–44. See also: Masahisa Fujita and Jacques-Francois Thisse, *Economics of Agglomeration. Cities, Industrial Location and Regional Growth* (Cambridge: Cambridge University Press, 2002), 267; Peter Sunley, “Urban and Regional Growth,” in *A Companion to Economic Geography*, 188–89.

areas, and understand the terms of agglomeration, dispersion, and regional integration.¹⁹² Three main types of externalities have been identified as primary factors that stimulate growth, and subsequently lead to industrial surge in a geographic region: 1) pecuniary externalities (capital accumulation); 2) technological spillovers, through the exogenous and endogenous accumulation of knowledge; and 3) productivity externalities reflected in the development of infrastructures, and human capital accumulation.¹⁹³

2.3.1 The Company of Louis Benet: evolution and capital development

The need for capital for the development of an industrial plant was just as primordial in the 1830s as it is today. The cost of constructing steamships, steam engines, and locomotives demanded substantial amounts of capital for material, tools and infrastructure.¹⁹⁴ The role played by demand forces and their capital inflows as a source of investment were essential for the development of industrial production. Louis Benet reorganised his company several times by acquiring new capital from his financial networks based both on the entrepreneurial shipping circle of Marseilles, and a railways group of businessmen based in the south of France.¹⁹⁵ As Olivier Raveux pointed out, the history of the evolution of the Louis Benet group of companies during the period 1833 to 1851, reveals the importance of gathering necessary financial resources.¹⁹⁶

Louis Benet started his industrial activities in 1833. At this time, he created links with the *brothers Falque*, industrialists, and with the two existing blacksmiths in the town, *Martiny père et fils*.¹⁹⁷ This group created a partnership company and also, established a blacksmith workshop in

¹⁹²César Ducruet, Theo E. Notteboom, and Peter W. de Langen “Revisiting Inter-Port relationships under the New Economic Geography Research Framework,” in *Ports in Proximity. Competition and Coordination among adjacent Seaports*, eds. Theo Notteboom et al. (Farnham and Burlington: Ashgate, 2009), 11–27.

¹⁹³Ibid. 188–90.

¹⁹⁴For the case of Louis Benet see: Raveux, *Marseille, ville des métaux et de la vapeur*; Daumalin and Courdurié, *Vapeur et Révolution industrielle à Marseille*; Daumalin et Raveux, “Aux origines de l’industrie moderne marseillaise,” 19–35.

¹⁹⁵Raveux, *Marseille, ville des métaux et de la vapeur*, 135.

¹⁹⁶Ibid. 133.

¹⁹⁷Daumalin and Courdurié, *Vapeur et Révolution industrielle à Marseille*, 68.

in the Menpenti district of Marseilles. Three years later, on 23rd March 1836, Louis Benet founded a limited partnership company with a capital investment of 300,000 francs, collaborating with prominent Marseilles entrepreneurs such as Jean Luce, Jacques Fraissinet, and Joseph Roux. The investors also included his brother Toussaint Benet. Each investor committed 60,000 francs to the project. The *Société Louis Benet et Cie* with headquarters based in La Ciotat, was formed “for the construction of steam engines and any other machinery, the establishment of one or more foundry workshops, and the construction of steamships and warships”.¹⁹⁸

Some months later, in November 1836, the company was reorganised with additional investors (the Schneider brothers). The Schneiders were already renowned industrialists who owned metalwork factories in Le Creusot. Their interest in the development of activities in La Ciotat was related to their intention to supply Louis Benet with metal sheets and other associated metal pieces.¹⁹⁹ The company was reorganised, and the social fund consisted of 450.000 francs, with financial investment as follows: the Scheider family (33% of capital), the banking house Roux de Fraissinet (13%), local representatives of the baron James de Rothschild, and Benet family (exceeding 53%).²⁰⁰ The objective of the Company had slightly changed, now intending to establish one or more workshops – one in Marseilles, at the Catalan district, and the other in La Ciotat, for the reparation of steamships of the Mediterranean, the construction of engines and machinery, and shipbuilding.²⁰¹

However, the giant leap forward for the Company occurred with a merger between Louis Benet and a group of railway businessmen in 1839.²⁰² Market forces dictated the establishment of new engine workshops to service the emergence of a railway in the region, in addition to the steamship industry. The railway line linked the coalmines of Grand’Combe (near the town of

¹⁹⁸AD BdR 548 U 3. Cited by Daumalin and Courdurié, *Vapeur et Révolution industrielle à Marseille*, 68. [Original : [...] la fabrication des machines à vapeur et de toutes autres mécaniques, l’établissement d’un ou plusieurs ateliers de fonderie et la construction de bateaux à vapeur et navires de guerre].

¹⁹⁹Raveux, *Marseille, ville des métaux et de la vapeur*, 134.

²⁰⁰Daumalin and Courdurié, *Vapeur et Révolution industrielle à Marseille*, 69.

²⁰¹Raveux, *Marseille, ville des métaux et de la vapeur*, 135.

²⁰²For an analysis of the history of first railway company in the south of France see: Xavier Daumalin, “L’atelier de construction ferroviaire. Louis Benet & Cie à La Ciotat (1839 - 1848),” *Revue d’histoire des chemins de fer*, no. 28-29 (2003): 27–43.

Beaucaire) to Marseilles.²⁰³ This facilitated the transport of coal. In 1837, Paulin Talabot, director of the mines, entered into an association with the entrepreneurs Jean Luce, Marc Fraissinet, Joseph Roux, and the house of Rothschild to form *la Compagnie des mines de La Grand'Combe et des chemins de fer du Gard*, a general partnership company with capital of sixteen million francs. The Company was focused on the construction of the first railways in the region and specifically, on two particular projects: the connection of the coalmines of Cévennes with Arles and Marseilles, and the connection of Avignon with Marseilles.²⁰⁴

Within this framework, a new limited joint-stock company was created with a capital of 900,000 francs and renamed *Atelier de construction de machines à vapeur de La Ciotat*. The objective of the company, as is described in the statutes validated by a notarial deed, was the exploitation of the mechanical workshops of La Ciotat, the formation in Marseilles of a repair and maintenance workshop intended for marine engines, the construction of locomotives, and the construction of steamships, either wooden or iron.²⁰⁵ With the formation of this company, Louis Benet succeeded firstly to gather the necessary capital for a significant investment in La Ciotat, and for the establishment of a large industrial unit. Secondly, the merger between Louis Benet and a group of entrepreneurs for the construction of a railway network in the South of France, offered the opportunity to accumulate the necessary technological expertise. The technological know-how of Provence was dominated by British engineers, for example, *Robert Stephenson and Co* of Newcastle.²⁰⁶

Louis Benet, by combining the two sectors of steamships and railways, succeeded in accumulating the necessary capital together with crucial technological knowledge in order to develop an efficient industrial production process in La Ciotat. By 1842, Benet had succeeded in developing marine engines workshops, railway locomotive workshops, and the shipyard in La Ciotat together with two annexed workshops: a workshop for the construction and repair of steam engines in Toulon (in the district of Mourillon), and a similar workshop in Marseilles (in the

²⁰³Ibid. 32.

²⁰⁴Raveux, *Marseille, ville des métaux et de la vapeur*, 93.

²⁰⁵AD BdR, 364 E 615, Notaire Giraud, Acte de Dépôt de la société de Louis Benet (see also Appendix 2.1).

²⁰⁶Daumalin et Raveux, "Aux origines de l'industrie moderne marseillaise," 23.

Catalan district). The latter occupied 12,000 m² of land, and was composed of a large boiler-making workshop, a blacksmith workshop, and a maintenance workshop.²⁰⁷

2.3.2 Accumulation of knowledge

The creation of this fledgling industry enhanced the circulation and accumulation of knowledge through technological spillovers, resulting scientific research, an increasingly skilled workforce, and of course, general practical experience. The accumulation of knowledge in La Ciotat materialised through three distinctive channels. Knowledge was acquired by already existing mature sources (such as the British), as well as by institutions (formal education), and finally, through mutual on-site learning. The modification of production towards new technologies required the transfer of existing knowledge and expertise linked to the demands of the previously established shipbuilding industry in the area. Additionally, the technological expertise was transfused to the French Mediterranean by established British engineers, and helped to enhance knowledge throughout France.²⁰⁸ During this period, many British engineers worked in the marine engine, and railway locomotive workshops of Provence, including La Ciotat.²⁰⁹ Consequently, an

²⁰⁷SHD-Toulon, 14 P 122, Mémoire Statistique 1842.

²⁰⁸The influence of Great Britain in the industrialisation of Continental Europe has been examined thoroughly. See for example: Fernand Braudel and Ernest Labrousse, *Histoire économique et sociale de la France*, vol. 3, 1789-années 1880 (Paris: Presse Universitaire de France, 1976); François Crouzet et al., eds. *Essays in European Economic History, 1789 - 1914* (New York: St Martin's Press, 1969); and Ivan T. Berend, *An Economic History of Nineteenth-Century Europe. Diversity and Industrialisation* (New York: Cambridge University Press, 2013).

²⁰⁹For the case of the British engineers in Provence and in La Ciotat see: Olivier Raveux, "Les ingénieurs anglais de la Provence maritime sous la monarchie de Juillet," *Revue Provence historique*, no. 177 (1994), 301–20 ; and Id., "Les ingénieurs anglais dans la Provence maritime a la monarchie du Juillet," *Provence Historique*, no. 177 (1994): 301–20. It should be added that, in Britain, a strongly protectionist system tried to enforce the retention of technological expertise. In the years from 1780s until 1824 there was a period of maximum legislative prohibition of skilled artisans or manufacturers to leave Britain or Ireland and enter any foreign country. Those that were abroad during this period did so without government licenses. In 1824, all restrictions on artisan emigration were lifted. See: David J. Jeremy, "Damming the Flood: British Government Efforts to Check the Outflow of Technicians and Machinery, 1780-1843," *Business History Review*, no. 51 (1977): 1–34 and Edward Palmer Thompson, *The Making of the English Working Class* (London, Victor Gollancz, 1963), 246.

essential part of the success of Louis Benet is related to the transfer of competent technical expertise from Great Britain.²¹⁰

In this context, in this first phase of the transition in La Ciotat, the accumulation of knowledge was enhanced through this external contribution. Even though Louis Benet was not an engineer, he succeeded in integrating a relevant network of people with important technological know-how (mainly from Great Britain), in order to build a powerful industrial base in La Ciotat. In the first stage, Louis Benet collaborated with the engineers of the shipyards of La Seyne-sur-mer, *Charles and Henry Evans*, and he appointed M. Clary, engineer in the French Royal Navy, as Director of the La Ciotat shipyards.²¹¹ In this period, everything related to steamships, from shipbuilding plans, engineers, tools, and machines, were directly imported from Great Britain. Joseph-Édouard Vence was the main shipbuilder, with constant supervision and assistance from British engineers. He wrote in his journal:

*10/08/1835: we wait for the plans from England in order to start [the building] of the steamship; 20/09/1835: the English builder, holder of the plan of the steamship that we were waiting for, arrived. I make for the design room (salle à tracer) rulers graduated for measuring in English foot unit in order to use for this plan; 24/09/1835: we start the work of the keel of the steamship as well as the drawing of the hull in the designing room; 03/03/1836: an English brig loaded the steam engine for the ship Le Phocéen arrived this morning. We go onboard, MM. Reynard and Evans; 08/03/1836: Arrival of the engineer for the lifting, assembly and running of the machine. We prepare for the disembarkation.; 06/06/1836: Louis Benet returned the plan of Phocéen in order to make a copy; 28/12/1836: Clark, marine engineer, manages the works of the workshop; 27/05/1837: An English brig is loaded with the tools and coal for the workshop.*²¹²

²¹⁰Daumalin and Raveux, “Aux origines de l’industrie moderne marseillaise,” 24.

²¹¹SHD-Toulon, 14 P 122, Mémoire Statistique 1836.

²¹²Journal JEV [Original: 10/08/1835: Nous attendons des plan d’Angleterre pour commencer le bateau à vapeur; 20/09/1835: Le constructeur anglais porteur du plan du bateau à vapeur que nous attendions arrive. Je fais pour la sale à tracer des règles graduées en pieds anglais, pour servir à ce plan; 24/09/1835: on commence le travail des quilles du navire ainsi que l’épure de la coque dans la salle à tracer; 3 mars 1836: un brick anglais porteur des machines pour le Phocéen arrive dans la matinée. Nous y allons à bord, MM. Reynaud et Evans; 08/03/1836: arrivée du mécanicien

However, the main knowledge spillover occurred with the 1839 collaboration with railway engineers. The statutes of the new Company in 1839, stressed that the basis for the construction of engines in the workshop at La Ciotat would be the introduction of the best English methods. In order to achieve this result, Louis Benet came to an agreement with Robert Stephenson to direct the construction of locomotives. In addition, Benet was obliged to recruit an important English engineer of marine engines in order “to gather all the necessary means to construct in La Ciotat steam engines as good and well-developed as those that come out from the best English workshops”.²¹³

Consequently, in late October 1839, three engineers arrived in La Ciotat in order to assist in the construction of locomotives.²¹⁴ La Ciotat subsequently achieved technological expertise from 1842 onwards. Through the business connection with Paulin Talabot and Robert Stevenson, Louis Benet recruited John Barnes, a renowned marine engines specialist who had worked closely with James Watt at his workshop in Soho, London.²¹⁵ In a period of five years, the workshops and shipyard of Louis Benet constructed iron steamships, marine engines, and locomotives; a powerful industrial unit had been formed. In 1844, Benet wrote in his report to the *Inscription Maritime*:

*A first-class new engineer has been associated with our establishment. A man who England honours with awards for the construction of engines, a man to whom our government trust large works, and lately has delivered the engine of Napoleon. We talk about Mr. M. J. Barnes.*²¹⁶

pour le montage et la conduite de la machine du Phocéén. On se prépare pour le débarquement. 06/06/1836: Monsieur Benet me fait remettre le plan de Phocéén pour en prendre une copie ; 28/12/1836 : Monsieur Clark, ingénieur de la marine dirige les travaux de l’atelier; 27/05/1837: Un brig-goélette anglais est porteur d’outils et de charbons pour l’atelier].

²¹³AD BdR, 364 E 615. See also Appendix 2.1.

²¹⁴Journal JEV, 25 Octobre 1839.

²¹⁵Daumalin and Raveux, “Aux origines de l’industrie modern marseillaise,” 25. John Barnes was born in 1798 in Newcastle. He worked in the workshops of James Watt in Soho, London, and in 1822 founded alongside Joseph Miller a marine engineering company. This business partnership split in 1835 with Barnes continuing with innovative projects in London. He arrived in La Ciotat in 1843. John Barnes was considered one of the most remarkable marine engineers of the 1830s and 1840s for his contribution to the development and improvement of marine engines.

²¹⁶SHD-Toulon, 14 P 122, Mémoire Statistique 1843 [Original: “Nous avons adjoint à notre établissement un ingénieur de premier mérite, un nom dont l’Angleterre s’honore dans la construction des machines, un homme auquel notre

Apart the external accumulation of knowledge, education plays an important role in economic growth generally. An educational institution for the training of an industrial-skilled labour force was practically non-existent in Provence until the 1830s.²¹⁷ France did have existing engineering schools for the elite based in Paris, but these schools were more theoretically and scientifically oriented, for example, the *Ecole Polytechnique* (established 1795), the *Mines et Ponts et Chaussées* (established 1747), and the *Conservatoire des arts et métiers* (established 1794).²¹⁸ The first middle-level technical schools, such as the *Ecoles d'arts et métiers* were established early in the nineteenth century. The development of the industrial sector encouraged the formation of technical based educational institutions specialising in industrial production. In this framework, Napoleon, founded the first *Ecole d'arts et métiers* in Chalons-sur-Marne (1803), and some years later, in Angers (1811). The schools focused on the applied sciences (mechanics and thermodynamics), mechanical drawing, and industrial design. Students gained knowledge and practical experience working in the machine, metal, and woodworking workshops, and in the forges and foundries of the school. They acquired “an unbelievable, almost legendary, skill”.²¹⁹ For Napoleon, these *Ecoles* would offer the students the qualification “sous-officiers de l’armée

gouvernement a confié de grands travaux et dernièrement vient de livrer la machine à hélice du Napoléon. Nous voulons parler de Monsieur M. J. Barnes].

²¹⁷Raveux, *Marseille, ville des métaux et de la vapeur*, 107.

²¹⁸Berend, *An Economic History of Nineteenth-Century Europe*, 67. For further analysis see: Frederick B. Artz, *The Development of Technical Education in France, 1500 - 1850* (Cambridge-Massachusetts: MIT Press, 1966); Adéline Daumard, “Les élèves de l’Ecole Polytechnique de 1815 à 1848,” *Revue d’Histoire moderne et contemporaine*, no. 3 (1958): 226–34; Robert Fox, “Education for a New Age: The Conservatoire des Arts et Métiers, 1815 - 1830,” in *Artisan to Graduate: Essays to Commemorate the Foundation in 1824 of the Manchester Mechanics’ Institute of Science and Technology*, ed. Donald Stephen and Lowell Cardwell (Manchester: Manchester University Press, 1974): 23–38.

²¹⁹Emile Hinzelin, *Manuel général de l’instruction publique*, XXXVIII (1902), 385–86. Cited by Charles R. Ray, “Making of Mechanical Engineers in France: The Ecoles d’Arts et Métiers,” *French Historical Studies* 10, no. 3 (1978): 441.

industrielle”.²²⁰ The contribution made by these schools in forming intermediate cadres in response to industrial growth and technological change in France was very significant.²²¹

The rapid growth of metallurgical and mechanical industries from the 1830s onwards, mainly for the construction of large-scale railways, led to a rise in demand for an industrial-skilled workforce, such as mechanics, technicians, engineers, and draftsmen.²²² In this context, the industrial growth of Provence made it necessary for the urgent foundation of an institution of *arts et métiers*, in the Parisian model.²²³ At the beginning of the 1840s, the Chamber of Commerce of Marseilles, together with regional administrations, engaged in the necessary funding of 250.000 francs to form the *Ecole des Arts et Métiers* in Aix-en-Provence.²²⁴ The metal industries as well as the shipyards of La Ciotat collaborated with the *Ecole des Arts et Métiers* of Aix-en-Provence, offering practical exercises for the students of the school.²²⁵ The importance of the schools of *Arts et Métiers*, can also be seen through a petition made by industrialists in 1850, when the French government instigated a debate for their closure. They stressed that “the schools are of an ‘indisputable utility [...]. If [...] they going to close, French industry will receive a terrible blow from which it will be tough to recover”.²²⁶

Even though information about workers graduating from the school of *Arts et Métiers* in La Ciotat is scarce, the opening of the school was surely of significant importance for the support of industrial activity, particularly by a trained workforce. It can also be said that the coexistence of a workforce within a small geographical location also had an important impact on the diffusion of knowledge, also known as the “learning by doing” process. Joseph-Édouard Vence, even though he was a renowned shipbuilder was always under the supervision of British engineers. However, it was in the shipyards that a practical culture for the construction of steamships was created. The upskilling of the workforce was occurring in a direct manner through normal diffusion within

²²⁰Cuche Denys, “Traditions populaires ou traditions élitistes? Rites d’initiation et rites de distinction dans les Ecoles d’Arts et Métiers,” *Actes de la Recherche en Sciences Sociales*, no. 60 (1985): 57.

²²¹Ray, “Making of Mechanical Engineers in France,” 440.

²²²Ibid. 442.

²²³Raveux, *Marseille, ville des métaux et de la vapeur*, 108.

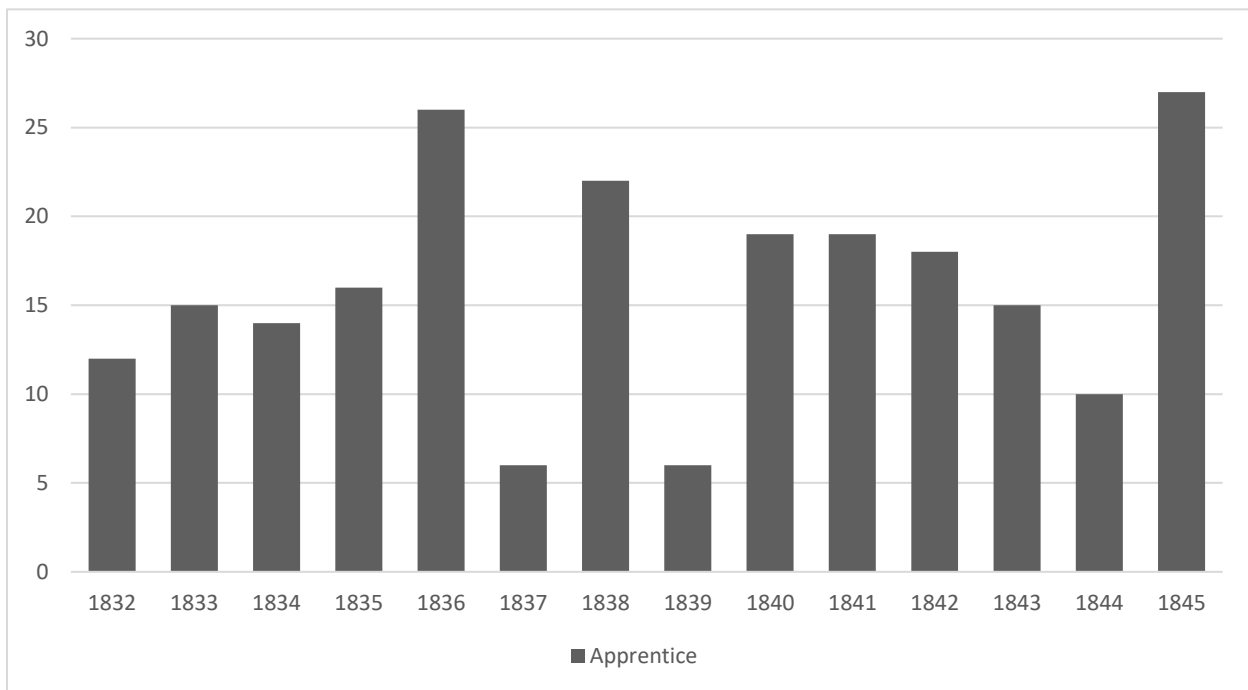
²²⁴Ibid. 108.

²²⁵Ibid. 109.

²²⁶*Moniteur Universel*, July 22 & 26, 1850. Cited in Ray, “Making of Mechanical Engineers in France,” 443.

relevant workshops. This fact was perhaps obvious, as noted by annual statistical reports of the shipyard to the *Inscription Maritime* at Toulon. In the *mémoires statistiques* from 1832 to 1845 the shipyard of La Ciotat recorded exact labour force numbers for the shipyards. During these periods of production in the shipyards, the number of apprentices doubled, but often decreased in the years that the shipyards did not have construction, for example, in 1837 and 1839 (Figure 2.1). By using a combination of educational methods, that is, those that graduated from the first technical schools together with those that received practical training in the workshops, Louis Benet succeeded in increasing information spillover, which ultimately resulted in total industrialisation of his business establishment, some short years after the beginning of activities.

Figure 2.1. Apprentices in the shipyard of La Ciotat (1832 - 1845).



Processed data by: SHD-Toulon, 14 P 122, Mémoires Statistiques (1831 - 1845).

2.3.3 Productivity externalities

2.3.3.1 The transformation of the shipyards' infrastructures

A factor that influenced the transition of shipbuilding production lies in the level of spatial transformation, and on the innovation of the means of production. The construction of an industrial environment of workshops and shipyards was an important innovation in itself from the perspective of business organisation at the time. In order to achieve industrial growth, it is crucial to increase productivity through the modernisation of the means of production, the rationalisation of the allocation of work, the flow of production materials (especially with limited space), as well as through the organisation and control of the labour force. This was achieved through the convergence of workers and tasks in one location.²²⁷

The transformation of the shipbuilding infrastructure from a traditional wooden shipbuilding site to an industrial complex at La Ciotat began in 1835, when Louis Benet and Joseph-Édouard Vence purchased land and houses around the shipyard area. This area was used to extend the shipyards, and to construct mechanical workshops for steamship production. This fact is obvious from both the notarial deeds of La Ciotat²²⁸ and the journal of Joseph-Édouard Vence, who provides associated information concerning the shipyards extension, and the new acquisitions of land:

04/03/1835: Louis Benet bought the garden Girard in order to found there the establishment for the construction of machines; 30/05/1835: Purchase of the apartment Cosse, adjacent to our designing room (salle à tracer); 29/01/1836: We have just purchased the garden owned by the sisters Bonnan, for the expansion of the workshop of

²²⁷Walker, "The Geography of Production," 118.

²²⁸AD BdR, 360 E 482, Acte notarié relatif à l'achat de l'appartement Levesque (Faubourg de l'Escalet, rue du Chantier no 1) par Joseph-Édouard Vence, 1er avril 1835; 360 E 482, Acte notarié de la vente Vve Bouisson pour Vence d'un magasin situé en cette ville de la Ciotat faubourg de l'Escalet No 98, près le chantier de construction, 6 juin 1835; 360 E 664, Acte de vente entre Louis Benet et les époux Cottard pour l'achat d'une propriété dans le faubourg de l'Escalet, 29 septembre 1836; 369 E 671, Vente Mein-Benet (Un local servant actuellement à l'exploitation d'une fonderie en cuivre, sis au dit La Ciotat, hors la porte de la Consigne, quartier du faubourg de l'Escalet, dont une partie donne sur le boulevard Guérin où est la principale entrée), 11 février 1842.

*the machines; 18/08/1836: We started to destroy the house Hermite, purchased by Louis Benet, in order to make a passage from the dock/quay to the workshop.*²²⁹

In the same year, the town council authorised Louis Benet to demolish three medieval tower ramparts in order to expand the construction of the workshops and to use the demolished materials for construction of these prospective workshops.²³⁰ The annual statistical report of La Ciotat's port, supplied to Toulon in 1836, referred to the establishment of a copper smelter workshop, together with the construction of steam engine workshops.²³¹

Concurrently, Louis Benet proceeded directly to invest and acquire industrial equipment necessary for the production and development of the shipyard. By 1837, Benet had already asked the town council for authorisation to install a crane in the port (at his own expense) in order to lift machines and tools in the workshops.²³² The following year (1838), he began to construct a slipway in the port, between the two existing moles.²³³ In 1839, three years after establishing his company, the shipyards possessed all the necessary industrial equipment, machinery, metal workshop, and tools – this equipment was purchased from Great Britain. The workshops were in two sections: the mechanical workshop, and an iron workshop.²³⁴

The reorganisation of the Company in 1839, and its integration into the railway network provided him with the necessary financial means to establish a dominant industrial plant and therefore, increase productivity. Subsequent to the formation of the new Company, the engineer Edwards was sent to La Ciotat in order to reorganise and upgrade the industrial complex. In his report, he mentions improvements that should be made to the site, including the expansion of the

²²⁹Journal JEV [Original: 04/03/1835: Louis Benet aurait acheté le jardin Girard pour y fonder l'établissement de construction des machines; 30/05/1835: Achat de l'appartement Cosse contigu à notre salle à tracer; 29/01/1836: On vient encore d'acheter pour agrandir l'établissement des machines le jardin habité par les sœurs Bonnan; 18/08/1836: On a commencé de démolir la maison Hermite achetée par Monsieur Benet pour faire un passage du quai à l'atelier].

²³⁰AMLC, Registre des Correspondances Municipales, 25 mars 1835.

²³¹SHD-Toulon, 14 P 122, Mémoire Statistique 1836.

²³²AMLC, DA.04.08, Pouvoir Local, Arrêtes du maire, 9 février 1837, Arrêté préfectoral relatif à la grue du chantier.

²³³Journal JEV, 01/05/1838.

²³⁴AD BdR, 364 E 615, Archives Notariales, Notaire Giraud, Inventaire de l'atelier de La Ciotat 15 avril 1839.

existing workshops to include new machines and tools from Great Britain. This was necessary to increase the capacity of the labour force. Therefore, new workshops were established, such as a boiler shop (715 m²), an assembly workshop (520m²), a steel construction and wheelwright workshop (288 m²), a new blacksmith workshop (372 m²), a general shop (360 m²), a workshop for metal sheets (171 m²), and a covered hall for the assembly of the boilers. All were furnished with the necessary tools and machines.²³⁵

In 1842, Louis Benet confirmed in the administration of the *Inscription Maritime* that “in the actual state, the workshop can supply everything needed for shipping. The metal workshop is one of the most complete, and we dare to say, comparable to the best of England. We can construct machines of 500 horsepower”.²³⁶ The shipyard and the workshops of La Ciotat embodied a complete industrial complex of 25,000 m². The industrial unit included a large shipyard, a moulding loft, a metal workshop, a blacksmith workshop, a boiler-making workshop, a coppersmith workshop, the wheelwrights' workshops, as well as the assembly and maintenance workshop. Each workshop was operating with engines of between 8 and 20 horsepower. The site was equipped with mechanical lathes, drills, cutting machines, and forging hammers. A lifting operation completed the unit with three big cranes, which could move up to four large machines at any one time. An internal railway provided connections between all of the workshops, and with the dock. The workshops were also supplied with gas lighting the same year.²³⁷

Consequently, in less than a decade, Louis Benet managed to restructure the shipbuilding industry of La Ciotat, and to form a powerful and self-sufficient industrial plant. The improvements reflect the efforts of Benet and his associates to form in close proximity to Marseilles, an efficient and productive industrial complex for shipbuilding and maintenance. From the 1840s onwards, the industrial workshops and shipyards in La Ciotat transformed the landscape of the port. The industrial development of the town is reflected by the manner in which it was

²³⁵Daumalin, “L’atelier de construction ferroviaire,” 6.

²³⁶SHD-Toulon, 14 P 122, Mémoire Statistique 1841 [Original: [...] dans l’état actuel, l’atelier peut fournir à tous les besoins de la navigation. L’atelier d’ajustage est des plus complets et nous osons dire, comparable aux premiers d’Angleterre. Nous pouvons y construire les appareils de 500 chevaux].

²³⁷SHD-Toulon, 14 P 122, Mémoire Statistique 1842.

mentioned (post 1843) by the administration of Toulon: that is, factories of Louis Benet (Usines Louis Benet et Cie).

2.3.3.2 Human capital externalities

The establishment of resilient human capital during the growth of an industry increases the capacity of innovation together with productivity.²³⁸ Production, in all cases, is an act of human labour. It is a process by which machines and technology are effectively employed.²³⁹ The labour force is a fundamental factor for the production and implementation of the tasks of modern industry. Consequently, the acquisition and formation of a resilient labour force is a prime task of any industrial operation, in fact, companies must recruit labour locally or by attracting them from a long distance.²⁴⁰

As mentioned previously, the existing and skillful workforce of La Ciotat was a key factor in choosing the location. However, industrial level productivity requires fast and effective accumulation of human capital, a process that usually exceeds local levels of supply. In this first phase of transition, recruitment took place from agglomerations in close proximity to the industry, namely the regional pool of labour in the surrounding shipbuilding ports, such as La Seyne-sur-mer, Six Four, Marseilles, and Toulon. The recruitment occurred through correspondence with the neighbouring ports, or by the personal recommendation of Joseph-Édouard Vence.²⁴¹

It is important, however, to note that the mobility of the labour force at the ports was already a well-known phenomenon in shipbuilding, particularly in Provence, where workers were

²³⁸Carolina Arteaga Cabrales, “Human capital externalities and growth,” in *Politica Economica*, no. 66 (2011), 12–47.

²³⁹Walker, “The Geography of Production,” 114.

²⁴⁰*Ibid.* 114.

²⁴¹Journal JEV [Original: 16/04/1838: Monsieur Bossière, gérant du bateau à vapeur en fer veut un plus grands nombre d’ouvriers n’importe le prix. A cet effet, nous envoyons un exprès à La Seyne; 18/11/1839: Nous avons envoyé un exprès à La Seyne pour avoir des scieurs de long; 29/12/1839: Nous envoyons un vapeur à La Seyne pour tâcher de nous procurer des ouvriers charpentiers; 27/03/1841: Je pars pour Six Fours avec un ouvrier de la localité à l’effet de me procurer une vingtaine d’ouvriers charpentiers si je puis ; 24/01/1842: Je me rends à Marseille [...]. Le but de ce voyage est de me procurer des ouvriers charpentiers dont nous avons besoin pour les deux paquebots en construction].

moving dependent on the seasonal needs of each shipyard.²⁴² An additional manner in which to recruit labour was by attracting them from more distant locations. The immigration documentation of workers in La Ciotat during this first period of transition is very rare. However, it can be assumed that a certain number of workers travelled from the region of Piedmont as seasonal workers. The nominative census of La Ciotat in 1851 mentions 28 inhabitants of Piedmont. In 1838, Joseph-Édouard Vence reported a large number of workers arriving from Piedmont for the needs of the construction of the new slipway in the port.²⁴³ However, apart from this data, there is no other information to confirm an immigration phenomenon in La Ciotat for the needs of the shipyard during this period. This, however, would actively take place in the second phase of transition, post 1851.

Figure 2.2. Number of workers and labour days in the shipyards of La Ciotat (1831 - 1845).



Processed data by: SHD-Toulon, 14 P 122, Mémoires Statistiques La Ciotat (1831 - 1845).

²⁴²Laurent Pavlidis, “Petits ports et chantiers navals traditionnels en Provence au XIX^e siècle,” *Rives Méditerranéennes*, no. 35 (2010): 45–59.

²⁴³Journal JEV [Original: 01/05/1838: On travaille activement à la jetée du port et au quai du chantier entre les deux môles. Une grande quantité d’ouvriers piémontais y sont employés].

Louis Benet succeeded in a rapid manner to accumulate the human capital necessary for his enterprise. In 1837, he noted that the workshops in La Ciotat were still developing and the workers were unskilled.²⁴⁴ He was able to cover the needs of the workforce through links with Rouen and / or Paris.²⁴⁵ As is evident from Figure 2.2 the total days of labour in the shipyards drastically increased between 1831 and 1845. As the figures indicate, from 1831 to 1835 the number of arriving workers numbered 300. However, from 1836, and the establishment of industrial level shipbuilding in the port, the number of workers almost doubled. In addition, the total workforce employed in La Ciotat both in the shipyard and in the workshops greatly exceeded these numbers. In 1842, the La Ciotat workforce (including shipyard and workshops together) numbered 720 workers, and in 1844, 800 workers.²⁴⁶

During these years the La Ciotat labour force was ready to adapt to the industrialisation of the shipyard. This fact is made obvious by the change of professions in the shipyard during these years. The acquisition of the labour force, together with technology spillovers, were key factors for the growth of various specialist core trades. Several industrial professions began to develop as part of the shipbuilding activities of the port, for example, drillers, blacksmiths, and boilermakers, while traditional professions such as caulkers, sail-makers, and coopers declined. Simultaneously, the category of non-qualified workers increased, for example, in 1844, unskilled workers [*journaliers*] represented 21% of the shipyard workforce, and only a year later (in 1845), represented 30% of the workforce.²⁴⁷

The transition from sail to steamship building occurred together with a significant increase in wage rates. This related both to the high demand of labour, and on the specialised skills of the workers involved in the industrial manufacture of steamships. High wages were the main reason

²⁴⁴AN F 12 2554. Taken by Raveux, *Marseille, ville des métaux et de la vapeur*, 109 [Original: “nos ateliers sont naissants et nos ouvriers peu habiles encore”].

²⁴⁵Raveux, *Marseille, ville des métaux et de la vapeur*, 110.

²⁴⁶SHD-Toulon, 14 P 122, Mémoires Statistiques 1842 & 1845.

²⁴⁷SHD-Toulon, 14 P 122, Mémoire Statistique 1842.

for the decline of traditional shipbuilding. In 1844, the commissioner of *Inscription Maritime* explained the reasons for this clear reduction of traditional wooden construction in La Ciotat:

[...] However, throughout the year 1844, there were no wooden sailing commercial vessels [built] in the shipyards of La Ciotat. This port, which was once chosen for shipbuilding, has fallen, in this regard, into complete neglect. Nowadays, the construction of wooden vessels [in La Ciotat] is too expensive. Such is the influence of the factory of Louis Benet and the wages that he provides. This factory employs an important number of local carpenters, either on their profession or otherwise, and the others will exercise their work elsewhere. The shipbuilder who would like to make ships in La Ciotat could only do so by significantly raising the worker's daily wages, and on this condition, construction here is impossible [...].²⁴⁸

Within a decade, the port La Ciotat was transformed into an industrial location, focusing on the construction of steamships, marine engines, and locomotives. Through the accumulation of capital, knowledge, infrastructure, and a specialised workforce, the enterprise of Louis Benet succeeded in having all the necessary means for exponential industrial growth.

2.4 The maritime economy of the port in transition: Shipbuilding production

2.4.1 The transition from sail to steam in the shipbuilding activity of La Ciotat

The externalities of industrial growth, as seen above, affected production in La Ciotat. This is evident through the shipbuilding and technological output at the site. During this first phase of transition, the progress made in shipbuilding output between the years 1831 to 1847 reflects the dynamism of the shipyard, and its transformation from sailing ship to the industrial era. The

²⁴⁸SHD-Toulon, 14 P 122, Mémoire Statistique 1844 [Original: Il n'y a cependant toute l'année 1844 aucun navire du commerce sur les chantiers de La Ciotat. Ce port qui était recherché autrefois pour la construction, est tombé à cet égard dans un entier abandon. La construction des bâtiments en bois y serait aujourd'hui trop chère. Telle est l'influence de l'usine de MM Benet sur le prix de la journée de travail. Cette usine emploie bon nombre de charpentiers de la localité, soit dans leur profession, soit autrement et les autres vont exercer leur industrie ailleurs. Le constructeur qui voudrait faire des navires à La Ciotat, ne le pourrait qu'en élevant beaucoup les taux de la journée de l'ouvrier, et à cette condition les constructions ici sont impossibles [...]].

traditional sailing ship production experienced a significant decline from the second third of the nineteenth century. During the years 1831 to 1847, the total tonnage of steamship construction was 7,526 tons, whilst the total tonnage of sailing ships construction was 5,268 tons. From a national perspective, less tonnage was constructed during the period 1831 - 1847, given the fact that the first steamships were smaller, mainly due to the focus on engine manufacture. However, steamships exceeded the total tonnage of sailing-ship construction in La Ciotat (Figure 2.3).

Figure 2.3. Production per net tonnage of sailing ships and steamships in the periods 1815 - 1830 and 1831 - 1847.



Processed data by: For sailing ships construction: Laurent Pavlidis, “Construction navale traditionnelle et mutations d’une production littorale en Provence (fin XVIII^e-début XX^e siècle)” (PhD diss., Aix-Marseille Université, 2012), 158. For the tonnage of steamships: SHD Toulon, 14 P 122, and Paul Bois, *Le grand siècle des Messageries Maritimes* (Marseille: CCIMP, 1992) and Yves Laget, *Notre Histoire de la Construction Navale à La Ciotat. De l’antiquité à nos jours* (La Ciotat: Association Joseph-Édouard Vence, 2011). *The tonnage of certain steamships is missing. Those are the steamers *Le Rhône* (1837), *L’Hérault* (1837), *L’Utile* (1838), *Salamandre* (1847), *Ariel* (1847) and *Saint-Georges* (1847)

During the first phase of transition, the shipyard of La Ciotat continued to construct sailing ships until 1842.²⁴⁹ However, this constituted a small percentage of the overall economic activity of the shipyards.²⁵⁰ Aside from shipbuilding, an important activity of the site was ship repairs, and maintenance works. However, the absence of documentation on the later activities does not permit any further examination. Apart from shipbuilding production, another component of the early Benet Company was the introduction of locomotive engineering and construction - the only one in the Mediterranean basin.²⁵¹ His collaboration with the railway company of the South of France in 1839, meant that Louis Benet, under the supervision of Robert Stephenson, could introduce locomotive products into his workshops both in La Ciotat and Marseilles. Following the appropriate and necessary workshop changes, the production of locomotives began in 1842.²⁵² In his report that same year, Benet refers to three locomotives that were under construction in La Ciotat, followed by another thirty locomotives for the railway Marseilles-Avignon in the year 1845.²⁵³ However, the results were not satisfactory, and the production of locomotives lasted only a few years.²⁵⁴

The demand for steamships defined the type of vessel produced. From 1831 to 1845, the shipbuilding output of La Ciotat shifted towards heavy industry with multiple and varied functions.²⁵⁵ The production evolved from sailing ships destined for long-distance trade, such as three-masted ships, and brigs, to a range of steamships related to a variety of demands. In regard

²⁴⁹They had constructed some more sailing-ships during the period of decline of the Benet company, from 1847 onwards.

²⁵⁰Laurent Pavlidis, "Construction navale traditionnelle et mutations d'une production littorale en Provence (fin XVIII^e – début XX^e siècles)" (Ph.D. diss., Aix-Marseille Université, 2012), 167.

²⁵¹In regards to the constructions of locomotives in La Ciotat see: Daumalin, "L'atelier de construction ferroviaire,"; François Crouzet, "Essor, déclin et renaissance de l'industrie des locomotives, 1838 - 1914," *Revue d'histoire économique et sociale* 55, no. 1/2 (1977): 112–20; James Graeme Hepburn Warren, *A Century of Locomotives Building by Robert Stephenson and Co. 1823 - 1923* (Newcastle: Andrew Reid, 1923); François Caron, *Histoire des chemins de fer en France*, vol. 3, 1740 - 1883 (Paris: Fayard, 1997).

²⁵²SHD-Toulon, 14 P 122, Mémoire Statistique 1843.

²⁵³SHD-Toulon, 14 P 122, Mémoire Statistique 1845.

²⁵⁴Xavier Daumalin, in his article "L'atelier de construction ferroviaire," refers to this activity as a *fasco*. See page 39.

²⁵⁵See Appendix 2.3 for the vessels constructed in La Ciotat between 1831 and 1847.

to steamship shipbuilding, the shipyard divided production between warships for the French Royal Navy, and the Kingdom of Two Sicilies, and state-owned steamship liners involved in Mediterranean mail services. These orders, together with associated business and public relations links with various entrepreneurs, shipowners, political figures, and navy engineers, either from France or abroad, demonstrate the reputation of the shipyards, and the networks it had established with markets oriented towards steam navigation²⁵⁶ (see also Appendix 2.2).

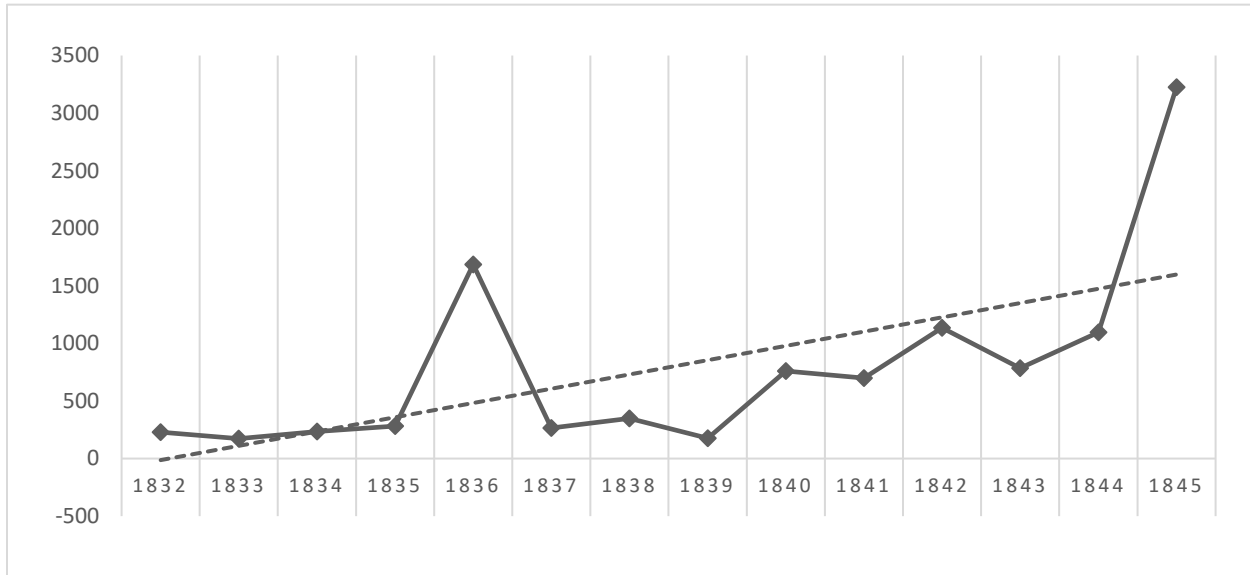
The analysis of the cost of shipbuilding as regards the types of vessels built in La Ciotat is an important step to understand the transformation of the maritime economy in La Ciotat during this first phase of transition (Figure 2.4). By examining the cost of production delivered by the port to the *Inscription Maritime* of Toulon, it is possible to understand the changes in shipbuilding production at the port.²⁵⁷ The capital invested for both sailing ships and steamships reflects the dynamism of the sector, and the transformation to an industrial shipbuilding centre. This period led to a sharp increase in the shipbuilding price per ton subsequent to the introduction of new

²⁵⁶Joseph-Édouard Vence provides plenty of information on this matter: “07/05/1836 : We responded negatively to proposals made to us by M. Pignalet concerning a project for the construction of a steamship ; 09/11/1837 : We received a letter by the Commissariat de Marine of Monaco asking us for a quote for a steamship ready to navigate; 29/11/1837: A Turkish gentleman arrives [...] accompanied by several sailors from Marseilles. He visits the steamship under construction. It is said that this gentleman has already bought two steamships in Marseille and that it is with this intention that he came to visit ours under construction; 04/03/1838: Mr. Benet asks us for a quote for a steamship that would be proposed to him by Mr. Morise, from Lyon; 11/04/1839: In a letter received from Cette, we are asked for the quote of a ship to be constructed [...] ; 09/07/1841: Mr. Bonnard, director of constructions in the Arsenal of Toulon, as well as other engineers come to visit the workshop.” [Original: 07/05/1836: Nous répondons négativement à des propositions que nous fait M. Pignalet au sujet d’un projet de bateau à vapeur à construire; 09/11/1837: Nous recevons une lettre du Commissaire de Marine de Monaco nous demandant le devis d’un bateau à vapeur prêt à naviguer ; 29/11/1837: Un monsieur turc de nation arrive [...] accompagné de plusieurs marins de Marseille. Ils visitent le bateau à vapeur en construction. On dit que ce monsieur aurait déjà acheté deux bateaux à vapeur à Marseille et que c’est dans cette intention qu’il est venu visiter le nôtre en chantier; 03/04/1838: Monsieur Benet nous demande un devis pour un bateau à vapeur qui lui serait proposé par Monsieur Morise de Lyon; 11/04/1839: Par une lettre reçue de Cette, on nous demande le devis d’un navire à construire [...] ; 09/07/1841: Monsieur Bonnard, directeur des travaux à l’Arsenal de Toulon, ainsi que d’autres ingénieurs viennent visiter l’atelier.] in Journal JEV.

²⁵⁷This analysis refers to the cost of production. It is difficult to conduct an analysis of the gains of the industry given the absence of a price for the purchase of the vessels.

technologies in the port town; a phenomenon that reflects a profound change in the shipbuilding output in La Ciotat

Figure 2.4. Shipbuilding cost per tonnage (1832 - 1845).



Processed data by: SHD-Toulon, 14 P 122, Mémoires statistiques (1831 - 1845).

. In 1835, the construction of four three-masted ships, of a total capacity of 1,438 tons, cost 281.5 francs per tonnage. In 1836, the cost increased sharply and, then, remained at the previous levels until 1839. After 1839, the year of the formation of the new company and the twofold increase of its assets, a constant increase in the cost of construction is noted, and reached its peak in 1845. It is evident that shipbuilding costs increased in two particular points during the transformation process: firstly, in 1836, with the construction of the first steamship, *Le Phocéen* of 333 tons, which reached a value of 1685,2 francs per ton. This was due to the purchase and importation of the engine from Great Britain. This dramatically raised the overall cost. In particular, 40% of the construction cost involved the purchase of the engine.²⁵⁸ Secondly, in 1845, with the launch of three steamship iron hull liners, with a total capacity of 720 tons each, the cost

²⁵⁸The total construction cost of the *Phocéen* was 520,000 francs, from which the engine represented 225,000 francs.

of new construction surpassed 3225,5 francs per ton. The price of engine manufacture represented 70% of the cost, whilst iron represented 12% of the total cost of construction.²⁵⁹

The balance of the cost of production moved from raw materials (such as wood, hemp, iron, and copper sheet), and labour wages for sail shipbuilding, to the cost of steam engines, and the large quantity of iron used for hull production.²⁶⁰ Nevertheless, it should be emphasised that the cost of machinery in relation to the total cost of shipbuilding was a major problem for the shipbuilding industry in France during this period. In 1837, Louis Benet underlined the problem of the costs of steam engines, in particular, customs duties, which doubled the price in comparison to that of Great Britain.²⁶¹ This problem was also indicative of the very high percentage of steam engines costs in relation to the total cost of shipbuilding during these years. Steamships required significant capital outlay for engines. The expense of marine engines, and the technological requirements for industrial construction shifted the rate of cost of production from raw materials to machinery. Hence, there was a significant change in the landscape of the maritime economy regarding shipbuilding in La Ciotat; the main activities moved from the shipyard to the workshops.

2.4.2 The process of innovation: From the first engines from Great Britain to the independent manufacture of steam-engines in La Ciotat

The Company of Louis Benet, by reaching a level of technological expertise through information spillovers, ensured a unique advantage, leading to the production of their own steam engines. The technological evolution of La Ciotat was significant and impressive: beginning with the introduction of engines, tools, and plans from Great Britain, the shipyard (within a timeframe of five years) succeeded in the construction of their first complete iron steamship (hull and engine). An important factor in the success of the shipyards is the application of significant technical

²⁵⁹The total construction cost of the *Phillippe Auguste*, *Hellespont*, and *Bosphore*, in 1845, was 2,322,413 francs. From this, 1,800,000 francs represented the cost of engines, and 280,290 francs the cost of iron.

²⁶⁰For an analysis on the evolution of the cost of construction in La Ciotat during this period, see: Kalliopi Vasilaki, “La construction navale à La Ciotat: un secteur en mutation (1831 - 1851),” *Drassana: revista del Museu Marítim*, no. 27 (2019): 108–9 [Online: <https://www.raco.cat/index.php/Drassana/article/view/369254> (accessed 05/08/2020)].

²⁶¹Raveux, “Une réussite technologique méditerranéenne,” 49.

innovations through the diffusion of technological know-how, investments in infrastructure, and an increase of the labour force. It should be emphasised that the dynamism of the shipyard during this first phase of industrialisation is not only reflected by tonnage output, delivery time of ships, and profits of the shipyards, but also through investments in more production equipment, and the implementation of new technologies. It is clear, that especially at this stage, prior to the 1850s, the construction of a simple steamship was a remarkable engineering feat.

The first stage of steamship construction in La Ciotat included paddle steamers with wooden hulls, supplied with beam engines delivered from Great Britain. In all, the first steamships, such as the *Rhône*, *Hérault*, and *le Saumon* (launched in 1837), and *le Vésuve*, *l'Utile*, *le Phénicien* (launched in 1838), ordered marine engines from Britain. The role of the shipyard was limited to the construction of the hull, and the assembly / maintenance of the engines. During the second stage, the shipyard of La Ciotat began to produce their own marine engines. The shipyard proved competence in this arena with the construction of the first complete vessel – hull and engine – in 1841. The *Phocéén II* steamship was comprised of two beam engines constructed (with the supervision of engineer, John Barnes) in the port workshops. During the second half of the 1840s, by adopting technological innovation and development from Britain, the beam engines were abandoned, and replaced by direct-acting steam engines.²⁶² Direct-acting engines had the advantage of being smaller and weighing considerably less than beam engines. The steamship *Philippe Auguste*, launched in 1845, was the first steamship from La Ciotat to carry this engine. The following year (1847), the shipyard of La Ciotat built the first iron steamship with a screw propeller to be constructed in the Mediterranean. *Le Bonaparte*, enhanced even further, the reputation of the shipyard.²⁶³ The Company of Louis Benet, owing thanks to the engineer John Barnes, took a patent certification for innovation in marine engineering in relation to a marine engine adopted explicitly for screw-propeller propulsion.²⁶⁴ This technological evolution continued with the steamship *le Charlemagne*, launched in 1849, with an oscillating engine possessing four horizontal cylinders in order to ensure a large rotation accuracy.²⁶⁵

²⁶²Raveux, *Marseille, ville des métaux et de la vapeur*, 156.

²⁶³Marnot, “Le paradoxe de la construction navale dans la marine marchande en France de 1815 à 1914,” 196.

²⁶⁴Daumalin and Raveux, “Aux origines de l’industrie marseillaise,” 26.

²⁶⁵Raveux, “Une réussite technologique méditerranéenne,” 54.

Contrary to the remarkable technological success of shipbuilding activity in La Ciotat, locomotive production turned out to be rather disastrous. The models constructed did not function properly, and the location seemed to be poorly chosen given the fact that there was no connection with the hinterland, therefore, locomotives had to be transported via the sea.²⁶⁶ However, the connection with the railway industry, even if it did not bring satisfactory results in this regard, was instrumental in gathering necessary engineering expertise from John Barnes. The technological progress of the shipyard, and the innovation of the period reflect the success of La Ciotat to integrate into the steamship building market in the Mediterranean. From the construction of the first steamship in 1836, a paddle-steamer with a wooden hull, and an engine supplied from Great Britain, until the vessels constructed in the last years of the company at the end of the 1840s, which consisted of an iron hull, a propeller, and a large 220 horsepower engine manufactured in the port, the evolution of the shipyard showed impressive industrial transformation and growth, bringing significant changes during the final transition of the port to industrial shipbuilding.

2.5 The novelty of the business venture of Louis Benet in the Mediterranean basin

One of the elements that reflects the transition in La Ciotat is the novelty of the activities taking place in the port during this period. La Ciotat accomplished within a period of two decades the transition of shipbuilding from sailing ships to steamships and from wood and sail to iron hulls and engines - the sector's main technological changes of the nineteenth century. In the first half of the nineteenth century, contrary to the industrial growth of British shipbuilding, the Mediterranean shores did not experience such development in their shipbuilding production.²⁶⁷ The activities of Louis Benet and the technological expertise achieved between 1836 and 1851, together with his success of integrating and even assisting the development of the steamship market in Marseilles, constitutes an innovative venture for the economic environment of the Mediterranean Sea at large.

²⁶⁶Daumalin, "L'atelier de construction ferroviaire," 10.

²⁶⁷For the case of shipbuilding in Great Britain, see: John Armstrong and David M. Williams, eds. *The impact of technological change: The early steamships in Britain* (St. John's, Newfoundland: International Maritime Economic History Association, 2011); Simon Ville, ed. *Shipbuilding in the United Kingdom in the 19th century. A regional approach* (St. John's, Newfoundland: International Maritime Economic History Association, 1993).

In Provence, the shipyards of La Seyne-sur-mer, also showed evidence of industrialisation post 1818, when Edward Church (1779 - 1845), an American from Boston, established a business there. Edward Church (Consul of United States at Lorient, 1817 to 1832)²⁶⁸ collaborated with the shipbuilder Joseph Antoine Lombard and his shipyards in La Seyne-sur-Mer, together with the English engineers John Barnes, and Henry and Charles Evans (marine engine specialists). They began construction of steamships in 1818.²⁶⁹ The shipyards of La Seyne-sur-mer focused their production on the navigation of the river Rhône and had strong links with the fluvial navigation companies of France.²⁷⁰ The shipyards constructed their first steamer of 30 horsepower, *le Triton*, in 1819, it was destined for Revben Gant Beqsley, consul of the USA in Havre, to facilitate regular service between the port of Havre and Honfleur.²⁷¹ During this period, Eduard Church constructed several steamers, for example, for the Nantes-Paimbœuf service, and in 1822, for David Tred, his brother-in-law and consul of the USA in Bordeaux.²⁷² All the steamships constructed were small twenty-five to forty meters long, built of wood, and equipped with an English marine engine.²⁷³ The next year, in 1823, Edward Church, settled in Switzerland where he constructed the steamship *William Tell* to connect Geneva with Lausanne.²⁷⁴ From 1826 onwards, he established himself in Lyon, where he was associated with four river steam-navigation companies.²⁷⁵ In 1831, the shipyards of Lombard in La Seyne-sur-Mer, under the supervision of the Evans brothers, launched

²⁶⁸Félix Rivet, "American Technique and Steam Navigation on the Saône and the Rhône, 1827 - 1850," *Journal of Economic History*, no. 1 (1956): 24.

²⁶⁹Raveux, *Marseille, ville des métaux et de la vapeur*, 177.

²⁷⁰The compagnies : *Church, Mathieu & Cie* (250 000 francs), en 1826; la *Société de navigation de la Saône par la vapeur* (un million de francs), en 1827; la *Compagnie des transports de marchandises sur la Saône par gondoles à vapeur* (un million de francs), en 1829; la *Compagnie des bateaux à vapeur pour la navigation du Rhône* (1,6 million de francs), en 1830. See: Olivier Raveux, "Les ingénieurs anglais de la Provence maritime sous la monarchie de Juillet," *Provence historique*, no. 44 (1994): 301–20.

²⁷¹Raveux, *Marseille, ville des métaux et de la vapeur*, 178.

²⁷²Rivet, "American Technique and Steam Navigation on the Saône and the Rhône," 24.

²⁷³*Ibid.* 24.

²⁷⁴*Ibid.* 25.

²⁷⁵Bernard Escudié, et al., *Vapeurs sur le Rhône : histoire scientifique et technique de la navigation à vapeur de Lyon à la mer* (Lyon: CNRS, 1991), 83.

twin steamships, both with a wooden hull and a British marine engine. The *Henry IV* and *Sully*, were commissioned by the company of Charles and Auguste Bazin in Marseilles.

During this period, the shipyards of La Seyne-sur-Mer, even though they had commenced steamship shipbuilding, continued with the traditional shipbuilding of sailing ships.²⁷⁶ Significantly, the Lombard shipyard fell into decline, especially post 1839-1840, when they lost two British engineers as well as their principal partner and sponsor, the shipowner François Mathieu (owner of a navigation company in the Rhone River).²⁷⁷ In 1845, the English engineer Philip Taylor, who, in 1835, had founded a mechanical workshop in Menpenti, bought the shipyards in La Seyne-sur-Mer and immediately began infrastructure renovation.²⁷⁸ Hence, the *Société Taylor et fils* was formed in 1847, with the regrouping of the workshops of Menpenti in Marseilles with the shipyards of La Seyne-sur-Mer. From 1847, and especially after 1853, with the formation of the *Compagnie des Forges et Chantiers de la Méditerranée*, the regrouping of the "Forges de la Capelette" in Marseilles (producers of iron sheets and tubes), the development of the blacksmith workshops in Menpenti, and shipyards of La Seyne, the port of La Seyne-sur-Mer had achieved significant industrialisation.²⁷⁹

On the Adriatic Sea, the industrial growth of the port of Trieste during the first half of the nineteenth century was indisputable. The Austrian steam navigation company *Österreichischer Lloyd* (Austrian Lloyd) was formed in 1836, and commenced the construction of steamships in the shipyards of Trieste.²⁸⁰ Around 1840, the shipyard Panfilli in Trieste - where the first Triestine steamer was built in 1818 - constructed about thirty hulls for Austrian Lloyd. Simultaneously, the brothers Strudthoff developed their blacksmith workshops at Sant' Andrea, and in 1846, they

²⁷⁶See: Louis Baudoin, *Histoire générale de la Seyne-sur-Mer et de son port depuis les origines jusqu'à la fin du XIX^e siècle* (Marseille: Impr. Saint-Victor, 1965), 806–15.

²⁷⁷Daumalin and Courdurié, *Vapeur et révolution industrielle à Marseille*, 158.

²⁷⁸Daumalin and Raveux, "Aux origines de l'industrie moderne marseillaise," 28.

²⁷⁹Xavier Daumalin and Olivier Raveux, "Aux origines de la Société des Forges et Chantiers de la Méditerranée. L'œuvre de l'industriel anglais Philip Taylor (1846–1853)," *Provence Historique*, no. 247 (2012): 25–38.

²⁸⁰For an overview of the evolution of Austrian Lloyds see: Matteo Barbano, "Stems for the Empire: the Austrian Lloyd and the transition from sail to steam in the Austrian merchant marine (1836 - 1914)" in *Seafaring Lives in Transition. Mediterranean Maritime Labour, Communities, Shipping and the challenge of industrialization (1850s-1920s)*, ed. Apostolos Delis et al. [forthcoming].

constructed their first steam engines.²⁸¹ In 1854 - 1855, the first steamship with propeller propulsion was launched in Trieste.²⁸² In the period 1833 to 1851, thirty steamships of 15.901 gross tonnage were constructed for the Company.²⁸³ In 1853, the Austrian Lloyds started the construction of their own shipyards in Sant'Andrea, intended firstly for dry-dock and maintenance, and from 1865 onwards, for shipbuilding.²⁸⁴

In the rest of the Mediterranean, the development of industrial shipbuilding was imperceptible. On the Ligurian coast, the production of steamships was limited. From 1830 to 1859, eleven steamships were constructed (of 842 tonnage in total).²⁸⁵ In the Kingdom of Two Sicilies, industrial shipbuilding development during the first half of the nineteenth century was related to the Royal Navy. Between 1840 and 1849, the Arsenal of Castellammare di Stabia was reorganised with machinery purchased from England to adapt to the new technologies.²⁸⁶ In 1851, the first entire steamship was constructed, the *Ettore Fieramosca*, with a hull built in Castellammare and an engine built in Pietrarsa.²⁸⁷ Even though exact numbers of steamship construction are unavailable, the technological evolution present indicates evidence of industrial shipbuilding activity in the Navy. As regards the merchant marine, there is no documentation for shipbuilding output. In 1818, the Naples launch of the first steamship in the Mediterranean, the *Ferdinando Primo*, although a pioneering attempt, seems an isolated incident in the region. The number of registered steamships (both bought and constructed) indicates slow development of steamship construction for the merchant marine. In 1846 there were only nine steamships (of 2,503

²⁸¹Fulvio Babudieri, *Squeri e Cantieri a Trieste e nella regione giulia dal Settecento agli inizi del Novecento* (Trieste: Edizioni LINT, 1986), 20.

²⁸²Ibid. 13.

²⁸³Dieter Winkler and Georg Pawlik, *Die Dampfschiffahrtsgesellschaft Österreichischer Lloyd, 1836 - 1918*. (Graz: H. Weishaupt Verlag, 1986). Elaborated data by Matteo Barbano.

²⁸⁴Barbano, "Stears for the Empire" in *Seafaring Lives in Transition* [forthcoming].

²⁸⁵Ugo Marchese, ed. *L'industria ligure delle costruzioni navale dal 1816 - 1859* (Torino: ILTE, 1957), 25. See: Tabella V: Navi a vapore che risultano costruite nei cantieri di terraferma fra il 1830 e il 1859.

²⁸⁶Maria Sirago, "Nuove tecnologie nautiche: dal vascello alla nave a vapore," in *Storia dell'Ingegneria, Atti del I Convegno Nazionale*, ed. Salvatore D.'Agostino (Napoli: Cuzzolin, 2006), 697.

²⁸⁷ Ibid. 698.

tons) registered in Sicily, which rose to twelve ships (and 3,013 tons) in 1851.²⁸⁸ In Catalonia, from 1846 to 1860, nine steamships (of 580 tonnage in total) were constructed.²⁸⁹ In the newly established Kingdom of Greece, interest in steamships began in the 1850s with the establishment of the first steamship company (1856), and the formation of the first industrial shipyards, firstly in Piraeus (in 1859) and then in Ermoupolis (in 1861).

Given the above industrial “image” of shipbuilding in the Mediterranean during the first half of the nineteenth century, the important transformation that was taking place in the port of La Ciotat can be better appreciated and understood. It is one of the rare cases of such industrial growth during the 1840s that offered to the site, industrial autonomy, and subsequently resulted in a profound socio-economic transition of the town. The years post 1850 will further prove the evolution of the port of La Ciotat.

2.6 The decline of the activities of Louis Benet.

The shipyard and workshops of Louis Benet in La Ciotat faced a severe decline following the end of the 1840s. Several factors contributed to this business deterioration, such as the economic crisis of 1848 to 1851, the failure of locomotive production, and the subsequent reorientation of market forces towards different suppliers. The workshops had started to experience a crisis from 1845 onwards, mainly linked to locomotives that did not satisfy market forces. In April 1845, the commission in charge of verifying the first three engines supplied to the Montpellier-Nimès service, noticed that specification requirements were not respected. This resulted in weaknesses within the engine design.²⁹⁰ Unfortunately, the railway company did not have an option to decline the order, thus were obliged to accept the locomotives. In addition, it was discovered that the engines consumed more coal; they were less powerful than those of other

²⁸⁸Alida Clemente, “La marina mercantile napoletana dalla Restaurazione all’Unità. Flotta, tecniche e rotte tra navigazione di lungo corso e cabotaggio,” *Storia Economica*, no. 2 (2011), 237. Tab. 7 – Bastimenti di stazza maggiore.

²⁸⁹Santiago Riera i Tuèbols, *Dels velers als vapors* (Barcelona: Associació d’Enginyers de Catalunya, 1993), 176–81. Quadre 3.2. Primers vapors construïts a Catalunya durant el segle XIX.

²⁹⁰Daumalin, “L’atelier de construction ferroviaire,” 7.

locomotive manufacturers; and their malfunction obliged the railway company to suspend their use.²⁹¹ Subsequently, the workshops at La Ciotat faced difficulties for later orders, with railway entrepreneurs turning to other manufacturers such as Schneiders (at Le Creusot), Derosne, Cail & Cie (in Paris), and André Koechlin (in Mulhouse). These workshops were much more developed than those at La Ciotat, and were able to supply locomotives at lower prices.²⁹²

With the economic crisis of 1847 - 1851, the south of France entered a period of stagnation. Even though there was relative industrial growth, the entrepreneurs of Marseilles were hesitant to move beyond the framework of traditional merchant capitalism. During the first half of the nineteenth century, the merchant families of Marseilles continued to combine ship owning with various commercial and industrial ventures.²⁹³ Consequently, the industrial development of the region and the formation of large-scale steam navigation companies was dependent on the mobilisation of capital and credit from Paris.

Along with shipping, the economic crisis profoundly affected the railway sector in France. The general production of locomotives was in decline, given the lack of capital from manufacturers.²⁹⁴ From 1848, the *Compagnie du chemin de fer de Marseille à Avignon* was in a tenuous economic situation. James de Rothschild (a principal shareholder of the railway company), kept his distance and refused to assist with the crisis in La Ciotat.²⁹⁵ Shipbuilding production was also affected by the economic crisis of 1848 to 1851, with demand declining substantially from mid-1848. The shipowners of Marseilles reduced their orders, given the commercial circumstances of the period, and the shipyards of La Ciotat saw a considerable reduction in production. In the years 1850 - 1851, three ships were constructed for the Kingdom of Two Sicilies, together with specific orders for the French State, including a propeller engine of 140 horsepower for the

²⁹¹Ibid. 8.

²⁹²Raveux, *Marseille, ville des métaux et de la vapeur*, 216. Also, for the production of locomotives in France see: François Crouzet, "Essor, déclin et renaissance de l'industrie des locomotives," *Revue d'histoire économique* 55, no. 1/2 (1977): 112–210.

²⁹³Smith, *The emergence of Modern Business Enterprise in France*, 45.

²⁹⁴Crouzet, "Essor, déclin et renaissance de l'industrie des locomotives," 141.

²⁹⁵Raveux, *Marseille, ville des métaux et de la vapeur*, 216.

steamship *Castiglione* (in 1849), and in the following year, an engine of 450 horsepower for the *Charlemagne*.²⁹⁶

From 1848 onwards, Louis Benet did not have the capital to support the needs of the modern shipbuilding sector nor the means of production, raw material, and labour, to sustain his company. In the general assembly of shareholders (February 5, 1848), the Company deficit was presented. In contrast to the 10.8 million francs of orders that were undertaken at the beginning of the company in 1839, those works represented a loss of 475,646 francs.²⁹⁷ Given the unwillingness of the shareholders to financially support the activities of La Ciotat, the company of Louis Benet entered into liquidation.²⁹⁸ The liquidation forced the sale of the workshops to a new company, which was formed to exploit these difficulties. Subsequently (in 1851), the factory at La Ciotat was leased to the *Compagnie des Messageries Nationales*. Simultaneously, Benet was obliged to concede the assets of La Ciotat to the new company. He was also authorised to continue the necessary operations until the realisation of the lease contract for La Ciotat, and the sale of the workshops in Marseilles and Toulon.²⁹⁹ In the general assembly of the town council on 31st March 1848, the town's mayor pointed out the conditions in the last days, including the distress of the workers after their dismissal from the workshops. He expressed his concerns regarding the repercussions the news of the closure of the engine workshops would have on public order in the town. The mayor proposed the opening of public construction sites in the town in order to support the workforce, and protect public order.³⁰⁰

²⁹⁶Ibid. 217.

²⁹⁷Daumalin, "L'atelier de construction ferroviaire," 10.

²⁹⁸Laget, *Notre histoire de la Construction navale à La Ciotat*, 245–47.

²⁹⁹AD BdR, 373 E 475, Acte notariale, Acte du 10 octobre 1851, du 11 octobre 1851 et du 15 décembre 1851. Dépôt de pièces au sujet de la liquidation de l'entreprise L. Benet et Cie.

³⁰⁰AMLC, DA.01-15, Registres de délibérations du Conseil Municipal (1846 - 1852), Séance du 31 Mars 1848. This initiative is a reminder of the *Ateliers Nationaux*, when the French Second Republic (in 1848) undertook to guarantee work for men in order to battle unemployment due to the political, social and economic crisis of the period. See: Karl Marx, *La lutte des classes en France (1848 - 1850). Le XVIII brumaire de Louis-Bonaparte* (Paris: Reinwald, 1900); Maurice Agulhon, *Les Quarante-Huitards* (Paris: Gallimard, 1975); Émile Thomas, *Histoire des Ateliers Nationaux* (Paris: Michel Lévy frères, 1848); Philippe Vigier, *La Seconde République* (Paris: P.U.F., coll. « Que sais-je ? », 1996).

In the meantime, Louis Benet sought financial support to minimise his debts. In mid-1848, he asked the *Banque de Marseille* for commercial credit of 475,645 francs to cover losses and liabilities.³⁰¹ The president of the General Council of the bank was Joseph Roux. As the director of the *Roux de Fraissinet*, he was also a principal shareholder of the Louis Benet Company, and participated in business activities from 1836. In addition to mortgages on his personal properties and companies, Benet was obliged to give a guarantee of 150,000 francs from shares of a company he founded with the Peyruc cousins. They directed the workshop for the construction and repair of steam engines in Toulon, as well as a blacksmith workshop, and a workshop of construction and repair of steam engines in Marseilles.³⁰² In March 1849, Benet addressed a letter to the prefect of the region, where he stressed the day-by-day reduction of activities in La Ciotat, and requested financial assistance from the French Royal navy, in order for the shipyards – and the workforce – to keep working.³⁰³ In 1850, Benet was granted a debt moratorium, however, the shipyards remained closed due to the absence of orders.³⁰⁴ Hence, the dissolution of the Company was confirmed with a notarial deed on 11th October 1851.

2.7 Conclusion

Beginning in 1836, the port of La Ciotat experienced a remarkable economic and technological transition, from a traditional port in decline to a large industrial complex. This transition successfully delivered an innovative transformation of the production process towards industrial shipbuilding. During this process of transition, as described in this chapter, La Ciotat established local specialisations, and stimulated economic diversification related to industrial shipbuilding. This phenomenon was clearly reflected in the marine engineering and shipbuilding sectors. The sale of the shipyards by Louis Benet in 1851, and the formation, two years later of the *Société des Forges et Chantiers de la Méditerranée* in the neighbouring port of La Seyne-sur-Mer,

³⁰¹Raveux, *Marseille, ville des métaux et de la vapeur*, 216.

³⁰²Ibid. 218.

³⁰³AD BdR, 1 M 598, 29 mars 1849, Lettre de Louis Benet adressée au Préfet du Bouches-du-Rhône.

³⁰⁴Raveux, *Marseille, ville des métaux et de la vapeur*, 218.

formed new economic structures and led to the influx of Parisian capital.³⁰⁵ Consequently, for the switch to French Merchant Capitalism, the role of Paris, together with significant capital investment, and the creation of joined-stocked enterprises, was pivotal. This was obvious in the case of La Ciotat during the second half of the nineteenth century. The port would complete an immense industrial transformation with the establishment of the *Compagnie des Messageries Nationales*, the first sizeable subsidised company of France.

³⁰⁵ Daumalin and Raveux, “Marseille (1831 - 1865). Une révolution industrielle,” 162–3.

CHAPTER 3. The second phase of transition: The *Compagnie des Messageries Maritimes* and the full industrialisation of La Ciotat (1851 - 1916)

3.1 Introduction

The process of industrialisation had already commenced in La Ciotat during the 1830s following the formation of the Louis Benet company and shipyards. However, the turning point in the economy of the port and the town was undoubtedly in the second half of the nineteenth century, when the State subsidised a newly-formed private shipping company, the *Service Maritime des Messageries Nationales*, to form and establish its shipbuilding and ship repair centre in La Ciotat.³⁰⁶ By focusing on the process of transition, this chapter aims to examine the transformation of the port, and the profound change of its character, mainly through the advent of steam, and the rise of industrial shipbuilding.

This chapter is divided into three main parts. The first will include an analysis of the formation of the *Compagnie des Messageries Maritimes*, the acquisition of the shipyards, and the formation of the ship repair centre in 1851. The second part examines the process of industrialisation in the port from the perspective of industrial shipbuilding, as follows: Firstly, the transformation of the port facilities and infrastructure, and the formation of a powerful industrial unit; secondly, the evolution of shipbuilding production through close adherence of the *Compagnie des Messageries Maritimes* to State maritime policy; and thirdly, the productivity of the shipyards through examination of average tonnage produced and distribution of types of ships, employment fluctuations in the shipyards, and the technological evolution in the production process. Through these three factors, the analysis will attempt to better comprehend the huge industrial growth that occurred in La Ciotat, and the profound changes to the economy. The third and last part of this

³⁰⁶For the history of subsidies in shipping see: Jones M. Grosvenor, *Government Aid to Merchant Shipping. Study of subsidies, subventions, and other forms of state aid in principal countries of the world* (Washington: Government Printing Office, 1916); Royal Meeker, "History of Shipping Subsidies," *Publications of the American Economic Association* 6, no. 3 (1905): 1–229. For Messageries Maritimes see: Marie-Françoise Berneron-Couvenhes, "La concession des services maritimes postaux au XIX^e siècle: Le cas exemplaire des Messageries Maritimes," *Revue Economique* 58, no. 1 (2007): 259–76.

chapter will present the characteristics that demonstrate the transformation of the port of La Ciotat and integration into the industrial economy of the period, by examining both its economic and spatial reconfiguration at a local level, and integration at a peripheral level, in the new port system formed in the French Mediterranean during this period. The chapter will confirm the transition of the economy of La Ciotat towards industrialisation and the associated dependency on the practices of the steam navigation company, *Compagnie des Messageries Maritimes*.

3.2 The Compagnie des Messageries Maritimes in the port of La Ciotat

3.2.1 The establishment of the Compagnie des Messageries Nationales

By the end of the 1840s, the *Paquebots-Postes d'Etat*, the French state steam liners that operated in the Mediterranean since 1837, suffered substantial financial losses. The fact that this was a state company, operating a naval fleet, who had belatedly adapted commercial characteristics, and without an organised business and commercial strategy, ultimately suffered a significant financial deficit (37 million francs), which made business operations unsustainable.³⁰⁷ Simultaneously, the *Paquebots-Postes d'Etat*, together with smaller private steam navigation companies in Marseilles, could not compete with the leading companies subsidised by their States, for example, the *Peninsular and Oriental Company*, founded in 1837 (Great Britain), and the *Austrian Lloyd*, formed in 1836 (Austrian Empire).³⁰⁸ The entrepreneurial landscape for steam shipping in France showed a slow improvement during the first half of the nineteenth century. The shipping environment was scattered, for example, the 286 ships registered in the port of Marseilles

³⁰⁷Louis Girard, "Les Grandes Compagnies Maritimes sous le Second Empire," in *Les Origines de la Navigation à Vapeur*, ed. Michel Mollat (Paris: Presses Universitaires de France, 1970), 107.

³⁰⁸For an analysis of steamship companies in the Mediterranean see the articles of Matteo Barbano "Steamers for the Empire," and Apostolos Delis "Ship operation in transition: Greek cargo sailing ships and steamers, 1860s - 1910s," in *Seafaring Lives in Transition* [forthcoming].

were owned by 192 different shipowners.³⁰⁹ Besides this fact, the shipowner was also in parallel, a merchant, an insurer, a banker, or an industrialist.³¹⁰

In view of this economic framework, the French state began to turn its policy towards the formation of a large subsidised private steam navigation company. The change in French maritime policy was rooted within geopolitical and economic considerations. In the mid-nineteenth century, France no longer held the commercial power of the eighteenth century. The preceding economic and political crises together with the rise of a British and Austrian presence in the Mediterranean basin – through subsidised private steam navigation companies – made it imperative for France to reconfigure their presence both in the Mediterranean and beyond. Technology was undoubtedly an essential tool of imperialism. Therefore, in order for the colonies to add value to the European economy, a communications and transportation network had to be formulated.³¹¹ The steam navigation companies, with their regular lines and competitive fleets, were an excellent tool for the consolidation of the colonies with Europe, operating as links that formed a secure network, and promoted economic exploitation. The steam shipping companies subsidised by the state, both in France and other western countries, for example, Great Britain, Austria, the Netherlands, Scandinavian countries, the United States, and Russia, had an important mission of connecting their colonies, securing their national and/or imperial needs, and growing national prestige worldwide. Imperialism was, from that perspective, an imperative that reinforced the need for the formation of a robust and competitive steamship fleet. Simultaneously, increased exploitation of colonial trade was necessary. Industrialisation led to a growing need for shipping services in order to increase the importation of raw materials, and the exports of manufactured products.

³⁰⁹Michel Barak, “L’armement marseillais dans la seconde moitié du XIX^e siècle,” *Revue d’histoire moderne et contemporaine* 29, no. 3 (1982): 476.

³¹⁰Charles Carrière, *Négociants marseillais au XVIII^e siècle. Contribution à l’étude des économies maritimes* (Marseille: Institut historique de Provence, 1973), 250. For the steam navigation in France during this period see: Michel Barak, “Quelques tentatives marseillaises d’organisation de la navigation à vapeur (1832 - 1854),” *Provence historique* 21, no. 83 (1971): 38–88; Mollat, *Les Origines de la navigation à vapeur*; Roland Caty and Eliane Richard, *Armateurs marseillais au XIX^e siècle* (Marseille: CCIMP, 1986); Raveux, *Marseille, ville des métaux et de la vapeur*.

³¹¹Daniel R. Headrick, *The tools of Empire: Technology and European Imperialism in the nineteenth century* (New York/Oxford: Oxford University Press, 1981), 11.

In this regard, France realised that the formation of a robust steam navigation company was imperative to ensure growing commercial relations, and to enhance French colonial influence in the Mediterranean.³¹² Therefore, it was crucial for the State to contribute to the formation of a steamship company, as an instrument to support both the commercial and the political interests of the country.³¹³ The resulting state policy in favour of a subsidised shipping company confirmed the necessity of France to fortify its national prestige, and complement diplomatic and military activities in support of economic and commercial dominance.³¹⁴

Therefore, the State was willing to cede maritime postal services to a private company - this process developed through negotiations with two distinct actors: the *Messageries Nationales*, a Parisian transportation Company (formed in 1798), serving France via land routes as a private mail company for public use; and the steam navigation Company of Rostand et Cie, named the *Compagnie des Paquebots à Vapeur du Levant*, a joint-stock steam navigation Company (formed in 1845), which operated regular voyages between Marseilles, Alexandria, and the Eastern Mediterranean.³¹⁵

The contract between the *Compagnie des Messageries Nationales* and the State was signed on 28th February 1851. The *Services Maritimes des Messageries Nationales* formed initially as a specific branch of the already existing company, began operations in September 1851. The following year (1852), the company was established as a *Société Anonyme*, and became the first French steam navigation company of substantial size.³¹⁶ The company name was amended to *Compagnie des Services Maritimes de Messageries Nationales*. In 1853, following the proclamation of the Second French Empire, the name was further changed to *Compagnie des Services Maritimes Imperiales*. And finally, following the Franco-Prussian War, and the

³¹²Ibid. 82.

³¹³Ibid. 74.

³¹⁴Jean Meyer, Jean Terrade and Annie Rey-Goldzeiguer, *Histoire de la France coloniale. Des origines à 1914* (Paris : Colin, 1991), 641.

³¹⁵Berneron-Couvenhes, *Les Messageries Maritimes*, 20.

³¹⁶Marie-Françoise Berneron-Couvenhes, “La Compagnie des Messageries Maritimes: initiatives privées et subventions publiques à l'origine d'un grand armement commercial français au XIX^e siècle (1851 à 1914),” *Revue d'histoire maritime*, no. 5 (2006): 49. See also: René Musnier, *Les Messageries Nationales: Histoire d'une société de transport pendant 150 ans* (Paris: Pouzet et Cie, 1948).

foundation of the Third Republic, the name was again amended to the *Compagnie des Messageries Maritimes*, abbreviated as MM. The company had a modern managerial structure, with its headquarters based in Paris, and shipbuilding and ship repairs based in La Ciotat.

The concession contracts with the public sector were the sole reason for the formation of the *Compagnie des Messageries Maritimes*.³¹⁷ The company was responsible for postal sea-transport, and a service of general interest to the State, specifically, by providing links between the French mainland and the colonies, and transporting officers and troops. In return, the company received a remuneration - the postal subsidy - from the conceding authority, the State. The company was supported financially firstly through construction of the initial fleet, and subsequently, through operational activities, via subsidies. The main means of financial help came through the continuous renewal of postal subventions. The postal contracts defined the obligations of the company to the State. The regulatory clauses of the contracts included itineraries (number of sea miles), duration of travel (length of passage, duration of port time, hours of arrival and departure), technical characteristics of steamships (regulated speed, horsepower, amenities onboard), the recruitment of sailors, shipboard security, and ways and means of transporting passengers and merchandise.³¹⁸

The formation of a large steam shipping company supported by the state through subsidies, indicates a turning point in French maritime policy - a clear movement towards strong protectionism. Given the fact that steam navigation companies in France, as well as in the rest of Europe were a main tool of imperialism, the French state was ready to heavily support their operation.³¹⁹ During the second half of the nineteenth century, postal subsidies were an essential element in French shipping and shipbuilding development. There were two heavily subsidised companies, one operating mainly from the Mediterranean Sea towards the Indian Ocean (*Messageries Maritimes*), formed in 1851, and a second, concentrating activities in the Atlantic

³¹⁷Berneron-Couvenhes, "La Compagnie des Messageries Maritimes: initiatives privées et subventions publiques," 46.

³¹⁸Marie-Françoise Berneron-Couvenhes, "French Mail Contracts with Private Steamship Companies, 1835–1914," *Business History*, no. 2 (2004): 4. [Online: https://thebhc.org/sites/default/files/BerneronCouvenhes_0.pdf (accessed on 15/09/2020)].

³¹⁹See: Alain Cafruny, *Ruling the Waves. The political Economy of International Shipping* (Berkeley: University of California Press, 1987).

Ocean (*Compagnie Générale Transatlantique*), established in 1861. Both received subsidies averaging around 26 million francs annually. The two shipping companies received almost 90% of subsidy allocations in France during the period of the Third Republic.³²⁰

In this way, the *Messageries Maritimes Company* developed an extended network of regular postal services, supported by the State with several postal contracts from which extra annexed services or unsubsidised commercial lines were also operating. With several different postal contracts with the State, and the progressive introduction of new services, the company reached maximum expansion in the 1880s. *Messageries Maritimes* liners serviced the Far East (Indochina, China and Japan), the islands of the western Indian Ocean, the western coast of Africa, Oceania (Australia, New Caledonia, then New Hebrides), and the South Atlantic (Brazil, La Plata).³²¹

3.2.2 The acquisition of La Ciotat's shipyards

One of the main aims of the company was the formation of a strong and competitive fleet for operational activities. In the convention of 1851, specific regulatory clauses had referred to the company fleet: "In order to ensure the absolute accuracy of departures, the shipowner must maintain a full arsenal and a surplus of ships always equipped and ready to replace those put out of service by the inevitable accidents of active navigation full of perils".³²² The ships were obliged

³²⁰Leslie A. Schuster, *A Workforce Divided: Community, Labor, and the State in Saint-Nazaire's Shipbuilding Industry (1880–1910)* (Westport: Greenwood, 2002), 58. See also, Amboise Victor and Charles Colin, *La navigation commerciale au XIX^e siècle* (Paris: A. Rousseau, 1901/Nabu Presse, 2010), 286 and Royal Meekel, "History of shipping subsidies," in *Political Science Quarterly* 20, no. 4 (1905): 594–611.

³²¹For an analytical study of subsidies and the evolution of the Company see: Berneron-Couvenhes, *Les Messageries Maritimes*; Paul Bois, *Le grand siècle des Messageries Maritimes* (Marseille: CCIMP, 1992); and Marie-Françoise Berneron-Couvenhes, "La concession des services maritimes postaux au XIX^e siècle: Le cas exemplaire des Messageries Maritimes," *Revue économique* 28, no. 1 (2007): 259–76.

³²²AFL, 1997-002-5199, Assemblée générale des actionnaires, 31 mai 1856 [Original: Il faut que pour assurer l'exactitude absolue des départs, l'armateur entretienne un arsenal complet et des navires en surnombre toujours armés et prêts à remplacer ceux que mettent hors de service les accidents inévitables d'une navigation active et pleine de périls].

to carry the French flag, according to the Navigation Act of 1793, which also compelled their construction in French shipyards.³²³ In this way, the company was obliged to maintain a complete shipbuilding and ship-repair centre, with vessels available to replace those damaged or lost at sea.³²⁴ Simultaneously, the technical characteristics of the ships, such as horsepower and speed were also regulated by clauses. Speed and technical efficiency secured consistency of the fleet and the service. The postal contract signed in 1851 compelled the company to possess six ships of 200 horsepower each, and nine ships of 160 horsepower each. This number corresponded to the fleet that *Messageries Nationales* acquired during initial formation by the shipowner Albert Rostand, and by the pre-existing public postal service.³²⁵ Therefore, from the mid-1850s onwards, it was imperative that the company engaged in regular construction projects (normally of five steamers), and support repair and maintenance works for the operational fleet. Given the absence of large industrial shipbuilding complexes in France during this period, as well as the necessity to establish prompt and regular services, the company was forced to create its own shipbuilding and ship repair centre (including workshops).³²⁶

The assessment of the shipbuilding unit in La Ciotat as a possible location for a technical base began a year earlier (in 1850). Negotiations between Ernest Simons, director of the *Société des Messageries Nationales*, Albert Rostand, shipowner and director of the *Compagnie des Paquebots à Vapeur du Levant*, and Louis Benet developed over a longer period. On 16th April 1850, Joseph-Édouard Vence referred to several reparations and ameliorations that had taken place in the workshops of La Ciotat, waiting for news from Paris.³²⁷ In September 1850, Ernest Simons, visited and inspected the shipyards. In June 1851, during the *Exposition Universelle*, the negotiations became more tangible, especially given the financial difficulties of Louis Benet.³²⁸

³²³Berneron-Couvenhes, *Les Messageries Maritimes*, 198.

³²⁴AFL, 1997-002-5199, Assemblée générale des actionnaires, 31 mai 1856.

³²⁵AFL, 1997-002-5242, Cahier des charges attaché à la convention du 28 février 1851, article 10.

³²⁶The same happened with the *Compagnie Générale Transatlantique*, which established also their own shipyards in Saint Nazaire. See: Marthe Barbance, *Histoire de la Compagnie Générale Transatlantique: un siècle d'exploitation maritime* (Paris: Arts et Métiers Graphiques, 1955).

³²⁷Journal JEV [Original: 16/04/1850: On fait diverses réparations et améliorations dans l'atelier en attendant des nouvelles que l'on devrait recevoir de Paris].

³²⁸Raveux, *Marseille, ville des métaux et de la vapeur*, 220.

Joseph-Édouard Vence travelled to Paris and participated in the assembly of shareholders related to the formation of the company. He wrote: “03/07/1851: Together with the [shareholders] of *Messageries*, I take part in the assembly [to contribute] to the affairs of the passenger ships; 06/07/1851: [...] The affair was thoroughly discussed and it is probable that it will succeed.”³²⁹ In September 1851, the *Messageries Nationales* purchased the Louis Benet enterprise for 630,000 francs, paid in part by share capital. The shipyards consisted of a central unit in La Ciotat, and repair workshops in the Catalan district of Marseilles. A month later, Joseph-Édouard Vence was named director of the shipyards, and John Barnes, chief Engineer.³³⁰ From 1st October 1851, the Company created an employment register for the shipyard workforce, and started to recruit workers. The first official entries (179 recorded in total) were registered on this day.³³¹

Following a vertical integration of production, the steam navigation company of *Messageries Nationales* founded a technical base in La Ciotat. This was formed with a separate administration, connected with the Parisien headquarters, and the logistical base of shipping operations in Marseilles. A further ship repair unit and engine workshop was maintained in the port of Marseilles (Catalan district). During the second half of the nineteenth century, following the expansion of services, and the opening of the Suez Canal (1859), the company established a second annexed shipyard with workshops at the canal location. In addition, a branch of La Ciotat shipping services was also established at the canal.³³² This branch was always dependent on the technical base at La Ciotat, however, the site in Suez was ready to respond to maintenance and repair works for ships travelling to the Cochinchina. In an area of approximately 1.3 hectares, ceded to the French company by the viceroy of Egypt, *Messageries Maritimes* established: a technical base, an administration building, several annexed workshops, and residences intended

³²⁹Journal JEV [Original: 03/07/1851: Avec les Messieurs des Messageries, j’assiste à l’assemblée relative à l’affaire des paquebots-postes. 06/07/1851: J’ai assisté ; toujours accompagné par les Messieurs des Messageries qui occupent une loge, à trois séances de l’Assemblée. L’affaire est vivement discutée mais il est probable qu’elle réussira].

³³⁰Journal JEV [Original: 14/10/1851: On me remet une lettre datée de Paris et signé par les quatre administrateurs des Messageries par laquelle ils me nomment Ingénieur Directeur des Constructions Navales, ayant Monsieur Barnes pour ingénieur en chef].

³³¹AMC, Fonds Messageries Maritimes, Registres entrées, M1 (1851 - 1859).

³³²AFL, 1997-002-5199, Assemblée générale des actionnaires, 4 juin 1864.

for European staff.³³³ Furthermore, small repair centres were formed in Bordeaux and Saigon. All the repair centres were annexed and dependent on the administration based at La Ciotat.

The acquisition of the shipyards by the *Compagnie des Messageries Nationales* marked a turning point in the evolution of the port. The presence of a private steam navigation company heavily subsidised by the state, fully converted the function of the port and the industrial economy of the region. The modification of the La Ciotat economy, including a highly innovative shipbuilding centre, and an expanded port infrastructure, led to a rise in productivity (including shipbuilding production), which altered the character of the port. As will be further examined, during the second half of the nineteenth century, the economic character of the port was entirely dependent on the shipbuilding centre of the *Compagnie des Messageries Maritimes*.

3.3 The metamorphosis of the port: The formation of an industrial shipbuilding complex in La Ciotat

From formation, the new company established La Ciotat as the cornerstone of its shipping operations. In order to ensure the regularity of services and respond to any service expansion, it was necessary to construct and maintain a robust and competitive fleet. For this, it was imperative to establish a principal industrial unit ready to respond if and when ship construction was necessary, as well as providing effective maintenance, repair, and refit of the fleet. The port of La Ciotat, following the purchase of the shipyards by *Messageries Maritimes* experienced huge industrial and economic development as it transformed to the principal industrial and technical base of a large steam shipping company.

The process of industrialisation in shipbuilding, was reflected in the expansion of the metallurgical and engineering sectors, with the industrial complex equipped with all the necessary machinery and tools to support the production process. During the industrial revolution, the shipyard developed their own scientific and engineering competence in order to meet the demands of the *Compagnie des Messageries Maritimes*.³³⁴ As a result, these techniques and structures

³³³Ibid.

³³⁴Larrie D. Ferreiro, *Bridging the Seas: The Rise of Naval Architecture in the Industrial Age (1800-2000)* (Cambridge: The MIT Press, 2020), 161.

involved the vertical integration of production in the shipbuilding process. Most works for ship construction were completed in La Ciotat. This included construction and assembly of the hull, installation of equipment, and final outfitting. All items were manufactured, installed, and adjusted at the site, including boilers and engines. The vertical integration of the shipyard meant that all metal constructions that required different sets of machinery, tools, and skills were produced on site.

The efficiency of the shipyards was reflected in the expansion of *Messageries Maritimes* and the effectiveness of their shipping services. During the first years of formation, the Board of the company pointed out the importance of La Ciotat as an essential auxiliary to their shipping services, with a crucial role in ensuring regular, and prompt services.³³⁵ The productivity of the shipyard depended on the facilities of the site.³³⁶ For the company it was vital that the means of production in the industrial complex would continue to develop along with the expansion of the shipping services, and that La Ciotat should be prepared in advance for unforeseen needs of the fleet, for example, unscheduled repair works, or shipwrecks.³³⁷

Substantial capital investment was required for heavy industries such as shipbuilding in order to ensure development and sustainability.³³⁸ During the Second French Empire (1851 to 1871), the *Compagnie des Messageries Impariales* with substantial capital investments, prioritised the establishment of necessary industrial infrastructure and shipbuilding facilities - this maintained the necessary technical superiority of the site. The increased level of fixed assets in the company balance sheets reflected the significant investment made by shareholders. However, given the structure of shareholder reports, it is difficult to calculate the exact value of the capital invested in La Ciotat for the period considered. The value of facilities, machinery, and tools are presented in different ways during the period between 1851 and 1916. In the first years, a separate account for

³³⁵AFL, 1997-002-5199, Assemblée générale des actionnaires, 30 Mai 1855.

³³⁶Martin Stopford, *Maritime Economics* (London: Routledge, 1993), 473–74.

³³⁷AFL, 1997-002-5199, Assemblée générale des actionnaires, 30 Mai 1855 [Original: Nos ateliers de la Ciotat constituent l'un des points d'appui les plus fermés et l'un des auxiliaires les plus essentiels de nos services. Il est indispensable non seulement que les moyens de production de cet établissement se développent en même temps que les services dont ils sont destinés à créer et à entretenir les instruments, mais qu'ils se trouvent préparés à l'avance pour les besoins inopinés].

³³⁸Schuster, *A Workforce Divided*, 4.

each expense was provided. Later, the figures revealed aggregate sums of all net fixed assets in Marseilles, Paris, the agencies, and other ship repair centres, for example, Suez, and Marseilles. This also included the value of machinery, tools, and real estate. However, the figures of the first period can still provide a clear image of the efforts of the company to expand and develop the construction site in La Ciotat. Table 3.1 represents investments made and the subsequent transformation of the facilities, including improvements to infrastructure, together with the proliferation of machinery, and technical equipment during the first years of the company.

Table 3.1. Value of works in La Ciotat for both the facilities and machineries and tools.

YEAR	VALUE OF WORKS	
1854	<i>Facilities</i>	53,928 F.: Installation of a power hammer. 14,789 F.: Extension of the mechanical metal workshop, reinstallation of a furnace, construction of a new gasometer, and several other works. 27,287 F.: purchase of an attached property where the construction of a workshop of mechanical carpentry was ordered.
	<i>Machinery & Technical equipment</i>	277,073 F.: orders to French and English constructors of more than 50 machines and tools.
1855	<i>Facilities</i>	21,810 F.: purchase of many pieces of terrains. 164,951 F.: construction of a new assembly workshop, a carpentry and mechanical sawmill.
	<i>Machinery & Technical equipment</i>	227,072 F.: Acquisition of new machinery and tools.
1856	<i>Facilities</i>	55,600 F.: Construction of workers housing (<i>cité ouvrière</i>).
1858	<i>Facilities</i>	16,229 F.: Construction of workers housing (<i>cité ouvrière</i>). 22,248 F.: Appropriation of the workshops for the construction of transatlantic vessels. 3,028 F.: Several works in La Ciotat. 2.396 F.: Purchase of land by the municipality.

	<i>Machinery & Technical equipment</i>	46,773 F.: Acquisition of the necessary tools for the works on large pieces of machines for transatlantic vessels.
1859	<i>Facilities</i>	Construction of a ventilator and of a mezzanine destined to augment the quantity of water available for the service of the factory
1862	<i>Facilities</i>	325,118 F.: Construction of complimentary workshops to be created in order to give to La Ciotat the necessary development for the maintenance of the fleet for the lines of Indochina.
1863	<i>Facilities</i>	Construction of new workshops for the maintenance of the fleet on the lines of Indochina.
	<i>Machinery & Technical equipment</i>	200,000 F. Expansion of machinery and technical equipment for the needs of the Indochina lines.
1864	<i>Facilities</i>	150,000 F.: Expansion and development of La Ciotat due to the opening of lines in Indochina.
	<i>Machinery & Technical equipment</i>	125,000 F.: Development of fixed and movable technical equipment in the workshops of La Ciotat for the needs of Indochina lines.
1867	<i>Facilities</i>	456,670 F.: Construction of a dry-dock.
1874	<i>Facilities</i>	200,000 F.: Purchase of a new floating dry-dock.
1888	<i>Machinery & Technical equipment</i>	73,798 F.: Purchase and installation of complementary technical equipment due to the rise of work in the shipyards.

Source: AFL 1997-002-5199, Assemblées générales des actionnaires (1854 - 1888).

The shipyards of La Ciotat were modified throughout the period. This was directly related to the continuous evolution of shipbuilding technology during the second half of the nineteenth century, and to the constant expansion of steamship services, particularly in relation to the growing requirements of the French State. Firstly, the opening of new routes to the Atlantic Ocean, and the Indian Ocean (through the Suez Canal), required a fleet with different technical characteristics.

The readjustment of the shipyards to meet the changing technological demands of steam shipping was thus an imperative for the effectiveness of the shipyards. Secondly, the extension of the workshops and the acquisition of adequate machinery, appliances, and other technical equipment was a continuous imperative simply to achieve the highest possible labour capacity. This is reflected in Table 3.1, which refers to the purchase of machinery, and technical equipment, including the expansion of facilities in response to the opening of new services in the Atlantic, and Indochina.

Works of expansion started in 1851. The cost (900,000 francs) appeared in the balance sheet of the company on 31st December 1852.³³⁹ By 1855, the land capacity of the company in La Ciotat reached 50,000 m².³⁴⁰ Furthermore, the company constantly upgraded the facilities, firstly, by adding larger and more powerful machines, and secondly, by expanding the workshop areas, together with warehouses and offices. Continuous equipment and machinery procurement became standard practice during this period, in order to meet the requirements of evolving shipbuilding technology. Simultaneously, the availability of an in-situ pool of labour ready at short notice to increase capacity and productivity at the shipyards, was organised through the development of a workers' housing programme (*cit  ouvri re*). This housing construction programme took place during the period 1854 to 1858.³⁴¹

One of the most remarkable infrastructure improvements that occurred in La Ciotat was the construction of a dry dock. In 1855, given the rising number of ships in the fleet, the company requested government authorisation for the construction of a dry dock. The government permitted construction at the expense of the company, with an Imperial Decree issued on 27th November 1865. The building of the dry-dock began in 1865 and was completed in May 1869.³⁴² This allowed the company to proceed with all necessary works of maintenance, repair, and refit of the fleet without delay. During the second half of the nineteenth century, the dry-dock was subject to several

³³⁹AFL, 1997-002-5199, Assembl e g n rale des actionnaires, 28 mai 1853.

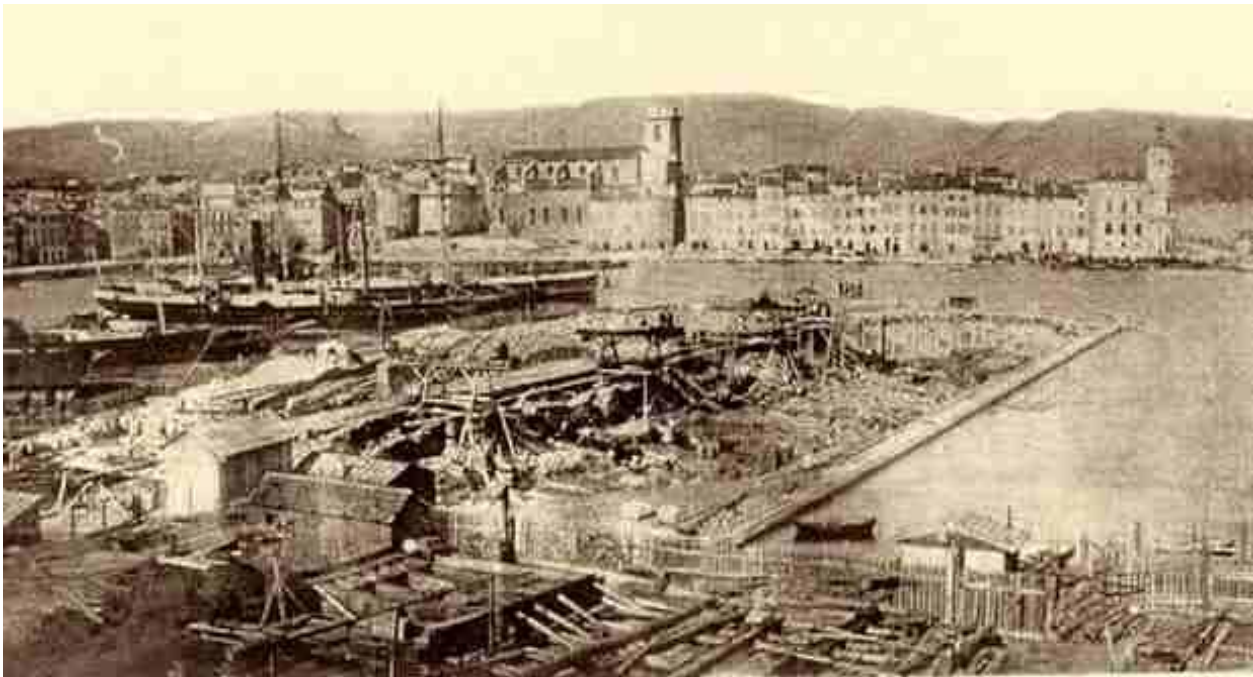
³⁴⁰AFL, 1997-002-5199, Assembl e g n rale des actionnaires, 31 mai 1856.

³⁴¹AMC, Chan/41. Messageries Imp riales, Construction du quartier Notre Dame de Victoires and AD BdR, X2bis 5180, Cit  Ouvri res. Note: The importance of a workers housing complex as a factor of the urban and social evolution of La Ciotat will be analysed in chapter four.

³⁴²AD BdR, 6S 60/3, Bassin de radoub par les Messageries Maritimes (1863 - 1871).

changes and modifications in order to meet the technical evolution (including the size) of steamships. In 1888 and 1889, following specific works, the dry-dock was enlarged, and deepened.³⁴³

Image 3.1. Construction of the dry-dock, La Ciotat (1867).



Source: Website of Musée Ciotaden [link: <http://www.museeciotaden.org/>].

As the company expanded operations and facilities, the State, through the Ministry of Public Works (*Ministère des Travaux Publics, administration des Ponts et Chaussées*) proceeded to support many modifications in order to accommodate the new industrial activities transforming the landscape of the port. In 1851, just before the purchase of the shipyards, a berth was constructed,³⁴⁴ followed by the enlargement of the port's quay.³⁴⁵ In 1852, the existing mole was

³⁴³AD BdR, 6S 60/3, Demande d'approfondissement proposée par les Messageries Impériales (1869 - 1883).

³⁴⁴AFL, 1997-002-5199, Assemblée générale des actionnaires, 30 Mai 1855.

³⁴⁵AD BdR, 6 S 60/1, Port de La Ciotat. Agrandissement du quai.

further extended as a result of the demolition of a soap manufacturing building.³⁴⁶ A year later, the State, together with the Municipality, agreed a realignment, and extension of the quays to support both urban and shipping needs.³⁴⁷ The partial demolition of twelve houses at the front of the quay was necessary for this development. The project faced several conflicts with residents of the houses, and also, from fishermen whose activities were put at risk due to the removal of storage houses at the front of the quay named *Quai Ganteaume*.³⁴⁸

In the 1880s, the constant increase in the size and draught of vessels, led to a demand to deepen the port. The work began in December 1882 and was completed in July 1883 (at the cost of 701,305 francs).³⁴⁹ On 28th April 1887, the town council agreed to sell the old cemetery of Saint Esprit, an area of 3.629 m², which was behind the slipways of the shipyard, to the *Compagnie des Messageries Maritimes*. In addition, the town walls, part of which had already been destroyed during the period of Louis Benet, were further demolished during the period 1864 to 1876 (including defensive walls and three defensive towers). Furthermore, in 1874, the so-called *Porte de Marseille* was demolished, while in 1895, Fort Berouard, built in 1551 to defend the port, was also demolished.³⁵⁰

The infrastructure development at the port and the expansion of industrial facilities in the shipyards confirmed the significant pace of industrialisation and economic growth in the town. Map 3.1 (from 1916), reveals the facilities constructed during the period concerned. The Map easily distinguishes two sectors: The northeast of the port housed company offices, including the central administration, the general accounting office, and the ship plans and drawings office. Towards the front stood wood warehouses, an electricity workshop, a hall for ship models, an ambulance hall, and an internal infirmary. In another part of the northern sector, several other workshops were housed, including smelting workshops, forges, a tinsmith workshop, and a large boiler workshop (which was expanded to house a large machine workshop). To the rear of these

³⁴⁶AD BdR, 6 S 60/1, Port de La Ciotat. Prolongement du mole neuf; Réparations complémentaires au prolongement du mole neuf (1863).

³⁴⁷AD BdR, 6 S 60/2, Port de La Ciotat. Alignement et élargissement des quais.

³⁴⁸Ibid.

³⁴⁹AD BdR, 6S 60/3, Demande d'approfondissement proposée par les Messageries Imperiales (1869 - 1883).

³⁵⁰AD BdR, 6S 60/4, Démolition du Fort Berouard (1894).

workshops, on the northern side, was the workers housing complex. The southern sector was mainly related to shipbuilding and included three slipways of 90 to 130 meters, the dry-dock, together with a sheet metal workshop, and shed workshops. Near the entrance to the shipyard, was a general magazine, a sheet metal workshop, a scrap yard, and a hangar where metal girders were stored. The facilities, from 1851 to 1916 extended from 40.000 m² to almost 110.000 m² respectively. Within this total area, 40.000 m² housed offices, workshops, stores, and hangars. The shipyards of La Ciotat were also connected to an intra-yard rail system linked, since 1886, to the regional rail system. This facilitated movement of heavy sheet metal, engine components, and machinery. This infrastructure significantly assisted vessel assembly.

During the second half of the nineteenth century, industrialisation in the shipping and shipbuilding sectors was accompanied by dramatic spatial changes at ports.³⁵¹ The port of La Ciotat was transformed into a remarkable shipbuilding and ship repair centre. The influence of both the private and state sectors created new spatial arrangements to facilitate the shipbuilding production process. The extensive purchase of land by *Messageries Maritimes*, followed by the construction and expansion of mechanical workshops, metal workshops, forges, stores, and offices, together with the enlargement of slipways and construction of a dry-dock, created in La Ciotat a fully equipped industrial shipyard. In addition, public works by the French state assisted this transformation. The labour capacity within the shipyards was expanded, and together with the modern means of production, the shipbuilding centre of *Messageries Maritimes* reached elevated levels of productivity. Simultaneously, through this process of adaptation and industrial development, the port experienced an immense landscape metamorphosis, which mirrored a profound economic transition from a traditional to an industrialised port.

³⁵¹Transformation processes in port-cities have been studied thoroughly by urban geographers such as: Brian Hoyle, et al., eds. *Revitalizing the Waterfront: International Dimensions of Dockland Redevelopment* (London: Belhaven Press: 1988); Brian Hoyle, "Global and local change on the port-city waterfront," *Geographical Review* 90, no. 3 (2000): 395–417. See also: Joseph W. Konvitz, "The crises of Atlantic Port Cities, 1880 to 1920," *Comparative Studies in Society and History* 36, no. 2 (1994): 293–318; Apostolos Delis, "A Mediterranean insular port-city in transition: economic transformations, spatial antagonism and the metamorphosis of landscape in nineteenth-century Hermoupolis on the island of Syros," *Urban History* 42, no. 2 (2015), 225–45.

Map 3.1. Plan général du port de La Ciotat et des ateliers, 1916.



Source: AFL, 1997 002 5226, Compromis de la Vente des Chantiers de La Ciotat, 1916 (1: Construction slip-way no.1; 2: Tracing hangar; 3: Construction slip way no. 2; 4: Rolling crane for the slip-way; 5: Dry-dock; 6: Rolling crane for dry-dock; 7: Forge workshop; 8: War material, ship models' workshop, tinning workshop; 9: Copper metal workshop; 10: Boiler workshop, engine assembly workshop; 11: electricity workshop; 12: general warehouse; 13: Direction office; 14: wood deposit store, entrepot of apprentice workshop, ship designs and archives office; 15: working housing complex.

3.4 The shipbuilding production in La Ciotat

3.4.1 The evolution of production in the second half of the nineteenth century: vertical integration and state subsidies.

The importance given to La Ciotat by the *Compagnie des Messageries Maritimes* can be observed through the shipbuilding production output of the yard between 1851 and 1916. The shipyard became part of the vertical integration of a shipping company, dependent on substantial state subsidies. Analysis of the evolution of shipbuilding production should take into consideration various factors. Shipbuilding was subject not only to intense state intervention reflected in the subsidies provided to the *Compagnie des Messageries Maritimes*, but also by changeable government policies in support of the national shipbuilding industry. The constant demand for new routes required an increase in fleet numbers, and this was made possible with state subsidies. The postal contracts between the company and the State required adherence to specific guidelines for vessel upgrades, specifically through enlargement of the vessel hull or the addition of a superior engine. In this way, the state acted as a regulator of the national shipbuilding industry, and promoted shipbuilding activity at La Ciotat. Therefore, the company relied on the availability of state funds to form, maintain, and update the fleet.

The first two decades of operational activity under the *Messageries Maritimes* (until the fall of Napoleon in 1871) was characterised by intense shipbuilding production reflecting the extraordinary pace of industrial growth in La Ciotat, and the process of fleet development for the company. The fact that the *Compagnie des Messageries Nationales* was initially a land transport company rather than a shipping company, created an imperative for the formation of a fleet. In 1851, the Company began service with sixteen second-hand ships; thirteen steamships were purchased by the public postal service,³⁵² and three by the steam navigation Company of Albert Rostand.³⁵³ The fleet appeared aged, with dated technological characteristics: their average

³⁵²There are the vessels: *Eurotas, Lycurgue, Mentor, Léonidas, Tancrède, Scamandre (I), Sésostris, Télémarque, Nil (I), Osiris, Caire* and *Alexandrie*.

³⁵³The *Hellespont, Oronte*, and *Bosphore*.

tonnage amounted to 700 gross tons with engines of an average of 200 horsepower.³⁵⁴ Therefore, they lacked power and capacity, and were unsuitable for ensuring the regularity of the service. For this reason, the main priority for the company was to proceed as quickly as possible towards an upgraded fleet. In the first convention signed between the State and the *Messageries Maritimes*, articles four to fourteen were related to the fleet. The company was obliged to maintain the first steamships acquired by the State and the Rostand company.³⁵⁵ Additionally, the contract obliged the company to commission five new steamers (of 300 horsepower) to specific deadlines within a five-year timeframe.³⁵⁶

Simultaneously, the opening of new services further increased shipbuilding production. The first expansion took place in the Mediterranean basin, with the opening of several new routes between 1854 and 1857. The aim of the company was to establish a continuous circle of coastal navigation, and corresponding services to connect Marseilles with the main ports of the Mediterranean and the Black Sea.³⁵⁷ The Crimean War played a pivotal role in this expansion. With several conventions signed with the State between 1854 and 1857, the *Compagnie des Messageries Maritimes* was obliged to transport French artillery and troops to the Black Sea for the War effort. After the end of the War, the lines remained operational for commercial and postal services.³⁵⁸ In 1854, the Ministry of War signed several contracts with the company for the implementation of regular services between Marseilles, Alger, Oran, and Tunis,³⁵⁹ and services to

³⁵⁴Bermeron-Couvenhes, *Les Messageries Maritimes*, 99. See also Appentix 3.1. Shipbuilding production in the shipyards of La Ciotat (1851–1916).

³⁵⁵*Moniteur Universelle*, 12 juillet 1851, no. 193, Convention pour le projet de concession des paquebots de la Méditerranée à la compagnie des messageries nationales.

³⁵⁶*Ibid.* Article 14.

³⁵⁷AFL, 1997-002-5199, Assemblée générale des actionnaires, 31 mai 1856.

³⁵⁸AFL, 1997-002-5164, Cahier de charge de la convention du 29 mai 1857, pour le remaniement des services postaux de Méditerranée et de la Mer Noire; Convention pour le transport des malades et des blessés de l'Armée, du 5 mai 1855.

³⁵⁹AFL, 1997-002-5164, Cahier de charges de la convention pour l'exploitation du service postal de l'Algérie du 25 février 1854 ; See also Bermeron-Couvenhes, *Les Messageries Maritimes*, 127.

support the military expedition to Italy and Syria during the years 1859 and 1860.³⁶⁰ Consequently, between 1854 and 1857, the service in the Mediterranean almost doubled.

During this period, apart from the Mediterranean, new contracts with the State created regular transoceanic services. The Atlantic postal service contract was signed on 16th February 1857. This created a regular service to South America, more specifically, to Brazil, and La Plata. The contract included the construction of seven steamships (400 horsepower, with a speed of 9.5 knots), and three other steamships (with a speed of 9 knots) for local service lines in south America, including those that connected Rio de Janeiro to Montevideo and Buenos Aires.³⁶¹ In addition, the first contract for the establishment of new service lines in Indochina was signed on 22nd April 1861.³⁶² This was a turning point for the expansion of the company towards the Far East, and created another main region for operations. France expanded its overseas territories in the Cochinchina, following a military intervention in China between 1858 and 1859 – this led to an established presence in Saigon from February 1859 onwards.³⁶³ Concurrently, after a long period of prohibition, China and Japan opened their borders to foreign access. The regular presence of French ships in the seas of Indochina was for the time, a political and commercial necessity.

In addition, the negotiations for the opening of the Suez Canal created new opportunities for the company. A contract worth 12 million francs was signed on 22nd April 1861 to create a fleet for this operational activity.³⁶⁴ During this period, production at La Ciotat followed an intensive shipbuilding program of constant growth and development, especially in the period 1862 to 1871, which was mainly characterised by changes and improvements to the Suez Canal inspired fleet. From 1868, the shipyards doubled production of steamships destined for the Indochina lines, given the opportunities offered by the opening of the canal. The construction of the new fleet was

³⁶⁰Ibid. 138.

³⁶¹Convention of 19 September 1857.

³⁶²AFL, 1997-002-4857, Cahier des charges de la convention du 22 avril 1861, relative à la concession des services postaux de l'Indochine.

³⁶³Pierre Renouvin, *Histoire des relations internationales*, vol. II, 1789 à 1871 (Paris: Hachette, 1994), 576; Jean Tarrade and Annie Rey-Goldzeiguer, *Histoire de la France coloniale*, vol I, la conquête (Paris: Armand Colin, 1991), 615.

³⁶⁴For further analysis of all the conventions and the opening of new lines during this period, see Berneron-Couvenhes, *Les Messageries Maritimes*, 126–35.

reflected by the particular design characteristics necessary for passage through the canal. At first, the canal could not handle any ship efficiently. With a depth of 6 meters and a width of 22 meters, it was too small for the largest steamers of the time.³⁶⁵ The most modern steamships of appropriate size, and equipped with compound engines, were the most suitable for passage, and therefore, benefited the most. As a result, there was an explosion in steamship construction.³⁶⁶ The company upgraded and renewed equipment to adjust both to the technological innovations of the time, and also, to the specific technical characteristics the steamships required for passage through the canal. As a result, during the Second French Empire, the pace of expansion of the *Compagnie des Messageries Maritimes*, the technological evolution of steamships, and the opening of the Suez Canal, dramatically increased shipbuilding production at La Ciotat.

This period of significant development and elevated production levels at La Ciotat ended at the beginning of the 1870s. This was initially due to the Franco-Prussian war. The beginning of the war in July 1870, led to a significant disruption in the growth of *Messageries Maritimes*. From October 1870 to June 1871, certain services were completely suspended, while others were reduced. In addition, the shipyards were requisitioned to manufacture artillery equipment,³⁶⁷ while the company was obliged to postpone all new construction and concentrate only on the maintenance of the fleet. Meanwhile, the shipyards did not receive any new orders,³⁶⁸ other than the construction of three ships of 10,578 tons during the period March 1870 to January 1872 (see Appendix 3.1. Shipbuilding production in La Ciotat 1851 - 1916).³⁶⁹

In 1872, following the end of the Franco-Prussian war, the shipyard and company resumed operations, including the reestablishment of suspended services. However, several factors affected shipbuilding activity, which continued to decrease until 1880. Firstly, the French government was now obliged to pay 5 million francs to Germany for the liberalisation of its territories. This factor was reflected in budget restrictions, and as a result of these financial difficulties,³⁷⁰ several regular

³⁶⁵Daniel R. Headrick, *The Tentacles of Progress: technology transfer in the age of imperialism, 1850-1940* (New York: Oxford University Press, 1988), 26.

³⁶⁶*Ibid.* 27.

³⁶⁷Berneron-Couvenhes, *Les Messageries Maritimes*, 338.

³⁶⁸*Ibid.*, 338–39.

³⁶⁹AFL, 1997-002-4714, Navires construits à La Ciotat pour les Messageries Maritimes (1851 - 1915).

³⁷⁰Berneron-Couvenhes, *Les Messageries Maritimes*, 340.

steam services were suspended, for example, the three postal services to Algiers, Oran, and Tunis.³⁷¹ Secondly, legislation introduced by Napoleon III in the 1860s seriously affected the maritime sector. Believing that free trade would promote economic growth, the State abolished the system of protections for industry and commerce.³⁷² With the Anglo-French Treaty of 23rd January 1860, most of the protective treaties enjoyed by French shipowners were withdrawn, and the penalties for the purchase of foreign vessels were removed. In 1861, following the Repeal of the Navigation Laws by Great Britain (in 1849), the equivalent *pacte colonial*, which reserved trade between France and its colonies to French shipping, was abolished. This opened sea transport between France and the French colonies to foreign competition.³⁷³ In 1866, Napoleon III repealed all existing privileges for the national shipbuilding industry. The legislation gradually liberalised trade by eliminating the registration fee for foreign vessels, and eradicated the duty for foreign vessels that carried the French flag.³⁷⁴ In addition, the law of 19th May 1866 permitted the purchase of steamships from foreign shipyards.³⁷⁵ As a result, many shipowners purchased their ships abroad, especially from Scottish shipyards. During the period 1867 to 1874, 56% of new vessels acquired by the shipping companies of Marseilles, were purchased abroad.³⁷⁶

The decisions of Napoleon III from the 1860s onwards clearly induced stagnation in shipbuilding production during the 1870s.³⁷⁷ Even though the *Messageries Maritimes* did not proceed with new purchases from abroad during this decade (there was only one purchase from La Seyne-sur-Mer in 1876), the production capacity at La Ciotat illustrates the decline of shipping and the shipbuilding sector in France: that is, from 1876 to 1881, the shipyards of *Messageries Maritimes* constructed only five vessels. With the beginning of the Third Republic, and a law of 30th January 1872, the government re-introduced the protectionist measures. This included the application of a protectionist flag surtax, and protective tariffs for the purchase of steamships and

³⁷¹Bois, *Le Grand Siècle des Messageries Maritimes*, 23.

³⁷²Schuster, *A Workforce Divided*, 45.

³⁷³Pierre Jacques Charliat, *Trois siècles d'Economie Maritime Française* (Paris: Marcel Rivière, 1931), 44–5.

³⁷⁴*Ibid.* 157–58.

³⁷⁵Raveux, *Marseille, ville des métaux et de la vapeur*, 323.

³⁷⁶*Ibid.*

³⁷⁷Schuster, *A workforce divided*, 45.

engines manufactured abroad. However, production recovered slowly.³⁷⁸ During this period, and given the legislation introduced by Napoleon III in the 1860s, the French merchant fleet decreased from 1,050,000 tons in 1865, to 920,000 by 1880.³⁷⁹

Thirdly, the reduction of ship construction in the shipyards was affected by a passionate debate between supporters of protectionism, and those of a *laissez-faire* stance who stood against the subsidy policy for large French companies during the first decade of the Third Republic.³⁸⁰ The discussion included issues such as the vast subventions, together with the monopoly that the subsidised companies, in particular the *Messageries Maritimes* enjoyed for passenger, mail services, and trade. French shipowners felt aggrieved and protested strongly against the system of subsidised steam navigation companies as unfair competition that made it impossible for smaller (and unsubsidised) shipping companies. The main points of the argument were related to whether the state should follow a policy of *laissez-faire* or protectionism, and therefore assist the growth of key national industries. A parliamentary commission (1875) established to consider the policy was favourable to the continuation of the subsidies offered to *Messageries Maritimes*. The main argument made was that the *Compagnie des Messageries Maritimes* was an instrument of foreign policy for France, and therefore, a geopolitical tool of French presence around the globe. The passenger steamers also served as Navy auxiliaries, transporting the name and the grandeur of the country abroad.³⁸¹ The subsidy policy was affirmed by a decision of the government to sign a new convention on 15th July 1875, which included the existing lines of the company that had been opened with separate contracts during preceding years.³⁸²

A turning point for the role of the state concerning service expansion was the period from 1880 onwards. New contracts were signed subject to the company connecting Marseilles with the Colonies, and developing an internal communication system linking the colonised regions. Through a contract signed in December 1880, the *Messageries Maritimes* began new peripheral services connecting the ports of French Cochinchina. The company became, in this regard, an

³⁷⁸ Raveux, *Marseille, ville des métaux et de la vapeur*, 325.

³⁷⁹ Schuster, *A workforce divided*, 46; and *Journal Officiel de la République Française*, 1 March 1897: 1557–59.

³⁸⁰ In regards to this debate, see the analysis of Berneron-Couvenhes, *Les Messageries Maritimes*, 342–47.

³⁸¹ Berneron-Couvenhes, *Les Messageries Maritimes*, 346.

³⁸² *Ibid.* 348–49.

incontestable tool of the presence and expansion of France in Indochina. In the contract of 15th January 1881, a new colony was added to operations, connecting Marseilles to New Caledonia – this line also served Reunion, and Australia. The agreement extended to 15 years and was inaugurated on 23rd December 1882. The opening of the new lines envisaged additional shipbuilding construction to support the operational needs of each route.³⁸³

The maritime policy of the state was designed to protect the national shipbuilding industry by offering a premium in shipbuilding (see law of 29th January 1881). The French state adopted highly protectionist legislation, particularly regarding the construction of ship hulls and marine machinery.³⁸⁴ The maritime privileges provided ten years of financial assistance to both the shipping and shipbuilding sectors. In the shipbuilding sector, the concession included 60 francs per gross tons for iron or steel steamships, and 12 francs per 100 kilograms for engines and auxiliary machines.³⁸⁵ The benefits of the new provisions were immediate. The growth in the number of steamers registered in the port of Marseilles increased considerably, for example, between 1880 and 1890, fifty-five new ships were ordered, delivering growth in excess of 25%.³⁸⁶ The concession system redirected shipping companies towards the national shipyards. Shipbuilding was rejuvenated and once again flourished in La Ciotat; three large liners were built in 1882, and a further four in 1883 (see also Appendix 3.1 Shipbuilding production in La Ciotat, 1851-1916).

This period witnessed the consolidation of the *Compagnie des Messageries Maritimes* as the main geopolitical tool of the expansion and control of French imperialism. The *Messageries Maritimes* expanded their services in the Indian Ocean, opening new lines to Madagascar, Reunion, and Mozambique.³⁸⁷ Regular subsidised service lines became the main instruments for political and commercial penetration into the newly conquered and exploited territories – this increased economic profitability.³⁸⁸ This period of expansion was confirmed by a contract signed

³⁸³Bois, *Le Grand Siècle des Messageries Maritimes*, 59.

³⁸⁴Charliat, *Trois siècles d'Economie Maritime Française*, 172.

³⁸⁵Amboise Colin, *La navigation commerciale au XIX^e siècle* (Paris: A. Rousseau, 1901), 204.

³⁸⁶Raveux, *Marseille, ville des métaux et de la vapeur*, 326.

³⁸⁷Berneron-Couvenhes, *Les Messageries Maritimes*, 350.

³⁸⁸*Ibid.* 351.

on 10th June 1886, which incorporated all the services in the Mediterranean, South America, the Far East, and Oceania.³⁸⁹ The company was obliged to increase the speed of the fleet to 12-14 knots, and construct extra steamships in French shipyards. By the end of the 1880s, the company began a policy of fleet renewal with either new construction in La Ciotat, or the purchase of new vessels. This can be observed from production in 1888 when four ships were under construction concurrently, with subsequent delivery in 1889 and 1890 respectively (Appendix 3.1). An additional contract (similar to 1886) was signed in 1894. This added some operational ports, and the obligation of the company to increase further the speed of the ships.³⁹⁰ The contracts signed initially with the General Government of Saigon in 1881 were also renewed in 1892.³⁹¹ This was also reflected by a dramatic increase of shipbuilding production during the second half of the 1890s, particularly 1898 and 1899, when four ships of more than 20,000 tons were launched in the port. This would be the last period of expansion and elevated production levels in the shipyards of La Ciotat prior to the First World War.

3.4.2 The decline of production in the shipyards at the beginning of the twentieth century: the final period of *Messageries Maritimes* in La Ciotat

In the 1900s, after a period of continuous expansion, the shipbuilding centre of La Ciotat experienced decline. At the beginning of the twentieth century, private and public interests gradually diverged: the interest of the company was to maintain a high level of subsidy for minimum service, while the State interest was to lower the subsidy while requiring even more services from the company. Simultaneously, opposition towards postal conventions increased once again. The argument concentrated on unfair competition with unsubsidised private shipping companies, the cost of the subsidy system for the State, and the almost absolute monopoly of large companies, namely the *Messageries Maritimes*, and *Compagnie Générale Transatlantique*.³⁹²

³⁸⁹Ibid. 374.

³⁹⁰Ibid. 645.

³⁹¹Ibid. 646.

³⁹²Berneron-Couvenhes, “La Compagnie des messageries maritimes: initiatives privées et subventions publiques,” 57.

In addition, the economic circumstances of the *Messageries Maritimes* altered dramatically at the beginning of the twentieth century due to: the coal crisis; continuous strikes, which affected the regularity of the services; and a new law on the merchant marine.³⁹³ This 1902 maritime policy precipitated a decline in shipbuilding. The law aimed, above all, to restrict State concessions to the merchant marine. It mainly affected the *Messageries Maritimes*, as it withdrew postal subsidies, and the construction premium. The result was a decline in key income of the company, whose share price reduced accordingly. In addition, management were accused of being old fashioned (and too old), and unable to react in order to prevent financial loss.³⁹⁴

The construction site of La Ciotat experienced constant decline as a result. Production dropped significantly, while fleet equipment was considered aged and obsolete, and maintenance expensive.³⁹⁵ The company made significant redundancies with the shipyard workforce reduced to 1,200 personnel by 1907. In reality, the challenge was effectively confronted in 1908, when the State took steps to decide if all services provided by the *Compagnie des Messageries Maritimes* would be extended or entrusted to another company. The Board of *Messageries Maritimes* were required to wait for a decision on whether another company would undertake the service, the fleet, and the infrastructure, which enabled it to support such an extensive network of lines.³⁹⁶ In this decision making framework (particularly during General Assembly consideration), there was a ferocious debate on whether it was necessary to retain the shipyard as a distinct part of the company.³⁹⁷ The President of the Executive Board of the company, André Lebon, actively supported this necessity, as the company needed to maintain and repair the fleet regularly and often under urgent circumstances. It was estimated that the maintenance and repair of the fleet required approximately 1,400-1,500 employees a number that would be difficult to have readily available without internal shipyard access.³⁹⁸ At the same time, social reasons also influenced his position,

³⁹³Bois, *Le Grand Siècle des Messageries Maritimes*, 68.

³⁹⁴*Ibid.* 68.

³⁹⁵*Ibid.* 67.

³⁹⁶Berneron-Couvenhes, “La Compagnie des messageries maritimes: initiatives privées et subventions publiques,” 56.

³⁹⁷AFL, 1997-002-5199, Assemblée générale des actionnaires, 27 Mai 1905.

³⁹⁸AFL, 1997-002-5199, Assemblée générale des actionnaires, 27 Mai 1905.

in particular, the fact that the population of La Ciotat was largely dependent on the economy of the shipyard.³⁹⁹

In 1910, the shipyards received only two orders from the French government to construct large vessels – this was to help reduce unemployment within the town, and also, to manage enormous social unrest. Nevertheless, a further contract was signed in December 1911, maintaining the partnership between the state and *Messageries Maritimes*, but with redefined terms. The principle of solidarity of interests was adopted, introducing three rules as follows: the revisable nature of subsidies; State participation in profit sharing once a certain threshold was exceeded; and State financial control. The latter related to control over subsidised lines, but without direct intervention in the management of the company.⁴⁰⁰ With the contract of 1911, the company was required to replace aged ships by purchasing three vessels from England and commencing new constructions.⁴⁰¹

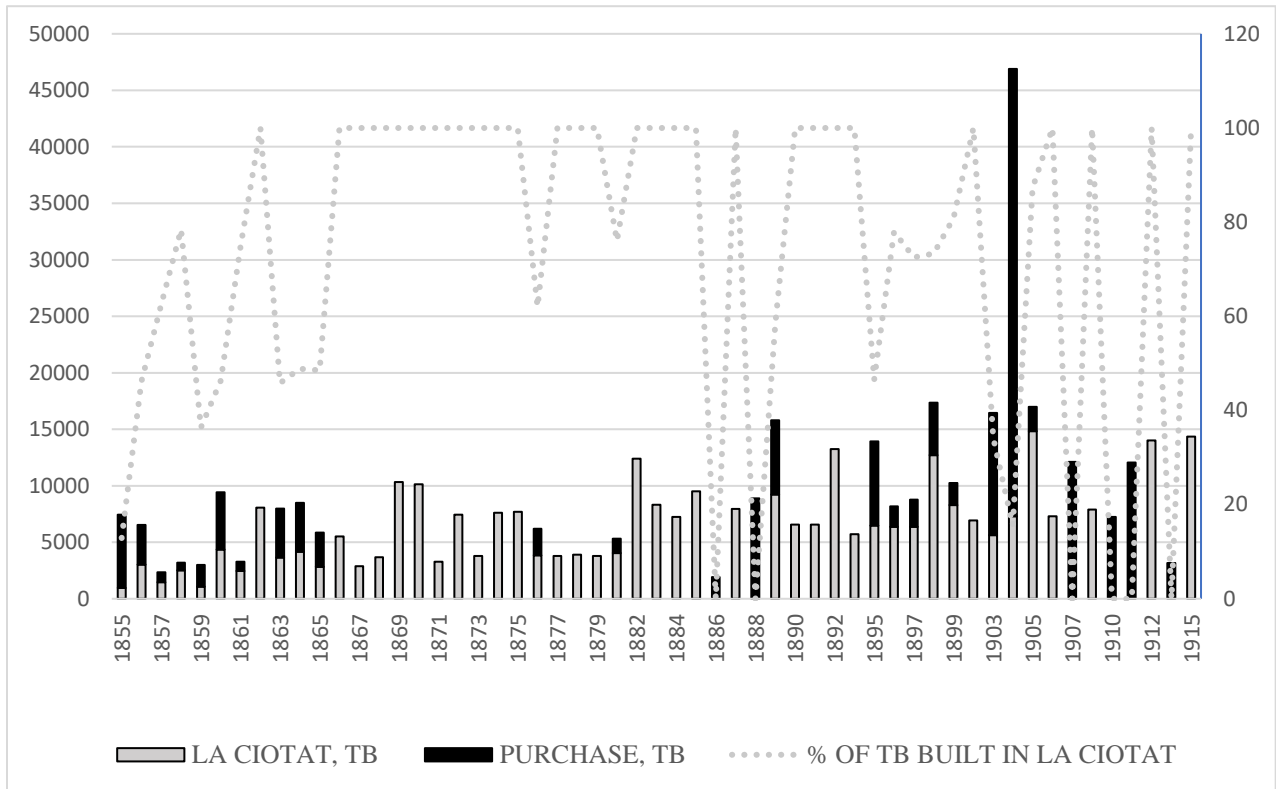
Figure 3.1 illustrates the role of the *Compagnie des Messageries Maritimes* and its associated business strategy in the fluctuations of production in La Ciotat. This represents the total tonnage of the fleet combining ships constructed in La Ciotat and those acquired through other shipyards. It demonstrates company strategy - especially post 1900, that is, to invest in second-hand vessels instead of new shipbuilding construction. The percentage of ship construction in La Ciotat remained high (most of the time 100%) until the 1900s. Even during periods of reduced production, such as that of 1876 - 1880, the company did not purchase vessels from other shipyards. This was clearly an indication of company strategy for fleet expansion. However, post 1900, and especially during the years 1907 - 1910, the company appeared to follow a strategy of vessel purchase despite no new construction activity in La Ciotat.

³⁹⁹Ibid.

⁴⁰⁰Berneron-Couvenhes, “La Compagnie des messageries maritimes : initiatives privées et subventions publiques,” 57 and Bois, *Le Grand Siècle des Messageries Maritimes*, 75–6.

⁴⁰¹AFL, 1997-002-5199, Assemblée générale des actionnaires, 1904 - 1914.

Figure 3.1. Total tonnage of the fleet of the *Compagnie des Messageries Maritimes* constructed in La Ciotat or purchased (1851 - 1916).



Processed data by: Appendix 3.1. Shipbuilding production in La Ciotat.

During the First World War, the *Company of Messageries Maritimes* directed all efforts towards the defence of France. The political circumstances of the war prevented the evolution of the company and paused many services, as the fleet served the War purpose. The shipyards of La Ciotat were used to help with the War effort, for example, the production of shells, construction of carriages, manufacture of life jackets, and bombshells, together with repairs of naval vessels.⁴⁰² At the beginning of the War, the deficit of the company continued to grow, mainly as a result of a serious cash flow problem caused by government debt owed to the company. Following a period of crisis in the shipyards, including mass worker dismissals, and general strikes, the company

⁴⁰²AFL, 1997-002-5199, Assemblée générale des actionnaires, 26 mai 1916.

leased the shipyards to the *Société Provençale de constructions navales*, a subsidiary company of Schneider corporation, formed explicitly for this reason.

On 7th August 1916, the *Compagnie des Messageries Maritimes* signed a contract to lease the shipyards to the *Société provençale de constructions navales* for a period of seventy years. The reasons for this decision were based on three main factors. Firstly, the change of the French industrial shipbuilding landscape at the beginning of the twentieth century. During the second half of the nineteenth century, France developed various advanced industrial units for shipbuilding and engine manufacturing. Therefore, the industrial expansion of the shipbuilding industry during this period reduced the need to control one shipbuilding centre. Secondly, the increased complexity of the organisation and administration of shipping companies demanded focused management and control of shipping operations. For this, the possession of a private shipbuilding centre appeared somewhat burdensome and unnecessary. Finally, the size of La Ciotat port - which demanded extensive works for the amelioration of the infrastructure – was no longer suited to the maintenance or construction of large-scale vessels.⁴⁰³

The lease began on 31st July 1916, with an annual rent of 23,000 francs.⁴⁰⁴ *Messageries Maritimes* participated in the management of the *Société Provençale* as a common shareholder. In the company share capital of 10,000,000 francs (organised as 20,000 shares of 500 francs each), *Messageries Maritimes* held 6,000 shares, which is 25% of the capital of the newly established entity. Therefore, *Messageries Maritimes*, was able to closely follow the evolution of this Company, take part in the decision-making process, and participate in profit and/or loss. Together with the lease contract, a specific agreement, called the *entente commerciale* was signed between *Messageries Maritimes* and the *Société Provençale de Constructions navales (SPCN)*. The regulatory clauses obliged SPCN to give priority to the construction, maintenance and repair of *Messageries Maritimes*' fleet – this included adherence to specific deadlines. In addition, SPCN obligations included the construction of a comprehensive workshop in Marseilles, for repairs and maintenance works of large vessels, together with the realisation and completion of works for the

⁴⁰³AFL, 1997-002-5199, Assemblée générale des actionnaires, 1 juin 1917.

⁴⁰⁴AFL, 1997 002 5226, Bail par la Cie des Messageries Maritimes à la Ste Provençale de Constructions Navales.

enlargement of La Ciotat port.⁴⁰⁵ Following the closure of the branch in La Ciotat, the *Compagnie des Messageries Maritimes* moved the management of the technical aspect of its service to Paris.⁴⁰⁶

The announcement to the workforce of La Ciotat (on 5th October 1916) regarding the end of *Messageries Maritimes* operations at the shipyard was made by the Director, Eugène Raymond. It can be considered as the end of a large cycle; a process that led to the total transformation, and industrialisation of the port. The company stated:

*The workforce of the workshops and construction sites [of La Ciotat] was informed that the Board of Directors of the Compagnie des Messageries Maritimes, in its assembly on the 4 October, announced the definitive closure, on July 31, of the [Technical] Board, as an instrument of its services, due to the formation of the Société Provençale de Construction Navale, which takes over the operation of the Establishments of La Ciotat. By taking this decision, the Executive Board of the Compagnie des Messageries Maritimes would like to assure its former staff that it will keep the best memories of their long collaboration and the signs of dedication and attachment that the working population of La Ciotat did not stop showing [to the Company] for more than 60 years. [The Board of Directors] also expects that the new order of things will increase the activity of La Ciotat, which will only benefit the population of this town. The council adds that regarding the personnel of all categories of the workshops and the shipyards, nothing will be changed from the collaboration with the new company [...]. The Company insisted that all these points will be settled by the agreements with the new company.*⁴⁰⁷

⁴⁰⁵AFL, 1997 002 5226, Entente Commerciale entre la Cie des Messageries Maritimes et la Ste Provençale de Constructions Navales.

⁴⁰⁶AFL, 1997-002-5199, Assemblée générale des actionnaires, 1 juin 1917.

⁴⁰⁷Dernier ordre de service de la Cie du M.M. à son personnel, No 9587 du 5 octobre 1916. Cited in Association Joseph-Édouard Vence, *Notre Histoire de la Construction Navale à La Ciotat*, 89. [Original: Le personnel des ateliers et Chantiers est informé que le Conseil d'Administration de la Compagnie des Messageries Maritimes, dans sa séance du 4 octobre courant, a prononcé la suppression définitive, à la date du 31 juillet dernier, comme organe de ses services, de la Direction des Ateliers, du fait de la Constitution de la Société Provençale de Construction Navale qui prend la suite de l'exploitation des Etablissement de La Ciotat. En prenant cette décision le Conseil d'Administration de la Compagnie des Messageries Maritimes tient à assurer son ancien personnel qu'il conservera le meilleur souvenir de sa longue collaboration avec lui et des marques de dévouement et d'attachement que la population ouvrière de La

3.5 Factors of productivity in the shipbuilding centre of La Ciotat: An overview

Along with the evolution of shipbuilding production, the examination of the factors of productivity at the shipyards is a fundamental factor to our understanding of the character of economic activity and industrial change of the port. The main indicators that can measure the shipbuilding production during the period under examination, in terms of output, is the calculation of tonnage produced per man employed as well as the average tonnage of ships constructed. These factors, together with the distribution of new ships (per class tonnage) constructed are the three key elements to sketch out the levels of productivity of the shipbuilding centre at La Ciotat. In terms of input, the increase and decrease of the workforce in the shipyards, together with the technological level of ships constructed, are significant parameters to suggest the productivity and intensification of production.

3.5.1 Average tonnage, gRT per man employed, and distribution of ships per tonnage class

As a rule, labour productivity is measured in man-hours per unit output⁴⁰⁸. However, the delivery peaks can be a confusing element. It is possible for a shipyard to be productively employed all year but not deliver any ships because of the irregular distribution of delivery dates⁴⁰⁹. Together with this, another difficulty is that La Ciotat's shipyards undertook several other activities such as warship and war material construction, ship repairs, maintenance, and refit works, for which we do not possess any data. Hence, the calculation of productivity cannot be completely accurate. Productivity measured in gross registered tonnage, (gRT)/per man in quinquennial years is calculated in Table 3.2. Given this data, the productivity peaks of the

Ciotat n'a cessé de lui témoigner pendant plus de 60 ans. Il compte au surplus, que le nouvel ordre des choses aura pour résultat un accroissement de l'activité de La Ciotat, ce qui ne pourra que profiter à la population de cette ville. Le conseil ajoute qu'en ce qui a trait au personnel de toutes catégories des Ateliers et Chantiers, rien ne sera changé du fait de sa collaboration avec la société nouvelle, en ce qui concerne, tous les obligations résultant pour la Compagnie des Messageries de son cahier des charges, que celles acceptées par Elle pour ses ouvriers. La compagnie a tenu en effet à ce que tous ces points soient réglés par ses accords avec la société nouvelle].

⁴⁰⁸Stopford, *Maritime Economics*, 645.

⁴⁰⁹Ibid.

shipyard (given the new ship constructions) can be found in the years 1866-70 (269.2 gRT per employee), the years 1881-85 (290.7 gRT per employee) and the years 1896-1900 (267.1 gRT per employee). Propping up this productivity league table are the years 1876-80 with 159.6 gRT per employee, and 1886-1900 with 150.7 gRT per employee.

Table 3.2. Productivity in the shipyard calculated in quinquennial years (average gRT/average staff) (1856 - 1910).

YEARS	AVERAGE TONNAGE COMPLETED (,000 GRT)	AVERAGE EMPLOYED	STAFF PRODUCTIVITY CGT PER MAN YEAR
1856-1860	2,386	1,354	176.2
1861-1865	3,836	2,218	172.9
1866-1870	6,438	2,392	269.2
1871-1875	5,872	2,723	215.6
1876-1880	3,067	1,923	159.6
1881-1885	7,529	2,590	290.7
1886-1890	4,668	3,098	150.7
1891-1895	4,954	2,698	183.6
1896-1900	8,193	3,069	267.1
1901-1905	5,256	2,369	221.9
1906-1910	2,866	1,644	174.3

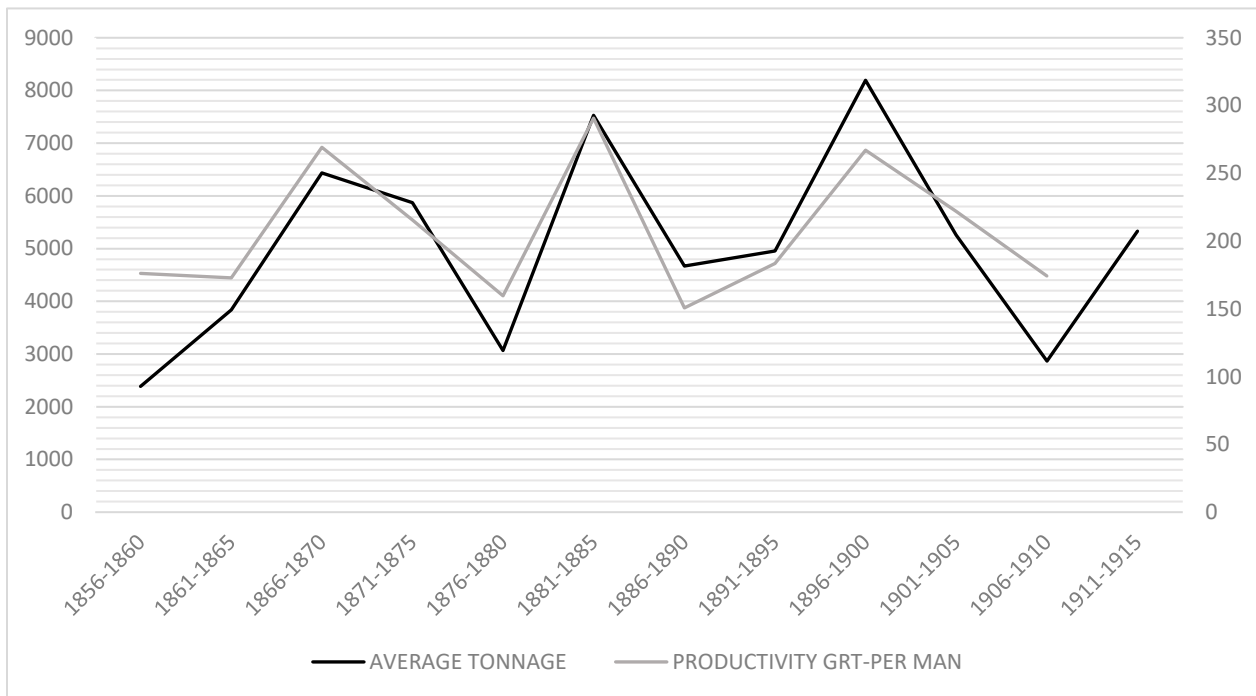
Processed data by: Appendix 3.1., Shipbuilding production in La Ciotat & AMC, Fonds Messageries Maritimes, Registres Entrées (M1-P7).

In addition to the above, the average tonnage produced is an essential tool to examine the fluctuations of productivity in a shipyard.⁴¹⁰ The fluctuations in average tonnage output reflect the

⁴¹⁰Stopford, *Maritime Economics*, 645–46 and Eric W. Sager and Gerald Panting, *Maritime Capital: The shipping Industry in Atlantic Canada* (Montreal: McGill-Queen’s University Press, 1990), 54–8.

levels of demand and signify periods of high productivity.⁴¹¹ Average tonnage was related to both the size and type of vessels. Figure 3.2 represents the average yearly tonnage of output of the shipyards (in gross registered tonnage, gRT) following quinquennial periods from 1855 to 1915, combined with the calculation of gRT/man employed.⁴¹²

Figure 3.2. Quinquennial average yearly output (in gross tonnage) and productivity gRT/man of the shipyards of La Ciotat (1856 - 1915).



Processed data by: Appendix 3.1., Shipbuilding production in La Ciotat and Table 3.2 above.

The calculation of gRT/man employed and the average tonnage follow exactly the same patterns. Given the high rate of development and expansion of the company during the period 1851 to 1870, the shipyards' production indicates constant growth. As figure 3.2 illustrates, the annual average tonnage output increased from 774 gRT in the period 1852-55 to 3,836 gRT between

⁴¹¹Apostolos Delis, *Mediterranean Wooden Shipbuilding. Economy, Technology and Institutions in Syros in the Nineteenth Century* (Leiden/Boston: Brill, 2016), 87.

⁴¹²Unfortunately, the absence of documents regarding repairs and maintenance, an important part of the works of the shipyards, does not allow a further analysis as to this function of the construction site.

1861-65, and continued to increase to 6,438 gRT during the years 1866-70. This is also obvious from the expansion of the company fleet. In 1870, the fleet of *Messageries Maritimes* was composed of sixty iron steamships with a propeller. Forty were constructed at La Ciotat. The *Company of Messageries Maritimes* had 60% of all steamships registered in France (without counting the steamships destined for coastal trade) in this year.⁴¹³ This is an important indicator of industrial growth at La Ciotat, and emphasises the role of the shipyards of *Messageries Maritimes* in the national shipbuilding industry.

From 1870 to 1880, production at La Ciotat experienced a severe decline. The average tonnage output dropped by half during this decade. Influenced firstly by the Franco-Prussian war as well as by the liberal industrial policy of the government of the Third Republic, the shipyards focused on maintenance and repair works. The annual average tonnage of output fell during this period from 6,438 gRT to 3,067 gRT, bringing to a close the first cycle of production in the shipyards that began in 1851. A peak was reached in 1870 (6,438 gRT), while a decade later, tonnage had halved (3,067 gRT). From 1881 onwards, shipyards production began to rise. From 1881 to 1885, the annual average output more than doubled, from 3,067 gRT to 7,500 gRT. Figure 3.2 indicates a steady decline during the years 1886 to 1890, from 7,500 gRT to 4,700 gRT followed by steady production averaging around 4,500 gRT during the periods 1886-90 and 1891-95. This decline was due mainly to the profound uncertainty experienced, in particular, due to the propitious policy post 1860, as was examined above. The shipowners and shipbuilders concentrated their investment during the first five years of the 1880s.⁴¹⁴ As a result, shipowners considerably reduced their orders, and ship purchases from 1886 onwards.

Furthermore, legislation adopted in 1893, established navigation and construction boundaries that affected the general performance of the French shipbuilding industry relating to steam, which during this period had declined sharply; given that the policy was much more helpful for sailing vessels rather than steamship construction.⁴¹⁵ A series of new subsidies for the opening

⁴¹³Commission d'Enquête parlementaire sur la Marine Marchande, *Enquête parlementaire sur la Marine Marchande: Séance du 5 juillet 1870* (Paris: Delagrave, 1870).

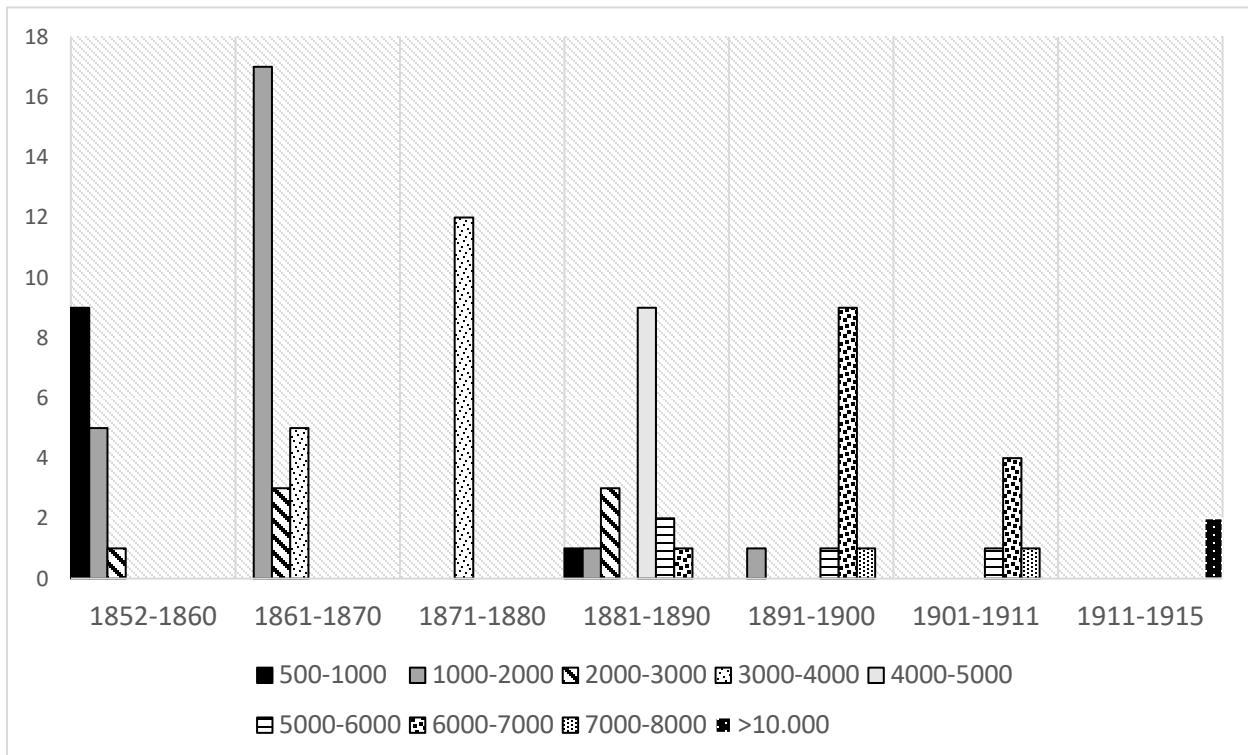
⁴¹⁴Schuster, *A workforce divided*, 51; Charliat, *Trois siècle d'économie maritime*, 179.

⁴¹⁵Colin, *La navigation commerciale*, 182–83 and 300–6.

of new services increased production levels, especially in the years 1896-1900. During this period, the shipyards of La Ciotat experienced a high rate of growth, reaching a peak of annual average tonnage output of 8,193 gRT. This would be the last period of high production in the shipyards before the end of *Messageries Maritimes* presence in the port. During the 1900s, production dropped significantly from 8,193 gRT to 2,866 gRT (average yearly gross tonnage).

Apart from the annual average tonnage, several other indicators could illustrate the performance of the shipyard. The distribution of new ships constructed according to size during the period under examination is also an important indicator to analyse the production and evolution of the shipyards, along with the development of their technology. Figure 3.3 represents the concentration of ships constructed according to size. The figure reveals the evolution of production through an increase of tonnage from 1852 to 1915.

Figure 3.3. Distribution of ships built in La Ciotat according to size (1852 - 1915).



Processed data by: Appendix 3.1. Shipbuilding production in La Ciotat 1851 - 1916.

During the decades of operation, there were constant increases in the size of the ships constructed while overall numbers of ships declined. Figure 3.3 indicates the highest levels of productions in the number and the size of ships produced in the periods 1861-70, 1881-90, and 1891-1900. Furthermore, three peaks of production were identified within each epoch (Figure 3.2 above), namely 1866-70, 1881-85, and 1896-1900. However, production does not appear to evolve significantly for vessels of more than 6-7,000 tons. At the same time, the shipyards of La Ciotat avoided the construction of ships with different characteristics, which would inevitably increase costs. In this regard, the company followed a policy of equivalent model construction, which led to the formation of a homogeneous fleet while allowing the rapid adoption of innovations. The “series” of vessels were relatively small: most often three to four ships; the most numerous one - a “series” of seven ships of the *Natal* type.⁴¹⁶

The most ships produced in the shipyards of La Ciotat were passenger ships. The period subsequent to 1885, and especially after the beginning of the 1890s with the full expansion of postal service lines, the *Messageries Maritimes* focused on the development of a cargo service. To that end, the acquisition of cargo vessels was a necessity. The increased shipyard output of cargo vessels was accompanied by increases in both size and tonnage of ships. The *Company des Messageries Maritimes*, willing to expand commercial non-subsidized lines, launched orders for new cargo vessels for the lines of Brazil and London. Of these, a minimum number were constructed in La Ciotat.⁴¹⁷ By the end of the nineteenth and beginning of the twentieth century, the port of La Ciotat proved unsuitable for the construction of large vessels. The size of each vessel was limited to 8,000 gRT, and only on rare occasions was this size exceeded. One such representative event, widely advertised in the local and national press, was the launch of the *André Lebon* (13,682 gRT launched in 1913). The length of this vessel was 161 meters, whereas the length of the port in the slipway was only 270 meters. In order to safely launch a vessel of almost 14,000 tons at a distance of 120 meters, necessary precautions had to be taken. A “mask”, namely a transversal flat surface, was attached to the rear of the vessel in order to provide better resistance

⁴¹⁶*Natal*: Under construction from February 1880 to July 1881, net tonnage: 2,554, horsepower: 2,900 horsepower, hull: iron, propulsion: propeller. The construction of the identical *Melbourne*, *Calédonien*, *Sydney*, *Salazie*, *Yarra* and *Océanien* occurred between 1882 and 1885. See Berneron-Couvenhes, *Les Messageries Maritimes*, 598.

⁴¹⁷Including the *Cordouan* (1884), the *Manche* (1887), the *Douro* (1889), the *Annam* (1899), and the *Himalaya* (1903).

during sliding movements. Also, chains weighing more than 200,000 kilograms were attached to the ship to reduce velocity prior to water entry.⁴¹⁸

3.5.2 The fluctuation of the workforce in the shipyards

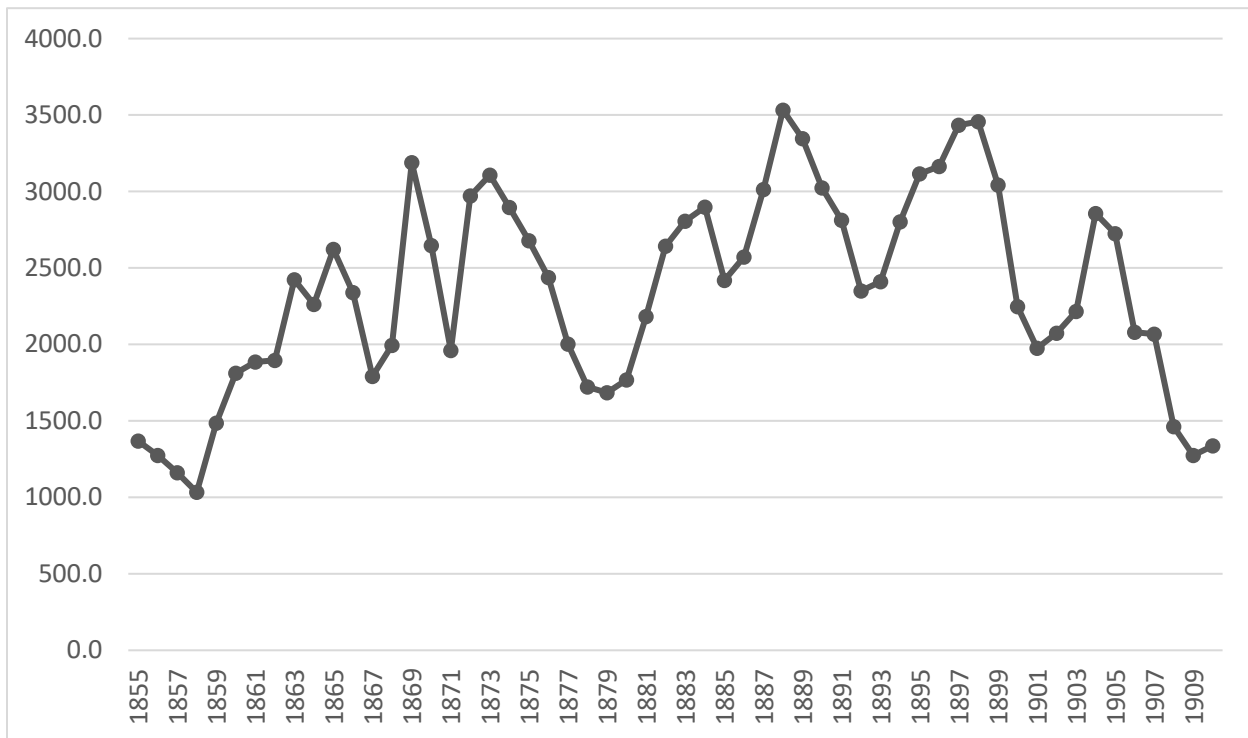
In terms of input, another indicator that demonstrates the intensification of work in the shipyards of La Ciotat is the labour force. The *Compagnie des Messageries Maritimes* formed a thoughtful system of production. In this context, detailed daily registers of labour entries were maintained during the period 1851 to 1916. From the registers (at the end of each month), the administration calculated the actual labour force recruited in the site. Examining the productivity of the shipbuilding centre, the general figures of workforce employed in the shipyards indicates those times of intensification related to industrial unit production. Fluctuations in workforce reflect fluctuations of production, and therefore indicates a rise or fall in productivity (Figure 3.4), as presented in Figure 3.2.

Shipbuilding employment in La Ciotat continued to mirror the production pattern as subject to state subsidies and company business strategies, that is, periods of full production and employment were followed by sudden layoffs. The average monthly labour force proves the intense fluctuation in productivity. The shipyards reached their total capacity during the years 1869 and 1873, exceeding 3,000 workers, and in 1888 and 1898 exceeding 3,500 workers. As observed above, those were the years of high production in the shipyards in relation to company expansion through state subsidies. Employment peaks were often followed by significant dismissals. During the period 1869-71 the workforce decreased from 3,189 to 1,961 workers. In 1877, only 1,700 workers remained in the shipyards. This corresponded with the Franco-Prussian war, and the policies of the newly established Third Republic, which created the first significant crisis in the shipyards. In 1901, the workforce fell to 1,974, reaching its lowest number in 1910 with 1,273 workers. However, the shipyards of La Ciotat remained active all year. It was not a seasonal activity but rather the main activity for the economy of the port. Apart from the high rate of dismissals during the periods noted, the labour force remained stable during most of the period

⁴¹⁸*Le Petit Marseillais*, 27 Octobre 1913 and *La République française*, 30 Octobre 1913 (See also the Appendix 3.2 for photos published in the newspaper *Excelsior*, 28 October 1913).

under examination at a level exceeding 2,000 workers. The evolution of the labour force at the site confirms the production cycles depicted through average tonnage. Two main cycles can be distinguished: the first includes the Second French Empire until the beginning of the Third Republic (roughly the period 1851 to 1879), and the second from the beginning of the 1880s to the First World War.

Figure 3.4. Average monthly staff employed in the shipyards of La Ciotat (1855 - 1910).



Processed data by: AMC, Fonds Messageries Maritimes, Registres Entrées (M1-P7).

The pace of industrial growth at the shipbuilding centre in the two first decades of the *Messageries Maritimes* presence in the port was related to the expansion of the facilities - this is visible in the rate of growth of labour capacity for the shipyards. Labour capacity witnessed a constant increase; it peaked in 1869, reaching 3,189 workers and again in 1888 with 3,533 workers. In this context, we can assume that the labour capacity of the shipyards reached its highest level during the Second French Empire. Subsequently, even though the shipbuilding industry at La

Ciotat continued to evolve, for example, technological development and evolution in shipbuilding demanded less labour force for specific tasks, the labour capacity of the shipyards remained stable.

3.5.3 The level of the technological evolution of the shipbuilding industry in La Ciotat as an indicator of productivity

The technological evolution of the shipbuilding industry in La Ciotat is another main indicator of the evolution of production and the levels of industrialisation at the port. The shipyards of *Messageries Maritimes* experienced significant technological upheavals during the nineteenth century, which formulated an industrial reality reflected in the shipyard facilities, and shipbuilding production. Following the evolution of shipbuilding in the nineteenth century, the shipyards reflected high rates of industrial growth. The production passed from wooden hulled to iron-hulled, that is, paddle steamers of 320 gross tonnage, with oscillating engines of 120 horsepower, and a speed of 9 knots at the beginning of the 1850s, to steel-hulled ships of 6,357 gross tons, with double propeller and triple expansion engines of 7,200 horsepower at the end of the 1890s. Table 3.3 reveals the technological evolution of the shipyards during the second half of the nineteenth century as immense. This progress was related to all aspects of the ship: the size, the engine and mode of propulsion, the material used (iron, steel), and of course, the speed.

Table 3.3. Technical characteristics of four ships constructed in La Ciotat in 1853, 1869, 1884, and 1897.

Name of ship	<i>Péricles</i>	<i>Gironde</i>	<i>Cordouan</i>	<i>Laos</i>
Year of construction	1853	1869	1884	1897
Hull	Iron	Iron	Steel	Steel
Propulsion	Paddle wheels	Propeller	Propeller	Double propeller
Engine	Vertical oscillating engine	Compound engine	Compound engine	Triple-expansion engines
Horsepower (cv)	120	500	1900	7200

Gross Tonnage (GRT)	340	3218	2998	6357
Net tonnage (NRT)	281	2064	2075	2331
Length (meters)	53,5	120	103	142
Width (meters)	6,5	12,2,	14	16
Speed (nodes)	9	14	13	19
Type	Passenger	Passenger	Cargo	Passenger

Source: Appendix 3.1., Shipbuilding production in La Ciotat (1851 - 1916). For the type of engines, see the local press *Le Petit Marseillais*, 03/11/1896 and 21/01/1884.

Apart from new constructions, the *Compagnie des Messageries Maritimes* innovated and modernised its fleet of vessels, in order to remain competitive. The improvements made during the years 1870 - 1881 in the development of marine engines made it possible to reduce coal consumption and thus the cost of fuel. On the other hand, metal construction allowed an increase in speed, and larger ships for the safety and comfort of those on board. The adoption and mastery of technological innovation was, for the company, a prerequisite of competitiveness.⁴¹⁹ Any new vessel launched must be "of at least equal requirements" to its predecessors, which in effect means it was superior to it; otherwise, it would be obsolete even before launch.⁴²⁰

The shipyards of La Ciotat benefited greatly from innovations that occurred within the French Royal Navy. This was thanks to Stanislas Dupuy de Lôme (1816-1885), director of workshops at La Ciotat (1852 to 1857), marine engineer of the company and vice-president (1869 to 1885). As one of France's more renowned naval engineers, his role in the technological evolution of shipbuilding was remarkable. Dupuy de Lôme began his career as a naval engineer for the *Marine Royale*, in Toulon (from 1839 to 1862) and civil engineer in the shipyards of La Seyne-sur-Mer (1862-85). Under his supervision, the shipyards of *Messageries Maritimes* experienced both technological transfers (from the *Marine Royale* to the merchant marine), and innovations mainly related to the specific needs of the merchant marine fleet. With the diffusion of his knowledge to the shipyards of La Ciotat and La Seyne-sur-mer, he played a decisive role in

⁴¹⁹Berneron-Couvenhes, *Les Messageries Maritimes*, 503-4.

⁴²⁰AFL, 1997-002-5199, Assemblée générale des actionnaires, 30 mai 1870.

the evolution of industrial shipbuilding in Provence.⁴²¹ The knowledge exchange between the Navy and the merchant marine contributed significantly to shipbuilding innovation in the region. This had characteristic spin-off transfers, which were essential in resolving technical issues.⁴²²

The technological expertise of the shipyard was related not only to new construction but also to refitting of the old fleet. The shipyards focused on recycling, and transforming the old fleet, devoting much of its work to repair, maintenance, and refit. During the second half of the nineteenth century, shipbuilding was in an era of constant technological evolution that required one or more ship transformations during its lifetime. However, the lack of documentation regarding ship repairs, maintenance, and refitting work does not allow further examination of this part of shipyard activities. The evolution of shipbuilding towards larger ships, better propulsion, higher speeds, and higher horsepower, was significant.⁴²³ The shipyards replaced paddle wheels with propellers, and installed new boilers with double, triple or quadruple expansion compound machines. During the 1870s, the *Messageries Maritimes*, did not invest in new shipbuilding, they followed a policy concentrating on the maintenance and refitting of their existing fleet. This is visible through the average age of the fleet during these years. In 1870, the average age was around ten years - this reached 15 years in 1886.⁴²⁴ After 1886, the average age of ships declined again with the construction of a series of new ships, and the demolition or sale of older units from the fleet. In addition, another factor that proved the industrial transformation of La Ciotat was the possibility to diversify production during periods of war. Both during the Franco-Prussian War, and during the First World War, the shipyards constructed artillery equipment, and assisted in repairing war vessels.

The *Compagnie des Messageries Maritimes* through the formation of their own shipyards in La Ciotat succeeded not only in following international technological evolutions on steam shipbuilding, but also to change the industrial landscape of shipbuilding in France. Together with

⁴²¹See: Isabelle Troesch, “Dupuy de Lôme, ingénieur du Génie maritime (1816 - 1885)” (Master thesis, Université de Paris-Sorbonne, 1986) and Dominique Brisou, *Accueil, introduction et développement de l'énergie vapeur dans la Marine militaire française au XIX^e siècle* (Vincennes: Service Historique de la Marine, 2001).

⁴²²Bruno Marnot “Les constructions navales dans l’histoire,” *Revue d’Histoire Maritime*, no. 7 (2007): 199.

⁴²³See also the Appendix 3.1. The shipbuilding production in La Ciotat (1851 - 1916).

⁴²⁴Berneron-Couvenhes, *Les Messageries Maritimes*, 597.

the *Compagnie Generale Translantique*, the second large subsidised shipping company in France (with shipyards at Penhoët in Saint-Nazaire), they played a pivotal role in shaping the national shipbuilding industry during the second half of the nineteenth century. The postal contracts signed with the state obliged the companies to construct part of their fleet in France. Given the technological deficit in France, the formation of industrial shipbuilding complexes, and the high rate of industrial growth meant that it had to be done through the expansion of facilities, the innovation of the means of production, and the transfer of technological know-how.⁴²⁵ The production of the shipyards of *Messageries Maritimes* in La Ciotat constituted an important part of the national shipbuilding industry. In quantitative terms, during the period 1851 to 1916, the shipbuilding industry in La Ciotat built 89 ships of 315,638 gRT in total. In the years 1857 to 1866, the shipyards of La Ciotat already produced 26% of the total tonnage of steamships connected to French ports (both constructed and purchased).⁴²⁶ By 1910, the percentage of steamships constructed in La Ciotat represented 22% of the total number of steamships built for the merchant marine of France (in net registered tonnage).⁴²⁷

The shipyards' reputation for production led to the fame of La Ciotat as the main shipbuilding centre in France. This was reflected in several events, such as the visit of the Emperor in 1860 for the launch of the passenger ship *L'Impératrice*, and the *Exposition Universelle* (Paris) in 1855, where the shipyards of La Ciotat received a gold medal for the steamship model *Danube*, honouring the progress that the Company had made in steamship construction.⁴²⁸ The launch of new vessels in La Ciotat was considered a national event. Each time a new ship was launched, the town was thronged with visitors, important industrialists, and politicians. The events were covered in both the local and national press.

⁴²⁵Aymeric Perroy, "Une traversée des archives de l'Association French Lines," *Revue d'Histoire Maritime*, no. 5 (2006): 41.

⁴²⁶AFL, 1997-002-4714, Navires construits à La Ciotat pour le compte de la Compagnie des Messageries Maritimes and Jules Peulvé, *Déposition à l'enquête maritime: marine marchande* (Paris: Imprimerie centrale des chemins de fer, 1870).

⁴²⁷Statistique Générale de la France, *Annuaire Statistique*, vol. 21, 1901 (Paris: Imprimerie National, 1901), Tableau I. Effectif de la marine marchande au 31 décembre 1910.

⁴²⁸AFL, 1997-002-5199, Assemblée générale des actionnaires, 31 mai 1856.

3.6 The port of La Ciotat during the industrial era

3.6.1 The alteration of the function of the port

The description of La Ciotat by the commissioner of the *Inscription Maritime*, given in his report of 1886, clearly reflects the changing character of the port. He writes, that unlike the eighteenth century, the port did not export, apart from some cement, whitewash, and cobblestones. The fishing industry was reduced significantly, and only one fish-salting workshop remained in the port (producing 12,323 kg of salted fish in 1885). Some fishermen, attracted by the higher wages of the factory, gave up their profession. Their boats remained out of use in the port, and their fishing gear deteriorated. In this year, seven ships for long coastal shipping (*cabotage*), fifteen ships for short coastal navigation (*bornage*), and 174 for fishing were registered in the port.⁴²⁹ The various wooden shipbuilders who operated at the quays of La Ciotat had now disappeared, facing competition from the expansion of the workshops and shipyard of *Messageries Maritimes*. As the commissioner pointed out, “[...] today, the port of La Ciotat is the port of *Messageries [Maritimes]*”.⁴³⁰

By the time of this report, the *Compagnie des Messageries Maritimes* had successfully created a major shipbuilding and ship-repair complex in La Ciotat. From the 1850s onwards, the shipyards experienced vast spatial expansion and significant development of the industrial facilities. The metamorphosis of the landscape of the port was also reflected in the economic transformation of its character. The register of commercial ships outfitted in La Ciotat during the period 1882 to 1902 (*registre d’armements*) reflects the drop in coastal navigation, and fishing activities at the port.⁴³¹ In 1882, only eight ships were fitted for short coastal navigation (*bornage*) carrying a total cargo of 154 tonnage, and an additional four ships for long coastal shipping (*cabotage*) carrying a total cargo of 100 tonnage. The same year, 169 fishing boats of a total of 313 tonnage abandoned the port. In 1902, fishing boat numbers had dropped to 101, with only nine

⁴²⁹Paul Vinson, *Le port et le quartier maritime de La Ciotat* (Paris: Librairie Militaire de L. Baudoin et Cie, 1886), 7–10.

⁴³⁰Ibid. 8 [Original: On peut dire aujourd’hui que le port de la Ciotat est le port des Messageries].

⁴³¹AD BdR, 6S 2901, Registre d’armement des bâtiments du commerce (1882 - 1902).

ships registered for short coastal navigation (*bornage*). No new ships for coastal navigation were registered in this year.⁴³²

Table 3.4. Port traffic in La Ciotat (1850 - 1913).

Year	Ships	Tonnage	Average tonnage
1850	200	15,673	78.4
1860	677	32,579	48.1
1869	608	89,348	147.0
1880	1084	233,749	215.6
1890	946	320,655	339.0
1896	816	425,495	521.4
1900	716	384,070	536.4
1913	338	201,411	595.9

Table taken by: Masson, *Encyclopédie départementale*, 647.

Table 3.5. Traffic of the port of La Ciotat in 1896 based on vessels with cargo and vessels on ballast.

	Number of ships	Tonnage
Vessels with cargo	337	10.446
On ballast	479	415.049

Taken by: Masson, *Encyclopédie départementale*, 647.

The port traffic from 1850 to 1913 (Table 3.4) gives a clear picture of its economic function.⁴³³ Even though port traffic increased significantly during this period, it was limited to ships with ballast that visited the port to conduct essential maintenance works. This is evident by the data for

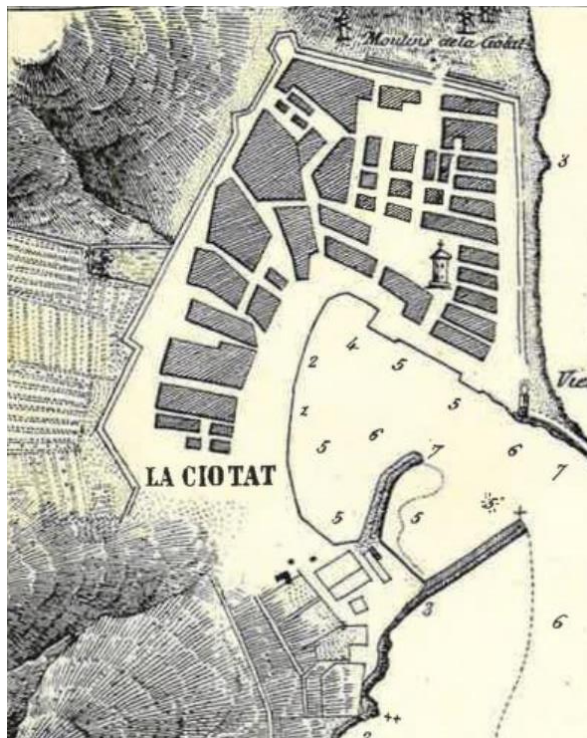
⁴³²AD BdR, 6S 2901, Registre d'armement des bâtiments du commerce (1882 - 1902).

⁴³³Table taken by: Masson, *Encyclopédie départementale*, 647.

the number of vessels with cargo, and those with ballast that entered in the port during 1896 (Table 3.5). Apart from company ships, the port was visited most frequently by small coastal vessels.⁴³⁴

The spatial changes in La Ciotat can be observed from two different maps. Map 3.2 (1851) and Map 3.3 (1891) reflect the economic diversification of the port during the second half of the nineteenth century, from the perspective of industrial shipbuilding. The industrial growth of the port, together with subsequent urbanisation, utterly transformed the spatial dynamics of the city, and led to the emergence of the industrial character of the site as a centre for shipbuilding production.

Map 3.2. La Ciotat, 1851.



Source: Museu Marítim de Barcelona, J. Maistre, *Recueil des plans des ports & rades de la Mer Méditerranée, de la Mer Noire et de la Mer d'Azof*, 1851 [online: archive.org].

Map 3.3. La Ciotat 1891.



Source : Bibliothèques Nationales France (BNF), Image cartographique: sans médiation (Paris : imp. Sarazin, 1891).

⁴³⁴Ibid. 647.

In Map 3.3, the central-southern sector of the port constitutes a distinct production unit and local labour market where the shipyards, workshops (no. 2 on map 3.3), and the workers' residences (no. 1 on map 3.3) were based. Hence, La Ciotat was divided in two parts: the industrial complex, and the town. Town and port spatial fusion were fragmented: the port constituted a specialised, autonomous, rationalised and expandable area that resembled mostly a factory. Consequently, the relationship of the port with the town had been altered. The spatial reconfiguration reveals, to a lesser extent, the changes that occurred in other industrial ports of the period, such as Marseilles, affecting character, and transforming landscape.⁴³⁵

By the end of the nineteenth century, La Ciotat was transformed into an industrial shipbuilding centre. The most dramatic changes were observed through the landscape of the port - now covered with metal sheets, rather than wooden planks of traditional shipyards, and also, heavy industrial facilities. The shipyards were no longer a small site with traditional craftsmen, but rather an expansive area connected with an internal rail system able to accommodate a workforce of 3,000 individuals.

The economy of La Ciotat, on the eve of the First World War, included all the factors necessary for industrial capitalism.⁴³⁶ Three main elements signified the adaptation of the industrial economy in La Ciotat. Firstly, capital investment in infrastructure and shipyard facilities were related to the rise of production capacity. The fixed assets of shipyard facilities, and port infrastructure, together with all the necessary means of production, indicated the transition of the port towards industrialisation. Secondly, the application of new technologies in La Ciotat allowed a fundamental reorganisation of production. The rise of large-scale mechanised production was an essential indicator of industrial transition. Technological advances and market growth made

⁴³⁵For Marseilles see: René Borruey, *Le port moderne de Marseille: du dock au conteneur (1844 - 1974)* (Marseilles: CCIMP, 1994) and René Borruey, "Réapprendre à voir le port. Retour sur une histoire urbaine et architecturale du port de Marseille," in *Une Aventure Portuaire: les archives du service maritime des Bouches-du-Rhône, aménageur des ports de Marseille, 19^e-20^e siècles*, eds. François Gasnault and Isabelle Chiavassa (Marseille: Archives Départementales du Bouches-du-Rhône, 2008), 22–40, and Roncayolo, *L'Imaginaire de Marseille*.

⁴³⁶For the advent of Industrial Capitalism in France see: Smith, *The Emergence of Modern Business Enterprise in France*; Pierre Léon, "La réponse industrielle," in *Histoire économique et sociale de la France*, vol. 2, 1660 - 1789, ed. Fernand Braudel and Ernest Labrousse (Paris: Presses Universitaires de France, 1970).

possible the concentration of production, and promoted high levels of specialisation.⁴³⁷ Consequently, the rise of standardised production was reflected in the construction of a series of identical passenger ships, and mirrored the change towards an industrial reality.

Thirdly, the *Messageries Maritimes* succeeded in forming a wage-labour force in La Ciotat. This began with the provision of housing and amenities in order to attract and maintain a large and stable workforce in the port, which usually exceeded 2,000 workers. Finally, yet importantly, industrial capitalism reflected the structural changes and transformation of business organisations. The economic activities of La Ciotat were subjected to a double vertical integration: firstly, they were part of a private steam navigation company, a *société anonyme*; and secondly, the shipyards and workshops of La Ciotat were subject to the vertical integration of production, with most engine components produced on site. These features reflect the transition of the port and the profound change of function and character during the second half of the nineteenth century.

3.6.2 The port of La Ciotat into a new port system

Through the process of industrial growth described above, the eve of the twentieth century found the ports of Provence exercising new functions and the formulation of new interconnections related to a novel industrial economy. The port of La Ciotat was not subjected only to changes related to the transition of the local economy, but also to multiple reconfigurations of the regional and global system of ports. During the second half of the nineteenth century, the port system of Provence was affected by multiple changes and new activities, which assured the sustainability, the complementarity or the decline of smaller ports, some of which were economically downgraded and others upgraded. During this period, the geography of Provence and the interconnections inside the system of ports in the region, as described in chapter one, formed a regional economic agglomeration related to the process of industrialisation. The introduction of new technologies in the maritime sector, and the alteration of maritime transport, affected profoundly the role of secondary ports – as always related to the main port – and the port hierarchies at large.

⁴³⁷Smith, *The Emergence of Modern Business Enterprise in France*, 129.

During the second half of the nineteenth century, the port of Marseilles became the main port of France, and one of the largest ports in the world. In 1914, flags from more than forty countries arrived in Marseilles. Maritime trade contributed to the rise of an industrial-port system based on the emergence of raw materials imports from overseas intended for local factories (such as wheat, oilseeds, and raw sugar), and on exports to non-industrialised countries of consumer products produced by these factories (such as flour, cement, tiles, refined sugars, and soaps).⁴³⁸ Thus, by processing goods imported, Marseilles increased profits and simultaneously, strengthened industrial function.⁴³⁹ In 1870, it was the foremost port in France, the Mediterranean and continental Europe. In 1880, cargo traffic (4,180,000 tons) had doubled compared to 1855, and general navigation movements (7,235,000 tons) more than quadrupled since 1850.⁴⁴⁰

At the same time, within approximately thirty years, seven French shipping companies were established: the *Messageries Maritimes* (1852); the *Compagnie de navigation mixte* (ex-Arnaud and Touache) (1858); the *Société générale de transports maritimes à vapeur* (or SGTM) (1865); the *Compagnie Générale Transatlantique* (which established an operating centre in Marseilles in 1879); together with family firms, some of which were older, such as the *Compagnie Fraissinet* (1843); the *Compagnie Paquet* (1863); and the *Cyprien Fabre* (1881).⁴⁴¹ The development of steam navigation, together with the expansion of French maritime trade, required the expansion and industrialisation of these commercial ports simply in readiness for the needs of steam shipping (including the development of industrial shipbuilding centres to cover the needs of shipbuilding, and maintenance).⁴⁴² In this way, the port of Marseilles experienced huge industrial development, reflected by the opening of the Joliette basin in 1853, and the construction of new docks throughout the second part of the nineteenth century.⁴⁴³

⁴³⁸See: Roncayolo, *L'imaginaire de Marseille*. Especially the chapter "La géographie réinventée", 187–210.

⁴³⁹Daumalin and Raveux, "Marseille (1831 - 1865). Une révolution industrielle," 153–76.

⁴⁴⁰For the traffic of Marseilles see: Masson, *Encyclopédie départementale*, vol. IX, *Le Mouvement économique*.

⁴⁴¹On the evolution of shipping companies in Marseilles see: Roland Caty and Eliane Richard, *Armateurs marseillais au XIX^e siècle* (Marseille: CCIMP, 1986).

⁴⁴²Smith, *The Emergence of Modern Business Enterprise in France*, 93.

⁴⁴³On the port développement of Marseilles see: Jean-Lucien Bonillo, *Marseille: ville et port* (Marseille: Editions Parenthèses, 1992) 204–7; Roncayolo, *L'imaginaire de Marseille*, 105–26, and René Barruey, *Le Port moderne de Marseille, du dock au conteneur, 1844 - 1974* (Marseille: CCIMP, 1994).

The renewed importance of Marseilles was also related to the shifting orientation of the maritime transport system. Under the influence of political and technical factors, a new geography of maritime transport emerged in the Mediterranean. Through the ideas of *Saint-Simoniens*, a vision of a Mediterranean System (*le Système de la Méditerranée*) had emerged, connecting the Mediterranean with the Atlantic and Indian oceans with the support of shipping technology, and southern and northern Europe through land transport (including a well-structured railway system).⁴⁴⁴ This vision was connected to a project of unification between east and west, aiming to link the Mediterranean, the Middle East, and the East Indies, with Northern Europe.⁴⁴⁵ In this system, the port of Marseilles constituted a fundamental hub between the West and the Orient, and an important transit port for the transfer of merchandise from the Mediterranean to northern Europe.⁴⁴⁶

As part of this new transport structure, the opening of the Suez Canal played a pivotal role. The canal revolutionised sea routes, and created new maritime and commercial opportunities and flows between Europe and the Mediterranean on the one side, and the Indian Ocean and Asia on the other side. The opening of the Suez Canal changed thoroughly the geopolitical features of the Mediterranean by establishing the swift transfer of colonial possessions for European Empires. The expansion of French colonialism, together with the industrialisation of the port area as a new capitalistic base, was also a factor of change, which formed the new model of economic growth.⁴⁴⁷ For France, the Mediterranean became a colonial sea, through the conquest of Algeria, and the connection through the Suez Canal to other overseas territories. In addition, the opening of the Suez Canal (1869), established the superiority of steamships in the Mediterranean, particularly as a result of the Far East routes.⁴⁴⁸ The technical characteristics of steamships were fundamental to this, as they allowed regular and fast voyages, mainly with British Companies, for example, *P&O*, and the East Indian Company, and the French *Compagnie des Messageries Maritimes*.

⁴⁴⁴See: Roncayolo, *L'imaginaire de Marseille*, and Emile Temime, *Un rêve méditerranéen: des saints-simoniens aux intellectuels des années trente* (Arles: Actes Sud, 2002).

⁴⁴⁵Alain Cabantous et al., *Les Français, la terre et la mer: XIII^e-XX^e siècle* (Paris: Fayard, 2005), 458.

⁴⁴⁶*Ibid.* 459.

⁴⁴⁷Bruno Marnot, "Les ports français et la mondialisation au XIX^e siècle ou l'émergence de trois modèles de croissance régionaux," *Monde(s)*, no. 6 (2014): 222.

⁴⁴⁸Cabantous and al., *Les Français, la terre et la mer*, 455–65.

During the same period, the ports of La Ciotat and La Seyne-sur-Mer, by supporting the industrial development and shipping of the region, were transformed into the leading industrial shipbuilding centres of the French Mediterranean, supplying local steam navigation companies with new vessels, and with any necessary maintenance work. La Ciotat clearly functioned as the port of the main steam navigation company operating from Marseilles: the *Compagnie des Messageries Maritimes*. On the other hand, the development of the shipyards at La Seyne-sur-mer, enjoying strong cooperation with *Messageries Maritimes* and the shipyards of La Ciotat, were related also to the other steam navigation companies. The full industrialisation of the shipyards at La Seyne-sur-mer came post 1853, with the formation of *Les Forges et Chantiers de la Méditerranée*, incorporated in 1856 in the newly established joint stock company *Société Nouvelle des Forges et Chantiers de la Méditerranée* (founded by Armand Béhic).⁴⁴⁹ It grouped the shipyards of La Seyne-sur-mer, the *Forges de la Capelette* in Marseilles (for metal sheets and tubes), and the metal workshops of *Menpenti* (where boilers and motor devices were manufactured).⁴⁵⁰ In 1913, after huge development in the port of La Seyne-sur-mer, the shipyards and workshops expanded to 22 hectares, allowing for a workforce of 4,000 individuals.⁴⁵¹

The shipyards of La Ciotat and those of La Seyne-sur-mer were in constant collaboration with each other, dependent of-course, upon the main shipping market of Marseilles, and State policies. In 1856, the *Société des Forges et Chantiers de la Méditerranée* were obliged, under a fixed-price contract stipulated in advance, to execute works for the *Company of Messageries Maritimes*, related to repairs and new constructions that exceeded the means of La Ciotat.⁴⁵² This network involved both shipbuilding centres, the executive boards of each company, and the State, to formulate a strong industrial regional network. Simultaneously, relevant individuals used their political positions to influence industrial policy to mobilise or direct State protectionism.

⁴⁴⁹Daumalin and Raveux, “Aux origines de la Société des Forges et Chantiers de la Méditerranée,” 34.

⁴⁵⁰Jean-B. Gaignebet, “Les chantiers de constructions navales de La Seyne,” *Revue de Géographie Alpine* 36, no. 3 (1948): 415.

⁴⁵¹Julien François Turgan, *Les Grandes usines. Etudes industrielles en France et à l'étranger* (Paris: Michel Lévy Frères, 1868), 416.

⁴⁵²AFL, 1997-002-5199, Assemblée générale des actionnaires. 31 mai 1856.

Armand Behic (1809 - 1891), one of the individuals mentioned above, mirrored the relationship and interdependencies between La Seyne-sur-mer, La Ciotat, and government policies. He stands as a good example of the emergence of these industrial networks. Amongst the positions held during his life, he was director and chairman of the *Compagnie des Messageries Maritimes* (*Messageries Imperiales* during the Second Empire) from 1859 to 1891, and founder of the *Société Nouvelle des Forges et Chantiers de la Méditerranée* in 1856. According to his words, the *Compagnie des Messageries Maritimes* represented a public service applied in a private enterprise.⁴⁵³ He served as Minister of Agriculture, Commerce, and Public Works (1865 - 1867), and Senator (1867 - 1870). In addition, he was general counselor for the canton of La Ciotat (in the prefecture of Bouches-du-Rhône), as well as an elected member of the La Ciotat council (1859 - 1871), where he contributed decisively to the economic transformation of the town.⁴⁵⁴ The case of Armand Behic reflects the importance of these networks of actors that designed the industrialisation of the littoral area between Marseilles and Toulon, using their political roles, and the guiding principles of French protectionism.

In this system, naval engineers based at the arsenal of Toulon, worked closely with both La Ciotat and La Seyne-sur-mer to play a fundamental role in the innovation and technological evolution of shipbuilding in the region. In conjunction with a policy of intervention in the Mediterranean, such as the Expedition of Algiers (1830), the bombardment of Tangier and Mogador (1844), the expedition of Rome (1849), and the Crimean War (1854-1855), the naval port of Toulon became the first French military base fully equipped for steam navigation. The arsenal of Toulon was affirmed as the dominant port of steam navigation for the French navy.⁴⁵⁵ As the main port of the *Genie Maritime* (marine engineering),⁴⁵⁶ it was the base of the most prominent

⁴⁵³For the management structure of the *Compagnie des Messageries Maritimes* see: Berneron-Couvenhes, *Les Messageries Maritimes*.

⁴⁵⁴Louis Baudoin, *Histoire Générale de la Seyne-sur-Mer et de son port depuis les origines jusqu'à la fin du XIX^e siècle* (Marseille: Louis Baudoin, 1965), 802–4.

⁴⁵⁵Brisou, “Les débuts de la navigation à vapeur en France au XIX^e siècle,” 170.

⁴⁵⁶The corps of *Génie Maritime* (Marine Engineering) included engineers recruited only from the *Ecole Polytechnique*. Focusing on the theory and practice of engineering, their curriculum included, inter alia, the drawing of plans for warships, theory of naval architecture, the study of steam engines, as well as the study of the English language. See: Brisou, *Accueil, introduction et développement de l'énergie vapeur*, 273–76.

French naval engineers, and shaped the technological landscape of shipbuilding. As seen earlier, with the case of the naval engineer Stanislas Dupuy de Lôme, the port of Toulon contributed decisively to knowledge spillovers in the region, and the technological innovation that occurred in the field of industrial shipbuilding during the nineteenth century.

In this way, the four ports of Marseilles, La Ciotat, La Seyne-sur-mer, and Toulon formed an industrial backbone, what can be described as a new maritime industrial district.⁴⁵⁷ Through their regional development and the diversification of their economic activities towards industrialisation, the ports created a clustering phenomenon based on the elements of geographical concentration, and economic and industrial specialisation of the region.⁴⁵⁸ The benefits of this agglomeration in Provence lie in the regional circulation of know-how, the formation of a pool of skilled labour, the minimisation of transport costs, as well as cooperation and opportunity to develop interpersonal relationships and mutual trust.⁴⁵⁹ This regional diversification led to a rise in economies of scale associated with shipbuilding.⁴⁶⁰

As a result, the port of La Ciotat, through this industrial role, participated in a new port system, and to a global maritime transportation system that connected the oceans of the World with the Mediterranean Sea. This positioned La Ciotat at the centre of maritime and colonial transport. The specialisation and concentration towards a regional agglomeration, was related to profound industrial growth that consequently integrated the port into a new global transport system in the Mediterranean. In an era of resurgent imperialism, La Ciotat participated actively in the new map of global shipping, and played a prominent role in its development and expansion. Through the emergence of a new system of transport in the Mediterranean, and extensive French

⁴⁵⁷Industrial district is considered the spatial integration of firms with strong technological, or informational linkages, which manifest various types of local specialisation and benefit from the localised accumulation of knowledge and skills associated with the labour force of the region. See: Fujita and Thisse, *Economics of Agglomeration*; and Giacomo Becattini, “The Marshallian industrial district as a socio-economic notion,” *Revue d’histoire industrielle*, no. 157 (2017): 13–32.

⁴⁵⁸Fujita and Thisse, *Economics of Agglomeration*, 268.

⁴⁵⁹See: Edward H. Lorenz, “Trust, Community and Cooperation: Towards a Theory of Industrial Districts,” in *Pathways to Industrialization and Regional Development*, ed. Michael Storper and Allen J. Scott (Routledge: London & New York 1992).

⁴⁶⁰Fujita and Thisse, *Economics of Agglomeration*, 119.

colonisation, La Ciotat and the associated shipbuilding industry became a primary tool of the expansion of French imperialism.

3.7 Conclusion

The case of La Ciotat and its evolution during the second half of the nineteenth century, depicts how structural changes in the regional and global economy could have a positive or a negative effect, provoking the rise of maritime transport service clusters in some areas, or the decline in others, as well as the subsequent economic transformation of specific ports. From the end of the eighteenth century to the beginning of the twentieth century, the port of La Ciotat experienced both: first, the rise of the local economy during the flourishing of *caravane maritime*; then decline at the end of the eighteenth century; and finally, transition towards industrialisation from the 1830s onwards, and integration into a new system of ports.

The establishment of the *Compagnie des Messageries Maritimes* in La Ciotat, and the formation of heavy industrial shipbuilding activity, led to a major transformation of the port. The company became the leading employer in La Ciotat, altering profoundly, the port and the town. Simultaneously, official policies played a direct role in formulating a strong industrial environment in La Ciotat. Hence, state subsidies sponsored the metamorphosis of a traditional maritime sailing ship centre, into an industrial maritime centre.

The transition that occurred in La Ciotat is not only associated with general technological changes in shipping, but also to the formation of a major French steamship company during the second half of the nineteenth century. The economic and technological development of La Ciotat, depended on state policies of expansion, had significant effects on demographic fluctuations, occupational activities, and patterns of employment in the town. The *Compagnie des Messageries Maritimes* constituted the main mechanism of social change, reshaping the characteristics of the maritime community. By creating an important and dynamic employment pool, *Messageries Maritimes* influenced social change in this littoral society. As shall be seen in the next chapter, the industrial revolution and the increase in specialisation brought fundamental changes to the social structures and hierarchies of the population, together with the formation of a skilled (and waged) labour force in the town.

CHAPTER 4. The town in transition: demographic restructuring of La Ciotat (1831 - 1911)

4.1 Introduction

The economic transformation of La Ciotat led to multiple social reconfigurations, and to an intense restructuring of the maritime community. The establishment of an industrial shipyard and workshops owned by a large private shipping company had significant economic repercussions, which resulted in La Ciotat's integration as an integral part of the industrial maritime cluster in Provence. Consequently, the new economic function of the port changed the demographic characteristics of the town in relation to the number, and composition of the population and led to rapid urbanisation due to immigration influx.

To understand the social transition of the maritime community in La Ciotat, the analysis will first consider the transformation of the local population. The chapter will shed light on the demographic changes that occurred in the town and the evolution of demographic dynamics, focusing on the reasons, processes, and consequences of population change. The first section examines the role of *Messageries Maritimes* in influencing the social dynamics of the town through the formation of a new labour market associated with industrial shipbuilding. The second section examines the demographic dynamics of La Ciotat, focusing on population growth and the high pace of urbanisation. The third section examines the role of immigration, and how this shifted the demographic characteristics of the city (in particular, the provenience of the foreign population). The fourth section considers the transformation of the town's demographic structure through an analysis of population composition by focusing on three main demographic components: age, sex, and marital status. And finally, the last section of this chapter aims to investigate the role of *Messageries Maritimes*, and how the company affected the structure of the population in La Ciotat.

The analysis will use the tools of historical demography to examine population evolution. Historical demography is concerned with the application of demographic techniques to a range of data sets from the past. The origins of this discourse can be traced to the pioneering works of Louis Henry (1911 - 1991), French historian and founder of historical demography as a separate field of

research.⁴⁶¹ Historical demography offered new fundamental theoretical concepts for the quantitative analysis of population. It proposed new insights and perspectives to the study of demographic processes and demographic behaviour, and also included measures of demographic variance such as changes in population size, age structures, sex ratio, and migration patterns. The tools of historical demography can help investigate the social metamorphosis, and the restructuring of the town of La Ciotat, during the second half of the nineteenth century.

4.2 Methodological aspects: sources and databases

In the following analysis, two primary sources have been used. Firstly, population census data for La Ciotat in the period 1831 to 1916 [in French “*listes de dénombrement de la population*”]. The *listes de dénombrement de la population*, or otherwise nominative censuses, are a complete record of the population, and are therefore acknowledged as the best source of information for population analysis. It was created at a communal level as a quinquennial census, providing a name-by-name listing of each resident, their status, profession, etc. It offered different data over the course of time. The *listes de dénombrement de la population* are considered an invaluable source for researchers interested in the structure and evolution of the French population.⁴⁶²

The nominative census of VIII (1801) was the first in a series of general censuses of the French population. However, there was not a unique method of registration used for the population. Registration was based on the criteria set by each mayor or his commissionaires. The first census of the July Monarchy, the census of 1831, did not show any methodological improvement. Nevertheless, it is important as it is considered the first of the quinquennial censuses. By this stage, many new archival collections of nominative censuses commenced, even though the principle of

⁴⁶¹Louis Henry, *Manuel de démographie historique* (Paris: Librairie Droz, 1967); Id., *Démographie: Analyse et modèles* (Paris: Institut National d’Etudes Démographiques, 1984).

⁴⁶²C. James Haug, “Manuscript Census Materials in France: The Use and Availability of the Listes Nominatives,” *French Historical Studies* 11, no. 2 (1979): 258–74. See also: Abel Chatelain, “Valeur des recensements de la population française au XIX^e siècle,” *Revue de géographie de Lyon*, no. 4 (1954): 273–80 ; Claude Legiard, *Guide de recherches documentaires en démographie* (Paris: Gauthier-Villars, 1966).

the quinquennial censuses had been already adopted in 1822.⁴⁶³ In the census of 1831, the La Ciotat population was registered by household, where only the head of the household was fully registered (First name, surname, profession, and age). However, in the same census line, the name of the wife was recorded, together with the civil status (*état civil*) of the remaining household members.

The regular and systematic attempt to compile registers with residents of each town dates back to 1836 (circular of 10th April 1836) when all prefects were instructed to ensure the completion of a “tableau nominative”.⁴⁶⁴ Thus, 1836 is the first example of a nominative census where all the members of a household were registered. Each person was recorded with a serial number, and registration followed a fixed order, street-by-street, neighbourhood, house, and household. The *Service de la Statistique Générale*, formed by Louis-Philippe in 1840, was responsible for providing the nominative census with a more scientific approach.⁴⁶⁵ In this way, in 1851, the nominative census had a new series of columns relating to religion (*cultes*), disabilities, (*infirmités*) and work status. Finally, in 1876 it was adopted as the definitive formula for nominative censuses. From 1876 and until 1936, nominative censuses did not change considerably.

Since 1836, nominative censuses were produced in double copies: one copy was sent to the prefecture together with a summary statement (*récapitulation*), the other stayed in the town where the population was registered. For the town of La Ciotat, the researcher can find copies from 1836 onwards in the *Archives Départementales du Bouches-du-Rhône*, digitised and uploaded online,⁴⁶⁶ while a complete series from 1831 onwards is preserved in the *Archives Municipales de La Ciotat*. This research used copies from the Archives Municipales de La Ciotat. In the first stage of this research, the digitisation of the series had yet to be completed in the Departmental Archives of Bouches-du-Rhône.

For the purposes of this study, a choice was made to process a database of the complete nominative censuses of 1831, 1851, and 1911. This choice was based on the evolution of the transition from sail to steam in La Ciotat. Firstly, digitisation was completed for the years 1851 and 1911. This includes the chronological limits of the presence of *Messageries Maritimes* in the

⁴⁶³Michel Duchein, Les archives des recensements,” *La Gazette des archives*, no. 33 (1961): 65.

⁴⁶⁴Haug, “Manuscript Census Materials in France,” 260.

⁴⁶⁵*Ibid.* 67.

⁴⁶⁶Website of the digitised archives: <http://www.archives13.fr/archive/recherche/recensement2/n:45>.

town (without the First World War period). Following this action, it was considered important to include a nominative census prior to the first phase of industrialisation with the arrival of Louis Benet in 1836. For this reason, the first year available, 1831, even though it follows a different method of registration, offered the most accurate picture of the pre-industrial town of La Ciotat.

The data from the nominative censuses was digitised into the database of the ERC Project *SeaLiT: Seafaring Lives in Transition* based on a complex semantic network with the use of a FAST-CAT system.⁴⁶⁷ Afterwards, each year of the nominative census was downloaded in an Excel format, and processed in this way. Each nominative census registered, provided different information. Therefore, the database for the years 1831, 1851, and 1911 was constructed subject to the variables of Table 4.1. In total, 16,736 names, including associated information (depending on the year of census) were registered. In the following chapters, the term ‘Census - La Ciotat’ will be used to refer to this database. In addition, the recapitulation data sets found at the end of specific nominative censuses (concerned with aggregated calculation of marital status, age, gender, and nationality), can help to expand the thesis analysis, and better understand the demographic restructuring in the town.

Table 4.1. Variables registered in the database “Census - La Ciotat” for the years 1831, 1851 and 1911.

Nominative census of 1831	Nominative Census of 1851	Nominative Census of 1911
Address	Address	Address
House number	House number	House number
	Household number	Household number
	Person number	Person number
Name of the father or the head of household	Surname	Surname

⁴⁶⁷For the formation of the database by the Centre for Cultural Informatics (FORTH-CCI) see: Pavlos Farfalios et al., “Building and Exploring a Semantic Network of Maritime History Data,” in *Seafaring Lives in Transition*, ed. Apostolos Delis et al. [forthcoming]. See also the website of the project: <http://sealitproject.eu/>.

Name of the mother or the head of household	Name	Name
Profession	Age	Year of birth
Civil status of the members of the household	Nationality	Place of birth
Boys [Garçons]	Marital Status	Nationality
Girls [Filles]	Religion	
Married males [mariés]	Household role [rarely given]	Household role in relation to the head of household [always given]
Married females [mariées]	Profession	Profession
Widow males [veufs]	Status at work	Place of work / Status at work
Widow males [veufs]		
Widow females [veuves]		
Total of members of household		
Total of names [lines] registered for each census:		
1565 (households)	5196 (inhabitants)	9975 (inhabitants)

Secondly, a further source used is the Employment Registers (*Registres Entrées*) in the shipyards of *Messageries Maritimes*, retained in the Museum of La Ciotat (*Musée Ciotaden*), and found during field research trips to La Ciotat – this data is used for the first time for this thesis.⁴⁶⁸ This research registered the workforce employed in the years 1855, 1865, 1875, 1885, 1895, and 1905; an overall total of 5,000 names. In these years, the following information is available: name; surname; date of birth; place of birth/region of birth; register number; profession; date of entry into the shipyards; date of exit from the shipyards; place of issue of the worker’s booklet; year of issue of the worker’s booklet; previous employment; place of previous employment; and name of workshop chief (where the worker is employed). In the following chapters, the term ‘Shipyard’s Employment Registers-La Ciotat’ will be used. An additional database was formed, this included total workforce numbers employed separated by gender, and apprenticeship status, - this

⁴⁶⁸For further details on this database, see also Introduction.

information was provided at the end of each month between 1855 and 1910. This constitutes one more separate database created for this research (Shipyard's Employment Registers - La Ciotat, Overall'). Using the databases, together with extra qualitative sources, the analysis can thoroughly investigate the process and causes of demographic transformation, and examine the new features of population composition in La Ciotat.

4.3 The formation of a new labour market in La Ciotat by the Compagnie des Messageries Maritimes

The demographic development of La Ciotat between the middle of the nineteenth century and the beginning of the twentieth century reflects the overall pattern of the economic trends in the town. The establishment of a private steam navigation company in the port not only altered the economic direction of the town, but also affected its demographic evolution. The nature and development of a specific port economy is also reflected in the operation of local labour markets.⁴⁶⁹ La Ciotat was well-renowned in the shipbuilding industry prior to the industrial era. It boasted significant numbers of skilled workers associated with wooden shipbuilding. However, the number and type of specialised craftsmen were inadequate to cover the needs of a large industrial unit for steamship construction. As already noted in chapter three, during the Second French Empire, and prior to the opening of the Suez Canal, the *Compagnie des Messageries Maritimes*, invested considerable efforts into the expansion of the shipyards, and the increase of shipyard labour capacity.

In the General Assembly of the Company in 1855, the shareholders discussed the efforts of the *Messageries Maritimes* to attract and retain workers, together with the obstacles encountered in this regard. They noted that:

Since the beginning, we have made efforts of all kinds to attract and maintain in our workshops, a sufficient workforce in number and skills. Our efforts have been successful, and under the influence of a series of benevolent and, so to speak, paternalistic measures,

⁴⁶⁹Robert Lee, "The socio-economic and demographic characteristics of port cities: a typology for comparative analysis?," *Urban History*, no. 25 (1998): 161.

*which are not diminished from the good order, the discipline and the execution of the works, the number of our workers, which at the end of 1853 was only 1,131, rose to 1,376. It would have been much higher than this figure if the workers that exercise maritime professions and subjected as such, to the Inscription Maritime, had not been constantly removed from our workshops to go and serve in the arsenals of the French Royal Navy. We have, thus, lost a vast number of excellent carpenters whose absence was a considerable inconvenience and a notable cause of delay in our constructions. We have tried to fill this unfortunate void by causing the emigration of Genoese carpenters. These generally laborious and skillful men responded in large numbers to our appeal, even though the Sardinian Government were not very favourable to their emigration, especially in recent times, and that those workers, as soon as they disembark in Marseilles, they had often become the object of attempts to be recruited directly by a part of private shipbuilders on whom the Inscription Maritime weighs the same as on ourselves”.*⁴⁷⁰

The restrictions of the *Inscription Maritime*, where French citizens (those who exercised a maritime profession), were obliged to put themselves at the disposal of the French Royal Navy, was seen as a burden to private industrial shipyards, as it prevented the formation of a permanent labour pool for shipbuilding activities.⁴⁷¹ The workforce shortages, both skilled and unskilled, due

⁴⁷⁰AFL, 1997-002-5199, Assemblée générale des actionnaires, 30 mai 1855 [Original: C’est dans ces vues que nous avons fait dès l’origine des efforts de toutes nature pour attirer et fixer dans nos ateliers un personnel d’ouvriers suffisant comme nombre et comme aptitude. Nos efforts ont été couronnés de succès, et sous l’influence d’une série de mesures bienveillantes et pour ainsi dire paternelles, qui n’ont nui en rien au bon ordre, à la discipline ni à l’exécution des travaux, le nombre de nos ouvriers qui, à la fin de 1853, n’était que de 1,131, s’est élevé à 1,376. Nous aurions été fort au-delà de ce chiffre si les ouvriers appartenant aux professions maritimes et soumis à ce titre, au régime de l’inscription, n’avaient été incessamment enlevés à nos ateliers pour aller servir dans les arsenaux de l’Etat. Nous avons ainsi perdu un très grand nombre d’excellents charpentiers dont l’absence a été un très grand gêne et une cause notable de retard dans nos constructions. Nous avons essayé de combler ce regrettable vide en provoquant l’émigration de charpentiers génois. Ces hommes généralement laborieux et habiles ont répondu en assez grand nombre à notre appel, malgré que le Gouvernement sarde se soit montré dans ces derniers temps surtout, peu favorable à ces émigrations, et que les ouvriers provenant de cette source aient été souvent l’objet dès leur débarquement à Marseille, de tentatives d’embauchage de la part des constructeurs particuliers sur lesquels l’inscription maritime pèse du même poids que sur nous-mêmes].

⁴⁷¹For a detailed analysis of the Institution of Inscription Maritime and its evolution see chapter six.

to low population growth in France, and to the large number of individual peasant proprietors, were among the main motives for industrial paternalism in France.⁴⁷² Paternalism was a way to encourage a pool of labour and avoid direct competition in the open labour market.⁴⁷³ Companies used a wide variety of social services to attract workers and encourage them to settle down, including low-cost housing and welfare services.⁴⁷⁴ This was designed to attach workers to the factory by creating a sense of company loyalty.⁴⁷⁵ In this context, *Messageries Maritimes*, through several different strategies, put considerable efforts into forming and retaining an appreciative workforce, bound to the company.

4.3.1 Employment strategies to increase and retain the labor force in La Ciotat: the *cit  ouvri re* Notre-Dame-des-Victoires.

In order to increase the labour force in the town and to enhance productivity, the *Compagnie des Messageries Maritimes* adopted the practices of industrial capitalism with a number of social initiatives. A first response to the problems of labour supply was the provision of accommodation for the workers. To achieve this, the *Compagnie des Messageries Maritimes* formed necessary preconditions to stimulate immigration and thus, guarantee a regular supply of

⁴⁷²Donald Reid, "Industrial Paternalism: Discourse and Practice in Nineteenth-Century French mining and metallurgy," *Comparative Studies in Society and History* 27, no. 4 (1985): 582.

⁴⁷³Michelle Perrot, "The Three Ages of Industrial Discipline in nineteenth-century France," in *Consciousness and class experience in nineteenth-century Europe*, ed. John M. Merriman (New York: Holmes and Meier Publishers, 1979).

⁴⁷⁴The Company established by the end of 1850s, a mutual aid fund (*caisse de secours*) for all workers and employees of La Ciotat, and guaranteed access to essential health care. At the same time, the Company employed factory doctors, operate first aid stations and established a pharmacy in an area of the shipyard. Due to the lack of precise documentation, this research cannot further study this aspect of social provisions by the company.

⁴⁷⁵Maurice Levy-Leboyer, "Innovation and Business Strategies in the Nineteenth and Twentieth Century France," in *Enterprise and Entrepreneurs in Nineteenth and Twentieth Century France*, eds. Edward C. Carter et al. (Baltimore: John Hopkins Press, 1976), 94–5; and Peter N. Stearns, *Paths to Authority* (Urbana: University of Illinois Press, 1978), 42-8. See also Gerard Noiriel, "Du 'patronage' au 'paternalisme': la restructuration des formes de domination de la main-d'oeuvre ouvri re dans l'industrie m tallurgique fran aise," *Le Mouvement Social*, no. 144 (1988): 17–35.

labour. During this process, one of the main issues that the company was required to resolve was the shortage of housing in La Ciotat. As pointed out in their general assembly of 1856:

*[...] the scarcity, the bad disposition, and the high cost of housing in the city of La Ciotat are severe obstacles to the increase of the workforce beyond a certain number, as had come to La Ciotat only with reluctance, and hardly ever settled there. However, it would be superfluous to increase our means of production if we had to give up a gathering, in sufficient quantity, the working personnel necessary to implement them. To avoid this danger, we will have to build successively on the land we own, a certain number of houses intended to house workers' households and in which, for a low rent but sufficient to ensure the interest of the capital engaged in these buildings, they will find healthy, convenient housing appropriate to their habits and the local climate. We do not doubt that this advantage will determine a large number of them to come and work at La Ciotat and settle there definitively.*⁴⁷⁶

The workers' housing programme was a defining feature of the landscape in the industrialised cities of Europe (and beyond) during the nineteenth century. The so-called "model villages" in Britain, "factory towns" in the United States, "Werksiedlung" or "Arbeiterkolonie" in Germany, and "cités ouvrières" in France, were a typical strategy to create an influx of labour and settle them in close proximity to the factory, by simply offering better standards of accommodation for the workers.⁴⁷⁷ It was a unique form of employer response to workers' housing during the

⁴⁷⁶AFL, 1997-002-5199, Assemblée générale des actionnaires, 31 mai 1856 [Original: La rareté, les mauvaises dispositions et la cherté des logements dans la ville de La Ciotat, sont des obstacles très sérieux à l'augmentation, au-delà d'un certain chiffre, de l'effectif de nos ouvriers, les étrangers ne viennent à La Ciotat qu'avec répugnance et ne s'y fixent presque jamais. Or, il serait superflu d'augmenter nos moyens de production si nous devons renoncer à réunir en quantité suffisante, le personnel travaillant nécessaire pour les mettre en œuvre. Pour parer à ce danger, nous aurons à construire successivement sur les terrains dont nous sommes propriétaires un certain nombre de maisons destinées à loger des ménages d'ouvriers et dans lesquelles moyennant un loyer modique mais suffisant pour assurer l'intérêt du capital engagé dans ces constructions, ils trouveront des logement salubres, commodes et appropriés à leurs habitudes et au climat de la localité. Nous ne doutons pas que cet avantage n'en détermine un grand nombre à venir s'embaucher à La Ciotat et s'y fixe définitivement].

⁴⁷⁷ For workers' housing see: Gérard Noiriel, *Etat, nation et immigration. Vers une histoire du pouvoir* (Paris: Belin, 2001); Tilman Frasch and Terry Wyke, "Housing the Workers: Re-visiting Employer Villages in mid-19th century Europe," in *Regions, Industries and Heritage. Perspectives on Economy, Society, and Culture in Modern Western*

second half of the nineteenth century.⁴⁷⁸ The workers' accommodation consisted of grouped housing units built by the company to house all or part of their employees and families. In France, the *cités ouvrières* of Mulhouse (Haut-Rhin),⁴⁷⁹ Le Creusot (Saone et Loire),⁴⁸⁰ the Familistère de Guise (Aisne)⁴⁸¹ and the Villeneuve (Hérault)⁴⁸² stand as prodigious examples of working-class accommodation designed, constructed, and financed by the employer, with residency restricted to the workers of the company.

Therefore, between 1854 and 1858, *Messageries Maritimes* constructed (in La Ciotat), the *citée ouvrière* “Notre-Dame-des-Victoires”, taking the name from the street in Paris where the headquarters of the company was based. In a 21.000 m² area, the company built a housing complex consisting of twenty-four houses, of eight flats each (in total, 192 apartments). The complex had a full capacity of 800 residents and was adequate to cover the housing needs for a significant number

Europe, eds. Juliane Czierpka et al. (Basingstoke, Hampshire: Palgrave Macmillan, 2015), 185. See also: Nicholas Bullock and James Read, *The Movement for Housing Reform in Germany and France, 1840 - 1914* (Cambridge: Cambridge University Press, 1985); John Burnett, *A social history of housing 1815 - 1970* (London: Methuen, 1986); Martin J. Daunton, ed. *Housing the workers. A comparative history 1850 - 1914* (Leicester: University Press, 1990); Enid Gaudie, *Cruel habitations. A history of working-class housing, 1780 - 1918* (London: Allen & Unwin, 1974); Donald Reid, “Schools and the paternalistic project at Le Creusot, 1850 - 1914,” *Journal of Social History*, no. 27 (1993): 129–43; Maurice Agulhon, ed. *Histoire de la France urbaine*, vol. 4, *La ville de l'âge industriel, le cycle haussmannien, 1840-1950* (Paris: Le Seuil, 1983); Marcel Roncayolo and Thierry Paquot, *Villes et civilisation urbaine, XVII^e-XX^e siècle* (Paris: Larousse, 1992).

⁴⁷⁸François Duchêne et al., “Cités ouvrières et patrimonialisation: d'un modèle à ses multiples transformations,” *Espaces et Sociétés* 1, no. 152–3 (2013): 36.

⁴⁷⁹Stéphane Jonas, *Mulhouse et ses cités ouvrières. Perspective historique (1840 - 1918): quatre-vingts ans d'histoire urbaine et sociale du logement ouvrier d'origine industrielle* (Strasbourg: Oberlin, 2003); Will Clement, “The ‘unrealizable chimera’: workers’ housing in nineteenth-century Mulhouse,” *French History* 32, no. 1 (2018): 66–85.

⁴⁸⁰Jean-Pierre Frey, *La ville industrielle et ses urbanités: la distinction ouvriers-employés, Le Creusot, 1870-1930* (Bruxelles: Mardaga, 1986).

⁴⁸¹Alexandre Oyon, *Une véritable cité ouvrière. Le Familistère de Guise* (Paris: Librairie des sciences sociales, 1865); Michel Lallement, *Le travail de l'utopie. Godin et le Familistère de Guise* (Paris: Les Belles Lettres, 2009).

⁴⁸²See: Alain Leménoirel, Jean-Marc Piel, *Vie de cités. Cités ouvrières du Calvados, XIX^e-XX^e siècle* (Cabourg: Cahiers du temps, 2002).

of the shipyard workforce.⁴⁸³ Ultimately, the role of the housing programme was to accommodate as many employees as possible, and to house them as close as possible to the production line.⁴⁸⁴

Image 4.1. The *cité ouvrière* “Notre-Dame-des Victoires” in the end of nineteenth century.



Source: <http://corsicanostra.free.fr/La-Ciotat-la-cite-photos-anciennes.htm> (accessed: 19/05/2021).

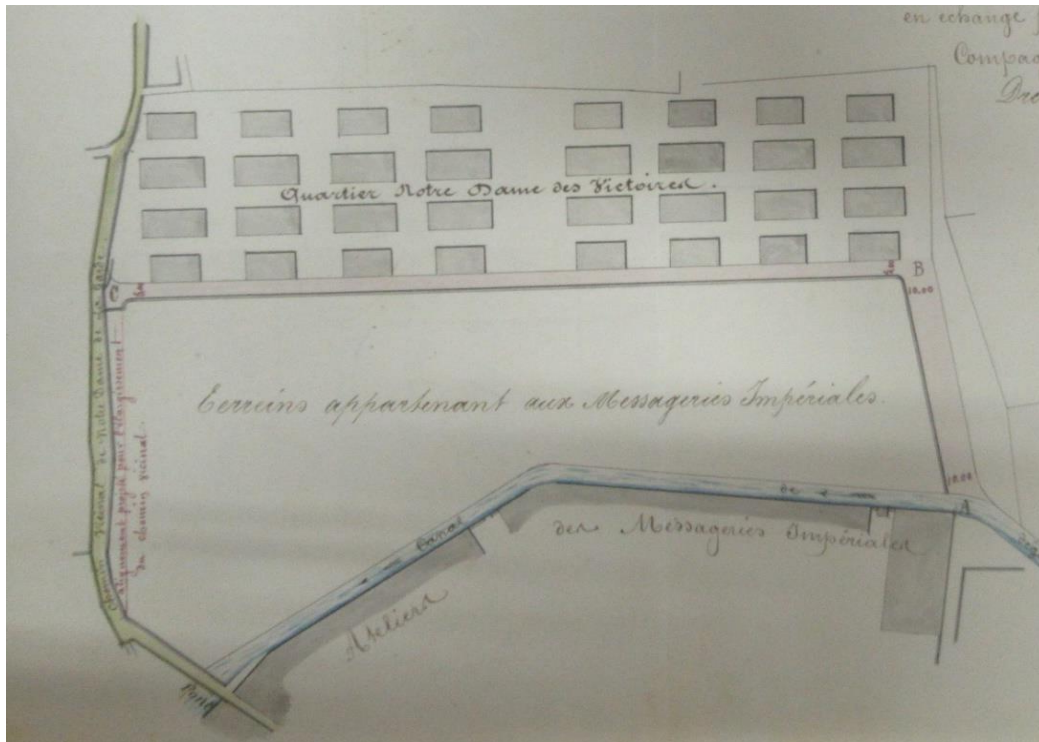
The *cité ouvrière* consisted of eight groups of buildings, each containing four “first category” [*première catégorie*], and four “second category” [*seconde catégorie*] structures. Each building contained a ground floor and a first floor, with eight independent apartments intended for equal-sized families. The first category accommodation included a bedroom (20.50 m²), a children’s bedroom (10.40 m²), an outhouse (4.40 m²), a kitchen (10.40 m²), and a garden (10 m²). The second category accommodation included a bedroom (18.50 m²), a children’s bedroom (4.40 m²), and a kitchen (10.40 m²), with a total area of 37.70 m². The first category accommodation

⁴⁸³AMC, CHAN/41 Construction du quartier Notre Dame des Victoires.

⁴⁸⁴Frey, *La ville industrielle et ses urbanités*.

was leased at a rate of 100 francs per year; while those of the second category, at a rate of 72 francs.⁴⁸⁵ The buildings were also equipped with a set of communal facilities, such as a butcher, and a bakery. In addition, each group of buildings was serviced by a washhouse located in a courtyard adjoining the houses.⁴⁸⁶

Image 4.2. Plan of the *cité ouvrière* of La Ciotat.



Source: AMC, CHAN/41 Construction du quartier Notre-Dame-des-Victoires.

The worker's housing provision not only helped retain the workforce, but also strengthened the worker's community. This element of community life was part of the industrial complex. The *cité ouvrière*, constructed just behind the metal workshops of the shipyards, was an integral part of the factory of *Messageries Maritimes*.⁴⁸⁷ The *cité ouvrière* was a reflection of a paternalistic regime adopted by the company towards the workforce. Through an investment in housing

⁴⁸⁵AMC, CHAN/41 Construction du quartier Notre Dame des Victoires.

⁴⁸⁶AMC, CHAN/41 Construction du quartier Notre-Dame-des-Victoires.

⁴⁸⁷The *cité ouvrière* was demolished between 1975 and 1976 for the extension needs of the shipyards.

provision, the company succeeded in the management and retention of employees, obtaining significant control over a key factor of production: the labour force.⁴⁸⁸ In this way, the workforce of the shipyards was seen as an extended family, and kept under the supervision of the company. In this paternalistic system, the employers attract and retain the workers, while the workers become dependent on the company, who extend a fatherly benevolence towards them.⁴⁸⁹

Victor Delacour, the director of the shipyards between 1854 and 1864 and the mastermind of the *cité ouvrière*, stands as a great exponent of the paternalistic strategies of *Messageries Maritimes*. The working population in the town were highly grateful for his benevolence. As a characteristic act of his dedication, a statue of Victor Delacour was placed in the centre of the *cité ouvrière* in 1866, two years after his death. During the unveiling ceremony, two workers in the shipyards named Molinari (or Molinier) and Zaraby delivered a poem in his memory, speaking of their former director as an unforgettable father:

Behind these workshops, admire
The worker's residence:
This is the city, which was built by
The one that cannot be forgotten
He marked on this earth
Its passage through benevolences
Each one, in order to celebrate a father,
Should keep the image of his features⁴⁹⁰

⁴⁸⁸Wyke, "Housing the Workers," 188. See also: Sidney Pollard, *The genesis of modern management. A study of the industrial revolution in Britain* (Harmondsworth: Penguin, 1968) and Jean Pierre Frey, *Le rôle social du patronat: du paternalism à l'urbanisme* (Paris: L'Harmattan, 1995).

⁴⁸⁹Maurice Levy-Leboyer, "Les processus d'industrialisation: Le cas de l'Angleterre et de la France," *Revue Historique* 239, no. 2 (1968): 281–98; and Richard Roehl, "French Industrialisation: A Reconsideration," *Explorations in Economic History* 13, no. 3 (1976): 233–81.

⁴⁹⁰Guy Aillaud, *Il était une fois La Cité. Mythe et réalités de la Cité ouvrière fondée par Victor Delacour* (La Ciotat: Imprimerie Lumière, n.d.), 17 [Original: Derrière ces ateliers, admire/ La demeure de l'ouvrier :/ C'est la Cité, que fit construire/ Celui qu'on ne peut oublier/ Il a marqué sur cette terre/ Son passage par des bienfaits/ Chacun, pour célébrer un père,/Garde l'image de ses traits].

The loyalty of the working population to *Messageries Maritimes* remained strong for all of the nineteenth century. In 1887, the newspaper *Le Petit Provençal* covered the celebration of Saint Victor in *Cité Ouvrière* by the working population of the town, in memory of Victor Delacour. This celebration was established two years before, in 1885.⁴⁹¹

4.3.2 The process of formation of a new labour market: the *livret d'ouvrier* and education patterns.

As a result of the above-mentioned strategies, the *Compagnie des Messageries Maritimes* succeeded in forming a new shipbuilding industry labour market in La Ciotat. A distinguishing factor of this process of labour market formation in the town, is the aggregated data of the place of deliverance of the *livret d'ouvrier*. The worker's booklet was a form of notebook issued to all factory workers by the local authorities. It was similar to an internal passport designed to control workers' movements (workers required to show a ticket of leave from the previous employer), and ensure enforcement of the strict terms of labour contracts. The booklet included the worker's name, age, place of birth, residence, description of features, and profession. In addition, it maintained the following: a record of the workshops where the employee had successively completed service; entry and exit dates from each workshop; and a discharge of the commitments contracted by him towards each manager.⁴⁹² Therefore, the workers' booklet was a contractual instrument, which aimed to subordinate a worker's circulation, ensure compliance with contract terms, and prevent spontaneous departure.⁴⁹³

The worker's booklet emerged in 1803 within the context of Napoleonic legislation on manufacturing (the law of 22 Germinal of Year XI, 12th April 1803); it was promulgated and

⁴⁹¹*Le Petit Provençal*, 12 juillet 1887.

⁴⁹²Jeanne-Marie Tuffery-Andrieu, "L'encadrement juridique du voyage ouvrier au XIX^e siècle," in *Les formes du voyage: approches interdisciplinaires*, eds. Dominique Dinet et al. (Strasbourg: Presses Universitaires de Strasbourg, 2019), 265–83.

⁴⁹³Camille Arnaud, *Du livret d'ouvrier* (Paris: Microéditions Hachette, 1971); Jean-Pierre Le Crom, "Le livret ouvrier au XIX^e siècle: entre assujettissement et reconnaissance de soi," in *Du droit du travail aux droits de l'humanité: études offertes à Philippe-Jean Hesse*, eds. Philippe-Jean Hesse and Yvon Le Gall (Rennes: Presses Universités de Rennes, 2005), 91–100.

applied in the form of a decree on Frimaire 9 of Year XII (1st December 1803).⁴⁹⁴ During the nineteenth century, a series of ordinances and laws extended this application, focusing on worker-employer relations and market competition.⁴⁹⁵ A law of 22nd June 1854, supplemented by a decree of 30th April 1855, conferred a public order mission on the workers' booklet. In this way, this instrument, which was only a contractual tool, received a police character. The *livret d'ouvrier* was imposed both on French and foreign workers who worked in France. Despite a fleeting final effort by Napoleon III (in 1854) to make the booklet an efficient instrument of police surveillance, the use of the *livret* was gradually abandoned by the authorities, before being officially abolished in 1890.⁴⁹⁶

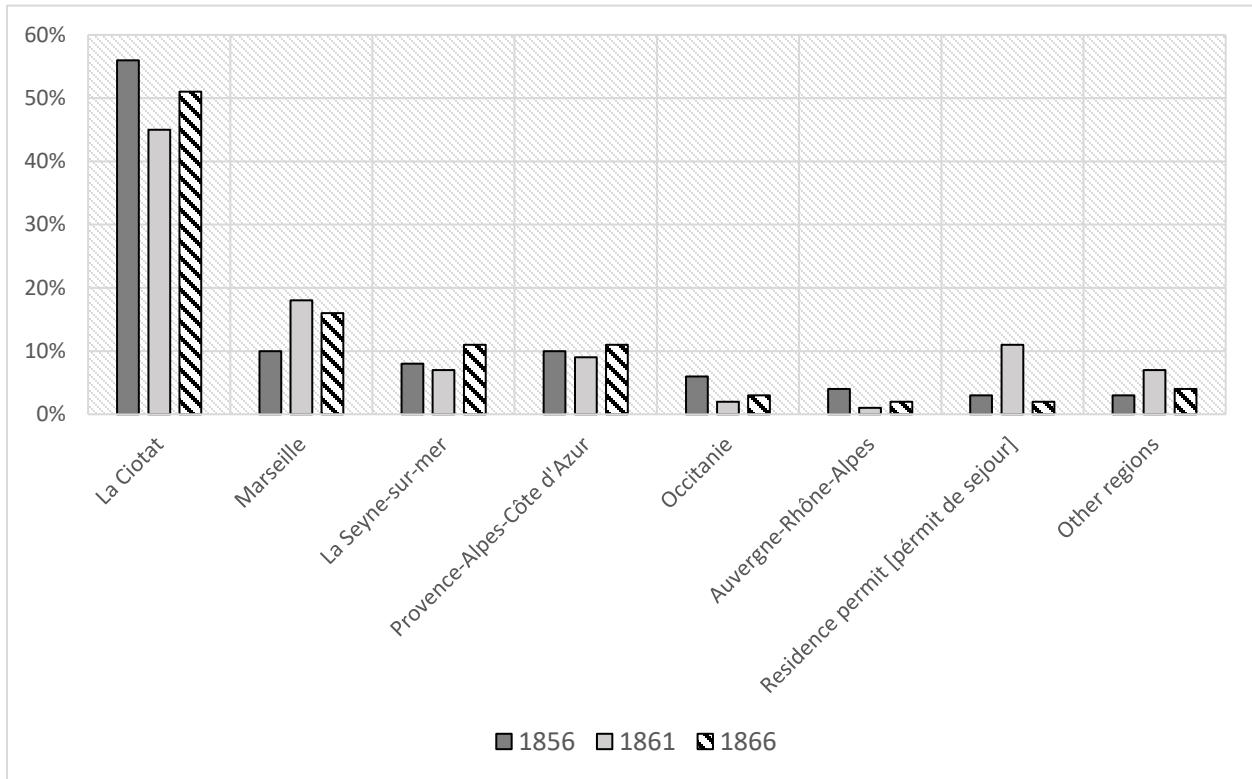
The shipyard employment registers specifically state (for each worker employed in the shipyards) where the worker first received their *livret d'ouvrier*. This valuable data offers a clear insight into the formation of the new labour market in La Ciotat. Figure 4.1 indicates that during the first years of the existence of the company (1856, 1861, and 1866), approximately half of the workers employed received their first booklet in La Ciotat, when they first came to work at the shipyards. In addition, approximately 30% of the employed workforce received their booklets in other locations in Provence, predominantly Marseilles and La Seyne-sur-mer, the most industrialised ports in the region other than La Ciotat. This fact confirms the formation of an industrial maritime cluster in the coastline between Marseilles and Toulon, including the small ports of La Ciotat and La Seyne-sur-mer. It is also noteworthy that a residence permit (*permis de séjour*) was issued by the commissioner of *Inscription Maritime* to individuals who did not possess a booklet. This process was used mainly by French seafarers, who worked on steamships, when they wanted to work for short periods in the shipyards.

⁴⁹⁴Martino Sacchi Landriani, "Rethinking the livret d'ouvriers: time, space and 'free' labor in nineteenth century France," *Labor History* 60, no. 6 (2019): 854.

⁴⁹⁵Ibid. 859.

⁴⁹⁶For the history of the livret d'ouvrier in France see: Alain Dewerpe, "En avoir ou pas. A propos du livret d'ouvrier dans la France du XIX^e siècle," in *Le travail contraint en Asie et en Europe. XVII^e-XX^e siècles*, ed. Alessandro Stanziani (Paris: Editions de la Maison de Sciences de l'Homme, 2010), 217–39.

Figure 4.1. City of acquisition of the first *livret* for the workers employed in the shipyards the years 1856, 1861 and 1866.



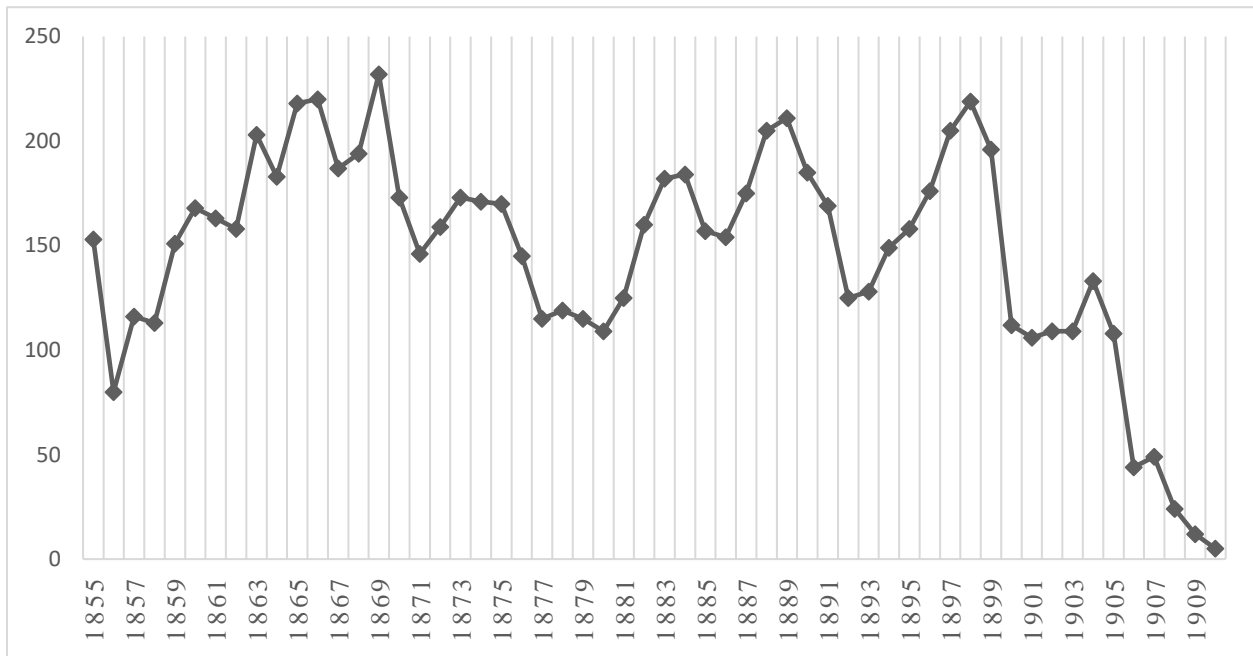
Processed data by: Database: 'Shipyard's Employment Registers - La Ciotat' (1851 - 1873).

At the beginning of the transition towards industrial shipbuilding in La Ciotat, the *Compagnie des Messageries Maritimes* succeeded in forming a new labour market in the town through their employment strategies. The data in Figure 4.1 suggests that during the first decades of the establishment of *Messageries Maritimes* in the port, a new workforce was created specifically related to industrial shipbuilding. The *livret d'ouvrier* data sets prove this formation process during the period examined, and indicates a skilled labour market associated with growing industrial shipbuilding activity in the region.

The formation of specific education patterns was another strategy that the company used in order to form a skilled labour force. Even though important evidence is missing regarding the education of the workforce, some details shed light on the introduction of new learning patterns in the town. The *Compagnie des Messageries Maritimes* started to train their workforce to acquire the necessary know-how for the production process. On 10th October 1853, the local primary

school in La Ciotat introduced a new course for young apprentices of shipyard workshops, related to mechanics.⁴⁹⁷ This school practice was finally abolished on 3rd May 1876 following the elimination of child labour in industrial settings (through a law passed on 19th May 1874).⁴⁹⁸ The board of directors (17th November 1853) had also established training courses for shipyard workers. The shipyard map (Map 3.1) indicates the workshop and areas of apprenticeship inside the shipbuilding unit. The courses were delivered by three foremen and covered three main subjects: the principle of arithmetic and geometry; linear drawing principle; and notions of mechanics and shipbuilding.⁴⁹⁹

Figure 4.2. Apprentices employed in the shipyards of Messageries Maritimes (1855 - 1910).



Processed data by: Database ‘Shipyard’s Employment Registers - La Ciotat, Overall’ (1851 - 1912).

Together with this development, the number of apprentices registered in the employment records of the shipyards indicate a clear effort to form a skilled labour force through an on-site

⁴⁹⁷Jean-Marie Tripodi, “La Compagnie de navigation des Messageries Maritimes et les chantiers de constructions navales de La Ciotat (1852 - 1916)” (Master thesis, Université de Provence, 1981-82), 184.

⁴⁹⁸Ibid. 185.

⁴⁹⁹Ibid. 186.

training programme. Figure 4.2 demonstrates that the apprentices employed in the shipyards of *Messageries Maritimes* follow a pattern of employment dependent on the production, and productivity of the site. In the period between 1855 and 1905, apprentices surpassed 100 (annually), reaching a peak during the highly productive years of the shipyards, that is, between 1863-69, 1887-90, and 1897-1900.

Therefore, the *Compagnie des Messageries Maritimes* created, in La Ciotat, new employment structures related to shipbuilding activity. The company not only increased the labour pool, but also succeeded in attributing to La Ciotat, the characteristics of an industrial town that is deeply marked by the intervention of industrial capital, and the birth of new urban and social structures following the needs of industrial production. The town received a high influx of working-class residents, forming new social patterns related to the factory production system. The education programme created a skilled workforce for industrial production. La Ciotat was thus transformed into an industrial working landscape, with a predominance of factory workers in the port.

Image 4.3. Gathering the workers and employers of Messageries Maritimes in front of the iron bridge during the launching of the steamship *Ville de La Ciotat*, April 1892.



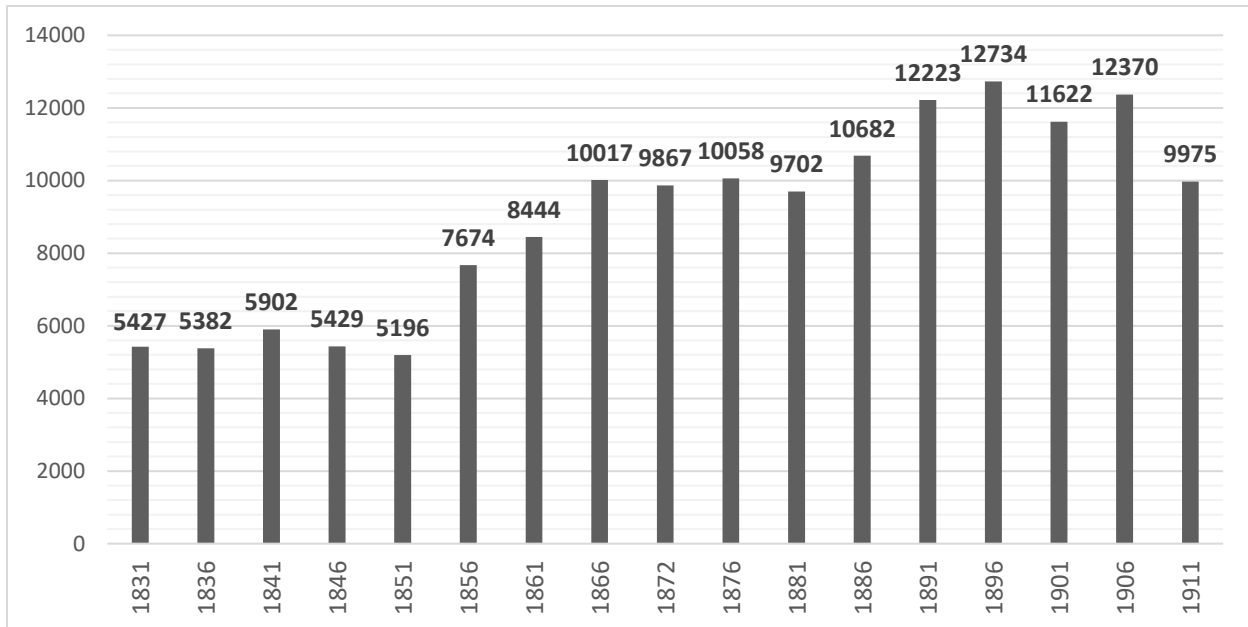
Source: Website of the municipality of La Ciotat [<https://www.laciotat.com/je-m-informe/maciotat-d-hier/au-bout-de-l-escalet>].

4.4 The demographic dynamics of La Ciotat.

4.4.1 Population growth and urban expansion.

The process of the creation of new employment patterns, together with a new labour market in La Ciotat had a significant impact in shaping demographic trends - this resulted in a total restructuring of the town. In comparison with the large port cities of France, La Ciotat, with 5,400 inhabitants in 1831, was considered a small town. The population remained stable in the first half of the nineteenth century. As the nominative censuses indicate, La Ciotat experienced a cumulative rate of population growth, and associated urban expansion from the 1850s to 1916 (Figure 4.3).

Figure 4.3. Evolution of the population in La Ciotat (1831 - 1911).



Processed data by: AMLC, Listes de dénombrement de la population (1831 - 1911).

By examining the population in the other cities of Provence, in comparison, the rate of growth in La Ciotat was one of the highest in the region. From 1851 to 1861, La Ciotat grew rapidly - the population increased from 5,129 residents in 1851 to 8,444 in 1861, an annual growth rate of 5.7%. The compound annual growth rate (CAGR) of individual port-towns and port-cities in Provence from 1850 to 1901 attests to the relevant demographic expansion of the town. During the second half of the nineteenth century, the population of La Ciotat registered a 2% CAGR, a significant percentage from the perspective of the overall annual growth rate in France.⁵⁰⁰ During the same period, similar CAGRs were registered in the ports of Provence - this succeeded in helping to industrialise their economies, for example, La Seyne-sur-mer (2% CAGR) and, of course, Marseilles (2% CAGR) (Table 4.2).

⁵⁰⁰The population of France registered 0.3% annual growth in 1806-1821, 0.5% in 1821-51 and 0.2% in 1851-91. See: Magali Talandier et al., “Two centuries of economic territorial dynamics: the case of France,” *Regional Studies, Regional Sciences*, no. 3:1 (2016): 72.

Table 4.2. Evolution of the population of some of the littoral towns of Provence (1851, 1901) and their Compound Annual Growth Rate (CAGR).

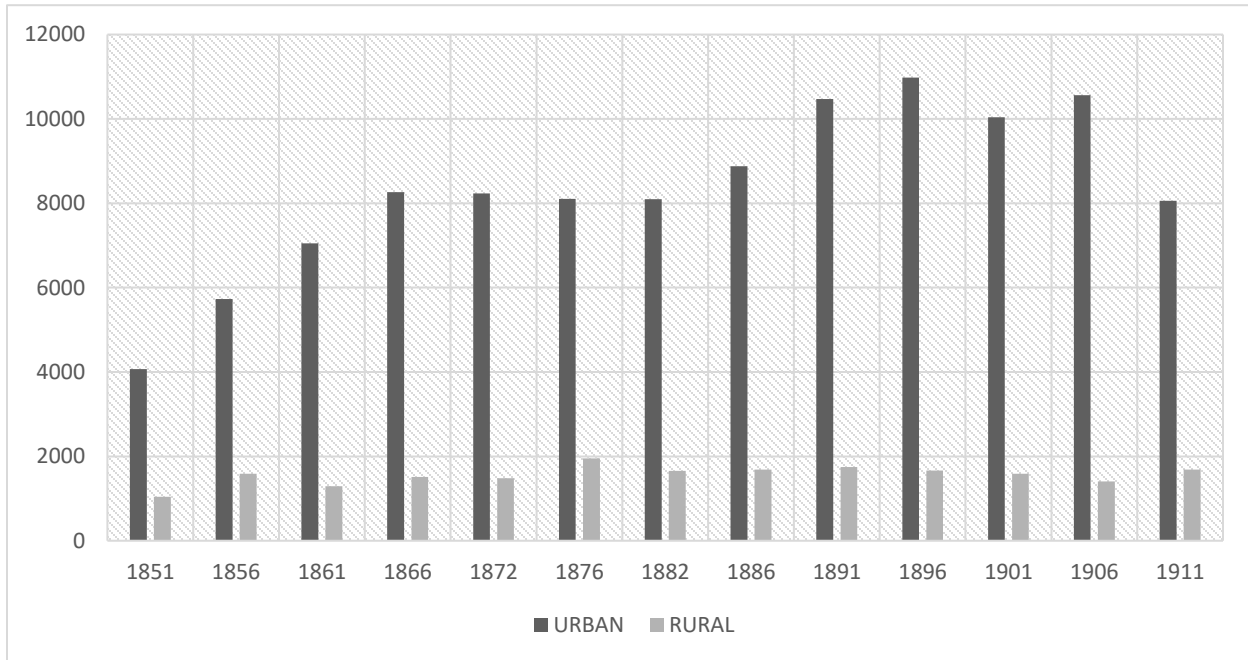
	1851	1901	CAGR %
LA CIOTAT	5,129	11,622	2%
LA SEYNE	7,336	20,718	2%
ST TROPEZ	3,487	3,658	0%
MARTIGUES	8,640	6,280	-1%
TOULON	69,474	101,602	1%
MARSEILLES	195,350	491,161	2%

Processed data by: AD BdR and AD V. Digitised archives online. Websites: <http://www.archives13.fr/archive/recherche/recensement2/n:45> & <https://archives.var.fr/article.php?larub=97>

Simultaneously, La Ciotat encountered increasing urban growth. This can be confirmed both from the rise of inhabitants in the urban section of the town,⁵⁰¹ and from the growth of houses (and households). As shown in Figure 4.4, from 1851 to 1911, the percentage of the population who resided in the countryside remained stable, whereas the percentage who lived in urban areas more than doubled. The number of inhabitants in the urban section increased from 4,072 in 1851 to 8,266 in 1866, and 10,980 in 1896. At the same time, the inhabitants of the rural area remained stable, at less than 2,000 throughout the entire period examined.

⁵⁰¹During this period the registration of the population in the nominative census was separated into “population aggloméré” (concentrated urban population) and “population épars/campagne” (sparse population/countryside).

Figure 4.4. Population on the urban section and rural section in La Ciotat (1851 - 1911).



Processed data by: AMLC, Listes de dénombrement de la population (1851 - 1911).

The doubling of house numbers (and households) in La Ciotat in the two decades between 1851 and 1872 indicates a high rate of urban expansion (Table 4.3). In the first five years of *Messageries Maritimes* activity in the town, that is, 1851 to 1856, almost 200 more houses and 400 more households registered in the town. From 1851 to 1901, houses and households more than doubled (Table 4.3). In addition, the calculation of households per house could be an indicator of the urban density in the town. Table 4.3 indicates that throughout most of the period, the households living in the same building did not surpass 1.5, apart from the periods of production peaks in the shipyard, such as the years 1866-72 (1.8 and 1.9) and 1886-96 (1.8 and 1.9 households per house).

Population growth and urbanisation brought new urban structures to the town. In 1882, a municipal theatre was inaugurated, and in 1889 works for the formation of public gardens in the town commenced.⁵⁰² In January 1892, a new closed market was completed (with a roof made of iron), and also in 1892, Post Office construction began, and several wash areas (*lavoirs*) were

⁵⁰²*Le Petit Marseillais*, 31 octobre 1889.

created to cover the needs of the population.⁵⁰³ In addition, during the second half of the nineteenth century, new cafés were opened, such as the *Café du XIX^e siècle*, *Café de l'Europe*, *Café-Hotel des Voyageurs*, and others.⁵⁰⁴

Table 4.3. Houses and households of La Ciotat (1851 - 1911).

YEAR	HOUSES	HOUSEHOLDS	HOUSEHOLD / HOUSE
1851	1048	1462	1.4
1856	1226	1828	1.5
1861	1548	2351	1.5
1866	1418	2604	1.8
1872	1853	3565	1.9
1876	1702	2746	1.6
1881	1702	2495	1.5
1886	1536	2814	1.8
1891	1706	3177	1.9
1896	1769	3394	1.9
1901	2100	3250	1.5
1911	1834	2856	1.6

Source: AMLC, Listes de dénombrement de la population (1851 - 1911).

4.4.2 Immigration as a central factor of demographic growth: population mobility towards the maritime industrial region of Provence

The main factor related to the demographic growth of La Ciotat during the second half of the nineteenth century was a disproportionate dependency on migratory waves, a phenomenon common to many cities in France and Europe during the nineteenth century.⁵⁰⁵ The population growth rate was undoubtedly linked to the expanding shipbuilding activity. The labour needs of

⁵⁰³Journal Chateigner, 31 janvier 1892 & 21 février 1892.

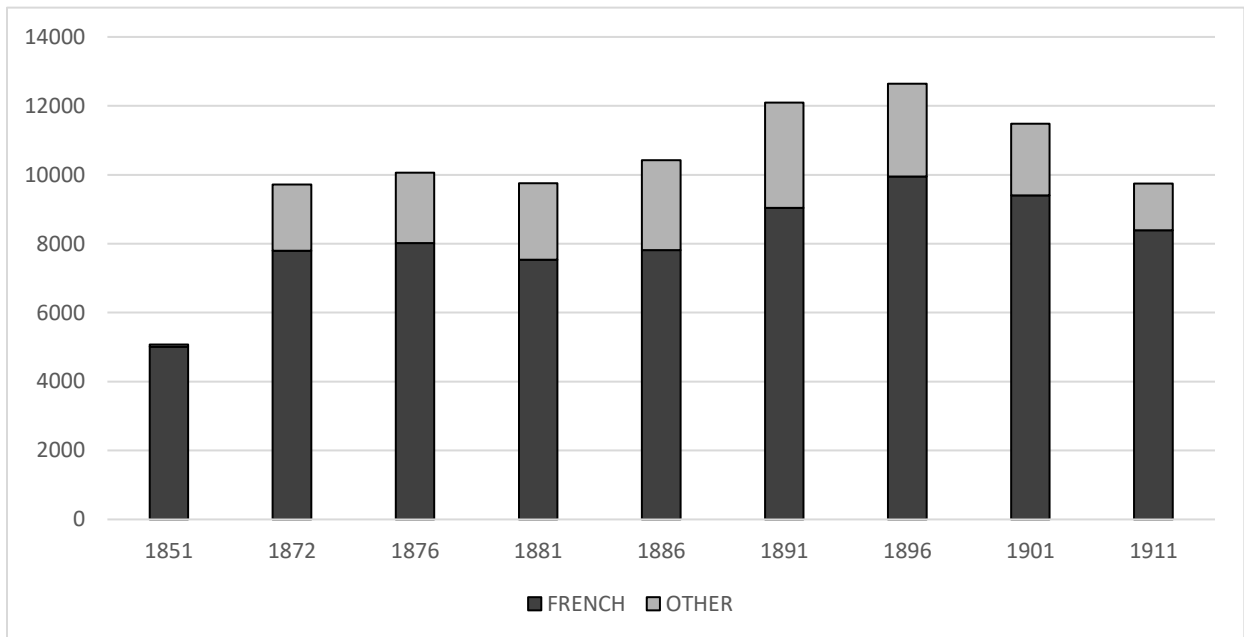
⁵⁰⁴Journal Chateigner, 13 août 1879, 29 septembre 1879, 18 décembre 1879 & 10 décembre 1892.

⁵⁰⁵Lee, "Socio-economic characteristics," 156.

industrial activity in the town could only be met by an influx of individuals from outside the city. During the second half of the nineteenth century, La Ciotat went through a demographic transformation, with vast population growth maintained through large-scale migration.

The statistical analysis of resident nationality as recorded by the nominative censuses demonstrates the high rates of immigration into La Ciotat (Figure 4.5). In 1851, the number of foreign residents recorded in the city was 80. As Figure 4.5 indicates, from 1872,⁵⁰⁶ one-third of the population residing in La Ciotat were foreigners. In 1891, this number increased to 3,052 individuals (mostly of Italian origin). In the years for which specific data of nationality is available, the Italians represent more than 97% of foreigners residing in the town. More specifically, in 1876, 97.9% of the foreign population in La Ciotat were Italian, 98.5% in 1881, 96.7% in 1886, and 97.8% in 1911.

Figure 4.5. Distribution of the population of La Ciotat according to nationality (1851 - 1911).



Source: AMLC, Listes de dénombrement de la population (1851 - 1911).

⁵⁰⁶Unfortunately, the nominative censuses of 1856, 1861, and 1866 do not provide data for place of birth, and nationality of the population. For this reason, the analysis is obliged to combine data provided in 1851 with that of 1872, twenty years later.

The immigration of the Italian population to French Provence was not a unique phenomenon for La Ciotat. On the contrary, Provence had been the centre of migratory flows from Italy for a very long time. The seasonal migration from the Italian and French Alpine valleys to coastal areas was a constant pattern in the economic and demographic history of the region in the pre-industrial era.⁵⁰⁷ This custom was part of the general mobility of the population from mountainous areas to the lower plains (and coastal areas) where intensive harvests, and manufacturing settlements were concentrated. The population of these areas experienced a constant ebb and flow from the mountains to the plains. The main feature of these seasonal movements was the length of duration, supported by the ongoing dependence of the mountain economy on agriculture. This mobility, supported by the dense network of internal and external exchanges, and fed by various currents of artisanal and mercantile activity, had a strong impulse through the course of the nineteenth century.⁵⁰⁸

However, from the second half of the nineteenth century onwards, the increasing proletarianisation of labour and the decline of rural sources of income, turned seasonal migration patterns of the eighteenth century into permanent rural-urban migration.⁵⁰⁹ The high level of Italian immigration into the French Mediterranean during this period was undoubtedly connected with the industrial growth of the region.⁵¹⁰ This numerical significance of immigrants during the second

⁵⁰⁷Emile Témime, ed. *Migrance, histoire des migrations à Marseille* (Aix-en-Provence: Edisud, 1989-91); François-Xavier Emmanuelli, ed., *La Provence contemporaine de 1800 à nos jours* (Rennes: Editions Ouest-France, 1994); Michel Vovelle, "Les migrations en Provence au XVIII^e siècle," *Recherches Régionales*, no. 4 (1981): 10–43.

⁵⁰⁸Dionigi Alberta, "Dalla mobilità all'emigrazione. Il caso del Piemonte sud-occidentale" [online: <https://www.departement06.fr/documents/Import/decouvrir-les-am/rr132-1995-03.pdf> (accessed on: 12/11/2020)].

⁵⁰⁹Anne Winter, *Migrants and urban change. Newcomers to Antwerp (1760-1860)* (London: Pichering & Chatto/Routledge, 2009): 174. See also: Buti, "Provençaux des rivages," in *Mer et Montagne*, eds. Alain Cabantous et al., 17–29; Paul M. Hohenberh and Lynn Hollen Lees, *The making of urban Europe (1000-1994)* (Cambridge, Massachusetts & London: Harvard University Press, 1985).

⁵¹⁰See for example the following studies: Louis Pierren, *Industries traditionnelles du port de Marseille. Le cycle des sucres et des oléagineux (1870-1958)* (Marseille: Institut historique de Provence, 1975); Pierre Milza, *Français et Italiens à la fin du XIX^e siècle. Aux origines du rapprochement franco-italien de 1900- 1902* (Rome: Ecole française de Rome, 1981); William H. Sewel, *Structure and Mobility. The men and women of Marseille, 1820–70* (Cambridge: Cambridge University Press & Paris: Editions de la Maison de sciences de l'homme, 1985); Renée Lopez et al., eds.

half of the nineteenth century can be explained by the choices made by entrepreneurs, who sought to reduce their production costs, and increase their productivity through the employment of an underpaid workforce, both weakly unionised, and reputed to be age robust.⁵¹¹ In addition, the manufacturers wanted to maintain a certain level of competitiveness, by playing primarily on the human variable rather than investing large sums in the regular renewal of their production equipment.⁵¹² The geographer, Marcel Roncayolo observes that the ease of access to Italian labour tended to divert industrialists from the necessary investments to modernise their businesses. In this way, they could operate for long periods within parts of an infrastructure that was obsolete.⁵¹³ The historian Émile Temime points out that the economy of Marseilles benefitted from an abundant immigrant labour force, however, it also became dependent upon it. The businesses that used such cheap labour tended to delay the sometimes-necessary modernisation.⁵¹⁴ Thus, the Italian immigrants filled a gap, and offered the French industry both cheap labour, and the necessary numbers to improve production.

Along the coastline of Provence, the development of industrial shipbuilding (in La Ciotat and La Seyne-sur-mer) increased the rate of immigration, which in turn boosted shipbuilding activity. Subsequently, in 1901, the *Société des chantiers et ateliers de Provence* (created two years earlier by Marseilles' shipowner Alfred Fraissinet), launched their first ship in Port-de-Bouc. On the strength of this activity, the town went from 1,500 inhabitants at the end of the nineteenth century to 3,400 in 1911. Simultaneously, the arsenal in Toulon constituted a primary element of economic life, and alone occupied a tenth of the working population of the region.

Therefore, La Ciotat, together with the other industrial cities of Provence (Marseilles, Toulon, and La Seyne-sur-Mer), in the departments of Bouches-du-Rhône and Var were the first communities to receive a wave of Italian immigrants during the beginning of the second half of the nineteenth century. Already in 1851, 70% of people with Italian nationality living in France

Gli italiani nella Francia del Sud e in Corsica (1860 - 1980) (Milan: Quaderni di affari internazionali/Franco Angeli, 1988); Roncayolo, *Les grammaires d'une ville*.

⁵¹¹Lopez et al., *Gli italiani nella Francia*, 11.

⁵¹²Xavier Daumalin, "Industrie marseillaise et immigration italienne en Méditerranée : nouveau regards (XIX^e siècle-années 1930)," *Cahiers d'histoire: revue d'histoire critique*, no. 132 (2016): 45.

⁵¹³Roncayolo, *Les grammaires d'une ville*, 156.

⁵¹⁴Lopez et al., *Gli italiani nella Francia*, 11.

had settled in the regions of Provence and the Southern French Alps.⁵¹⁵ The first wave of immigration from the 1850s onwards was fed by the population in the Italian area of Piedmont. Following the unification of Italy, from 1861 onwards, and mainly at the beginning of the twentieth century, immigration increased from central Italy, Tuscany in particular.⁵¹⁶ From the second half of the nineteenth century until World War II, transalpine immigration was a dominant feature of the region of Provence.⁵¹⁷ In total, 80% of Italian immigrants in Provence came from the northern half of Italy, including Tuscany, with a majority originating in Piedmont (30%).⁵¹⁸

Immigration in La Ciotat, again mainly related to the shipbuilding industry, was already present from the 1830s. In 1838, during the new infrastructure works in the port, Joseph-Édouard Vence wrote in his journal that many workers from Piedmont were employed.⁵¹⁹ In the nominative census of 1851, twenty-nine “*Piemontais*”, twelve “*Genois*”, and three “*Sardes*” lived in La Ciotat. However, the small number of foreigners in 1851 led to the assumption by this research, that most workers remained seasonal, without permanent residency in the town. During the period 1851 to 1856, La Ciotat experienced a dramatic population surge, increasing by 2,478 residents.⁵²⁰ Even though the nominative census of 1856 does not provide any data concerning the nationality of the population, it is safe to assume that this was the beginning of mass immigration into the town, especially if you take into consideration the strategies of *Messageries Maritimes* during the period. The database of 1911, offers detailed data for the provenience of Italians through a record of birthplace. For those with Italian nationality for whom a specific birthplace was recorded, 50% came from the region of Piedmont, and 30% from the region of Tuscany.⁵²¹

⁵¹⁵Anne-Marie Faidutti-Rudolph, *L'Immigration italienne dans le Sud-Est de la France* (Gap: Ophrys, 1964), 85.

⁵¹⁶*Ibid.* 89.

⁵¹⁷Yvan Gastaut and Stéphane Mourlane, “L’histoire de l’immigration de travail en région PACA,” *Faire-Savoirs*, no. 13 (2017): 58.

⁵¹⁸Philippe Blanchet, “Contacts et dynamiques des identités culturelles: les migrants italiens en Provence dans la première partie du XX^e siècle,” *La France Latine – Revue d’études d’Oc*, no. 137 (2003): 144–45.

⁵¹⁹Journal JEV, 1 Mai 1838 [Original: On travaille activement à la jetée du port et au quai du chantier entre les deux môles. Une grande quantité d’ouvriers piémontais y sont employés].

⁵²⁰The population of La Ciotat increased from 5,196 inhabitants in 1851 to 7,674 inhabitants in 1856.

⁵²¹Database ‘Census - La Ciotat’, 1911. Not all birthplaces can be identified, as some names exist in many different places in Italy.

This Italian migratory flow complemented the substantial internal migration of mountain dwellers around Provence towards the littoral towns during the nineteenth and twentieth centuries. The high mobility of the population from the mountainous hinterland of Provence to the coastline was a normal phenomenon in the Mediterranean.⁵²² The links between the sea and the mountains, and the shores and the valleys, characterised the region of Provence, and those of Liguria, in Italy, and the mountainous island of Corsica.⁵²³ The population from the mountainous areas of Provence, mainly the Alps, the Cevennes (a range of mountains in south-central France), and Corsica,⁵²⁴ travelled seasonally to the littoral areas to trade their products, work as gardeners, labourers or shepherds, and even to navigate as sailors.⁵²⁵ However, in the mid-nineteenth century, the new work opportunities offered by industrialisation formed permanent internal migratory patterns. The strong impact of internal flows towards La Ciotat is evident through data captured in the 1876, 1881, and 1886 nominative censuses. This included information for the provenience of residents. Figure 4.6 indicates the following for 1876: 19% originated in other departments of France; while 20% were Italian. Hence, a 39% share was not born in the town. Five years later, in 1881, Italians represented one-fourth of La Ciotat's population (25%) and the share of French born in other departments remained stable at 18%. Residents born in the town dropped to 57%. In 1886, the proportion of the population born outside the town had increased to 46%: 24% had Italian nationality, and 22% originated from other departments of France.⁵²⁶ In this year, almost half of the population of La Ciotat was not born in the town. This data confirms the immigratory position of La Ciotat, that is, either from Italy, or other French departments.⁵²⁷ This was the leading cause of demographic growth, which in turn led to relevant associated social ramifications.

⁵²²Braudel, *The Mediterranean and the Mediterranean world*, 22. Fernand Braudel noted, the Mediterranean is, first of all, a sea between mountains.

⁵²³Buti, "Provençaux des rivages, Provençaux des montagnes," 18.

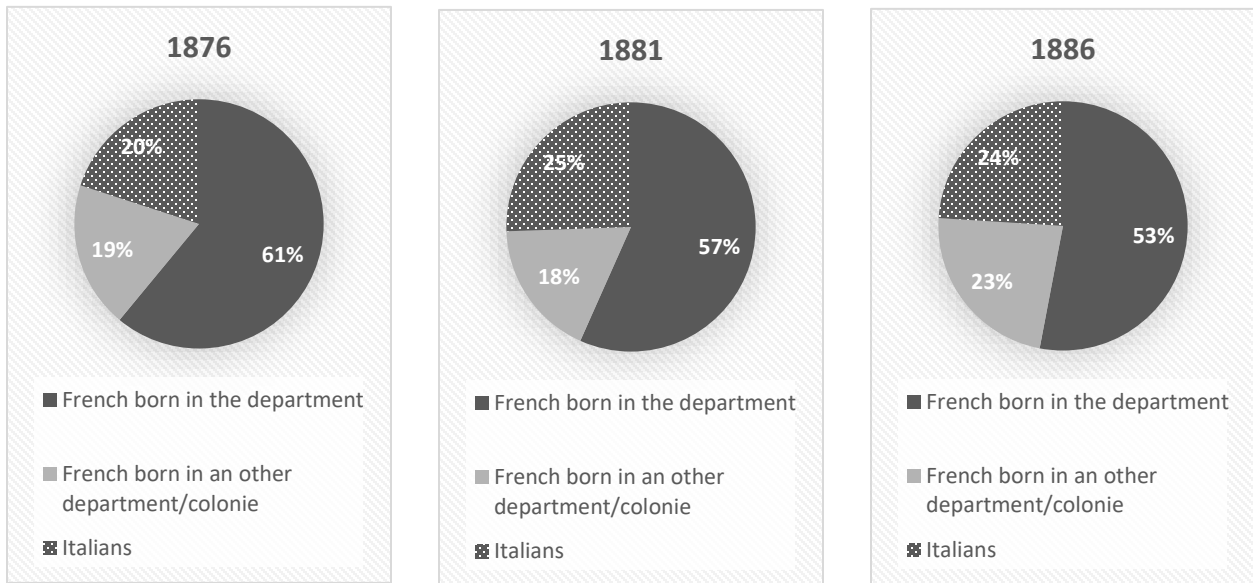
⁵²⁴Régis Bertrand et al., eds. *Provence* (Paris: Encyclopédies régionales C. Bonneton, 1989), 65.

⁵²⁵Gilbert Buti points out that in 1770 the hinterland of Provence furnished the port of Marseilles with 7.2% of new sailors, whilst in 1787 the number rose to 21.3%. See Buti, "Provençaux des rivages," 24.

⁵²⁶AMLC, Liste de dénombrement de la population 1882.

⁵²⁷According to the administrative division of France, the country was divided into sixteen regions (Hauts-de-France, Normandy, Ile-de-France, Grand Est, Brittany, Pays de la Loire, Centre-Val de Loire, Bourgogne-Franche-Comté, Nouvelle Aquitaine, Occitanie, and Provence Alpes-Côte d'Azur). The region of Provence Alpes-Côte d'Azur was

Figure 4.6. The population of La Ciotat given its place of origin in % (1876, 1881, 1886).



Processed data by: AMLC, Listes de dénombrement de population (1876, 1881, 1886).⁵²⁸

The birthplace analysis of the nominative census of 1911 confirms that the greater number of French inhabitants not born in the town, originated mainly from other localities within the department of Bouches-du-Rhône or the neighbouring department of Var. The percentage proportion of the population born in those departments was 67%. However, a large number were born in other mountainous departments of Provence, such as the *Alpes de Hautes Provence*, the *Hautes Alpes*, the *Alpes Maritimes*, and the region of *Vaucluse* (around 12%). Additionally, about 15% of French residents that were not born in the town originated from other neighbouring mountainous regions around Provence, mainly the regions of Occitanie, Auvergne-Rhone-Alpes, and Corsica.⁵²⁹ Map 4.1 displays the place of birth of La Ciotat inhabitants in 1911. As analysed above the littoral part of Provence was the prominent place of birth for residents. In addition, the high mobility of the population that originated in the mountain range of the lower Alps as a

divided into six departments, namely the Alpes-de-Haute-Provence, Hautes-Alpes, Alpes-Maritimes, Bouches-du-Rhône, Var, and Vaucluse.

⁵²⁸“French born in the department” refers to the population that was born in other cities of the department of Bouches-du-Rhone.

⁵²⁹For a detailed map of the regions of France see Appendix 4.8.

geographical entity, either French or Italian, formed a distinctive pattern of movement, and constituted a large proportion of immigrants in the town. Moreover, there is evidence of Italian migratory influx towards La Ciotat, with a predominance of Italians from the Piedmont or Tuscany regions. Apart from the above areas, one can notice the large dispersion of the residents' provenience, that is, originating from many different areas around France Italy and Spain.

Map 4.1. Illustration of the place of birth of the inhabitants of La Ciotat, 1911.



Processed data by: Database 'Census - La Ciotat', 1911.

The company of *Messageries Maritimes* was the sole reason for La Ciotat immigration. The shipyards attracted thousands of working-class residents, originating from two principal areas: the hinterland of Provence in France, and Piedmont in Italy. This corresponds to the general figures

of foreign population analysed above. The examination of the database ‘Shipyard’s Employment Registers - La Ciotat’ provides a great insight into the importance of immigrants for the shipbuilding industry. The birthplace of the workers employed in the shipyard (per year) offers valuable data for the provenience of the most significant part of the workforce in specific years of employment (1855, 1865, 1875, and 1885).⁵³⁰ As observed in Table 4.4, the region of Piedmont in Italy was a primary source of labour for the shipyard, especially in the years 1865, 1875, and 1885. After 1875, the shipyard started to recruit workers from other parts of Italy, mainly Tuscany. Correlating this data with the high production periods of the shipyard, the study notes that of the years of low production (namely 1875 and 1885), when recruitment was much lower, the percentage of French workers employed in the shipyards was higher. In France, Provence, Occitanie, and Auvergne-Rhone-Alpes regions provided the highest percentage of French workers employed. It is also worth noting that the number of workers born in La Ciotat was lower than the number of workers from other areas of France and Italy (15% in 1855; 5% in 1865; 20% in 1875; and 10% in 1885). Since the analysis is based on daily recruitments, it can be assumed that most of the local population working in the shipyards were employed on a more permanent basis. However, Table 4.4 reveals that Italians consisted a central part of the shipyard workforce. Consequently, the evidence suggests that in the transformation of the demographic dynamics of the town, a key role was exercised by the strategies of *the Compagnie des Messageries Maritimes* to attract and increase the labour supply of the shipyards.

Table 4.4. Birthplace of the workforce in %, by year of first employment (1855, 1865, 1875 and 1885).

BIRTHPLACE	1855	1865	1875	1885
Italy/Piedmont	25%	43%	38%	42%
Italy/Other	11%	9%	14%	
Italy/Tuscany			8%	18%

⁵³⁰The employment records of Messageries Maritimes (AMC, Fonds de Messageries Maritimes, Registres entrées) registered employment entries in the shipyards. Hence, the data provided refers to the newly-employed workers per year and not to the total workforce employed in the shipyard per year.

France/La Ciotat	15%	5%	20%	10%
France/Provence	24%	21%	19%	14%
France/Occitanie	8%	4%	3%	2%
France/Auvergne-Rhone-Alpes	10%	6%	2%	1%
France/Other	9%	6%	4%	4%

Processed data by: Database ‘Shipyard’s Employment Registers - La Ciotat’ (1855, 1865, 1875, 1885).

4.5 The population composition: demographic dynamics into transition.

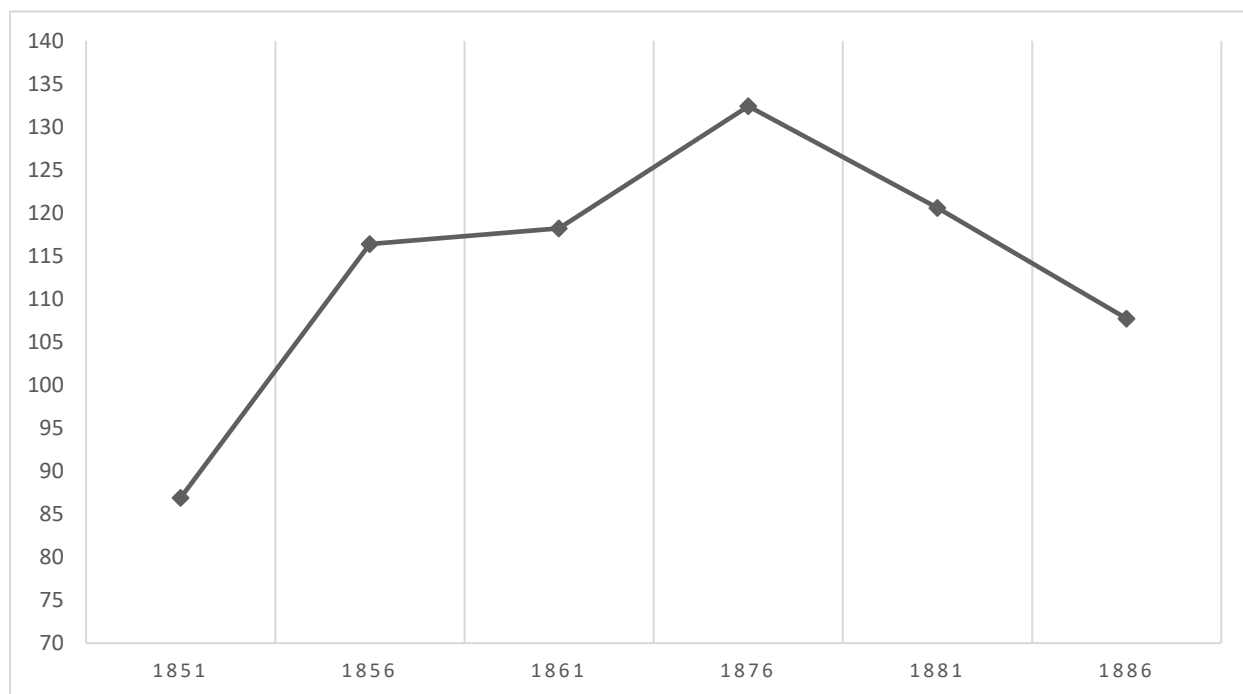
The town of La Ciotat underwent a significant alteration of its socio-demographic patterns. During the second half of the nineteenth century, the process of industrial development in the town increased mobility up until the most significant extension of the shipyard during the opening of the Suez Canal. The fluctuation of production and employment in the shipyard and workshops of La Ciotat was visible in the demographic patterns of the town. A key trend in this transition was the increased immigration rates, mainly in relation to shipyard labour demand. Thus, the high rates of immigration between 1851 and 1871 stabilised following the decrease in labour demand at the beginning of the Third Republic. Immigration undoubtedly caused peculiarities that can now be detected in the age composition of the population, and through the transformation of marital structure by age and sex. At the first level, age/sex ratios and essential graphical tools, such as population pyramids, indicate significant discrepancies in age-sex structure. At the second level, an analysis of the evolution of marital status, analysed by age and gender, displays the upheavals of society due to the transformation of the population. This analysis will help us to understand the ramifications that the new economic reality, together with high immigration rates, had in the population structure of La Ciotat.

4.5.1 Sex ratios

An investigation of sex ratio, given the aggregated population data for the years 1851, 1856, 1861, 1876, 1881, and 1886, is a relevant figure that demonstrates the significant shifts in

the population composition of La Ciotat. The human sex ratio (SR) is the ratio of males to females in a population. The natural ratio between males and females at birth (SRB) is estimated to be approximately 105 males/females born.⁵³¹ In a traditional society, the ratio between the male and female population is balanced with a small predominance of females.

Figure 4.7. Sex ratios calculated on the aggregated data of population for the years 1851, 1856, 1861, 1876, 1881, 1886.



Processed data by: AMLC, Listes de dénombrement de population (1851, 1856, 1861, 1876, 1881, 1886).

Figure 4.7 illustrates significant imbalances and shifts in gender composition from 1851 to 1886 in La Ciotat. It clearly shows the growth of the male population in the city, shifting from an SR=86.9 in 1851 (with a predominance of the female population), to SR=116.4 in 1856, reaching a peak of male predominance in 1876 with an SR=132.4. The above fluctuations in sex ratios

⁵³¹Michael Teitelbaum, “Factors associated with the Sex Ratio in Human Populations,” in *The Structure of Human Populations*, eds. Geoffrey A. Harrison and Anthony J. Boyce (London: Oxford University Press, 1972), 90–109; William James, “The Human Sex Ratio. Part 1: A review of the Literature,” *Human Biology* 59, no. 5 (1987): 721–52.

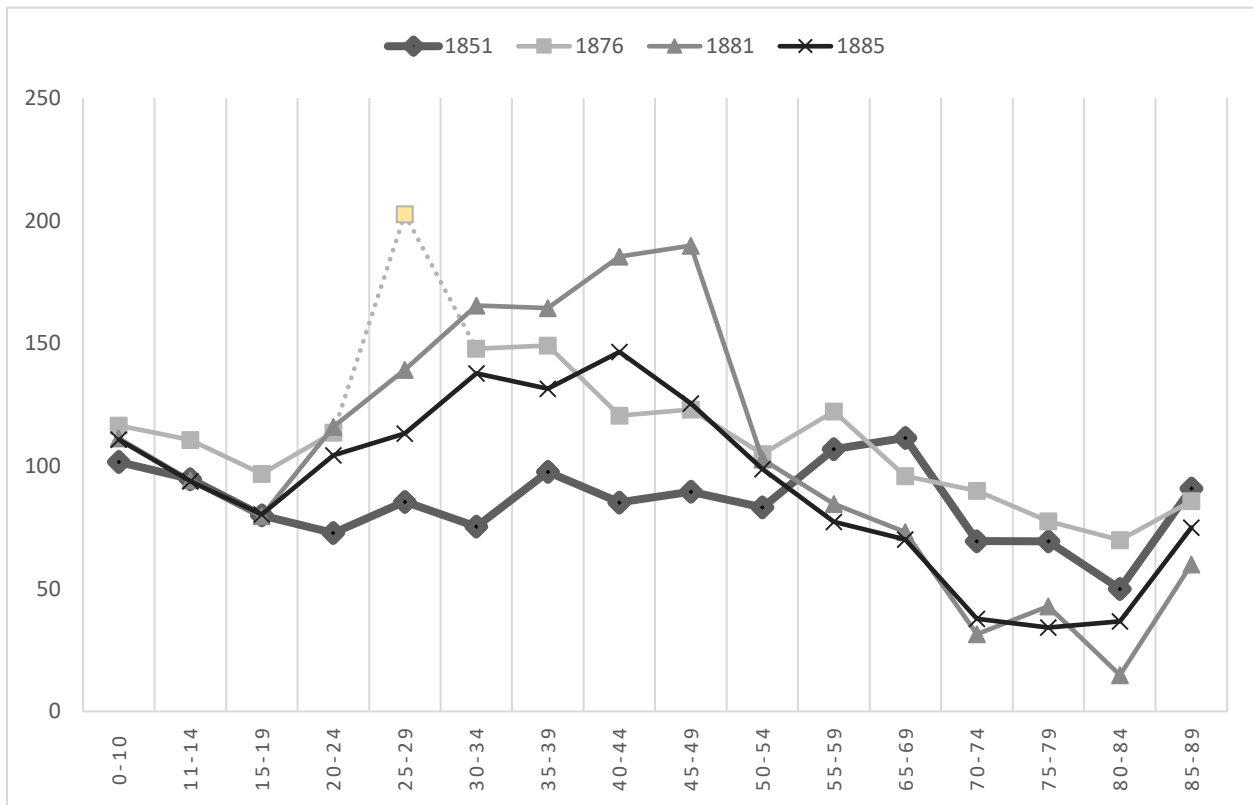
depict the immigration patterns of the town, mainly due to high labour demand - hence, the rise of the male population. Sex ratios begin falling again from 1881 onwards, decreasing to a male predominance of $SR=107.7$ in 1886. These variations validate the process for forming a labour market, and the subsequent stabilisation of the immigration influx in the city.

Age-specific patterns are one of the most critical characteristics of population composition. Using the database “Census - La Ciotat” of 1851 and the aggregate data of 1876, 1881, and 1886, the SR measures by age group were reconstructed, providing additional insight into the historical context of gender dynamics. The SR by age groups of 1851, and the variations that occurred in the subsequent years, reveal exceptionally high values, and a high shift in the balance of the male/female population. In 1851, the sex ratio followed a balanced trend and remained less than $SR=100$ for most age groups, showing a predominance of the female population in the town⁵³² (Figure 4.8).

For all years examined, the sex ratio of the young population of the town, namely the age-groups 0-10, 11-14, and 15-19, remained relatively stable. However, the sex ratio balances for 1876, 1881, and 1885 in subsequent age groups changed considerably. As observed by Figure 4.8, the SR of age groups between 20 and 49 increased from an average $SR=85$, in 1851 (with a high predominance of women), to an average $SR=160$ in 1881, and $SR=127$ in 1885. This is a very significant shift in the ratio between women and men in La Ciotat within 30 years. From 1851 to 1881, the sex ratio of the population between 20 to 49 years doubled, overturning the population structure of La Ciotat’s society. The age-groups from 50 years and upwards, for all the years observed, were relatively stable in comparison with the SRs of 1851. In this regard, the increase in sex ratio during the periods examined appears to be linked with large-scale economic changes related to elevated levels of industrial growth, and subsequent high labour demand. The rise of the 20-49 age group corresponds to the labour demands of the shipyards/workshops. Hence, it is evident from the above figures that the rise of the population in La Ciotat was due to an influx of working-age males, especially until 1881.

⁵³²There is also an increase in the Sex Ratio for the age groups 55-59 ($SR=106.9$), and 65-69 ($SR= 111.5$).

Figure 4.8. Sex ratio by age groups in La Ciotat (1851, 1876, 1881, 1885)



Processed data by: AMLC, Listes de dénombrement de population, 1851, 1876, 1881, 1886 [the yellow label has been subjected to changes due to the large differences between male/females of this age in 1876 that reflects a misreporting by the enumerator (the number of women in the age group 25-29 in 1876 was corrected from 85 to 385, given the previous and the following age-groups. However, mistakes might exist on this specific calculation).

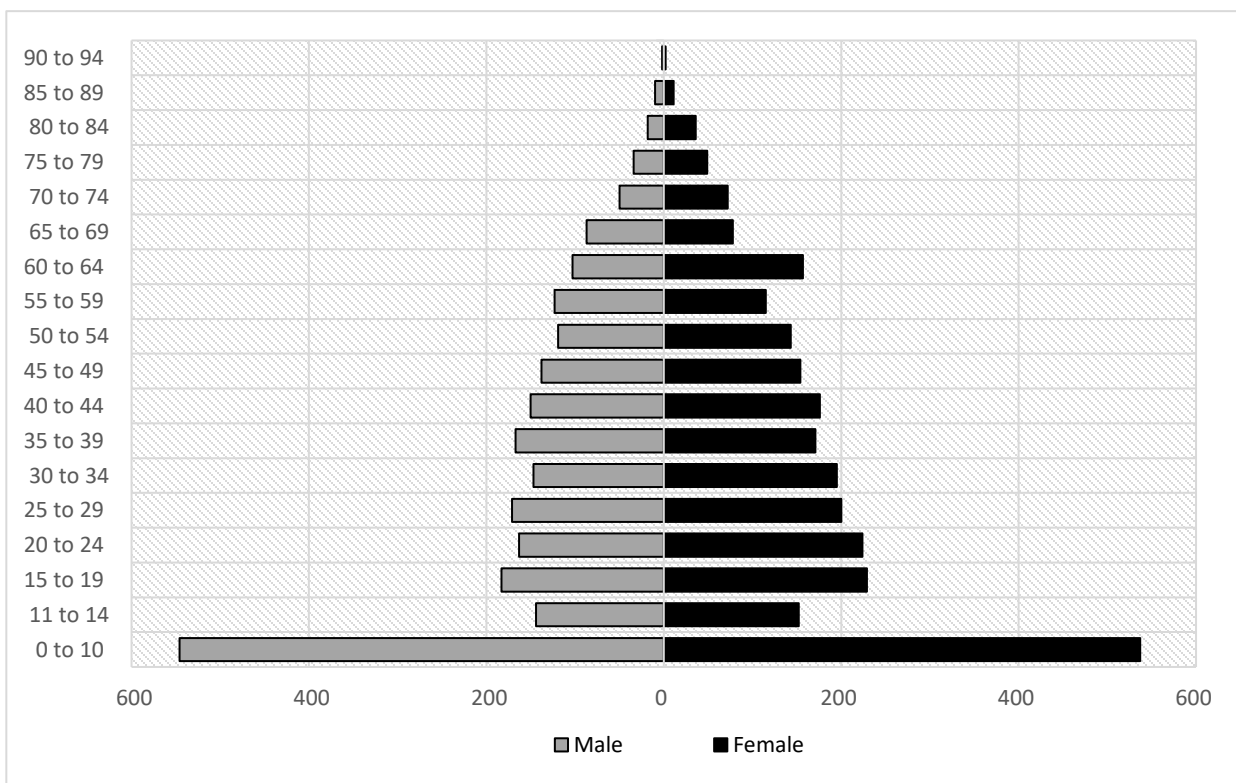
4.5.2 The age-sex structure of La Ciotat’s population, shown through age pyramids

A further category that can explain the restructuring of the population by age-group in La Ciotat during the second half of the nineteenth century, is the age pyramid. The population pyramid is one of the most basic and widely used tools for a visual representation of data population in demography. The population pyramid displays the size of the population enumerated in each age group. The shape of the pyramid can hint at the economic and demographic role of the population. It comprises two histograms rolled on their sides and placed back-to-back, with the youngest ages at the bottom of the diagram, and the oldest at the top. The male population is placed on the left, and the female on the right. The analysis can compare the age pyramids of the population in two

different years: in 1851, before the industrial growth of La Ciotat (Figure 4.9), and in 1876 (Figure 4.10). In each case, the population of each age-sex group are displayed as absolute numbers.

The shapes of the population pyramids of 1851 and 1876 immediately mirror the metamorphosis of the age-sex structure of the city. This distribution is vital for understanding the shifts that occurred in the city through high levels of immigration, and the subsequent growth of the young adult male population. By observing the shape of the pyramid for 1851, which was not yet affected by immigration, women represented a higher figure than men for almost all of the age groups. In addition, the shape of the pyramid is more proportionate, without significant differences in specific age groups.

Figure 4.9. The age pyramid of the population of La Ciotat in 1851.

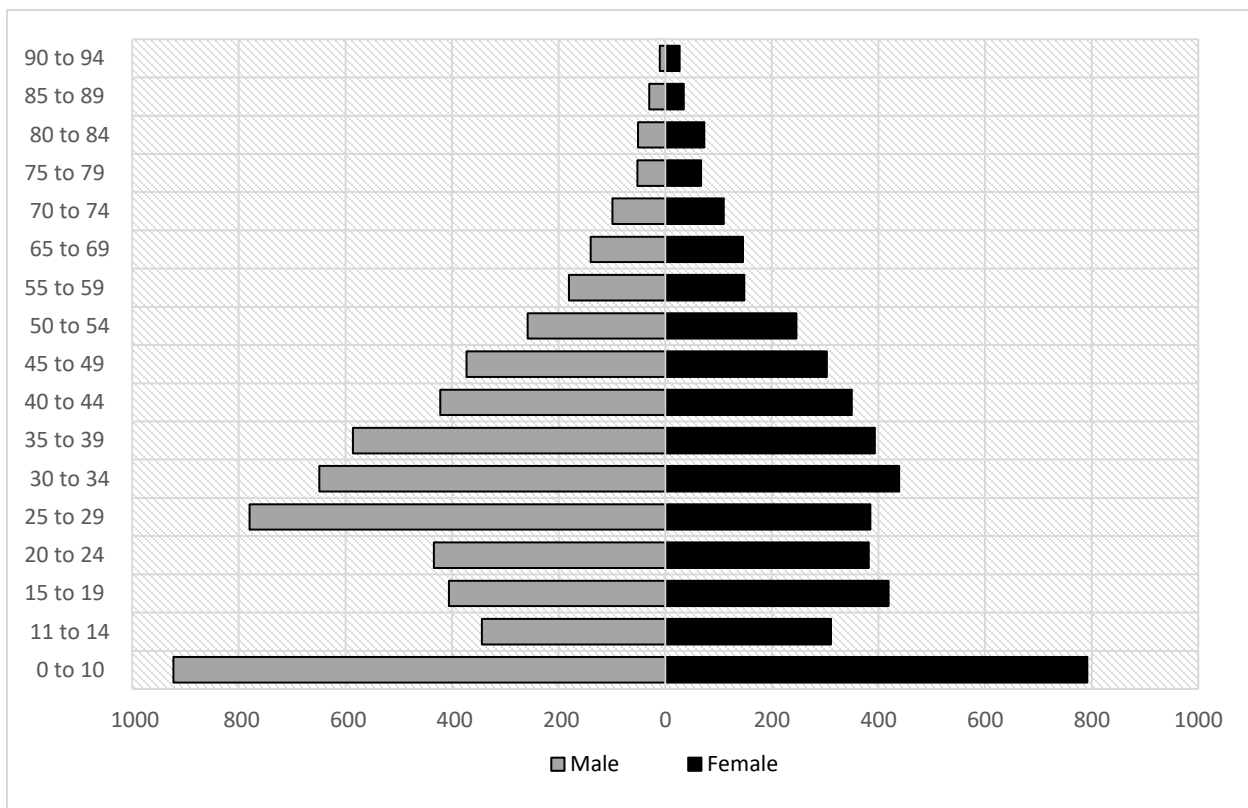


Processed data by: AMLC, Liste de dénombrement de population, 1851.

However, in 1876, the shape of the age pyramid reflects the effects of labour migration. Specifically, we can observe high growth for the male population in age groups 25-29, 30-34, and

35-39, together with a sharp decrease of age groups beyond 49 years. For 1876, the age-specific population at the upper end of the pyramid declines rapidly with increasing age, which, once again, reflects the trend in migration that contributed to the general structure of the population. The evolution of the shape of the two pyramids shows the disruption of the population structure, and immigration into a booming industrial town. During the second half of the nineteenth century, the growth of the working-class population in the town disrupted the demographic balance, with a high proportion of the population composed of young male adults, of course, this constituted the labour force of the shipyards.

Figure 4.10. The age pyramid of the population of La Ciotat in 1876.



Processed data by: AMLC, Liste de dénombrement de population, 1876

4.5.3 Marital status

The process of forming a new labour market, and the subsequent influx of immigration affected the demographics of the town by changing the population composition of the marital

status variant. Data taken from the nominative censuses of 1851, 1856, 1861, 1876, 1881, and 1886, reveal the sudden growth of unmarried males⁵³³ in the town. This statistic almost doubled in the five years between 1851 and 1856, with a compound annual growth rate (CAGR) of 13%. The following five years (1856-61), the married population of both genders increased at a rate of approximately 5%. Table 4.5 provides an insight into the effect that the shipyards had on the fluctuations of the La Ciotat population. The levels of stability of the CAGR in 1876, 1881, and 1886 reveals the significant effects of immigration, but also, the stability within the population following the formation of the necessary labour market during the Second French Empire. As observed by Table 4.5, there was a high growth rate especially between 1851 and 1856, with an increase of males, especially unmarried (by 13%), as well as an increase of married women (by 6%). Between 1856 and 1861, the growth rate, even though it was progressive, was relatively steady between 2-4%. The negative rates of growth, mainly between 1876 and 1881, could be linked to the crisis in the shipyards during the end of the Second French Empire, and the beginning of the Third Republic. This had caused massive dismissals of the workforce and, thus, population mobility. What is observed from Table 4.5 is that the main restructuring of the population occurred during the first five years of the establishment of *Messageries Maritimes* in the port, which were of course, the first years of the implementation of company's employment strategies introduced to fulfill labor-supply requirements.

Table 4.5. Marital status of the population of La Ciotat the years 1851 to 1886 (in absolute numbers and Compound Average Growth Rate (CAGR) in %).

	1851	1856	%	1861	%	1876	%	1881	%	1886	%
M/Boys	1,256	2,329	13%	2,609	2%	3,506	2%	3,471	0%	3,594	1%
M/Married	959	1,300	6%	1,684	5%	2,033	1%	1,718	-3%	1,686	0%
M/Widows	140	201	8%	225	2%	199	-1%	117	-10%	138	3%
F/Girls	1,418	1,690	4%	1,822	2%	2,075	1%	2,050	0%	2,385	3%

⁵³³ The definition of an unmarried male (or *garçon* in French) constitutes all single males in the population (no matter their age). The general figure, however, is revealing of the demographic shift in the town.

F/Married	988	1,314	6%	1,640	5%	1,878	1%	1,971	1%	2,221	2%
F/Widows	301	286	-1%	360	5%	378	0%	378	0%	420	2%

Processed data by: AMLC, Listes de dénombrement de population, 1851, 1856, 1861, 1876, 1881 and 1886.

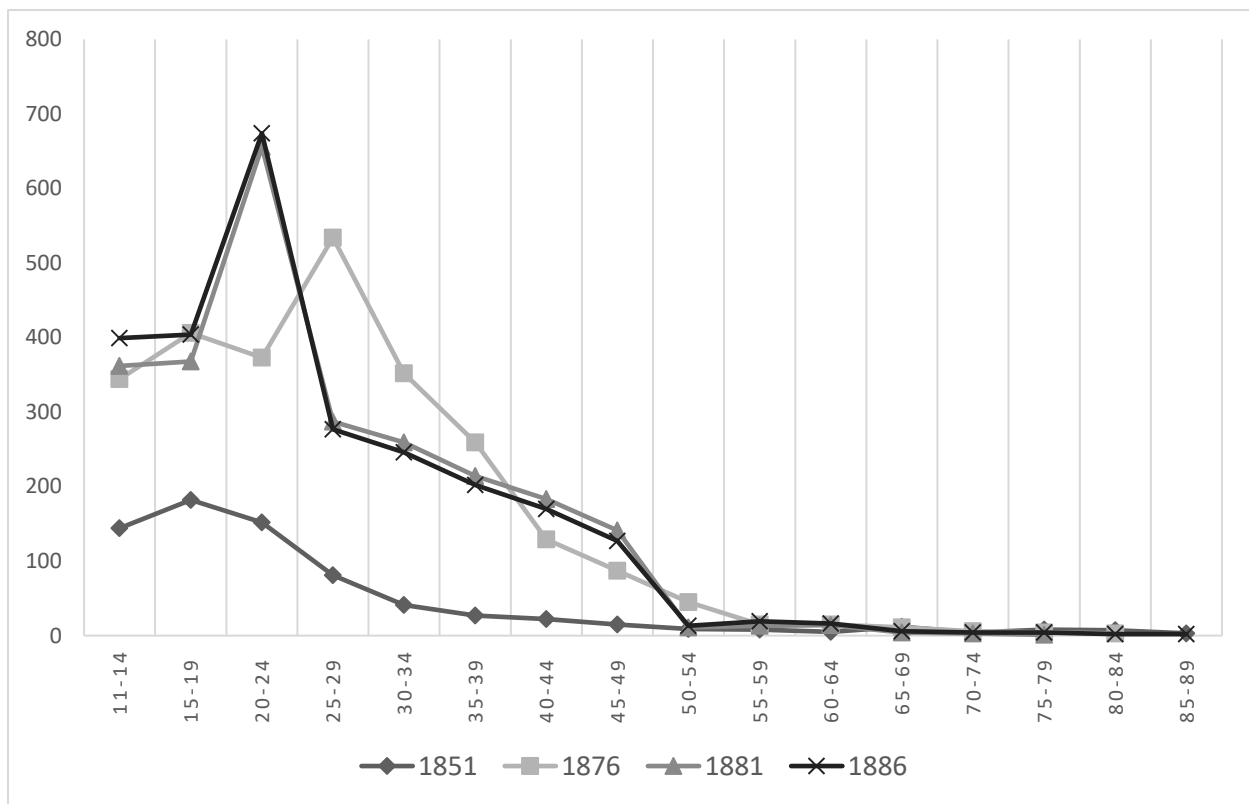
Further to the above data, the nominative censuses contained information about female/male age by marital status. The detailed analysis on the gender and marital structure of inhabitants in La Ciotat by age group, during the second half of the nineteenth century, affirms the demographic shift due to immigration based on labour productivity. All individuals from ages 0 to 100 are included in the data. To document the extent to which the demographic structure of La Ciotat was transformed, the analysis calculated the values of single and married female/male individuals by age group for 1851, 1876, 1881, and 1886, in absolute numbers (Figures 4.11 and 4.12).

This data offers essential insights into the establishment of new demographic structures in the town. With regards to the male population of La Ciotat, Figure 4.11 demonstrates a trend for the evolution for young unmarried male adults (15-19 and 20-24). Even though they experienced minimal growth in the nominative census of 1851, there was a sharp increase of unmarried young males in the age groups of 25-29 for 1876, and 20-24 for 1881, and 1886 respectively. The young married population of La Ciotat had also experienced immense growth during the second half of the nineteenth century. In particular, Figure 4.12 depicts for the years 1881 and 1886, the sharp rise of married males in the age groups 20-24, 25-29 and 30-34. For the years 1881 and 1886, the age groups from 45 onwards, had a relative stability on the levels of the 1851's line. For 1876, the rise of married men is constant for even older age groups up to 59 years. Given the population rise, all age groups up to 50 years, experienced increases between 1851 and 1876. It is obvious from the figures that there was a massive rise particularly in the married male population aged 25 to 44, and the unmarried male population between 20 to 44 years.

In addition to this, Appendixes 4.5 and 4.6 plot the distribution of ages by gender and marital status, by absolute numbers and by the percentage of the compound annual rate of growth. The compound annual growth rate from 1851 to 1876 for unmarried men aged 25 to 39 ranges

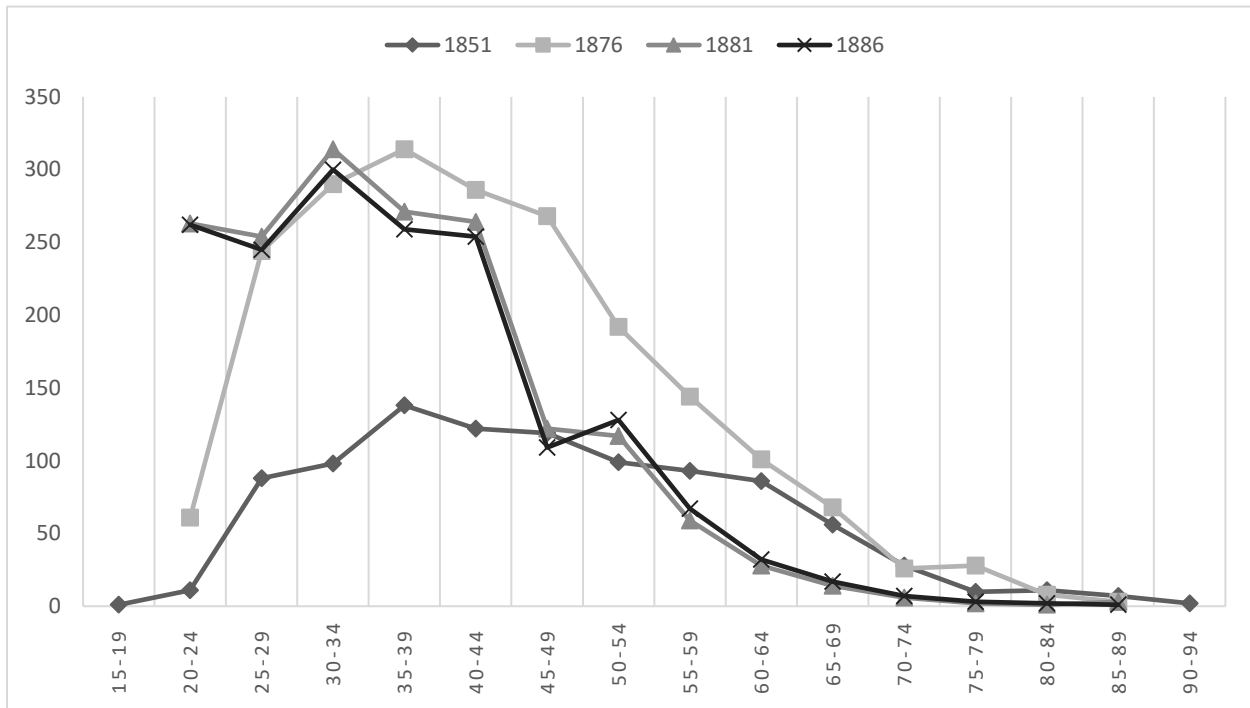
from 22% to 34%. A high rate of growth for the same years can also be observed in the male unmarried population aged 40 to 54 (CAGR 19%). Furthermore, during the period 1851 to 1876, the CAGR of married men aged 20 to 24 was also considerably high (18%) followed by 8-5% for age groups between 25 to 54 years. The male population of La Ciotat experienced a high rate of increase, especially for single men aged between 25 to 39, and married men aged between 20 and 24.

Figure 4.11. Distribution of unmarried male population by age group (1851, 1876, 1881, 1886).



Processed data by: AMLC, Listes de dénombrement de population (1851, 1876, 1881 and 1886).

Figure 4.12. Distribution of married male population by age group (1851, 1876, 1881, 1886).



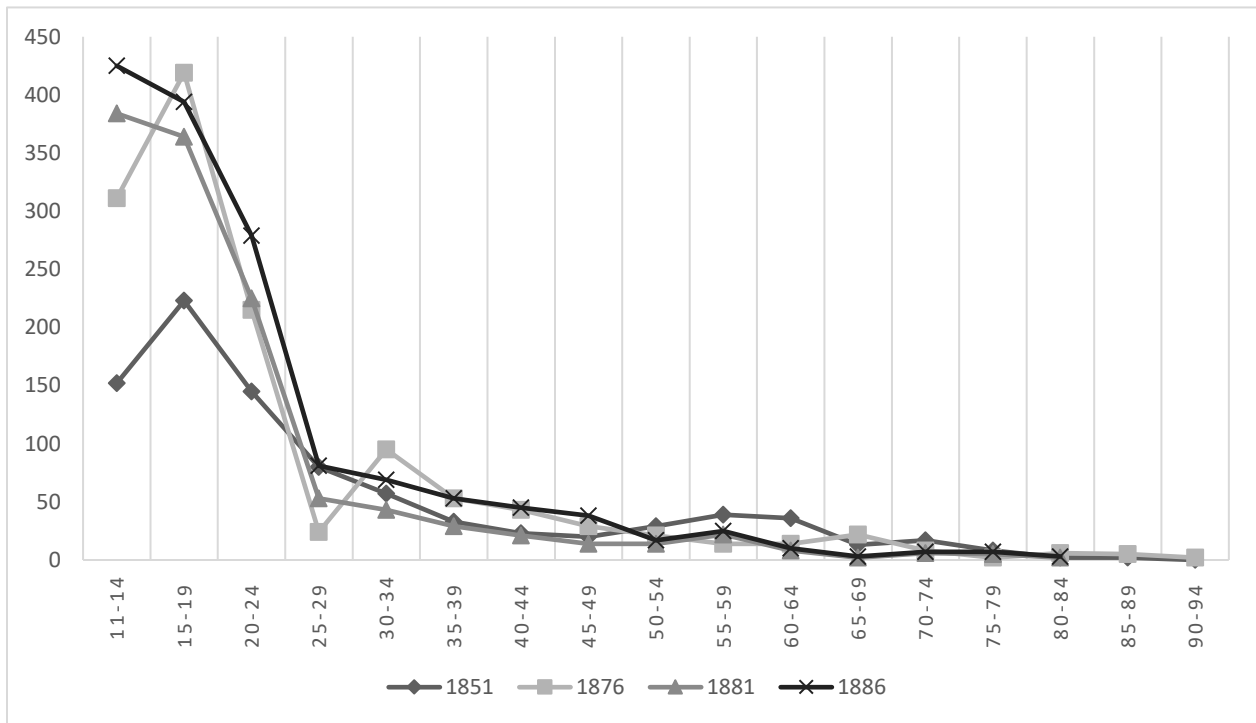
Processed data by: AMLC, Listes de dénombrement de population (1851, 1876, 1881 and 1886)

With regards to the composition of the female population in the town, Figures 4.13 and 4.14 reveal a different image. For the unmarried female population of La Ciotat, following the first increase in the number of unmarried girls aged 15 to 19 years, between 1851 and 1876, the pattern of growth remained stable without sharp modifications throughout all years. However, a significant change can be observed in the female married population. In 1876, there is a sharp increase for the age groups ranged between 30-39. For the following years of 1881 and 1886, there was also a sharp increase for the ages between 25 and 39. After the age of 45, the numbers remained at the same level as 1851. The proliferation of young married women rather than single, indicates the migration of young foreign families into the town (see also Appendixes 4.7 and 4.8 for the Compound Average Rate of Growth).

Observing Appendixes 4.7 and 4.8, with the distribution of ages by gender and marital status in women (by absolute numbers and by the percentage of CARG), even though we have an increase in the female population, the growth is not as significant as the male population. More specifically, unmarried women increased by 2-4% (GARG) for ages between 15 to 24 years, and

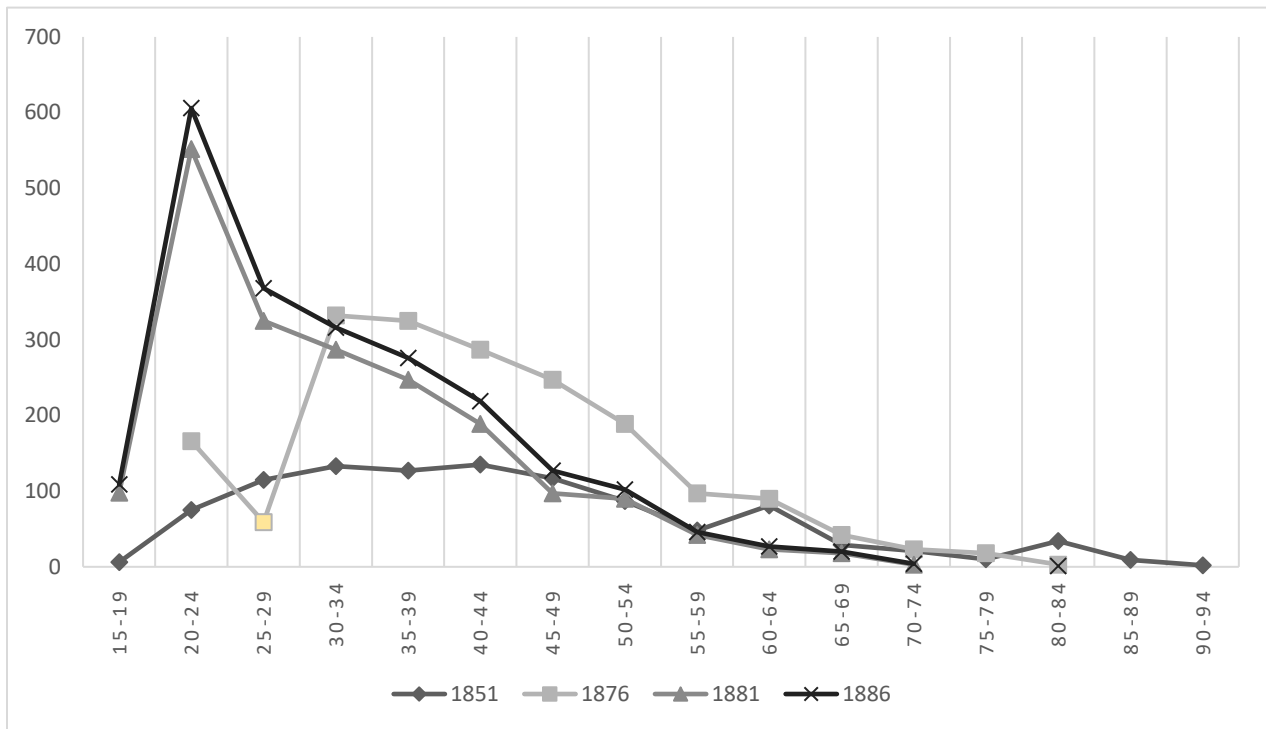
30 to 44 years. However, the married women of the town had a growth of 4-6% CAGR for ages 20 to 24 years, and 30 to 59 years. This data affirms the high mobility of a young adult population for industrial work. On the other hand, the period 1881 to 1886 reveals more constant statistics and rates of growth related to the stability of the workforce in the shipyards, following the decline of the years 1876 to 1881. In total, the composition of the population reveals the rise of unmarried and married males and married females. Hence, we can assume that there was not a massive demand for either female labour or immigration.

Figure 4.13. Distribution of female unmarried population by age groups (1851, 1876, 1881, 1886).



Processed data by: AMLC, Listes de dénombrement de population (1851, 1876, 1881, 1886)

Figure 4.14. Distribution of married women population by age groups (1851, 1876, 1881, 1886).



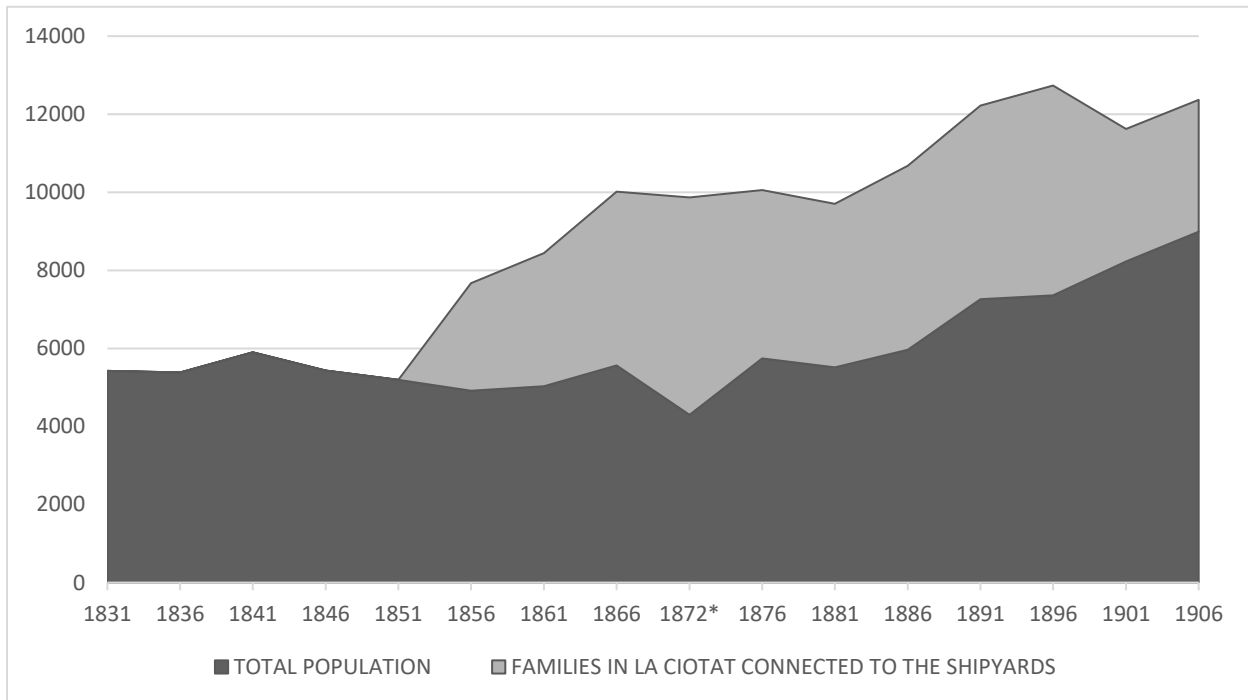
Processed data by: AMLC, Listes de dénombrement de population (1851, 1876, 1881, 1886) [The drop in number of the age group 25-29 in 1876 can be due to a misreporting of females' age in the nominative census of 1876]

The demographic characteristics of the town related to sex, gender, and marital status composition reveals the importance of the economic function of the port, and how it deeply affected the restructuring of the local littoral society. The economic restructuring of La Ciotat, through the integration of the port during the industrial age seems to be strongly correlated with a profound transition of the demographic composition of the town. During the second half of the nineteenth century, the population of La Ciotat became significantly younger, with a predominance of young adult men who came to work in the shipyards, either alone or with their families. The image gathered from the demographic analysis indicates a significant transition from a traditional society, where the number of women was higher than the number of men, to an industrial society, where the town was filled with men - both married and single (particularly between the ages of 20 and 45 years), who went to work in the shipyards. Along with this, it is also evident that the presence of many Italian families was due to the work opportunities offered by the shipyards.

4.6 The control of the *Compagnie des Messageries Maritimes* into the demographic behaviours in La Ciotat

The transformation of the demographic composition of the town, and the general population growth was undoubtedly related to expanding shipbuilding activity, and the strategies of *Messageries Maritimes* to increase the labour capacity of the shipyard. The employment records maintained by the shipyard of La Ciotat (from 1851 to 1912) provide valuable data for the total number of members of worker households.⁵³⁴ This data, together with demographic trends, illustrates a clear relationship between demographic dynamics and employment in the shipyard and workshops (Figure 4.15).

Figure 4.15. Members of household connected to the shipyards in relation to the total population of the town (1831 - 1911).



Processed data by: AMLC, Listes de dénombrement de population (1831 - 1906) and Database ‘Shipyard’s employment Registers - La Ciotat, Overall’ (1851 - 1906) [*For the year 1872, the recapitulation data by two registers (M4, registres embauches and P2, registres admissions provisoires) have been used].

⁵³⁴Database ‘Shipyard’s Employment Registers - La Ciotat, Overall’ (1851 - 1912).

The fluctuations of the population in La Ciotat follows the pattern of fluctuations in the shipyards labour force, a phenomenon that was associated with the dependency of *Messageries Maritimes* on the state policies of commercial and imperial expansion. The connection with state intervention through subsidies during this period reflected the demands on the shipyard and workshops.⁵³⁵ The periods of decrease in production had subsequent effects on the workforce of the shipyard, and population fluctuations. The lack of orders for the company brought high unemployment and a halt to growth, causing massive dismissals of the workforce. As analysed in Chapter 3, the labour force numbered 3,188 workers by 1869, and reached a peak of 3,533 workers in 1888. This is reflected by the constant rise of the local population during this period. A similar increase can be found during the second period of high productivity in the shipyards, from 1881 onwards. However, a decline in productivity was followed by a decline in the workforce, and as a consequence, a decrease of the population of La Ciotat. From 1876 until 1880, shipyards production declined dramatically from 5,872 gRT to 3,062 gRT. Simultaneously, workforce numbers in the shipyards dropped from 3,107 workers in 1873, to 2,438 workers in 1876, and 1,689 workers in 1879. Figure 4.15 confirms this decline, both in family members of the workforce, and the general population of the town.

The influence of *Messageries Maritimes* on demographic patterns is also apparent by two events related to the repatriation of Italians that occurred two times in 1870 and 1879, and the crisis in the shipyard in 1908. In September 1870, following a decrease in shipyard production (including high unemployment levels in the city), the *Compagnie des Messageries Maritimes*, together with the municipality, decided upon the repatriation of 732 people from Piedmont. These individuals were taken by the steamship *Carmel* (owned by the company) to the ports of Genova, Livorno and La Spezia.⁵³⁶ Augustin Chateigner wrote in his journal:

“September 2, 1870: The police [...] sends away [...] all Piedmontese without residence and work. / September 16: At 7h 1/2, we learn that in order to avoid unemployment, the workshops are dismissing 500 Piedmontese. / September 22: The “Carmel” leaves at 11 am from the port. The whole population was on the quay to watch

⁵³⁵For the relation of the Company with the State see: Louis Girard, *La Politique des Travaux Publics du Second Empire* (Paris: Armand Colin, 1952) and Berneron-Couvenhes, *Les Messageries Maritimes*.

⁵³⁶AMLC, JB.01.01, Police Générale.

*the Piedmontese leaving. / September 27: The Piedmontese of the second round come to be paid at the workshops before leaving / September 28: second and last departure of the Italians on Carmel”.*⁵³⁷

Again, in 1879, following a large dismissal of the workforce in the shipyard, the Compagnie des Messageries Maritimes repeated the repatriation strategy. After concerns expressed by La Ciotat’s Mayor concerning the danger that unemployed Italians could create in the town, the director of La Ciotat’s site was ordered by the headquarters in Paris to transport 150 Italians and their families to Genoa and Livorno.⁵³⁸ Some days later, on the 4th November 1879, 150 Italians and their families were repatriated to Italy by the steamer *Illissus*, even though many of them did not want to leave the town.⁵³⁹ The local French population seemed satisfied with this decision, given that they considered the Italians as the reason for lower wages.⁵⁴⁰

At the beginning of the twentieth century, the enormous crisis in the shipyards dramatically decreased production, and caused high unemployment in the town. The remarks of André Lebon, President of the Executive Board of the company during the general assembly of 1908, prove the dependency of the population on the shipbuilding industry of the port. He stated: “It is always tough, even painful, to operate staff dismissals, especially in a locality where there are no other possible occupations for the workers than those that we offer them. It is certain that when somebody dismisses workers in big cities, they can find work without relocating. In a town like La Ciotat, it is their livelihood that you take away, and they are forced to emigrate, even when they are landlords”.⁵⁴¹

⁵³⁷Journal Chateigner [Original: 02/09/1870: La police [...] fait partir [...] tous les Piémontais sans résidence et sans travail/ 16/09/1870: A 7h1/2, on apprend que, pour éviter le chômage, les Ateliers renvoient 500 Piémontais./ 22/09/1870: A 11 h du matin; le *Carmel* sort du port. Toute la population était sur le quai ou le môle pour voir partir les Piémontais/ 27/09/1870: Les Piémontais de la deuxième fournée viennent se faire régler aux Ateliers avant de partir/ 28 Septembre : second et dernier départ des Italiens sur le *Carmel*].

⁵³⁸Journal Chateigner, 29 octobre 1879.

⁵³⁹Journal Chateigner, 04 novembre 1879.

⁵⁴⁰The relations of locals with Italians will be further analysed on chapter seven.

⁵⁴¹ACCIMP, L 19/60/427-5, Assemblées Générales des actionnaires, 25 Mai 1908.

The economic transition of La Ciotat towards industrialisation and the establishment of a large private steamship company, formed new social patterns in the town. The inhabitants became highly dependent on the *Compagnie des Messageries Maritimes*. The company affected the demographic structure of the city in a profound manner, even controlling population size through specific practices such as the repatriation of Italian immigrants. The economic transformation of the port as a result of industrial shipbuilding formed a robust model that made the *Compagnie des Messageries Maritimes* the sole economic actor in the town.

4.7 Conclusion

The economic growth of the town led to new social implications that thoroughly altered social dynamics, with an important impact on local labour relations. The key determinant of demographic change in La Ciotat was immigration. Industrial growth provided the impetus for a relevant migratory influx which led to substantial demographic change. Given the factors discussed above, it is evident that the needs of *Messageries Maritimes* to increase labour capacity, and their strategies to form a new labour market related to industrial shipbuilding, affected the demographic composition of the town. The immigration rates increased considerably, the age structure of the town compared with gender distribution, and marital status, shifted towards a younger adult population that either came to work in the shipyards, or followed other members of the household. Hence, the migratory influx following the establishment of *Messageries Maritimes* in 1851, had a major impact on the formation of the local work force.

The demographic shift had a profound effect on the long-term development of social, and structural change. The origin of immigrants who arrived in La Ciotat in the second half of the nineteenth century, such as the hinterland of Provence, and Piedmont, generated different social constructions that were not connected to the previous maritime culture of the town.⁵⁴² The transformation of the rural countryside during the nineteenth century (with the diminution of agriculture), the development of rail and road systems, and industrialisation that demanded a vital labour force, altered the relationship between the sea and the mountains, and created new social

⁵⁴²Gilbert Buti, “Provençaux des rivages, provençaux des montagnes,” 17–29.

and cultural structures⁵⁴³. The shipyards in the city offered new work opportunities in a more industrial environment, which generated a waged labour force. Industrial workers gradually developed class-consciousness, reflected in the formation of labour unions, and in the momentous strikes in La Ciotat during the beginning of the twentieth century.

The urbanisation of La Ciotat was mainly a passive consequence of the need to house a large number of workers. The establishment of the shipyard and workshops owned by the *Compagnie des Messageries Maritimes*, and the paternalistic strategies that the latter followed in order to increase labour supply, go hand-to-hand with the transformation of the demographic dynamics in the town. The population shift, and the role of the *Compagnie des Messageries Maritimes* in regulating the population, had profound effects on the social configuration of the town, and largely altered the composition of the population, not only regarding the age-gender characteristic, but also the occupational structure, forming new social relations and patterns, as will be discussed in the next chapter.

⁵⁴³Ibid. 26.

CHAPTER 5. The town in transition: the socio-professional structure of La Ciotat (1831 - 1911)

5.1 Introduction

The progression towards industrialisation and the changes in shipbuilding profoundly affected the maritime community of La Ciotat. The average annual rate of population growth, and the rise of immigration due to work opportunities in the shipyards, had significant effects on the occupational structure of the town, and subsequently, on social stratification. The changes in the occupational structure during the second half of the nineteenth century were mainly associated with industrialisation. These changes confirm the complete social transformation of the town, from a maritime community in the age of sail to an industrial maritime community in the age of steam.

In order to describe the occupational structure of La Ciotat, systematic quantitative evidence related to the various occupations of the population in the town was collected and processed. The analyses are based on two types of quantitative data. Firstly, the study will use the general aggregate occupation data provided at the end of the nominative censuses for the years 1851, 1876, and 1886, following the general classification of the population (*recapitulation*). This data set can help us to observe the constant growth of industrial occupations in the town, and the general restructuring of society following the period of registration.

Secondly, we will further examine the occupational structure of the town through the systematic analysis of the database “Census - La Ciotat” for the years 1831, 1851, and 1911. This database, developed in the framework of this research, can provide much more precise data regarding specific questions related to the role of industrial growth in the restructuring of society. The aim of this chapter is to shed light on the occupations that support a structural shift, and confirm a profound metamorphosis of social structure in the population. This will occur through an analysis of the evolution of specific professions related to seafaring, craftsmanship, industrial professions, and wooden shipbuilding. This comprehensive analysis provides clear insights into the metamorphosis of the demographic patterns in La Ciotat during the second half of the nineteenth century, and their interplay with socio-economic conditions.

5.2 Methodological issues: towards a social analysis of the occupational structure

Occupational information is one of the most valuable sets of data available for the analysis of a population. In an attempt to analyse the occupational structure of a town, specific issues must be addressed. Firstly, the registration of the population in the nominative censuses was conducted with different methods throughout the years examined. In particular, in 1831, only the head of the household was fully registered (name, surname, age, and profession). Together with this information, the name of the householder's wife (without any other information) was provided, and the marital status of other household members. The nominative censuses of 1851 and 1911, even though they are similar, have some notable differences. In particular, the fact that in the 1911 census, the relationship of other household members to the head of household was recorded. This information offers the potential to classify the occupations of household heads, and compare this classification with the data of 1831. Subject to the above details, the analysis will be conducted in two different levels: the comparison of occupations of the household head between 1831 and 1911, and the study of occupation for the active male population in the years 1851 and 1911.

Furthermore, in 1851, more than one profession could be recorded for an individual. The guidelines given to each municipality on how to proceed with the registration of the population highlighted the following: “the landowner who cultivates his land could, at the same time, exercise an industrial profession [...]. If, for instance, he is a miller he should be registered as “farmer-land owner, miller”.⁵⁴⁴ During the nineteenth century, due to the *pluriactivité* of the population, the practice of associating various professional activities (as described in chapter one), for example, the inter-connection of professions such as sailor, fisherman, farmer, innkeeper, baker, or even general labourer, was a common practice of record-keeping in the nominative census of 1851. On this basis, a precise occupational classification for the socio-professional analysis of a city (or town) cannot be entirely accurate. The aim of this analysis is to understand the occupational structure of La Ciotat in order to examine the transition of the maritime community. To this end, in order to simplify the classification, the profession registered, and not the individual's property status, was considered.

⁵⁴⁴AMLC, Liste de dénombrement de la population de La Ciotat 1851. Observations relatives à quelques-uns des renseignements que les maires doivent prendre sur chaque habitant.

It should be noted that the study of female employment patterns can only be conducted through the first stage of the analysis, namely the recapitulation data in the 1851, 1876, and 1886 nominative censuses, rather than the elaborated databases. This is simply as a result of the fact that female professions were underreported. The enumeration of female employment in mid-nineteenth century nominative censuses cannot offer us satisfactory data. The censuses provide a substantially complete calculation of adult male employment. However, female professions whose work was irregular or part-time were not fully recorded.⁵⁴⁵ The nominative censuses were not entirely accurate, especially in the recording of the details of the female population. Some authors have suggested that ideological factors also served to reduce the recording of female employment.⁵⁴⁶ The absence of occupational titles for the female population, especially in 1911, does not allow this research to make a systematic comparative analysis between the years of transition. Nevertheless, the aggregate datasets of 1851, 1876, and 1886 provide data related to female occupations. Even though misreporting could exist even with these datasets, the type and characteristics of female employment can still be distinguished to a degree.

Another critical issue involves the choice of categorisation of occupations. The hundreds of professions mentioned in the nominative censuses must be placed into a limited number of homogeneous categories that can present the general image of the town and the population, and at the same time, respond to specific research questions. The classification by occupation is a complex process. Many different occupational classification systems have been developed in social analysis. This chapter only attempts to assess the consequences of industrial shipbuilding in the occupational structure and social stratification of La Ciotat. For this reason, the main principle

⁵⁴⁵See for example: Virginie Duribreu-Hallosserie, "Le travail invisible? Main-d'œuvre féminine et industrialisation à Comines (France) au milieu du XIX^e siècle," *Revue du Nord*, no. 347 (2002): 593–614; Michelle Perrot, "Travaux de femmes dans la France du XIX^e siècle," *Le Mouvement Social*, no. 105 (1978): 3–10; Sylvie Schweitzer, *Les femmes ont toujours travaillé. Une histoire du travail des femmes aux XIX^e et XX^e siècles* (Paris: Editions Odile Jacob, 2002); Louise A. Tilly, "Structure de l'emploi, travail des femmes et changement démographique dans deux villes industrielles: Anzin et Roubaix, 1872-1906," *Le Mouvement Social*, no. 105 (1978): 33–58.

⁵⁴⁶See for example, Sara Horrell and Jane Humphries, "Women's labour force participation and the transition in the male breadwinner family, 1790 - 1865," *Economic History Review* 48, no. 1 (1995): 89–117; Pamela Sharpe, "Continuity and change: women's history and economic history in Britain," *Economic History Review* 48, no. 2 (1995): 353–69; Françoise Battagliola, "Définir le travail: les recensements de 1851 à 1896," *Histoire du travail des femmes* (2008): 15–34.

of classification used in this chapter is to divide occupation by the type of work performed, no matter the industrial sector (primary, secondary, tertiary). For the analysis of the social transformation of the maritime community, the classification by type of work performed, can provide better insights. As William Sewel points out, “the economic interests, lifestyles, educational levels and other social experiences of an individual are likely to have more in common with those who perform similar types of work rather than with those that belong in the same industrial sector”.⁵⁴⁷

In order to provide a consistent classification across multiple nominative censuses, the occupations of the years 1831, 1851, and 1911 have been standardised and coded using a variant of the standard Historical International Standard Classification of Occupations (HISCO) scheme. HISCO consists of a classification tool designed to enable researchers working with historical occupational titles in a variety of linguistic and geographical contexts, to communicate with each other and to make international comparisons across the nineteenth and twentieth centuries’ sets of occupational data.⁵⁴⁸ HISCO divides occupations into eight major groups, each of which are divided into two to ten minor groups. The more general HISCO categories obviate the necessity for further separation of specific categories of professions. In order for the coding to be suitable for this research, categorisations of certain occupations have been made into specific sets in order to apply in a more competent manner to the research questions, and to show clearly, the metamorphosis of the town. Detailed separated categories were encompassed within the HISCO coding system. In this case, as the research is particularly interested in the maritime community and the rise of occupations related to industrial growth, specific categories have been formed with a particular focus on industrial and maritime sectors, such as seafaring professions, shipbuilding,

⁵⁴⁷William H. Sewell, *Structure and mobility: The men and women of Marseille, 1820 - 1870* (Cambridge: Cambridge University Press, 1985), 45.

⁵⁴⁸See: Marco Van Leeuwen et al., *HISCO. Historical International Standard Classification of Occupations* (Louvain: Leuven University Press, 2002); and Marco Van Leeuwen et al., “Creating a Historical International Standard Classification of Occupations. An exercise in multinational interdisciplinary cooperation,” *Historical Methods: A journal of Quantitative and Interdisciplinary History* 37, no. 4 (2002): 186–97. HISCO is rooted in the 1968 version of International Standard Classification of Occupations (ISCO68). Website of HISCO: <https://iisg.amsterdam/en/data/data-websites/history-of-work>.

metalworkers, and construction workers.⁵⁴⁹ Regardless of the issues one can face in this process of occupational classification, grouping the professions of the population from the nominative censuses, should give a clear overall image of the social restructuring of the town.

5.3 The general image: the recapitulation datasets of the nominative censuses

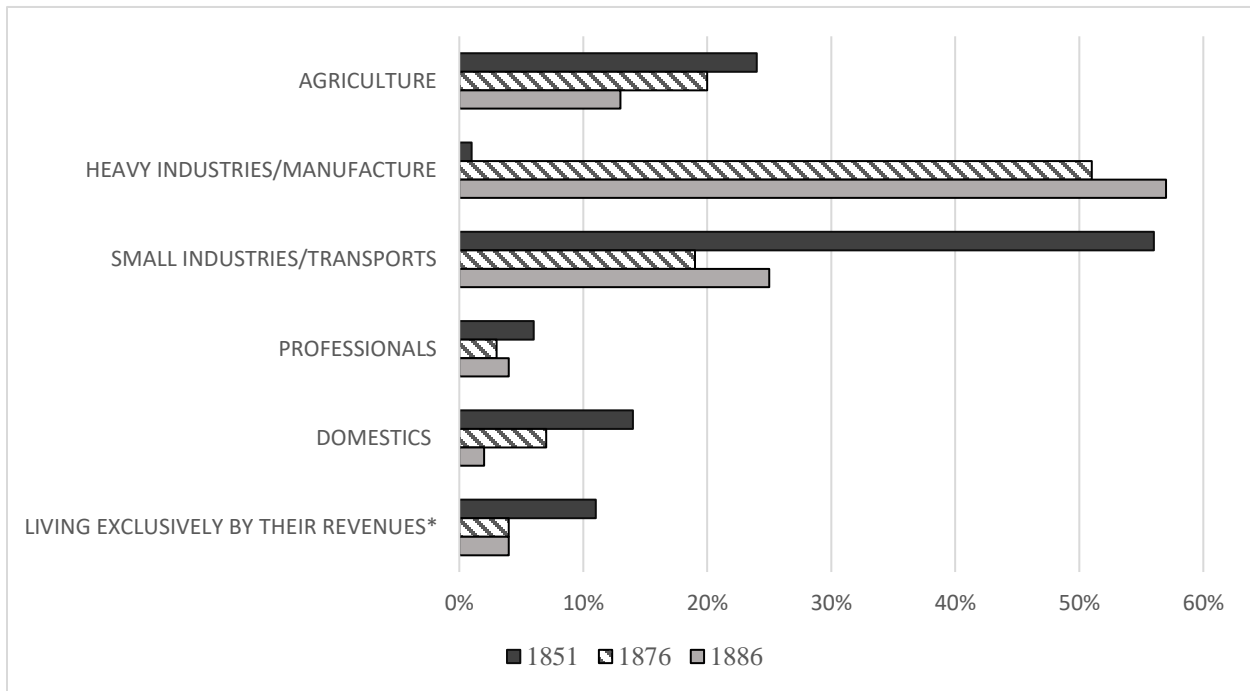
The recapitulation data given at the end of the nominative censuses of the years 1851, 1876, and 1886, even though wide-ranging, illustrates the adaptation of the town's occupational structure to the high industrial growth of the local economy. Given the different sets of data provided by the censuses, and in order for the analysis to be more accurate, the recapitulation data of the nominative censuses was separated into four major categories: 1) agriculture; 2) heavy industries (*industries larges*) related to factories, mines, metal works, and machinery manufacture; 3) small industries/transport (*petites industries/transports*) related to food processing, clothes manufacture and trade, as well as craftsmanship, and professions related to transport; and 4) professionals (*professions liberales*) including all kinds of administrative and governmental professions, education, medicine, religion, and other professional categories. In this last category, specific issues must be addressed. In 1851, sailors were included in this category as “*militaires et marins*” [soldiers and sailors]. In contrast, in 1876 and 1886, sailors were included as “*ouvriers*” [workers] in the transport sector (see also the appendixes 5.1, 5.2, and 5.3). In order for the results to be more consistent, sailors were removed from the sector ‘professionals’ and included in the broader category ‘small industries/transport’.

The analysis of the aggregated sets of data reveals La Ciotat's social transformation due to industrial growth, and reflects the process of formation of new social structures (see Figure 5.1). The recapitulation datasets, as demonstrated by appendixes 5.1 (1851), 5.2 (1876) and 5.3 (1886), reveal several vital changes in the distribution of occupations, including: a significant increase in the proportion of industrial-related professions and unskilled workers; and a decline of artisans,

⁵⁴⁹For the analysis of occupations: HISCO coding and translation of the occupations from the nominative censuses see also: Appendixes 5.7 (for 1831), 5.8 (for 1851) and 5.9 (for 1911).

agriculturalists, domestic service workers, proprietors, renters, and pensioners. All of these shifts were precisely what should be expected in an industrialised economy and society.⁵⁵⁰

Figure 5.1. The share in % of total occupations of the population in La Ciotat (1851, 1876, 1886).



Processed data by: AMLC, Listes de dénombrement de la population 1851, 1876 and 1886 [*In this category, the rentiers, proprietors, and pensioners are included].

More specifically, Figure 5.1 indicates that the manufacturing sector (related to factories, mines, and metal works) underwent rapid and momentous growth, increasing from 1% in 1851, to 53% in 1876, and 57% in 1886. Therefore, in the years between 1851 and 1876, the structural change of the active population in the town experienced such a profound reconfiguration that in 1876 more than 50% of the population were dependent on manufacturing employment. The vast growth of industrial professions made the other sectors readjust as smaller categories of the occupational structure of the town. In this way, the share of the agricultural sector, even though in absolute numbers it seems to have had a small decline (decreasing from 637 individuals in 1851

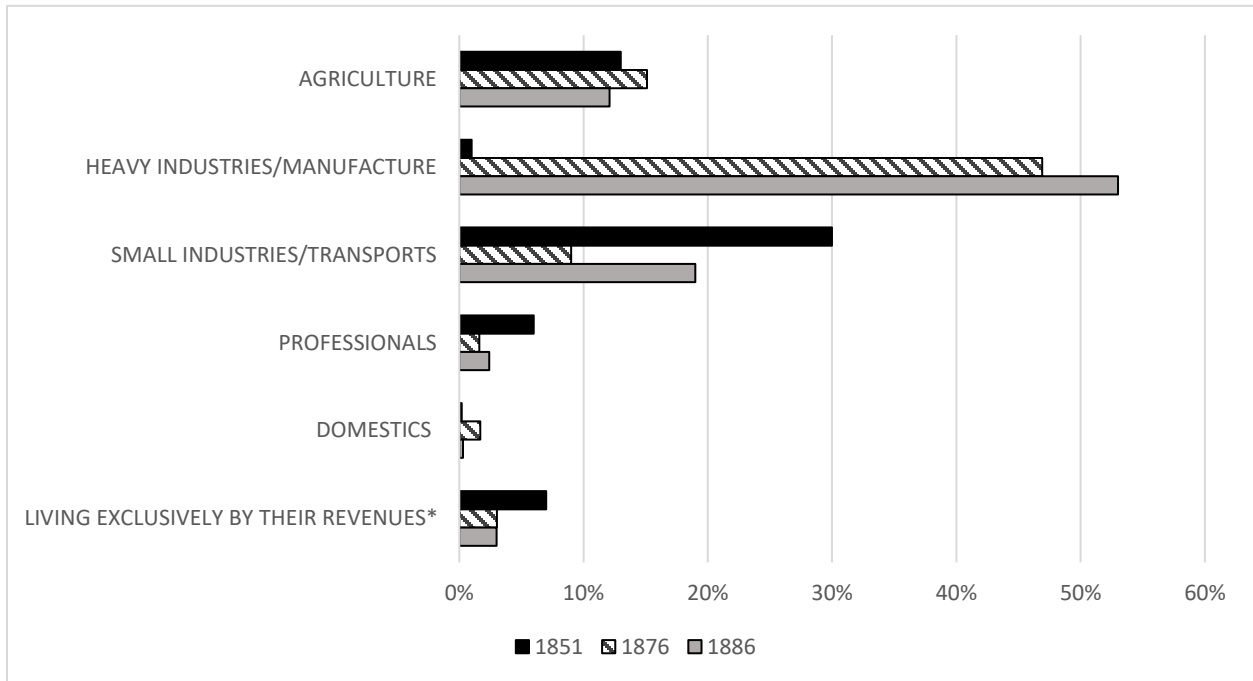
⁵⁵⁰Sewell, *Structure and mobility*, 59.

to 506 individuals in 1886), actually dropped from 24% in 1851 to 13% in 1886. Professions related to craftsmanship also declined, given the general reduction in the small industries and transport sector. Professionals also declined during the years following the rise of industrial shipbuilding in La Ciotat, while, at the same time, the occupational sectors, which depended on their revenues (proprietors, renters and pensioners), also experienced an associated decline, from 11% in 1851, to 4% in 1886.

The classification of occupations by gender highlights specific changes (see Figure 5.2 for males, and Figure 5.3 for females). The most significant changes in the occupational structure of the male population can be found in the proportion of manufacturing professions, which shifted sharply from 1% in 1851 to 57% in 1886. The shipyards of *Messageries Maritimes* managed in 15 years to increase the industrial male population of La Ciotat from 1% (1851) to 47% (1876). Agriculture remained steady as an activity whilst professions related to small industries, namely food processing, clothes manufacture, trade, craftsmanship, and professions related to transport, were also in decline. Significant reductions were also observed for proprietors and renters, who decreased from 7% to 3% between 1851 and 1876 (see Figure 5.2).

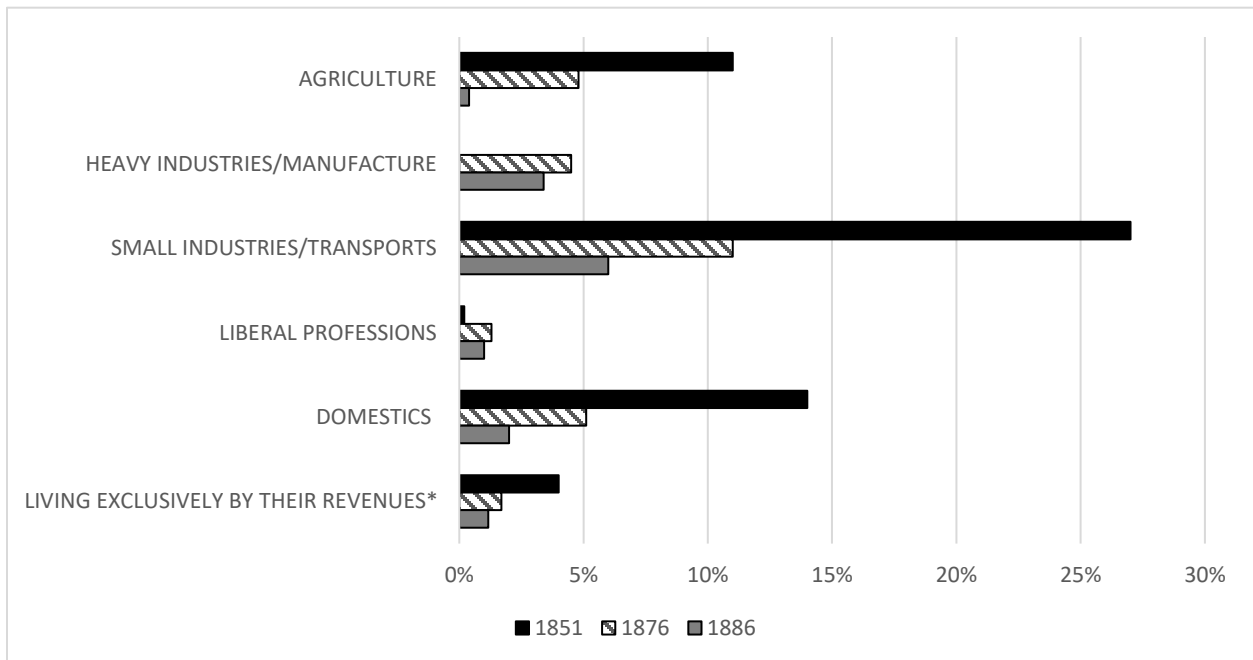
For the female population, Figure 5.3 portrays the different patterns for society on female employment due to industrialisation. Until the middle of the nineteenth century, women were employed in domestic industries, household services, agriculture, and petty commerce. By the beginning of the twentieth century, they still figured strongly in textiles, clothing, and a variety of predominantly small-scale urban trades. Nevertheless, it is also clear that women started working in the manufacturing sector following the establishment of the shipyards. Whereas in 1851, the female professions related to heavy manufacture were non-existent, in 1876, women working in manufacturing represented 5% of the total active population of the town, and 3% in 1886. Simultaneously, between 1851 and 1886, there was a significant drop in female activities related to agriculture (falling from 11% to 0.4%), as well as small industries (such as direct commodity production, small trade and clothing manufacture), with a drop from 27% in 1851 to 6% in 1886. However, this decline could be due to the misreporting of female professions' misreporting, as described above. At the same time, female professional occupations experienced slight growth (of 1%) during the second half of the nineteenth century.

Figure 5.2. The share in % of male occupations of the population in La Ciotat (1851, 1876, 1886).



Processed data by: AMLC, Listes de dénombrement de la population 1851, 1876 and 1886.

Figure 5.3. The share in % of female occupations of the population in La Ciotat (1851, 1876, 1886).



Processed data by: AMLC, Listes de dénombrement de la population 1851, 1876 and 1886.

The datasets of 1851, 1876, and 1886 indicate the rise and predominance of the labour force in the town, mainly related to industrial activities. These details can provide a clear insight into the proletarianisation of the population during the Second French Empire (Table 5.1). The data indicates that professions registered under the sub-categories of workers [*ouvriers*] and labourers [*journaliers/manoeuvres*] increased from 27% in 1851, to 67% in 1876, and 63% in 1886 (calculated on the active population), representing the largest category of working status in the town. This transformation illustrates a new characteristic of the town - a predominance of the working-class within the population.

Table 5.1. The rise of workers, labourers and daily workers [*ouvriers, manoeuvres, journaliers*] in the occupational structure of La Ciotat (% calculated on the active population in the years 1851, 1876, and 1886).

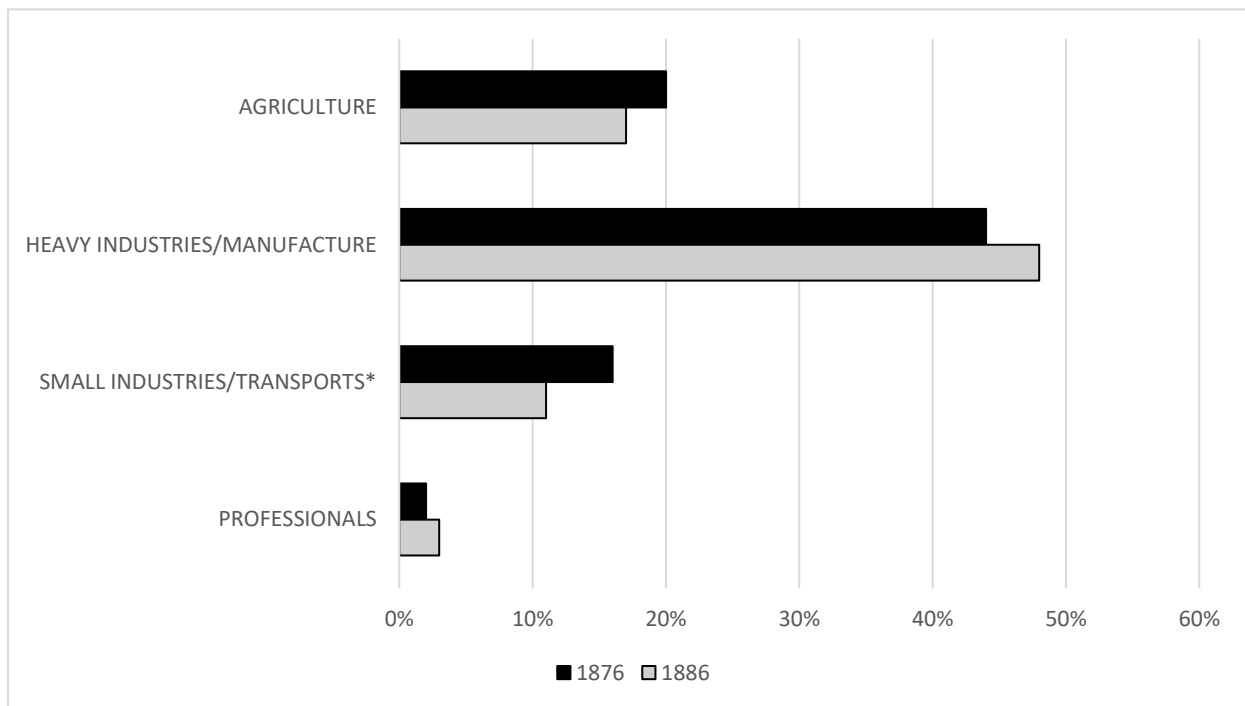
	1851			1876			1886		
	M	F	Total	M	F	Total	M	F	Total
Agriculture	3%	4%	7%	3%	5%	8%	1%	1%	2%
Heavy industries/ Manufacture	0.1%		0.4%	44%	5%	46%	49%	3%	53%
Small Industries/ Transports*	6%		6%	1%	2%	3%	3%	4%	7%
Domestics	0.2%	12%	13%	2%	5%	7%	0.3%	2%	2%
Total	9.3%	16%	26.4%	50%	17%	67%	53.3%	10%	63.3%

Processed data by: AMLC, Listes de dénombrement de la population 1851, 1876 and 1886. [M: Male & F: Female].

The workers engaged in manufacturing (related to the shipyard and workshops of *Messageries Maritimes*) represented the largest category, as almost half of the active population of the town were occupied as *ouvriers* in heavy industries (46% in 1876, and 53% in 1886).

Simultaneously, there was a significant increase in female labour, which as observed, represented 5% and 3% of the total active population for manufacturing in 1876, and 1886 respectively. Table 5.1 shows that before industrialisation, in 1851, the structure of female occupations was very different. The largest percentage of women worked in domestic professions, representing 12% of the active population of the town, which dropped to 2% in 1886. Significantly, there was also a decline in agricultural labour, for both women and men between 1851 and 1886, with 7% of the active population involved as agricultural labourers in 1851, a number that dropped to 2% in 1886.

Figure 5.4. Calculation of the total number of members of the households related to each professional sector by percentage (%) for the years 1876, and 1886.



Processed data by: AMLC, Listes de dénombrement de la population 1851, 1876 and 1886. [*With small industries the nominative censuses referred to any other manufacture (alimentation, dressing), craftsmen, occupations related to transport, and professions related to letters].

A further relevant indicator provided by the aggregate data of the nominative censuses in the years 1876 and 1886, is the calculation of the total household members related to each professional category. This data indicates that 44% and 48% of the total population of La Ciotat

in 1876 and 1886 respectively, lived by industrial occupations. The rise of industrial shipbuilding in La Ciotat produced, in the first twenty years of the existence of the *Compagnie des Messageries Maritimes* in the port, a significant modification of the characteristics of the town. Even though in 1851 only 1% of the population of the town was occupied within the heavy industrial sector, in 1876, almost half of the total population in town were now dependent on industrial occupations. In addition, despite the fact that the agriculture sector experienced a critical decline, it still represented an essential occupational sector (with 20% and 17% of the population engaged in this sector, respectively) (Figure 5.4).

It is already clear that most of the changes in the occupational structure of La Ciotat were associated with industrialisation. The proportion related to the artisan industry and agriculture declined, whereas the proportion of the population engaged in factory industries and manufacturing grew significantly. At the same time, unskilled or semi-skilled labour made an appearance, with a high number of workers now engaged in manufacturing. The increased proportions engaged with industrial professions provided evidence of the economic shift in the town. The industrialisation of La Ciotat, followed by population influx mainly due to labour demands in the shipyards, affected the equilibrium of the occupational structure in the town. This image can be further expanded by the analysis below, related to a detailed examination of specific occupational categories that depicts the extent and rhythms of change in La Ciotat.

5.4 The occupational distribution of La Ciotat through the systematic analysis of professional categories.

5.4.1 The occupational categories of 1831, 1851 and 1911.

The precise analysis of the records on the profession of each resident in the nominative censuses reveals profound details of the change of the occupational structure of the town. During the nineteenth century, La Ciotat faced incremental growth in industrial occupations, whereas traditional maritime professions and agriculture declined. New categories of workers, either with industrial specialties or unskilled, gradually emerged. The analysis of the professional distribution of La Ciotat will be made at two levels, side-by-side, due to the different data provided by the

nominative censuses; namely the comparison between the head of households for the years 1831 and 1911, and the analysis of the total active male population for the years 1851 and 1911. The occupations of the population are divided into nine major categories: 1) Agriculture and animal husbandry; 2) Fishing; 3) Mining; 4) Building; 5) Manufacturing; 6) Transport; 7) Trade; 8) Service Workers; and 9) Professional, technical, and related workers.

The professional distribution by head of household in 1831 and 1911 reveals the formation of a new society based on the industrial activities of the port (Table 5.2). In 1831, the primary professional sector in La Ciotat was navigation. Seafaring professions represented one fourth (24%) of household head activities, followed by agriculture (14%); fishing (8%); building (7%); clothing (6%); services (6%); professional and administrative workers (5%); and alimentation (4%). The “Census-La Ciotat” of 1831 reflects the characteristics of a small port during the sailing ship era, which as described in chapter one, based its activities on maritime professions such as fishing and seafaring, together with agriculture and the building sector (mainly related to shipbuilding)⁵⁵¹. In total, 54% of household heads were occupied in these four sectors.

The occupational distribution by household head in 1911 illustrates an entirely different picture of the town. The main occupations were linked to industrial activities, such as metalworkers (17%); day labourers (11%); machinery workers (10%); and the building sector (12%). Simultaneously, there was a significant increase of professionals and administrative workers (11%). Given urban growth, there was a prerequisite for a solid bureaucratic and professional machine to sustain the needs of the population. At the same time, agriculture fell to 8%, fishing to 2% and navigation to 6%. The traditional maritime community of La Ciotat during the sailing ship era, even though it was still present, was now replaced with a new structure of industrial maritime professions, mainly related to the growth of industrial shipbuilding (see Table 5.2).

⁵⁵¹From the 7% of the population working in the building sector, 4% were registered as *charpentiers*, working mainly with wooden ship construction.

Table 5.2. Occupational distribution in La Ciotat in 1831 & 1911 (absolute numbers and percentage % according to heads of households).

SECTOR/PROFESSION	Number of heads of households exercising this profession			
	1831	%	1911	%
Agriculture and animal husbandry	167	14%	160	8%
Fishing	90	8%	37	2%
Mining	0		63	3%
Building	82	7%	243	12%
Manufacture				
• Machinery (machinery manufacture and machinery assemblers)	2		212	10%
• Metal workers, sheet-metal workers & metal processors	16	1%	354	17%
• Woodworkers (einaï ok?)	17	1%	7	
• Wood preparation workers	16	1%	18	1%
• Construction artisan	8	1%		
• Clothing and related professions	72	6%	59	3%
• Food processing	42	4%	83	4%
Labourers				
• Labour (not specified)	27	2%	3	1%
• Day Labourers (unskilled)	21	2%	237	11%
Transport				
• Dockers, Freight Handlers & Transport equipment operators	27	2%	32	2%
• Seafarers	272	24%	121	6%
Trade	39	3%	82	4%
Service Workers	68	6%	81	4%
Professional, technical and related workers	63	5%	232	11%
<i>Total number of professions</i>	1,154		2,077	

Processed data by: Database “Census - La Ciotat” 1831 and 1911.

Table 5.3. Occupational distribution of population in La Ciotat, 1851 & 1911 (absolute numbers and percentage % according to active male population).

SECTOR/PROFESSION	Number of male active population exercising this profession			
	1851	%	1911	%
Agriculture, forestry & Animal Husbandry	326	21%	219	8%
Fishing	172	11%	63	2%
Mining	13	1%	88	3%
Building	229	15%	357	13%
Manufacture				
• Machinery workers	20	1%	252	9%
• Metal workers	139	10%	467	17%
• Wood workers	40	3%	38	1%
• Electricians			25	1%
• Clothing and related professions	76	5%	60	2%
• Food processing	67	4%	132	5%
Labourers				
• Skilled labour (<i>ouvriers</i>)	2	0.1%	2	
• Unskilled laborer (<i>journaliers & manoeuvres</i>)	42	3%	352	12%
Transport				
• Dockers, Freight Handlers & Transport equipment operators	31	2%	49	2%
• Seafarers	236	15%	181	7%
Trade	27	2%	85	3%
Service Workers	44	3%	103	4%
Professional, technical and related workers	79	5%	290	8%
Total number of professions	1,548		2,764	

Processed data by: Database "Census - La Ciotat" 1851 and 1911.

Analogous change can be found in the analysis of the professional distribution of the active male population of La Ciotat in the years 1851, and 1911 (Table 5.3). In 1851, agriculture represented 21% of the activities of the male population. Furthermore, 15% of the active male population were employed in seafaring activities, and 11% in fishing. The building sector was also strong, with 15% of the active male population engaged. At the same time, there was already a rise of metalworkers (10%) and labourers (3%). These proportions reflect the beginning of the process of economic transformation of the port, which experienced its first phase of industrial growth with Louis Benet from 1836 to 1851. In 1911, seafaring represented 7% of occupations of the male population, whereas fishing fell to 2%. At the same time, the proportion of metalworkers grew to 17%, unskilled labour to 12%, and machinery workers to 9%. In the primary sector, agriculture experienced a significant decline. In the occupational structure of the male population of La Ciotat, agriculture slowed dramatically and dropped from 21% in 1851, to 8% in 1911.⁵⁵² This evidence can also be extended and confirmed by the statistics on agriculture in La Ciotat. In particular, the municipality of La Ciotat, in 1851, reported 678 hectares of land for vineyards and 800 hectares for olive trees, which, already in 1864, dropped to 358 hectares for vineyards, and only 80 hectares for olive trees.⁵⁵³

The distribution of professions in the population in the years 1831, 1851, and 1911, depicts the extensive impact of industrialisation on the occupational structure of La Ciotat. The town, before its industrial growth, constituted a traditional maritime community where the professional relationship with the sea was through seafaring, fishing, and shipbuilding. In 1851, the increase of metalworkers, and labourers indicated the first stages of industrial transformation. Sixty years later, in 1911, through technological shift and urbanisation, La Ciotat was transformed into an industrial town with all the social characteristics created and associated with industrialisation. During the second half of the nineteenth century, the town experienced a profound transition, the impact of which was apparent in the socio-professional characteristics of the town in 1911. The change in occupational patterns undoubtedly reflects the growing emphasis the local shipyards placed on iron shipbuilding and steam propulsion, leading to the decline of a traditional maritime

⁵⁵²In the rural section, where the majority of farmers were located, the phenomenon is even more evident: agriculture declined dramatically from 90% in 1851, to 36% in 1911.

⁵⁵³AMLC, FC.03.06., Agriculture-Industrie.

community, and the rise of an industrial maritime reality. This can further be analysed through the examination of specific categories of professions.

5.4.2 From sail to steam: the decline of the traditional and the rise of an industrial maritime community in La Ciotat

The analysis of the evolution of the maritime community of La Ciotat before and after industrialisation can be made through an independent examination of occupational categories, grouping specific professions to the sea, such as seafaring professions, fishing, and wooden shipbuilding.

Table 5.4. Occupational distribution of professions related to seafaring by head of household in 1831 and 1911.

	1831	%	1911	%
Captains	72	6%	14	1%
Sailors	185	16%	100	5%
Boatswain	15	1%	1	
Pilots			5	

Table 5.5. Occupational distribution of professions related to seafaring by active male population in 1851 and 1911.

	1851	%	1911	%
Captains	42	3%	17	1%
Sailors	165	11%	159	6%
Ship boys	29	1.9%		
Pilots			6	0%

Processed data by: Database ‘Census - La Ciotat’ 1831, 1851 & 1911.

Tables 5.4 and 5.5 indicates the significant decline that seafaring professions of the La Ciotat population experienced from 1831 onwards. In absolute numbers, the record-keeping of the nominative censuses registered 72 captains in 1831 (considering only the head of households), which dropped to 42 in 1851, and 17 in 1911. In 1831, captains represented 6% of household heads in the town, while in 1911, they represented only 1%. Similarly, the transformation for the profession of sailor, which represented 16% of household heads in 1831, dropped to 5% in 1911. Additionally, ship boys (as a category) disappeared from the nominative censuses of 1911, as well

as “*maîtres au cabotage*”, which referred to captains commanding ships only for coastal navigation.

The process of transformation of the seafaring population was already visible during the period from 1831 to 1845. The reports of the commissioner of La Ciotat to the central offices of *Inscription Maritime* in Toulon, indicate the start of the decline of seafaring professions. Registered captains dropped from 138 in 1830, to 99 in 1845, *maîtres au cabotage* from 81 to 55, and novices from 144 to 40. The general population exercising a registered seafaring profession encountered a significant decline from 937 individuals in 1830, to 767 in 1845.⁵⁵⁴ Another event that proves the decline of traditional seafaring activities was the closure of the *Ecole d’Hydrographie* of La Ciotat, which had opened in 1694.⁵⁵⁵ During the period from 1830 to 1844, the number of students that followed lessons at the *Ecole d’Hydrographie* dropped from 20 to 5. The *Ecole d’Hydrographie* finally closed in 1867.

The primary sector of fishing lost significant ground during this period. From one of the leading activities of the port in 1851, with 11% of the active male population engaged, it represented only 2% of the activities of household heads by 1911 (Table 5.6).

Table 5.6. The distribution of fishing sector in the occupational activities of La Ciotat by the head of households (1831 & 1911) and by active male population (1851 & 1911).

Fishing (on the head of household)	1831	%	1911	%
	90	8%	37	2%
Fishing (on active male population)	1851	%	1911	%
	172	11%	63	2%

Processed data by: Database “Census - La Ciotat” 1831, 1851 & 1911.

The decline was mainly caused by the appearance of the shipyards and workshops of *Messageries Maritimes*, and the expansion of their activities in the port. Correspondence between

⁵⁵⁴SHD-Toulon, 14 P 122, Mémoires Statistiques (1831 - 1845).

⁵⁵⁵See also chapter one.

the port and the commissioner of *Inscription Maritime* in Toulon reveals the role of the shipyards in the decline of fishing activity. From 1866, the town's fishermen addressed several letters to the commissioner of the *Inscription Maritime* complaining about shipyard authorisation (by the Senator of Bouches-du-Rhône) to dispose of workshop rubble in a local bay. This bay, located nearby the port of La Ciotat, was formerly used by fishermen to spread and dry their nets. However, the accumulation of rubble produced an elevation, making this part of the coast inaccessible to fishing boats. In addition, this terrain even required work by fishermen if they wanted to use it as a dry land area.⁵⁵⁶ The fishermen complained as follows, “they do not have another land that they can legally dispose of for this use. They now dry their nets where they can, on the docks, on the public walks, and even on the stones forming the defences of the moles [...]”.⁵⁵⁷

Furthermore, along the entire coastline, at a distance of more than a hundred meters in width, species of fish that frequented these passages had entirely disappeared due to the overload of the sea with rubble (consisting of demolition products, cinders, furnace slag and painting products, debris such as stones, vases and soil) deposited by the shipyard, and the workshops of *Messageries Maritimes*. Fishing had consequently lost a significant resource. As the commissioner pointed out, “the fishermen were worried about this situation which was constantly worsening, but they never dared to protest openly because of the considerable interests represented by the workshops, and of the considerable advantages that their continuous development proves to the general population of La Ciotat”.⁵⁵⁸

The calculation of the percentage of household heads exercising both seafaring and fishing professions in La Ciotat in the years 1831 and 1911 reveal the metamorphosis of the maritime community in the town. In particular, 31% of household heads in 1831 were working at sea as

⁵⁵⁶SHD-Toulon, 14 P 107, Correspondances. Date: 11 Juin 1866.

⁵⁵⁷SHD-Toulon, 14 P 107, Correspondances. Date: 21 Septembre 1866. [Original: Ceux-ci n'ont pas d'autre terrain dont ils puissent en droit disposer pour cet usage. Ils sèchent aujourd'hui leurs filets où ils peuvent, sur les quais, sur les promenades publiques, et mêmes sur les pierres formant des défenses des môles [...].]

⁵⁵⁸SHD-Toulon, 14 P 111, Correspondances. Dates: 3 août 1885 and 15 Décembre 1887 [Original: Les pêcheurs se sont souvent inquiétés de cette situation qui va sans cesse en s'aggravant, mais ils n'ont jamais osé protester ouvertement à cause des intérêts considérables représentés par les ateliers et des avantages non moins considérables qui leur développement incessant prouve à la population générale de La Ciotat].

either seamen or fishermen. This represents almost one-third of household heads. This proportion fell considerably to 8% in 1911.

A further sector that declined during this period was wooden shipbuilding. Even though the economy of La Ciotat was dependent on wooden shipbuilding during the pre-industrial era, as seen in chapters one and two, this sector decreased dramatically from 1831 to 1911. The professions of carpenter and caulker remained strong as both were necessary even in industrial shipbuilding. Any other artisan worker related to shipbuilding such as pit sawyers, rigging masters, and coopers disappeared from the census of 1851, and 1911. The decrease in wooden shipbuilding was demonstrated by the analysis of the first phase of transition, and the end of sailing ship construction as seen in chapter two. Subsequently, the change of the economic function of the port had clear effects on certain professions (see Tables 5.7 & 5.8).

Table 5.7. Occupational distribution of professions related to wooden shipbuilding by head of household in 1831 and 1911.

Table 5.8. Occupational distribution of professions related to wooden shipbuilding by active male population in 1851 and 1911.

	1831		1911		1851		1911	
Carpenters	42	4%	70	3%	134	9%	92	3%
Caulkers	16	1%	3		26	2%	5	0.2%
Sail makers	2	0.1%	6		4	0.3%	26	1%
Rope makers	9	1%			9	1%		
Pit sawyers	16	1%			20	1%		
Rigging master	1	0.1%						
Pulleys maker	3	0.3%						
Cooper	12	1%			8	0.3%		
Ship painters					3	0.2%		

Processed data by: Database “Census - La Ciotat” 1831, 1851 & 1911.

The maritime community of the sailing era, with a predominance of sailors, captains, fishermen, and artisan shipbuilding workers, were effectively replaced by machinery and metal workers during the transition to the industrial maritime reality - this was clearly linked to the rise of industrial shipbuilding in the shipyards of *Messageries Maritimes*. In the period examined, in addition to the decrease in seafaring professions, the town experienced relevant growth in the professions related to machinery manufacture, and metal works (Tables 5.9, 5.10, 5.11, and 5.12).

Table 5.9. Occupational distribution of professions related to machinery manufacture and operation by head of household in 1831 and 1911.

Table 5.10. Occupational distribution of professions related to machinery manufacture and operation by active male population in 1851 and 1911.

	1831		1911		1851		1911	
Machinery manufacture								
Mechanic/Engineer	1	0.1%	29	1%	11	1%	31	1%
Fitter			135	6%	5	0.3%	177	6%
Oiler & Greaser			1				3	0.1%
Transport equipment operators								
Stokers			25	1%	2	0.1%	31	1%
Stationary engine & Related equipment operators								
Machinist			3				6	0.2%
Electricians			15	1%			25	1%

Processed data by: Database "Census - La Ciotat" 1831, 1851 & 1911.

Table 5.11. Occupational distribution of professions related to metalworkers by head of household in 1831 and 1911.

	1831		1911	
Locksmith	3	0.3%	51	2%
Tool makers			8	0.2%
Blacksmiths	9	1%	63	3%
Hammersmith	1	0.1%		
Stokers				
Riveters	1	0.1%	36	2%
Tin-smith	1	0.1%	21	1%
Sheet metal worker			88	4%

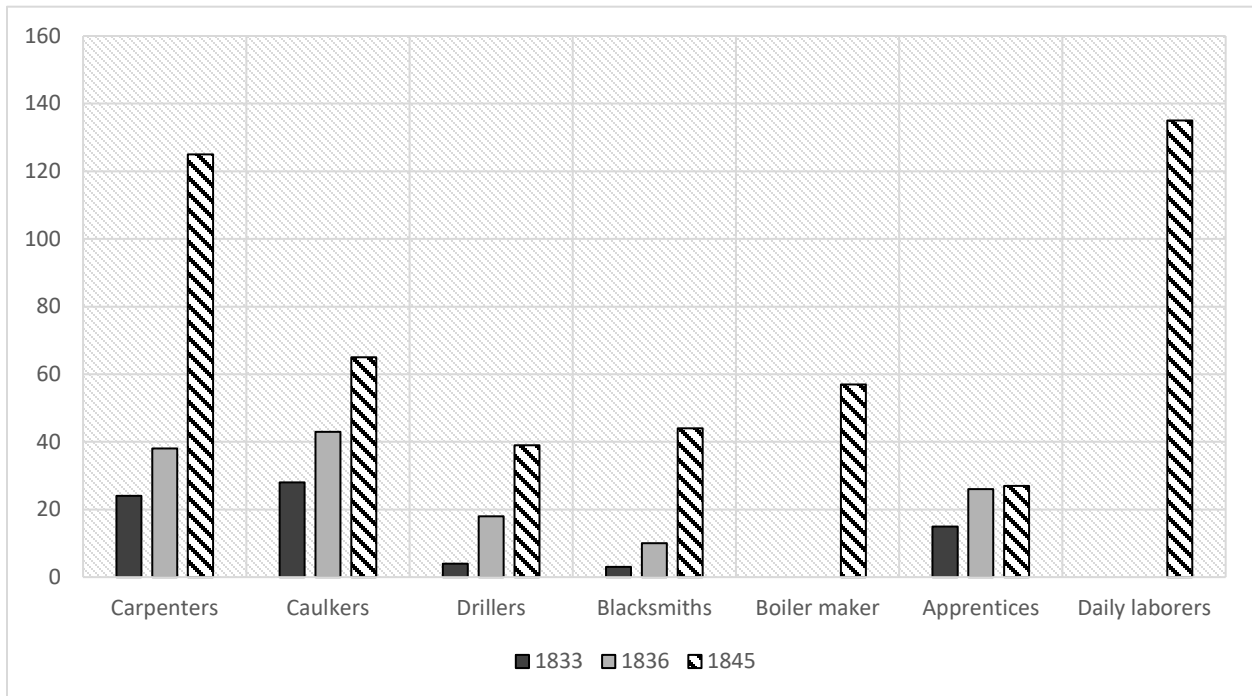
Table 5.12. Occupational distribution of professions related to metalworkers by active male population in 1851 and 1911.

	1851		1911	
	24	2%	76	3%
			9	0.3%
	57	4%	79	3%
	2	0.1%	31	1%
	3	0.2%	45	2%
	3	0.2%	28	1%
	35	2%	115	4%

Processed data by: Database “Census - La Ciotat” 1831, 1851 & 1911.

The rise of industrial professions, mainly related to metalwork and machinery operation and manufacture, was undoubtedly connected to the industrial growth of shipbuilding and ship repair in La Ciotat. The presence, since 1836, of steam shipbuilding in the port, during the first phase of industrialisation with Louis Benet, had already formed new occupational patterns. The reports of the Port Commissionaire to the *Inscription Maritime*, with exact worker numbers, depicts the configurations of occupational patterns in the town between 1831 and 1851 (Figure 5.5). The increase of shipyard activities between 1833 and 1845, resulted in general growth of shipbuilding workers. Shipbuilding production during this period was predominantly focused on the construction of wooden ships. In this way, professions related to wooden shipbuilding such as carpenters and caulkers experienced growth. However, it is noteworthy that during the first years of the formation of the first steamships in La Ciotat, the shipyard experienced an important increase of industrial professions, such as drillers, boilermakers, and blacksmiths, as well as growth of apprentices, and day labourers.

Figure 5.5. Workers in the shipyards of La Ciotat by profession the years 1833, 1836, and 1845.



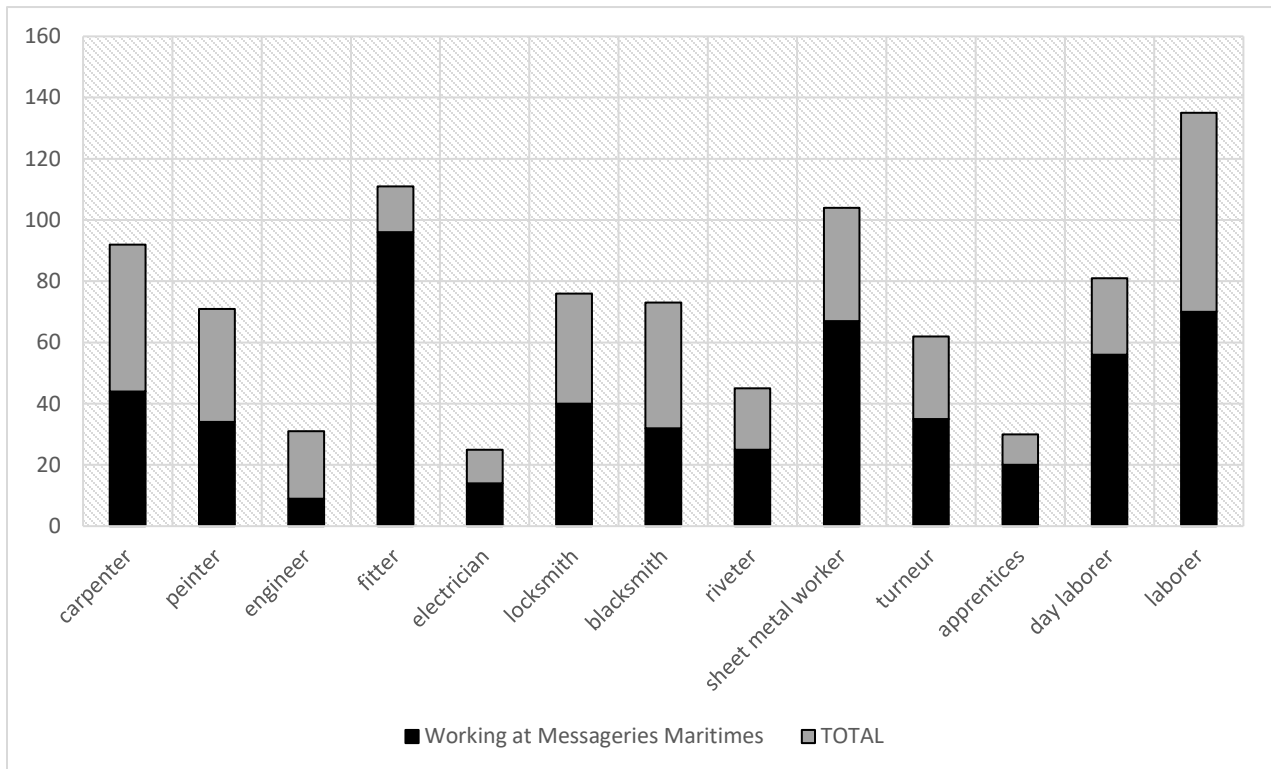
Processed data by: SHD-Toulon, 14 P 122. Mémoires Statistiques (1831 - 1845).

The general collapse of craft professions, and the disappearance of many maritime occupations, together with the emergence and growth of the term ‘day labourer’ [*journalier*], reflect the changing economic function of the port, and the subsequent growth of proletarianisation in the town. Most of these professions were non-existent in 1831, representing 2% of household head activities. In 1851, machinery and metalwork workers had risen to 10% of activities of the male population. In 1911, household heads working in professions related to machinery operation and manufacture, and metalwork increased to 22%, representing almost one-fourth of household heads in the town.

The second half of the nineteenth century represented a period of very rapid structural change that saw a significant shift in employment from agriculture to industry. The economy had emerged as much more industrial by the end of the Second Empire. To this, the *Compagnie des Messageries Maritimes* played a pivotal role, forming new employment patterns in the town. The nominative census of 1911 confirmed those members of the population employed in the shipyards of *Messageries Maritimes*. In this year, the shipyards were in crisis - this resulted in one of the most significant decreases in productivity and thus, to large dismissals. However, regardless of

unemployment in the shipyards, the data in the 1911 nominative census, which included specific record-keeping related to the company (and/or the worker’s manager), reveals the importance of the shipyard as a significant employer in the town. Figure 5.6 confirms that *Messageries Maritimes* represented the sole reason for the enormous growth of industrial professions in the town, and therefore, the change of structure.

Figure 5.6. Employment in the shipyards of *Messageries Maritimes* by profession (1911).



Processed data by: Database “Census - La Ciotat” 1911.

It is worth mentioning that the case of La Ciotat is not unique. Shipbuilding became an important source of employment in many European ports, including Barcelona, Cadiz, Belfast, Bergen, Birkenhead, Bremen, Gothenburg, Hamburg, Rostock, and upon the British rivers of the Tyne, Wear, and Clyde.⁵⁵⁹ In France, the ports of La Seyne-sur-mer, Saint Nazaire, and – from the

⁵⁵⁹Armando Montanari, “Barcelona and Glasgow. The similarities and differences in the history of two port cities,” *The Journal of European Economic History*, no. 18 (1989): 171–89; Simon Ville, *Shipbuilding in the United Kingdom*

beginning of the twentieth century – Port de Bouc, were also dependent on industrial shipbuilding. The difference was that, usually, the most prominent ports became the key shipbuilding centres, both in Britain and on the continent.⁵⁶⁰ However, inversely, La Ciotat was a small port that became totally immersed in this industry without developing a significant commercial activity, or other shipping services. In this way, the town was mainly dependent on this specific economic function, resulting in a profound transformation of socio-professional structures.

5.5 The change of professional landscape in La Ciotat: the case of Joseph-Édouard Vence

The case of Joseph-Édouard Vence, and the evolution of his professional status as observed by his personal journal, demonstrates how the transition towards industrial occupations in La Ciotat affected the town. Vence came from a renowned family of shipbuilders: his grandfather, Jean-Joseph Vence, was a carpenter onboard sailing ships, and his father continued the same profession ashore, constructing -in La Ciotat- some of the largest sailing wooden vessels for Marseilles' shipowners. Joseph-Édouard Vence was born in La Ciotat in 1803. Following in the craftsmanship footsteps of his father and grandfather, he became a shipbuilder. From 1836, he collaborated with Louis Benet. He learned basic techniques for building steamships, mainly from the first British engineers that worked in the shipyard, as well as using several practical guides and books related to naval engineering for steamships. Vence participated actively in the first phase of transition towards steam shipbuilding in the town. During this period, his profession had already been transformed. Instead of the main shipbuilder and supervisor of the production process (as was the case during the construction of wooden sailing ships), Vence's work was constantly supervised

in the Nineteenth Century: A regional approach (St John's, Newfoundland: International Maritime Economic History Association, 1993); Sidney Pollard and Paul Robertson, *The British Shipbuilding Industry, 1870-1914* (Cambridge, Mass & London: Harvard University Press, 1979); Andrew Armitage, "Shipbuilding at Belfast: workman, clerk and company, 1880-1935," in *From Wheel House to Counting House: Essays in Maritime Business History in Honour of Professor Peter Neville Davies*, ed. Louis R. Fischer (St John's, Newfoundland: International Maritime Economic History Association, 1992), 97–124.

⁵⁶⁰Lee, "Socio-economic characteristics," 161. See also: Frederick Wallace Morgan, *Ports and Harbours* (London: Hutchinson & Co., 1964).

and checked by naval engineers and Louis Benet.⁵⁶¹ In December 1845 he wrote: “I am not satisfied not to know my position in the workshop which is left for my income on the discretion of Louis Benet. I intend to explain it to him”.⁵⁶² Some months later, upset by the situation, Joseph Vence declared in his journal that he was planning to leave the shipyard: “My intention is to not continue to stay in the workshop under the conditions in which I find myself there”.⁵⁶³ However, at the beginning of 1847, after an agreement with Louis Benet, Vence decided to stay, and continued to collaborate with Louis Benet.⁵⁶⁴

When *Messageries Maritimes* bought the shipyard, in 1851, Vence was appointed engineer and director of the site - he was responsible for the construction of the first three steamships of the Company in La Ciotat.⁵⁶⁵ However, the establishment of *Messageries Maritimes* in the town also connected La Ciotat’s shipbuilding with distinguished French naval engineers of the *Genie Maritime* corps in Toulon (for example, Dupuy de Lôme). The appointment of some of the foremost naval engineers in La Ciotat (made by the Company and its shareholders) alienated Joseph-Édouard Vence, whose knowledge on steam shipbuilding remained more of a practical rather than theoretical skill. The arrival of Dupuy de Lôme as engineer at the La Ciotat site changed the position of Vence: “According to a letter communicated to me, Mr. Dupuy de Lôme, would be appointed Chief Engineer of the Workshop. I would have to take care of ship plans and new ship construction”.⁵⁶⁶ In 1853, Victor Delacour was named director of the shipyards, some months later,

⁵⁶¹Journal JEV. See for instance: 07 mars 1843: Monsieur Company, ingénieur de la Marine, vient examiner le plan que je fais. Il le trouve bien fais mais j’aurais à retoucher les dimensions principales; 11/04/1843: Sur la demande de Monsieur Benet, je fait et refait des plans pour des bateaux à vapeur projetés. 8/05/1843: Monsieur Moissard, ingénieur de la Marine, chargé de l’exécution des paquebots que nous venos de construire, approuve les plans des bateaux à vapeur que nous allons faire pour le roi de Naples; 10/10/1843: Je continue à m’occuper du plan du bateau à vapeur de 400 cv que je suis obligé de refaire n’ayant obtenu le dépalcement demandé.

⁵⁶²Journal JEV, 24 décembre 1845 [Original: Je ne suis point satisfait de ne point connaître ma position dans l’Atelier qui est livrée pour mes honoraires à la discrétion de Monsieur Benet. J’ai intention de m’en expliquer avec lui].

⁵⁶³Journal JEV, 22 mai 1846. [Original: Mon intention n’étant pas de continuer de rester dans l’Atelier dans les conditions où je m’y trouve].

⁵⁶⁴Journal JEV, 01 février 1847.

⁵⁶⁵Those were the *Pericles*, *Thabor* and *Sinal*.

⁵⁶⁶Journal JEV, 04 janvier 1853. [Original: D’après une lettre qui m’est communiquée, Monsieur Dupuy de Lôme, serait nommé ingénieur en chef d’Atelier. J’aurais à m’occuper des plans des navires et des constructions neuves].

on 26th August 1854, Vence wrote: “Monsieur Delacour arrived from England two days ago. He opened a conversation about my current position in the workshop as a result of which it is appropriate for me to resign”.⁵⁶⁷ Joseph-Édouard Vence decided to leave the shipyard of *Messageries Maritimes*. Unable to continue shipbuilding activities in the town, given the expansion of the company in the port, Vence decided to leave La Ciotat. This was the end of a long history of ship constructors of the age of sail in La Ciotat, who with the arrival of *Messageries Maritimes* were not regarded as possessing any place in the town’s economy.

After his resignation, Joseph-Édouard Vence moved to Marseilles for a short time and, in 1855, recognised as a key resource by renowned brothers Pastré and Fraissinet of Marseilles, he moved to Port-de-Bouc, and created and supervised the shipyard for the Fraissinet Company. At the same time, his connection with La Ciotat remained strong both professionally, and sentimentally. Joseph-Édouard Vence wrote often in his journal about events occurring in La Ciotat, related both to the evolution of the shipyard, and his family. On 1st November 1857, he visited La Ciotat and noted in his journal: “I see again my town which I departed in November 1854”.⁵⁶⁸ The strong connection with La Ciotat was also emphasised by the new transport networks, both railway and steamship, which made the mobility of the population much easier and faster.

The professional evolution and adaptability of the population of the town, can also be seen by the career of his son, Jules Vence, who -instead of following the profession of his ancestors- became an engineer, and was hired by the shipyard of *Messageries Maritimes* in March 1859.⁵⁶⁹ This is another key element that demonstrates the professional transition, and adaptability towards new professional occupations regardless of family history in relation to ship construction. Jules Vence became a renowned naval engineer, and was highly satisfied by his work at the *Messageries Maritimes* site in La Ciotat. In 1865, when Joseph-Édouard Vence was 62 years old, the role with Pastré and Fraissinet shipping groups ended. Subsequently, the Vence family departed Port-de-Bouc and returned to La Ciotat. Henceforward, until his death on 14th March 1875, Joseph Vence

⁵⁶⁷Journal JEV, 26/ août 1854 [Original: Monsieur Delacour arrivé d’Angleterre depuis deux jours; entreprend une conversation sur ma position actuelle dans l’Atelier à la suite de la quelle il me convient de donner ma démission].

⁵⁶⁸Journal JEV, 01 novembre 1857 [Original: [...] Je revois mon pays que j’avais quitté depuis le 11 novembre 1854].

⁵⁶⁹Journal JEV, 23 février 1859 & 04 mars 1859.

cultivated his land and created a public washhouse in his garden. What is demonstrated by the story of Joseph-Édouard Vence is the clear transition of La Ciotat's economic and social conditions. The economic function of the port profoundly affected occupational structure. Professions that enjoyed important social status, such as shipbuilders, had to leave the town in order to adapt to a new economic reality in La Ciotat and Provence. Simultaneously, the expansion of the *Compagnie des Messageries Maritimes* in the port did not permit any possibility of the continuance of previous economic patterns, related, for instance, to wooden shipbuilding.

5.6 Conclusion

The demographic profile of a city/town reflects its economic function.⁵⁷⁰ Following the analysis of the transition process of the economic function of the port, and further study of the process of change in La Ciotat's demographic dynamics, the occupational structure represents the most crucial evidence of the transition of the maritime community. Industrial urbanisation reflected a transformation in which cities and urban systems formed new economic links.⁵⁷¹ With rapid technological change, and the introduction of large-scale shipbuilding production, the occupational structure of the town experienced radical transformation, paralleled by striking changes in the size and distribution of the population. The modifications of occupational structure in La Ciotat, reflected the transition of the economic character of the town. The increasing functional specialisation of La Ciotat's economy towards industrial shipbuilding enhanced the formation of a new labour market, and produced a specific structure of migration flows. The port of La Ciotat benefited from a distinguishable diversification of the local employment structure, which was obviously affected and dependent on the *Compagnie des Messageries Maritimes*. In addition, the traditional elite of the town, associated with the strong pre-industrial maritime culture declined significantly, highlighting the integration of the town towards a new industrial era.

Each phase of industrial transformation shaped the employment patterns of the town. The structure of La Ciotat, at the beginning of the twentieth century, had changed considerably. From a maritime community with seafaring employment, fishing, and wooden shipbuilding, coupled

⁵⁷⁰Ibid. 150.

⁵⁷¹Hohenberg and Lees, *The Making of Urban Europe: 1000 - 1950*.

with agriculturally-based activities, La Ciotat transformed into an industrial maritime community, where employment in the manufacturing industry took pride of place. Compelled as it was by such factors as the strong demand for an industrial workforce, and the large reserve of workers available for the manufacturing industry, this structural evolution spread across two decades from the 1850s to the 1870s. During the nineteenth century, rapid population growth and immigration aggravated existing socio-ethnic divisions. The proliferation of casual and unskilled jobs connected to shipbuilding, together with the willingness of many migrants to work for lower than customary wages, also determined relative levels of social segregation, with significant social effects. Simultaneously, the occupational structure of La Ciotat provides evidence of the transition of economic function towards the characteristics of an industrial town, outlining a noteworthy absence of other professions related to the maritime economy.

CHAPTER 6. The seafaring population of La Ciotat in transition

6.1 Introduction

In order to understand the changes that occurred in the maritime community of La Ciotat, the research should examine the evolution of the seafaring labour force (namely those who worked at sea). Following previous examination of economic changes, demographic shift, and the transformation of occupational structure in the town, the final part of the analysis to confirm a profound metamorphosis of the maritime community, is the change of seafaring professions.

In this framework, chapter six will firstly examine the spatial division of maritime labour in France through state regulations, and the evolution of the institution of *Inscription Maritime*. Secondly, this chapter will examine the process of change for the seafaring population, from sail to steam. In this respect, the chapter will focus on shipping, principally sailors, and captains. The professional trajectories of the sailors of La Ciotat, their transition from sail to steam shipping, their function on board, the period they spent at sea, their education, and the role of *Messageries Maritimes* in this transformation is considered. A similar analysis is completed for ship captains, examining the period of transition from sail to steam, their function on board, and the new reconfigurations that *Messageries Maritime* introduced to their profession. Thirdly, since the purpose is to understand seafarers in a period of profound change, this chapter will outline the main changes in seafaring from an industrial context.

It is not the purpose of this chapter to examine in a detailed manner the work of seafarers at sea, but rather to focus on land, and the transformation of the maritime community of La Ciotat. The lack of access to archives (related to wages) does not permit a detailed analysis of the working conditions of seafarers at sea. However, the general transformation of their professional trajectories will attest to the changes they experienced in their profession.

6.2 The Inscription Maritime

6.2.1 The administrative division of the coastline of France: the Admiralties and the maritime departments during the *Ancien Regime*.

During the nineteenth century in Europe, maritime labour markets consisted of several independent segments. Military navy and commercial shipping followed different logics and were distinguishable by different recruitment mechanisms.⁵⁷² This form of professional division was not unprecedented, however, it did acquire a particular characteristic in France. The control of maritime activities began in the sixteenth century with the Admiralties. Those were essential components in maritime life where administrative, judicial, and military responsibilities intersected. They were both tools for the regulation of maritime life and distributors of justice, with civil and penal disciplinary power over seafarers. According to the administrative division of the coastlines of France, the French royal state controlled maritime activities in the ports and coastal regions through Admiralties.⁵⁷³ In 1789, the Admiralties divided the French coast from the North Sea to the Mediterranean (including Corsica) into 51 jurisdictions. In the French Mediterranean there were 13 Admiralties: in Provence, those of Antibes, Frejus, Saint-Tropez, Toulon, La Ciotat, Marseilles, Martigues and Arles; in Languedoc, the Admiralties of Aigues-Mortes, Sète, Agde, Narbonne; and in Roussillon, Collioure.⁵⁷⁴

Already from the end of the seventeenth century onwards, this spatial organisation was accompanied by a new administrative division related to a critical aspect of port administration: the *ystème des classes*, which was established between 1669 and 1689 as part of the reforms of

⁵⁷²Paul C. van Royen, “The “National” Maritime Labour Market: Looking for Common Characteristics,” in *Those Emblems of hell? European Sailors and the Maritime Labour Market, 1570 - 1870*, eds. Paul C. van Royen et al. (St. John's, Newfoundland: International Maritime Economic History Association, 1997), 1–10. See also: Tijl Vanneste, “Sailing through the Straits: Seamen’s Professional Trajectories from a Segmented Labour Market in Holland to a Fragmented Mediterranean,” in *Law, Labour, and Empire. Comparative Perspectives on Seafarers, c.1500-1800*, eds. Maria Fusaro et al. (Basingstoke: Palgrave Macmillan, 2015), 123–40.

⁵⁷³Etienne Tallemite, *Histoire ignorée de la marine française* (Paris: Editions Perrin, 2010), 99.

⁵⁷⁴Silvia Marzagalli and Christian Pfister-Langanay, “La navigation des ports français en Méditerranée au XVIII^e siècle: premiers aperçus à partir d’une source inexploitée,” *Cahiers de la Méditerranée*, no. 83 (2011): 275.

Colbert (First Secretary of State, French Royal Navy, 1669-1683).⁵⁷⁵ An ordinance of 22nd September 1668 established a new “appareil bureaucratique”⁵⁷⁶ for the registration, supervision, and recruitment for the French Royal Navy, of any man exercising an activity at sea. The *système de classes*, was complemented by several regulations before confirmation through a naval ordinance of 15th April 1689, relating to naval forces and arsenals – this remained in place until 1784.

With the establishment of the institution of *Système de Classes*, the Admiralties lost an essential part of their administrative role concerning control of the maritime population - this was transferred to the *commissaire-général* or *commissaire de la marine*.⁵⁷⁷ The *Système de Classes* was a type of compulsory military service in the French navy, for all seafarers and men exercising a maritime activity. Once registered, the seafarers were obliged to serve in the French Navy on a regular basis (one year out of three or four years, depending on province origin).⁵⁷⁸ Outside of this compulsory year of service, the seafarer could not sail otherwise without notifying the office nor embark without the authorisation of the Commissioner. In his year of service, the individual was not permitted to sail on a merchant vessel or a fishing boat, and was retained (in reserve) on half salary (*demi-solde*). The monarchy, in order to secure the adherence of the maritime population, who preferred to navigate for merchant ships rather than the Royal Navy, granted several privileges to seafarers. For example, the *Invalids of the Royal Navy* (*Invalides de la marine royale*) was created on 22nd September 1673, this was a mutual aid fund financed by contributions deducted

⁵⁷⁵The full legislation of the *système de classe* was fixed by the ordinance of 15 April 1689.

⁵⁷⁶Jean Louis Lenhof and Andre Zysberg, “Le système des classes de 1665 - 1784” [Online: http://www.unicaen.fr/ufr/histoire/cimarconet/inscription_maritime/historique2.php (accessed on 10/11/2020)].

⁵⁷⁷Le Bouëdec, *L'amirauté en Bretagne*, 402. The Admiralties were permanently abolished on 6th November 1790, and their juridical duties were distributed between the courts of commerce (tribunaux de commerce), the municipalities, and magistrates (*juges de paix*). See: Thierry Sauzeau, “De l’Amirauté à l’Inscription Maritime, « l’estrane compliqué » de la saintone maritime (1760-1865),” *Revue d’Histoire Maritime*, no. 19 (2014): 324.

⁵⁷⁸See: Patrick Villiers, Pascal Culerier, “Du système des classes à l’inscription maritime: le recrutement des marins français, de Louis XVI à 1952,” *Revue Historique des Armées*, no. 147 (1982): 45–53.

from salary. This fund established pension and financial aid provisions in case of injury while onboard a ship, or in case of death.⁵⁷⁹

The *système des classes* divided the five French maritime intendancies (Toulon, Rochefort, Brest, Havre, and Dunkerque) into nineteen departments containing approximately seventy maritime districts (*quartiers maritimes*). An officer or *commissaire de classes* directed each district. The districts were subdivided into coastal parishes, where a *syndic* (a former sailor) was elected by seamen.⁵⁸⁰ On the eve of the French revolution, coastal areas were divided into 70 maritime districts, attached to Brest, Rochefort and Toulon.⁵⁸¹ The French Mediterranean was divided into six maritime departments: Marseilles; Toulon; Arles; Antibes (all in Provence); Agde; and Narbonne (in Languedoc). The main administrative capital was the port of Toulon, where the French Royal Navy headquarters (in the French Mediterranean) were based (*siège de l'intendance de la Marine*) since 1659.⁵⁸² These maritime departments were subdivided into seventeen maritime districts - of which seven were in the Marseilles maritime department. The new spatial divisions of the French coast (intendancies, departments, and maritime districts) made possible the permanent settlement of seafarers in each region, and formed a labour force reserve, available at any time.⁵⁸³

Therefore, the administrative and spatial division of the coastlines of France was formed, for work at sea. By introducing the *système des classes* and using spatial administration, dividing the coastlines into maritime districts, and classifying the sailors in each district, the state sought to stabilise the maritime population geographically, and implement a new monitoring and rational management system for seafarers.⁵⁸⁴ In this way, the mobility of the maritime labour force was restricted to the maritime districts in which they were enrolled. A sailor would not receive

⁵⁷⁹Thierry Sauzeau, “Les gens de mer du quartier de Marennes et l’institution des invalides de la Marine (milieu XVIII^e-milieu XIX^e siècle),” *Annales de Bretagne et des Pays de l’Ouest*, no. 120-2 (2013): 173–92.

⁵⁸⁰James S. Pritchard, *Louis XV’s Navy, 1748 - 1762: A Study of organization and Administration* (Kingston and Montreal: McGill – Queen’s University Press, 1987), 77.

⁵⁸¹Lenhof and Zysbert, “Le système des classes”.

⁵⁸²For the Atlantic coast, the ports of Brest and Rochefort were the main administrative capitals.

⁵⁸³Claire Boër, “Parcours, expériences et cadres de vie des marins de Provence au XVIII^e siècle”, 52.

⁵⁸⁴*Ibid.* 46.

permission to sail from ports other than the ports of the region where he was based, and he was limited to the offers available in his region, and to the regional transport system.

Consequently, the *système des classes* led to an administrative division of the maritime labour force; forming a set of spatially and professionally segmented interconnected markets.⁵⁸⁵ This systematic control of the seafaring population enabled the state to ensure constant availability of sufficient numbers of seamen for French warships. In this respect, the spatial administrative division of the French Mediterranean, and especially the organisation of the maritime workforce, contributed to a division of labour directly linked to the needs of the French Navy. This was mirrored in the maritime activities and maritime culture of each region.

The *système de classes* divided the seafaring population into six categories. A provisional category registered ship-boys (*mousses*) aged from 12 to 16 years (who were not obliged to serve in the navy until they became 16), and the apprentices (*novices*), young men from 16 to 18 years who were learning a seafaring profession. The permanent category included sailors (*matelots*) aged 18 years and above, who could navigate either in commercial vessels or fishing boats, the *officiers marinières*, who were masters or supervisors of ships, either master gunners (*maîtres canonnières*), or boatswains (*maîtres d'équipage*), the shipbuilding workers, and finally, the merchant captains (*capitaines au long cours*). The captain was registered, but exempt from naval service on the condition that they regularly trained young sailors at sea. The *système de classes* also registered workers (*ouvriers*) who exercised a profession connected to shipbuilding. They could either navigate, or work on land in the navy arsenal, or at any other shipyard.

During the French Revolution, the National Constituent Assembly (*Assemblée Nationale Constituante*) examined the existing organisation of the French Royal Navy. With a decree of 7th January 1791, the obligation to serve in the navy terminated as soon as the sailor reached the age of 56 instead of 60. Furthermore, with the decree of Brumaire year IV (24th October 1795), the term “*Inscription Maritime*” was introduced and replaced the *système de classes*. The decree concerned any seafarer aged 18 and above who were permanently registered in the *Inscription Maritime*, subject to meeting one of the following conditions: completion of two deep-sea voyages

⁵⁸⁵Jean-Yves Grenier, *L'économie d'Ancien Régime. Un monde de l'échange et de l'incertitude* (Paris: L'évolution de l'humanité, Albin Michel, 1996), 245.

(*voyages au long cours*); eighteen months sailing experience; two years coastal fishing experience; or two years' service as an apprentice sailor.⁵⁸⁶ The registered seamen were divided into four groups: single; widowed without children; married without children; and fathers. When the first category was exhausted, the second category were called upon, and so on until the last category. Any person who intended to abandon professional navigation was removed from the registers of the *Inscription Maritime* one year after submitting their demand.

At the beginning of the nineteenth century, following the introduction of steam navigation, new seafaring professions evolved, closely linked to technical changes in shipping. A decree of 28th January 1857 introduced new regulations related to the operation of engines. All men employed in the engine room of steamers were henceforth obliged to enroll in the *Inscription Maritime* register, to comply with the recruitment policies of the French Navy, which was in a process of systematic mechanization.⁵⁸⁷ In this context, new registers of stokers and engineers were formed. The large French shipping companies, namely the *Compagnie des Messageries Maritimes*, and *Compagnie Generale Transatlantique* also recognised steamer engineers as officers from 1851.⁵⁸⁸ However, engineers officially acquired officer's status much later, with a decree of 21st September 1864. This decree also emphasised that “chief engineers may not, in any case, command the ship. They owe obedience to the captain or any person who, by regularly replacing the captain, has the power and responsibility”.⁵⁸⁹

⁵⁸⁶Nicolas Cochard, *Les marins du Havre*, 52–3.

⁵⁸⁷Nicolas Cochard, “Les « bouchons gras » dans la ville. Les personnels des machines de navire à vapeur au Havre au XIX^e siècle,” *Annales de Normandie*, no. 1 (2011): 156.

⁵⁸⁸Xavier Daumalin and Olivier Raveux, “Autour de l’explosion du navire à vapeur l’Industrie dans le port de Marseille. Statuts, identités et compétences des mécaniciens de la marine marchande au milieu du XIX^e siècle,” *Artefact*, no. 11 (2019): 27–9 [Online: <https://journals.openedition.org/artefact/4447?lang=fr> (accessed on 01/10/2021)].

⁵⁸⁹J. B. Duvergier, *Collection complète des lois, décrets, ordonnances, règlements et avis du conseil d’état*, tome 64 (Paris: Charles Noblet, 1864) [Original: les chefs de la machine ne peuvent, en aucun cas, exercer le commandement du navire. Ils doivent obéissance à toute personne qui, en remplaçant régulièrement le capitaine, en a les pouvoirs et la responsabilité]. Note that until this point in the French merchant marine, the officer corps were exclusively constituted by the traditional ranks of deck officers related to sail shipping: captains and lieutenants.

At the end of the nineteenth century, *Inscription Maritime* formed a new organisational system for seafarers' registration. The law of 24th December 1896 distinguished three categories of enrolled seamen: the *inscrits provisoires* (who were the provisional registrants) aged under 18; the *inscrits définitifs* (permanently registered seamen) aged 18 to 50 (with at least 18 months sailing experience, having declared an intention to continue or continuing navigation); and finally, the *hors de service* (those who were not included in the military navy but could continue to navigate in the merchant marine or fishing sector), aged 50 years and above.⁵⁹⁰

In a process of lessening the obligations of the *inscrits maritimes*, the maritime administration supervised the composition of shipping vessel and fishing boat crews. This was achieved through the *rôle d'équipage* (crewlists), which the captain was obliged to submit to the offices of *Inscription Maritime* before departure of his ship. This document permitted the maritime administration to monitor employment contracts and salaries, and also, to ensure seafarers were provided rights in case of illness or dismissal.⁵⁹¹ The employment of French commercial seafarers was guaranteed in law (1896), confirming the terms of the Navigation Act of 1793, which obliged French shipping companies to employ three-quarters of crew members with French nationality.⁵⁹²

During the second half of the nineteenth century, the *Inscription Maritime* was actively contested by sailors, particularly in relation to disciplinary procedures, and the prohibition against strikes, a natural right acquired by land workers in 1864. Attacks on the *Inscription Maritime* also came from shipowners and politicians who denounced it as a useless and costly system. At the same time, the prestige associated with the *Inscription Maritime* was lost, primarily because warships required qualified technical personnel for the operation of machines, rather than the skills that were previously required in sailing vessels.⁵⁹³

⁵⁹⁰Cochard, *Le marins du Havre*, 55.

⁵⁹¹Jean-Louis Lenhof and André Zysberg, "Vers la fin de l'Inscription maritime, au XX^e siècle" [Online: https://www.unicaen.fr/ufr/histoire/cimarconet/inscription_maritime/historique6.php (accessed on 10/08/2021)].

⁵⁹²Ibid.

⁵⁹³The *Inscription Maritime* was abolished by a law of 9th July 1965, which reorganised the national service. Under this law, the expression '*inscrits maritimes*' was replaced by the 'sailor of merchant marine'. Seafaring professionals now fulfilled their military duty like other young French people as part of national service – this ended in 1997. Finally,

6.3 Studying the seafarers of La Ciotat: sources and methodology

6.3.1 The *matricules de gens de mer* in the *Inscription Maritime*

Any man who wished to follow a seafaring profession was enrolled in the *matricules de gens de mer* (a register of all enlisted seamen). These registers represented a record of a seaman's career at sea. It contained personal details, a physical description, and civil status, as well as detailed information of career activity in commerce, fishing, and service to the military navy. For each voyage, the *matricule* was updated with the name of ship, embarkation and disembarkation dates, profession/rank of seaman, the service sector (coastal shipping/*cabotage*, long-distance voyage/*long cours*, fishing/*peche*, state/*etat*), and often, vessel destination, and ship captain name. The registers were renewed periodically in all districts, either due to a change of rank or the use of new registers after some years. The movement of each seaman from one register to another was indicated with a specific record of folio and registration numbers of the previous / new enrollment. Therefore, it is clearly possible for the historian to trace the career of each seaman by following their trajectory through all the registers for which he was enrolled.

The tracking of the career of a sailor in La Ciotat, through all the registers in which he was enrolled, offers a clear insight into the process needed to trace the career of the seafaring population. For instance, Casimir Brun, was born on 21st May 1840, in Marseilles. He came from an orphanage; his parents were unknown. When Casimir first registered in the *matricule des mousses* (ship-boys register), on 29th May 1852, he was 1.25 meters in height, of light brown hair, and grey eyes. He resided at the house of Xavier Blanc, *patron pêcheur* (captain and fisherman owner) in La Ciotat. From 29th May 1852 until 6th September 1856, he was recorded as a *mousse* (ship-boy) on the *Misericorde* and *Joseph Marie* fishing boats (with Captain Xavier Blanc). During these years, he spent 52 months and five days on board.⁵⁹⁴ On 6th September 1856, he was moved to the *matricule des novices* (register of novices). At this point, he was 1.44m in height, and resided in La Ciotat. He continued to work on the fishing boats of Xavier Blanc until 19th January 1859.⁵⁹⁵

the decree of 26th May, 1967 concerning Navy personnel removes all reference to *Inscription Maritime*. It now becomes the administration known as maritime affairs (*affaires maritimes*).

⁵⁹⁴SHD-Toulon, 14 P 151, Matricule de mousses (Fo. 38, No. 75).

⁵⁹⁵SHD-Toulon, 14 P 150, Matricule de novices (Fo. 71, No. 142).

In January 1859, he was recorded in the *matricule des officiers mariniers et matelots* (the register for permanently registered sailors). He worked on the fishing boats of Captain Blanc as a sailor until the end of the same year. Subsequently, he moved to commercial vessels, tartans, brigs, and three-masted ships, destined for coastal, or deep-sea going shipping. He also served the French Navy for three years between 1860 and 1863.⁵⁹⁶ On 3rd October 1865, Casimir Brun was transferred to a new register of sailors (*matricule des inscrits définitifs*). He continued his career as a sailor, either on brigs or three-masted ships for a further two years. Embarkation ports were usually Marseilles or Toulon, while in-between embarkations Casimir worked on La Ciotat fishing boats. On 14th September 1867, he embarked on the steamship *Poitou*. Following this voyage, he remained on steamships, employed usually as a deck crewman, and rarely moved to the engine room, either as *soutier* (assistant stoker) or *charbonnier* (coal trimmer). During this period, he also served in the French Navy for two years between 1869 and 1871.⁵⁹⁷ On 3rd March 1883, he moved to a new register, and continued his career on deck steamships mainly as sailor, but also as an engine crew member until 25th June 1886. At the end of this register, he was recorded as working “in the workshops” (*aux ateliers*) for the years 1886, 1887, 1888, and 1889. This meant that he was employed by the *Messageries Maritimes* shipyards from 1886 onwards.⁵⁹⁸ On 1st July 1890, when he was 50 years old, he moved to the register of the *hors service*. He did not have any subsequent career at sea after this point, and was dropped from the register as absent without news, and with an unknown domicile.⁵⁹⁹ From his first voyage as a ship-boy when he was 12 years old, until his last voyage as a sailor when he was 46 years old, Casimir Brun completed 122 voyages, and stayed at sea for 355 months, and nine days. He spent almost 30 years aboard ships. Throughout his career, he was enrolled into six different registers in the *Inscription Maritime*.

⁵⁹⁶SHD-Toulon, 14 P 135, Matricule des officiers mariniers et matelots (Fo. & No. 422).

⁵⁹⁷SHD-Toulon, 14 P 156, Matricule des inscrits définitifs (Fo. & No. 141).

⁵⁹⁸SHD-Toulon, 14 P 158, Matricule des inscrits définitifs (Fo. & No. 62).

⁵⁹⁹SHD-Toulon, 14 P 165, Hors Service (Fo. & No. 191).

6.3.2 Through a quantitative analysis of the seafarers: the databases

In order to understand the professional trajectories of the seafaring population, and the impact the transition from sail to steam had on their careers during the second half of the nineteenth century, two databases have been produced. The first database concerns La Ciotat sailors (Database ‘Inscription Maritime, La Ciotat - Sailors’), while the second, concerns La Ciotat captains (Database ‘Inscription Maritime, La Ciotat - Captains’). For the sailors of La Ciotat, the analysis follows three steps for database formation. Firstly, the study catalogues active sailors during the period 1840 to 1920, registering their personal details, and the recapitulation of service for each individual by sector (1410 sailors in total). Secondly, the sailors are separated into age groups by date of birth - three main categories have been formed (200 sailors in each category). And thirdly, the research selected 50 individuals from each category with long shipping careers. Each individual’s career path was registered chronologically, from *mousse* to *hors service*. The following three categories were formulated, each related to the different generations of sailors in the town:

- I. Sailors born 1800-10 - Career started 1815-25 - *Hors Service* 1850-60 [worked 1815-60]
- II. Sailors born 1840-50 - Career started 1855-65 - *Hors Service* 1890-1900 [worked 1855-1900]
- III. Sailors born 1865-75 - Career started 1880-90 - *Hors Service* 1915-25 [worked 1880-1925]

By using this methodology, introduced by Nicholas Cochard in his Ph.D. thesis for the sailors of Havre during industrialisation,⁶⁰⁰ the study can reconstruct the professional trajectory of La Ciotat sailors into three separate generations, with careers at sea in the years 1815-60, 1855-1900, and 1880-1925. This method is a perfect application for a study of the transition and transformation of a seafaring population, as it allows examination of the evolution of maritime professions before and subsequent to the establishment of industrial shipyards, and the change of

⁶⁰⁰Cochard, *Les marins du Havre*.

economic function in the port. Therefore, the first category (1815-60) offers a clear picture of the professional landscape of La Ciotat sailors during the predominant sailing era, and the beginnings of industrialisation in the town. The second category (1855-1900) examines the period of transition from sail to steam, and the third category (1880-1925), the period following transition where La Ciotat functioned as an industrial shipbuilding centre.

In regards to the database ‘Inscription Maritime, La Ciotat - Captains’, the research registered the careers of all captains for the period 1850 to 1920.⁶⁰¹ The registers prior to 1850 (covering the period 1817-47) were not included in this research.⁶⁰² However, the research can trace and understand the main patterns of this category during the sailing era. The database focuses predominantly on the generation born between 1840 and 1860 - the full career of each captain was registered chronologically. Examination of data indicates that this was the period of transition from sail to steam for captains. By the registration of the career itineraries of sailors and captains, the research can examine the impact of industrialisation for the seafaring population of the town. It focuses mainly on the professional trajectories of the seamen, and the role of *Messageries Maritimes* in this profound metamorphosis.

6.4 The *inscrits maritimes* in La Ciotat in transition: the sailors

6.4.1 The variety of the maritime activities of the sailors of La Ciotat

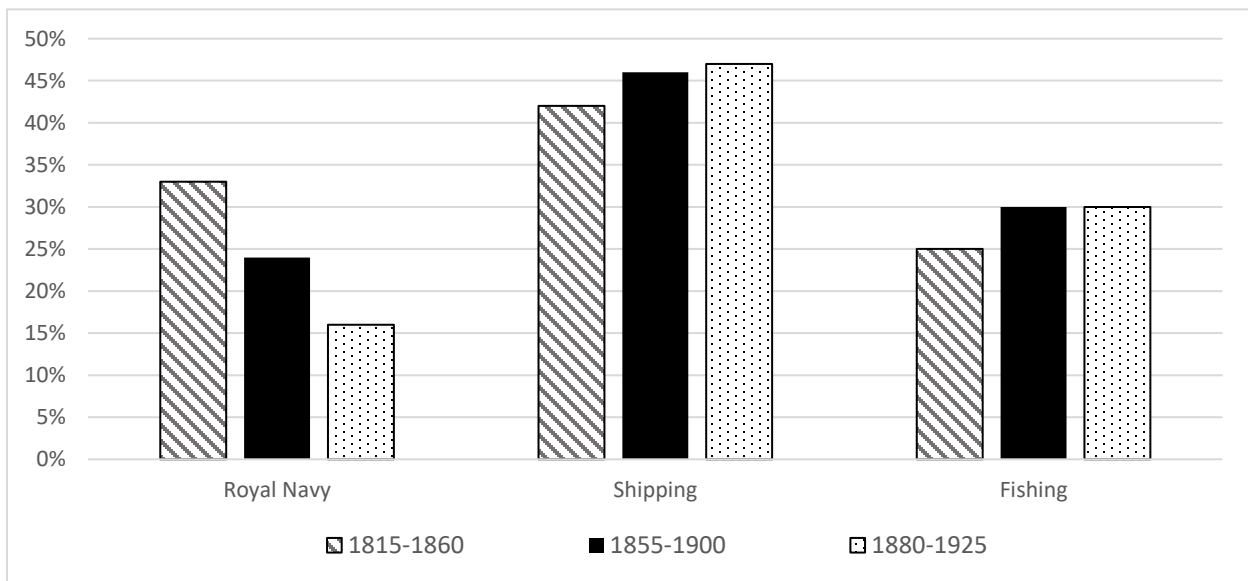
The sailors of La Ciotat used to spend time at sea on various maritime activities, such as deep-sea going or coastal shipping, fishing, or service in the French Navy. Figure 6.1 demonstrates the distribution of time spent on each type of activity for the total number of sailors in each generation. Firstly, we can observe that during the nineteenth century, time devoted to French naval duties dropped from 33% in the first generation examined, to 24% in the second generation, and to 16% in the final generation (Figure 6.1). It is important to keep in mind that during the careers of first-generation seafarers (1815-60), France participated in large-scale naval operations, such as the taking of Algiers (which started in 1830), and the Crimean War (1853-1856).

⁶⁰¹SHD-Toulon, 14 P 131, 14 P 167 & 14 P 168.

⁶⁰²This was as a result of the Covid pandemic, and the closure of the archives office in the previous years.

Therefore, military service lasted longer. The data in Figure 6.1 indicates that shipping (commercial vessels) was the main activity of La Ciotat sailors, with a 42% share for the first generation, 46% for the second generation, and 47% for the final generation, respectively. However, fishing remained a steady proportion of seafaring activities. Although it always remained lower than commercial shipping, approximately 25%-30% of careers occurred onboard fishing boats, and this remained stable throughout the nineteenth century.

Figure 6.1. Distribution by % of work on board by service sectors of the total number of sailors.

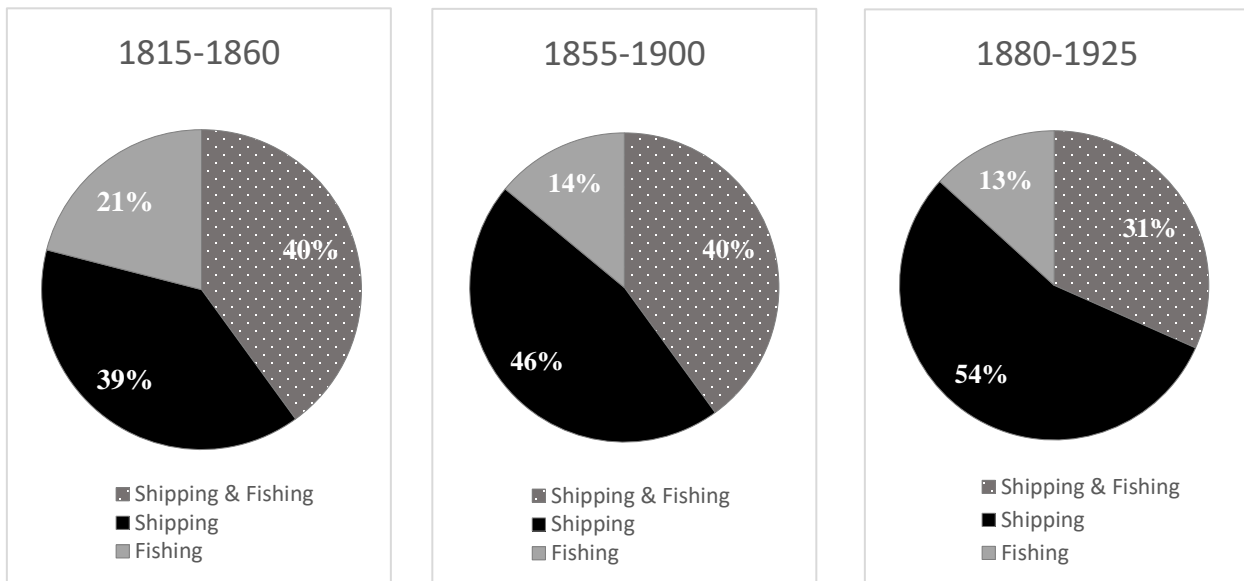


Processed data by: Database 'Inscription Maritime, La Ciotat - Sailors'.

By examining the database across three generations of sailors, the research can closely observe the maritime activities of the seafaring population in La Ciotat. Throughout their careers, sailors often combined maritime activities working across deep-sea going shipping, long coastal shipping (grand cabotage), short coastal shipping (cabotage), in combination with the fishing sector. The sailors who worked in the short coastal shipping sector were more connected with fishing activities, and only on occasion, went on deep-sea voyages. The sailors who focused their careers on deep-sea voyages combined their activities with different types of coastal shipping, but rarely worked in the fishing sector. Those who concentrated their careers on the fishing sector, also combined their work with the short coastal shipping sector.

Figure 6.2 shows the proportion of exclusive sailor activities or combined sailor activities at sea. In the first generation examined (1815-60), a 40% share worked both on shipping and fishing activities. Nevertheless, many sailors worked exclusively in one of the two sectors without any time employed in another service sector. Specifically, 21% of sailors worked exclusively on fishing, while 39% worked on shipping - this included their service in the French Navy. In the second generation, the fishing sector share dropped to 14%, while the shipping sector increased to 46%. The proportion of sailors employed in a combination of maritime activities (fishing and shipping sectors) remained stable at 40%. In the third generation examined, fishing as an exclusive activity dropped to 13%, while shipping (*commerce*) increased to 54%. The combined practice dropped to 31%. What can be observed is that during the industrial revolution, pluriactivity decreased significantly, whilst the absolute practice of seafaring in the shipping sector increased from 39% to 54%. At the end of the nineteenth century, more than half of the sailors enrolled at La Ciotat were occupied exclusively on shipping. Hence, this activity became the predominant occupation of the seafaring population of the town.

Figure 6.2. Distribution of maritime activities by sector and % sailors.

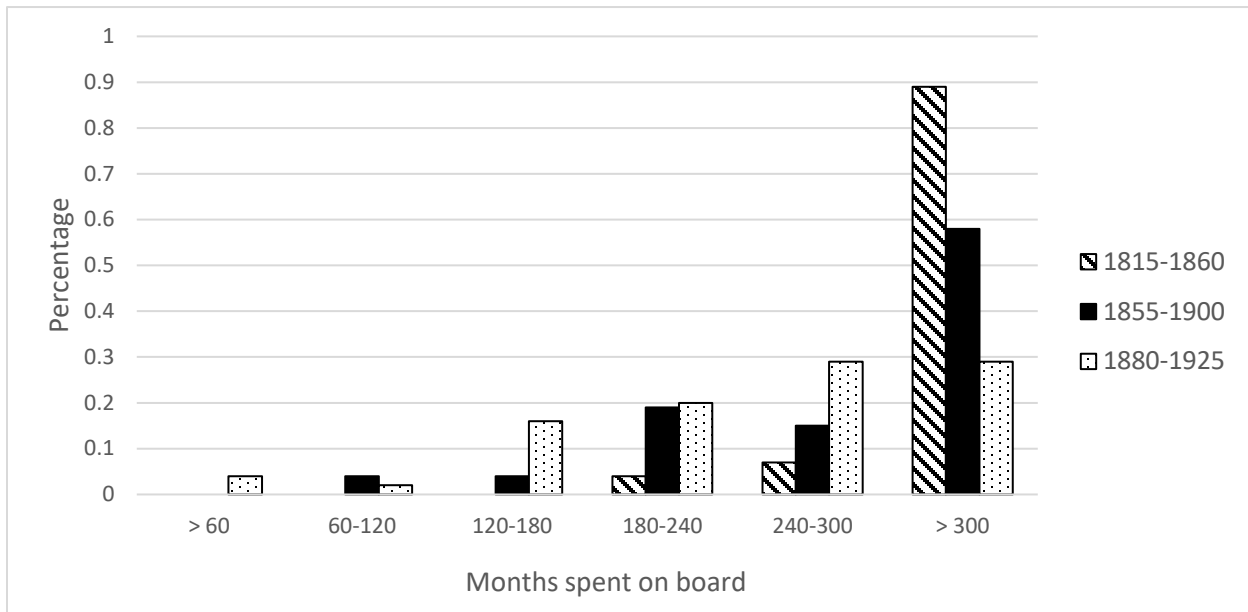


Processed data by: Database 'Inscription Maritime, La Ciotat - Sailors'.

The above analysis includes all sailors from the three generations enrolled in La Ciotat, no matter their activities. A further analysis was completed, focusing on the sailors with long careers

in shipping. The research will further examine the total time sailors spent at sea by using the complete samples of sailors who worked predominantly in the shipping sector (Figure 6.3).

Figure 6.3. Time spent on board for the sailors that worked mainly on shipping, by generations (calculated by months and %).



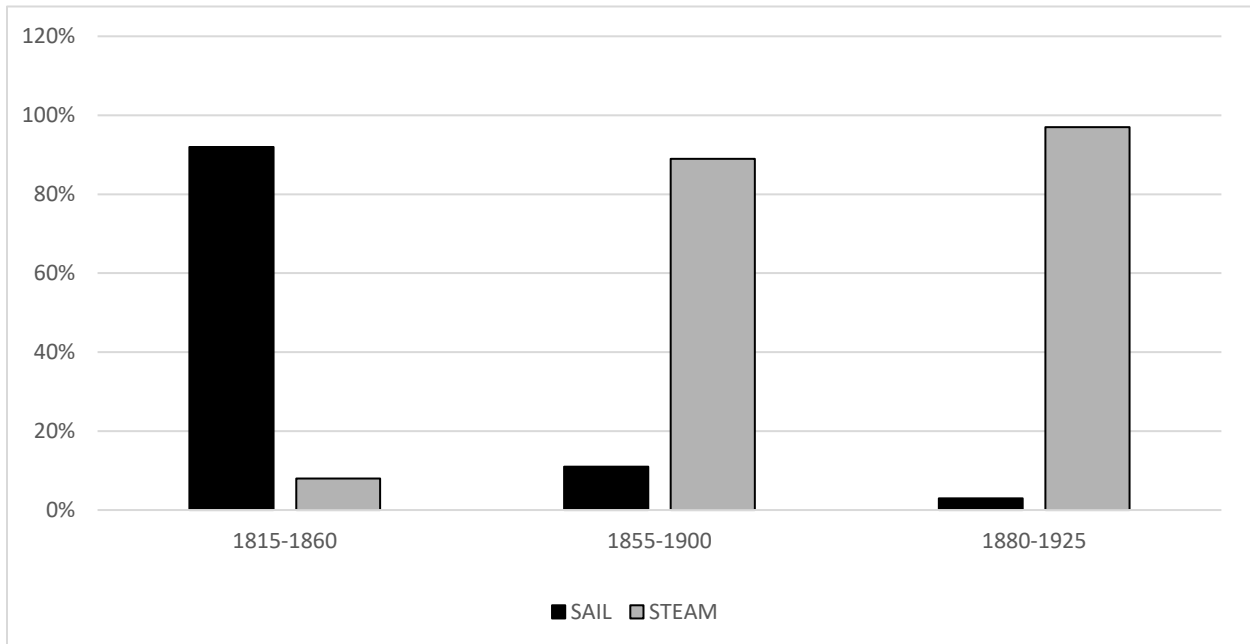
Processed data by: Database ‘Inscription Maritime, La Ciotat - Sailors’.

Figure 6.3 indicates that during the nineteenth century, the total time spent onboard ships dropped dramatically. The first generation (1815-1860) spent much more time onboard ships, with an 89% share remaining onboard for more than 300 months (the equivalent of 25 years) over the length of their career, while no sailors worked less than 180 months (15 years). In comparison, second generation sailors who remained onboard for more than 300 months dropped to 58%, while 15% between 300 and 250 months (25 to 20 years) and 19% stayed onboard between 240 and 180 months (20 to 15 years). In the third generation, time spent at sea declined even further. A 29% share of sailors remained onboard for more than 300 months, likewise for sailors between 300 and 240 months. In addition, a 4% share of the sailors worked for less than 60 months (5 years). These figures highlight the general decline in seafaring activities in La Ciotat. Since the 1850s, La Ciotat sailors spent less time at sea in comparison to sailors in the pre-industrial era.

6.4.2 From the deck to the machine: the disappearance of the profession of the sailor in La Ciotat

The detailed career path of three different age-groups of sailors occupied within the shipping sector demonstrates the transition that occurred in the professional structure of La Ciotat seafarers. The distribution of time spent on sailing ships and steamers for the three different periods studied illustrates the immense metamorphosis of La Ciotat seafaring during the second half of the nineteenth century (Figure 6.4). The transformation of seafaring careers towards steam navigation is somewhat apparent in the first sample generation, mainly from the 1840s onwards. Some sailors worked occasionally on the first steamers constructed in La Ciotat, their function onboard was limited to the deck as sailors or boatswains. In the majority of cases, the sailors returned to sailing ships. Those who were occupied on deep-sea going trade, worked on some of the large three-masted ships and brigs of Marseilles, and sailed on the Atlantic, and to the French colonies of the *Ancien Regime*.

Figure 6.4. Total service onboard steamships and sailing ships by % on the three samples.



Processed data by: Database 'Inscription Maritime, La Ciotat - Sailors'.

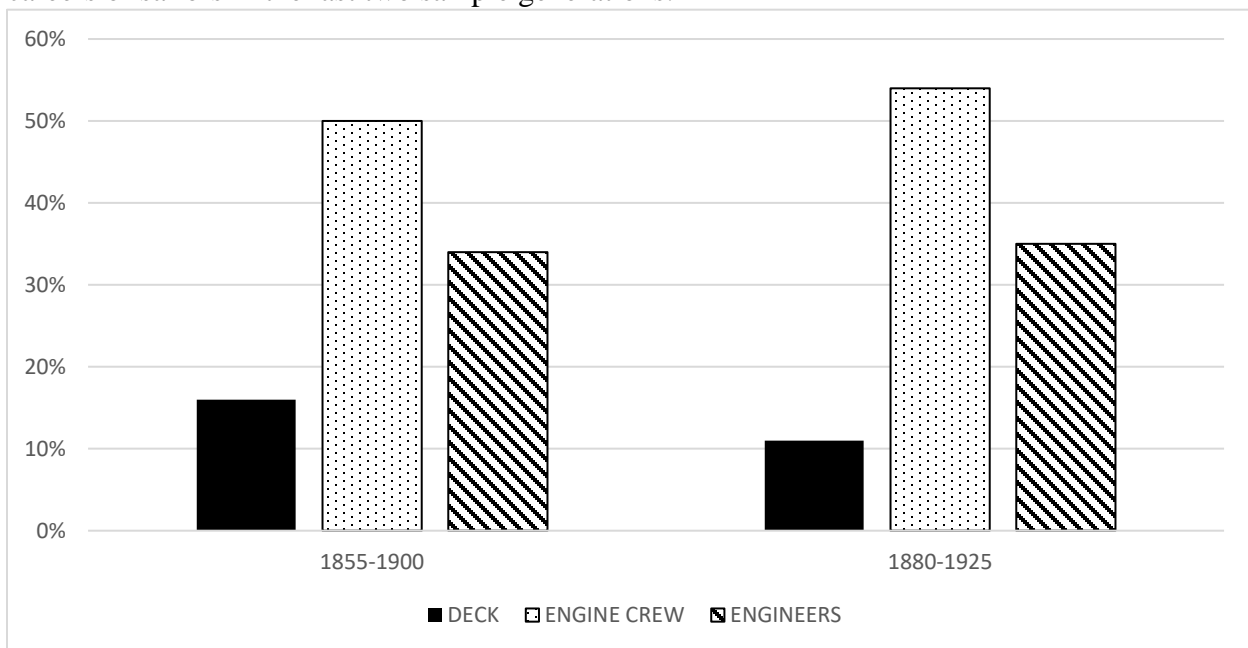
The second and third sample generations confirm a total transformation of seafaring activities for the sailors of La Ciotat. The second generation (1855-1900) spent 89% of their service on board steamers, while the third generation (1880-1925) spent 97% of their service on steamers. This fact confirms the radical shift of seafaring professions in La Ciotat from the 1860s onwards. The comparison with sailors of the first sample generation (born 1800-10, and worked 1815-60), where only an 8% share of time was spent on steamers was stark. Clearly, industrialisation from the perspective of shipping was still only in the first stage during this period. The existence of maritime engine room professions during the first sample generation, provides evidence of technological innovation in the port, and the wider Provence region during this timeframe. Nevertheless, the increase from 8% to 97% share of time spent on steamships from the 1850s onwards, was a remarkable revolutionary change, and is clearly linked to the economic transformation of the port and the industrial growth that occurred in the town (Figure 6.4).

By taking the exact number of sailors who worked on sailing ships, steamships, or both, the study can establish that from the first sample generation, 50% of sailors already embarked more than once by steamer (mainly from 1846 onwards). Most sailors had a small number of steamer voyages, but this was interchangeable with sailing ship employment. Some others remained on steamers for three to four years, and then retired from seafaring activity. In the second sample generation there is a total turnaround, with 76% of sailors employed only on steamers. A 14% share did begin their career on board sailing ships, but moved permanently to steamers in the 1860s. A further 8% share interchanged their careers between sail and steam. Only one sailor from the second generation worked exclusively on sailing ships. The third sample generation signals an almost complete transition, with a 90% share employed only on steamers – the remaining 10% interchanged their work between steam and sail, but focusing mainly on steam.

It was not only the transition from sail ships to steamships that occurred during this period. Sailor professions also underwent significant changes. Figure 6.5 shows the proportion of the time spent onboard for different occupations: deck work, engine room, or working as an engineer. There was a clear decline in deck occupations, whereas engineers and the engine crew (stokers, coal trimmers, and oilers) increased substantially. In the second sample generation examined (1855-1900), 50% of onboard service was under the engine crew function (stokers, coal trimmers or oilers), while a 34% share worked as engineers. This means that 84% of onboard service was

associated with the engine room, and only a 16% share on deck. In the third sample generation (1880-1925), on deck service declined even further, to an 11% share, while engine crew service increased to a 54% share, with engineers also increasing to a 35% share. During this generation, sailors worked 89% of their service in the engine room. This transformation of professional trajectories can also be seen by the formation of separate registers for stokers and engineers in La Ciotat from 1857 to 1879 (*matricules des mecaniciens et chauffeurs*). More than 300 individuals were enrolled during these years⁶⁰³. These individuals were transitioned to a new general register of permanently enrolled sailors (*inscrits definitifs*) post 1879.

Figure 6.5. Repartition of work by percentage (on deck, engine crew, and engineers) given total careers of sailors in the last two sample generations.



Processed data by: Database ‘Inscription Maritime, La Ciotat - Sailors’.

The seafaring occupations of La Ciotat seamen experienced a profound metamorphosis during this period. From a 92% share of on deck sailing ship work between 1815-60, sailors transitioned to the engine room, with only a 16% and 11% proportion of the second and third

⁶⁰³SHD-Toulon, 14 P 170, Mécaniciens et chauffeurs (inscrits provisoires) & 14 P 171, Mécaniciens et chauffeurs (inscrits définitifs).

sample generations respectively, working on steamship decks (Figure 6.5). Prior to the emergence of steam in shipping, La Ciotat sailors worked mainly on wooden sailing ships and, as examined in chapter one, they were well known for their sailing skills, participating actively in the deep-sea ocean-going shipping of Marseilles. Subsequent to the 1850s, the trajectories of maritime labour diversified, with an increasing proportion of the workforce composed of both deck and engine crew. What is particularly interesting is that the functions on board steamers were not exclusive, especially in the second and third sample generations of the analysis, where a seaman shared his work activity between the deck and engine room functions. As observed through the registers of *Inscription Maritime*, in the beginning of his career, an engineer sometimes worked as a stoker, while a sailor could be a stoker or a trimmer at the same time, interchanging the service on board from deck to engine room, depending on the needs. This was a typical pattern for the first stage of the career of most seamen enrolled in the sailors' registers during this period. Eventually, specialisation during their career divided seamen into either engine or deck.

In addition to the transfer of seamen from deck to engine room, another significant change was the evolution of their career onboard. Table 6.1 shows the patterns of professional growth for seamen, by generation examined. In the first sample generation (when the career of sailors was predominantly on sailing ships), there was a high rate of professional evolution on deck. More than half of seamen (54%) evolved from sailors to “*maître d’équipage*” (boatswains), and ultimately achieved the professional status of second captain. A further 32% remained on deck either working as sailors (28%) or interchanging their profession with that of onboard cook (14%) (Table 6.1). In comparison, the second and third sample generations confirm a rupture between careers on deck, and engine room professions. In the second sample generation, 13% of sailors worked exclusively on deck, and from those only 8% evolved to second captain. A 27% share switched their activities between deck and engine crew. The majority started working as sailors (*matelots*) on deck, and later moved to the engine room, interchanging with on deck activity for some voyages. Another 2% share followed the previous career but also progressed to the rank of chief engineer. In addition, a 48% share of enrolled seamen worked exclusively only in the engine room, and did not have any work on deck experience. From those, 27% worked only as engine crew, mainly stokers, and another 13% progressed from stoker to chief engineer. In addition, an 8% share from the second sample generation was oriented towards the profession of engineer from the beginning; they started as apprentice engineers and evolved to the highest rank of chief engineer (*chef mecanicien*). The

third sample generation confirms an even more significant transition towards the engine room. Only 10% of sailors worked exclusively on deck, while a 24% share interchanged between deck and engine room. However, a 28% share worked exclusively as engine crew (stokers, assistant stokers, and coal trimmers). A further 14% share progressed from stoker to engineer, with 2% becoming chief engineers. A 14% share commenced work directly as engineers progressing to chief engineer some years later (Table 6.1).

Table 6.1. Evolution of sailor’s profession on board by generations (%).

	1st Sample (career: 1815- 1860)	2nd Sample (career: 1855- 1900)	3rd Sample (career: 1880- 1925)
Sailor	28%	13%	4%
Sailor-Cook	14%	2%	
Sailor - Crewmaster – Second captain	54%	8%	6%
Sailor - Engine crew (stoker/trimmer)	4%	27%	24%
Sailor - Engine crew - Chief engineer		2%	
Engine crew		23%	28%
Stoker - Engineer		4%	14%
Stoker – Engineer – Chief engineer		13%	2%
Apprentice engineer – Chief engineer		8%	2%
Engineer			6%
Engineer – Chief engineer			14%

Processed data by: Database ‘Inscription Maritime, La Ciotat - Sailors’.

The above analysis confirms once more the profound professional shift of La Ciotat seamen across merchant shipping professions. The initial evolution of on deck professions (not counting those that continued their career as captain, who once qualified were moved to a different register) changed significantly after the 1850s. The on-deck concentration of a 54% share progressing to second captain in the first generation, gave way to professional evolution in the engine room, with

20% of seafarers becoming engineers, and a further 18% share progressing to the rank of chief engineer in the last sample generation. Consequently, the career path of La Ciotat seafarers only evolved in professions related to steam propulsion and the engine room, rather than the traditional maritime occupations of the pre-industrial era. This can be further confirmed by the analysis of captain trajectories, and the significant decrease of their profession in La Ciotat (as shall be seen later in this chapter). In the three decades that separated the first and second generations (1800-10 and 1840-50 respectively), the seafaring labour population of La Ciotat experienced significant transition into highly specialised functions within the steamship engine room.

6.4.3 The role of Messageries Maritimes on the transformation of the seafaring landscape in La Ciotat

One main question arising from the above analysis is why La Ciotat experienced such a rapid and profound transformation of seafaring professions during the second half of the nineteenth century. It should not be forgotten that until 1885, the tonnage of sailing ships in France was higher than that of steamships, and many of the shipowners of Marseilles retained their links to sail shipping⁶⁰⁴. Therefore, it is remarkable that La Ciotat seafarers evolved career progression towards steamships (and particularly, the engine room function) by the 1850s. The answer can only be found in the economic transformation of La Ciotat (and the port), and the establishment of the industrial shipyards of *Messageries Maritimes*.

Even though the transition towards steam shipping seems tenuous in the first sample generation, cross-examination of the registers of *Inscription Maritime*, along with the records of employment of the workforce in the shipyards, offers a different image. Despite the fact that many sailors remained working at sea, it is remarkable that after *Messageries Maritimes* established the shipyards, 40% of them moved permanently to the shipyards. For instance, Charles Villecroze, born in 1807, had a long career at sea, mainly in grand cabotage and coastal trade, combined with limited fishing activity in La Ciotat. On 20th July 1852, he embarked (for the first time) on the steamer *Erickson*, and continued his career on steamers for four years. From 1856 onwards, he

⁶⁰⁴Olivier Petré-Grenouilleau, *Les négoce français XVIII^e-XX^e siècles* (Paris: Belin, 1998), 172.

moved to the shipyard as a labourer, and continued there until 1868. During this period, there is no record of him in the registers of the *Inscription Maritime*, apart from declaring him “inactive in La Ciotat”.⁶⁰⁵ Interestingly, this is also the trajectory of Jean Baptiste Gody, born in 1806. He worked as a sailor and boatswain on long-distance trade (on brigs and three-masted ships) until 9th September 1857 (aged 50). A month later, he moved to the shipyards, where he worked as a labourer on the copper smelter, until 1866.⁶⁰⁶

In a few cases, sailors worked onboard the steamers of the *Messageries Maritimes* while also working in the shipyards. For example, Felix Martin worked on steamers from 1847. On 8th August 1853, he disembarked from the steamer *Anatole* and, the same day, started working in the shipyard as a labourer – this continued until 1857. During this period, even though he remained in the shipyard, he worked on board two steamers for the company (with a total service of ten months).⁶⁰⁷ The above analysis proves a direct shift towards steam-propulsion vessels in the immediate aftermath of the establishment of the *Compagnie des Messageries Maritimes* in the port. Even though there is no specific data for shipyard wages, it can be assumed that this mobility of skilled sailors (during the first sample generation) was due to salaries offered by the company, as well as the age. This made it easier to work onshore, given that this first generation moved to the shipyard after 1850, when many were between 40 and 50 years old.

For the second and third sample generations examined, the connection with the *Compagnie des Messageries Maritimes* at sea and onshore was even more evident. The seafaring population of La Ciotat, following the establishment of *Messageries Maritimes* in the port, turned career aspirations towards both steamships of the company and their shipyard and workshops. The analysis of the ship crews as registered in the *Inscription Maritime*, shows that in both the second and third sample generations of the analysis, approximately 80% of the total service on board steamers took place on the liners of *Messageries Maritimes*. Simultaneously, through the

⁶⁰⁵SHD-Toulon, 14 P 134, Matricule des officiers mariniens et matelots (Fo. 344, No. 689) & AMC, Fonds de Messageries Maritimes, Registres Entrées, M1.

⁶⁰⁶SHD-Toulon, 14 P 134, Matricule des officiers mariniens et matelots (Fo. 359, No. 718) & AMC, Fonds de Messageries Maritimes, Registres Entrées, M1 & M2.

⁶⁰⁷SHD-Toulon, 14 P 134, Matricule des officiers mariniens et matelots (Fo. 384 No. 768) & AMC, Fonds de Messageries Maritimes, Registres entrées, M1.

examination of *Inscription Maritime* data, together with data taken from the employment registers of the shipyard, evidence is provided of an even more important fact. A 65% share of the second, and a 75% share of the third sample generations switched their work functions from steamships to the shipyards of the *Compagnie des Messageries Maritimes* during their career. We can distinguish two different patterns on this connection. Firstly, those that moved regularly from the steamships to the shipyard and, even though they worked mainly on the steamships of the company, were employed regularly in the shipyard (often for less than one year each time). Secondly, those who worked on board steamships, but discontinued their career at sea, and continued to work exclusively in the shipyards.

To give some examples, Martin François, born in 1857 (in Marseilles) began his maritime profession as a *mousse* (ship-boy) in La Ciotat's fishing sector. Following his service in the French Navy (1867-1869), he commenced work in the liners of *Messageries Maritimes* as a *matelot* (sailor) until 1st October 1881.⁶⁰⁸ Subsequently, he moved to the fishing sector in La Ciotat for one year. On 3rd January 1882, he was employed in the shipyard of *Messageries Maritimes* as a *manœuvre* (labourer). He remained there for almost two years until the end of 1883.⁶⁰⁹ After his employment in the shipyards ended, he returned to fishing boats for one year and was subsequently employed as a *chauffeur* (stoker) on the liners of *Messageries Maritimes* until 1886.⁶¹⁰ After this period on board, he was again employed in the shipyards as a *voilier* (sailmaker) for more than five years between 1887 and 1892.⁶¹¹ Another example is that of Joseph George Flandrin, born in 1843, in La Ciotat. He worked as a *mousse* (ship-boy) on the fishing boats of La Ciotat, and in 1859, he moved to the liners of *Messageries Maritimes*. He worked mainly as a *chauffeur* (stoker) or *soutier* (trimmer).⁶¹² Later, he was employed in the shipyards as a laborer in the carpentry

⁶⁰⁸SHD-Toulon, 14 P 151, Matricule de mousses (Fo. 102, No. 203); 14 P 150, Matricule de novices (Fo. 148, No. 296); 14 P 135, Matricule des officiers-mariniers et matelots (Fo. & No. 514); 14 P 156, Matricule des inscrits définitifs (Fo. & No. 207).

⁶⁰⁹AMC, Fonds de Messageries Maritimes, Registres Entrées, P4.

⁶¹⁰SHD-Toulon, 14 P 158, Matricule des inscrits définitifs (Fo. & No. 115).

⁶¹¹AMC, Fonds de Messageries Maritimes, Registres Entrées, P5.

⁶¹²SHD-Toulon, 14 P 151, Matricule des mousses (Fo. 85, No. 169); 14 P 150, Matricule de novices (Fo. 61, No. 242); 14 P 135, Matricule des officiers-mariniers et matelots (Fo. & No. 467); 14 P 156, Matricule des inscrits définitifs (Fo. & No. 173).

workshop (*manoeuvre charpentier*) (May-December 1865), and a labourer in the boiler room in 1881.⁶¹³ He continued to work in the company's liners, and moved again to the shipyards (February 1891-September 1893) as a laborer.⁶¹⁴ Following this period, he was employed for a year on company steamers as a stoker,⁶¹⁵ and finally, he moved to the shipyards (1894-1900) as a labourer.⁶¹⁶

Auguste Jourdin (born in 1866) worked from the beginning of his career in the engine room of company liners, either as a stoker or trimmer – this lasted until 12th August 1902 (his death in Colombo).⁶¹⁷ Along with his service on board steamers, he worked in the shipyard on four different occasions: as a labourer (1883); as a labourer in the boiler room (1884); as a joiner in the assembly workshop (1888); and as an assistant joiner (1898). In all instances, he remained in the shipyard for a period of one to three months only.⁶¹⁸ Another seaman, Lessous Paul (born in Marseilles, 1866) began his career at sea as a *novice* (apprentice) on company liners. Subsequently, from 1882 to 1884, he was employed in the shipyard as an apprentice stoker.⁶¹⁹ He continued to work as a stoker in the steamers until 1915. Throughout this period, he was employed in the company shipyards six further times (for short periods).⁶²⁰

This intense mobility between sea and land confirms a rare phenomenon of labour exclusivity for a steam shipping company. It provides evidence of the profound singularity of the company in the La Ciotat labour pool market, both at sea, with the engagement of maritime labour on company liners, and ashore, with the formation and retention of a labour force related to the shipyard. This exclusivity was linked specifically to industrial professions, especially those related to marine engine and metal works, both at sea and on land, with particular emphasis on the technical and industrial aspects of shipping and shipbuilding. This is also evident from the fact that

⁶¹³AMC, Fonds de Messageries Maritimes, Registres Entrées, M3 & P4.

⁶¹⁴AMC, Fonds de Messageries Maritimes, Registres Entrées, P6.

⁶¹⁵SHD-Toulon, 14 P 158, Matricule des inscrits définitifs (Fo. & No. 81).

⁶¹⁶AMC, Fonds de Messageries Maritimes, Registres Entrées, P7.

⁶¹⁷SHD-Toulon, 14 P 159, Inscrits définitifs (Fo. & No. 429).

⁶¹⁸AMC, Fonds de Messageries Maritimes, Registres Entrées, P5, P6, & P7.

⁶¹⁹AMC, Fonds de Messageries Maritimes, Registres Entrées, P2.

⁶²⁰AMC, Fonds de Messageries Maritimes, Registres Entrées, P5, P6, P7 & P8.

no La Ciotat seamen worked in other upcoming professions on steam liners (for example, in catering and/or room personnel sectors).

The technical transformation of shipping caused a profound change and diversification of maritime professions. The education, training, and technical competence of the labour force was an essential component for the operation of the industry.⁶²¹ During the sailing era, the art of seamanship was obtained by practicing on a sailing ship; in wooden shipbuilding, the skills were handed down from father to son, or in the practical form of apprenticeship. In steamships, the new types of expertise that required the operation of the marine engine, made the training of a skilled workforce imperative. At the beginning of steam navigation, the profession of engineer, even though essential for the operation of a steamship, was greatly restricted. In this regard, the recruitment of a skilled and competent labour force for the smooth operation of the engine room proved to be a major challenge for steamship companies.

In the region of Provence, apart from the already existing *Ecoles des arts et métiers* for technical education, as noted in chapter two, there were no other institutions that offered courses on technical education. In 1883, a report concerned with the evolution of technical education in Marseilles, highlighted the absence of initiatives in the port. The Ministry of Commerce asked the *Chambre de Commerce et d'Industrie de Marseille* (CCIM) to study the possibility of forming an “*Ecole des arts et métiers maritimes*”.⁶²² The aim of this school, according to the Ministry, was as follows: “[to] have the same level of instruction, the same kinds of theoretical, practical, and manual education as already existed in the *Ecole des arts and metiers*, [to be] more specialised towards steam apparatuses and marine machines. [Thus, the courses] would apply not only to engines and boilers but also to the ships themselves”.⁶²³ In 1887, the CCIM created night classes

⁶²¹Richard A. Walker, “The geography of production,” in *A companion to economic geography*, eds. Eric Sheppard and Trevor J. Barnes (Malden, Oxford, Victoria: Blackwell, 2003), 125.

⁶²²Bernard Régaudiat, “Le Chambre de Commerce de Marseille et l’enseignement maritime du XIX^e siècle à la Seconde Guerre mondiale” in *Formation au travail, enseignement technique et apprentissage, Actes du Congrès national des sociétés historiques et scientifiques, « Le travail et les hommes », Nancy 2002* (Paris: Editions du CTHS, 2005), 191.

⁶²³Archives CCIMP, M K 2210, cited by: Ibid.192 [Original: ayant la même niveau d’instruction, le même genre d’enseignement théorique, pratique et manuel que les écoles d’arts et métiers existant déjà, seulement plus spécialisée

for engineers and stokers. These were designed for “sailors working on steam engines, and workers employed in factories and workshops, [and would offer] the means to acquire technical knowledge, which will enable them, by developing their intelligence, to perfect their work”.⁶²⁴ The programme included courses such as physics and mechanics, theory and description of steam engines, operation and maintenance of steam engines, graphic design, assembly and repair, and regulation of work. The minimum age for enrolment was 15 years old.⁶²⁵

Given the delay of Marseilles’ institutions to adjust to the growing needs of the shipping industry, the education of engineers and stokers was happening in situ, in La Ciotat. The construction centre of the port, together with the one in La Seyne-sur-mer, constituted a major location for engineering apprenticeship in Provence, whilst the *Ecole des Arts et Métiers* of Aix-en-Provence was an important centre for theoretical training.⁶²⁶ The significant shift of trajectory for the sailor career in La Ciotat was related to the strategy of *Messageries Maritimes*, who used the shipbuilding centre as a focal point of training and recruitment for their engineering personnel. Apart from their role in forming a skilled maritime workforce, the shipyards were also in charge of the employment of all engine personnel.⁶²⁷ As Marie-Françoise Berneron-Couvenhes demonstrates, the percentage of chief engineers employed onboard, who were previously employed in the shipyards rose from 50% for the working generation of 1870, to 79% in 1880, and 94% in 1890 (Table 6.2). The majority of engineers were employed in the shipyards as apprentice engineers. In addition, in 1890, a 59% share of all engineers employed by the company were born in La Ciotat.⁶²⁸ The role of the *Ecoles des Arts et Metiers* was minimised, as the number of engineers that were previously students of the *Ecoles des Arts et Metiers* declined from 53% in

vers les appareils à vapeur et les machines marines [et donc le cours] s’appliqueraient non seulement aux machines et chaudières mais aussi aux navires eux-mêmes]

⁶²⁴Masson, *Encyclopédie départementale*, vol. VI, *La vie intellectuel*, 149. [Original: aux marins se destinant au service des machines à vapeur et aux ouvriers employés dans les usines et les ateliers, les moyens d’acquérir des connaissances techniques qui leur permettent, en développant leur intelligence, de perfectionner leur travail].

⁶²⁵*L’Indicateur Marseillais*, 1887.

⁶²⁶Daumalin and Courdurié, *Vapeur et révolution industrielle*, 99.

⁶²⁷As Berneron-Couvenhes points out, in 1890, 95% of engineers were hired in La Ciotat. Berneron-Couvenhes, *Les Messageries Maritimes*, 468.

⁶²⁸*Ibid.* 468.

1880, to 29% in 1890. Therefore, it is safe to support the premise that the *Compagnie des Messageries Maritimes* succeeded in the transformation of the maritime community in La Ciotat, towards industrial maritime occupations. The use of La Ciotat as a recruitment centre for experienced engineers and stokers confirms the movement of seafarers not only from sail to steam, but also from deck to engine room. In this framework, La Ciotat functioned not only as a major shipbuilding centre for the company, but also as a pool of industrial seafaring labour for their steam liners.

Table 6.2. The employment of engineers in the steamers of Messageries Maritimes.

	1870	1880	1890
% previously employed in the shipyards	50%	79%	94%
% of the above that were employed in the shipyards as “apprentice engineers”	40%	76%	88%
% of engineers that were students in the Ecoles des Arts et Metiers	45%	53%	29
Total	135	208	206

Taken by: Berneron-Couvenhes, *Les Messageries Maritimes*, 469.⁶²⁹

The analysis of the trajectory of sailor careers, confirms the significant change in the maritime identity of the port, primarily as a result of its function as an industrial shipbuilding centre. The link with a private shipping company, both ashore and on board, reflects the pattern of adaptation to the new economic reality. The evidence suggests that the company, wanting to recruit qualified and specialised personnel, and also to reduce salary costs, decided to train future

⁶²⁹Berneron-Couvenhes, completed a statistical analysis of engineers on board steamers by using the individual folders of engineers in the *Compagnie des Messageries Maritimes* retained in the Archives French Lines in Havre. See Berneron-Couvenhes, *Les Messageries Maritimes*, 467–69.

engineers, and stokers, from among the young population of the town. A similar employment strategy can be found in the French railway companies.⁶³⁰

6.4.4 Through the colonial routes of France: from the Atlantic to the Indian Ocean

The transformation of professional trajectories from deck to engine room altered the working experience onboard ships, and also meant that sailors came across new geographical destinations. In the pre-industrial era, the sailors of La Ciotat sailed to the French colonies of South America, the Ivory Coast, the French Antilles, and the East Indies. Others focused their career on the grand cabotage in the Mediterranean, travelling to North Africa and the Levant, while some concentrated their activities on French and Italian coastal trade. These geographical locations were precisely the areas of economic interest for Marseilles' merchants until the end of the eighteenth century.

At the end of the Napoleonic Wars, Britain succeeded in acquiring most of France's colonial possessions in the West Indies (Guadeloupe and Martinique), the coast of South Africa (French Guiana), and in the Indian Ocean (Reunion). Together with this, the industrialisation of shipping, and the integration of La Ciotat into the industrial maritime cluster of Provence, associated the town with new economic interests of the maritime economy as a result of the possibilities offered by steam shipping. During this period, steamers became a crucial element of national influence across the globe, and a key instrument of national imperialism.⁶³¹

In the nineteenth century, France started to expand the numbers of overseas colonies. What is known as the second French colonial empire began to form, commencing with the invasion of Algeria in the 1830s. Under Napoleon the third, France took possession of Cochinchina, as well as Cambodia and Senegal. During the Third Republic, France further extended its influence in

⁶³⁰George Ribeill, "Gestion et organisation du travail dans les compagnies de chemins de fer des origines à 1860," *Annales ESC*, no. 5 (1987): 999–1029.

⁶³¹See: Headrick, *The tools of Empire*; James R. Fichter, ed. *British and French Colonialism in Africa, Asia and the Middle East. Connected Empires across the Eighteenth to the Twentieth Centuries* (Switzerland: Palgrave Macmillan, 2019).

North, West, and Central Africa, as well as New Caledonia and Polynesia.⁶³² The opening of the Suez Canal, the pursuit of colonial adventures, and the conquest of territories in the Far East and Equatorial Africa brought new reconfigurations of maritime power for France, and turned steam shipping into a leading instrument of French national interests. During this period (1850s to 1890s), French merchant shipping largely participated in the development of the colonial empire, enhancing the prestige of France.⁶³³

The changing maritime economy led to an alteration of destination ports for the sailors of La Ciotat. Even though some continued to travel towards the Atlantic Ocean and the Mediterranean coasts (including the Levant or North Africa), a significant part of their career followed new routes which were formed during the opening of new lines by *Messageries Maritimes*. From the 1850s onwards, many sailors travelled to China, Japan, Indonesia, and Australia. They often sailed to the exotic ports of Calcutta, Point de Galle, Colombo, Hong Kong, Shanghai, Saigon, Aden, Yokohama, Singapore, Melbourne, and Sydney.

In addition, the changing routes were complimented by the names of ships on which they embarked. In the pre-industrial era, the sailors of La Ciotat sailed on the deck of three-masted vessels, brigs, and brigantines. These ships were named for places such as *Providence, France*; historical and mythical characters such as *Mithidrate, Pytheas, Cesar, Atlas, and Luminy*; names related to the danger of the sea such as *Vigilant, and Esperance*; to religion (*Confiance en Dieu*); and names related to loved persons such as *Nouvelle Elise, Cleanthe, Victor, Emma, Laurent et Fanny, Sirius, Irma, Marianne, and Les quatres cousins*. In comparison, the names of steamers post 1850s, were largely related to exotic places in the Middle and Far East, such as *Cambodge, Senegal, Niemen, Sindh, Meinam, Sinois, Euphrate, Hougly, Melbourne, Sydney, Menzaleh, Moeris, Djemnah, Yang Tse, Congo, Iraouaddy, Pei-Ho, Himalaya, Houang-Si, Oceanien, and Yarra (amongst others)*.

⁶³²See: Denise Bouche, *Histoire de la colonisation française*, vol. II, *Flux et reflux, 1815 - 1962* (Paris: Fayard, 1991); Bouvier, Girault, Thobie, *La France Impériale 1880 - 1914*, vol. I, *De l'Impérialisme à la française* (Paris: Mégrélis, 1982); Jean Ganiage, *L'expansion coloniale de la France sous la IIIe République* (Paris: Payot, 1968).

⁶³³Marie-Françoise Berneron-Couvenhes, "Introduction. La marine marchande française de 1850 à 2000: permanences et mutations," *Revue d'histoire maritime*, no. 5 (2006): 11.

The alteration of sea-routes and the active connection of the town with French imperialism was also visible in the public sphere. As Augustin Chateigner noted in his personal journal (May 1866 and January 1871), La Ciotat welcomed the Chinese ambassador to the shipyard and workshops. In 1871, Chateigner wrote: “[There is] a great bustle in the office of Mr. Vesigné for the reception of the Chinese ambassador. European and Chinese boys from the *Pei-Ho* bring wine, milk and tea into the small office. All Company cars and an omnibus went to the station to receive the Chinese. Many of the ladies come to the *Messageries*’ offices to see the Chinese. They arrive at 3 o'clock in the afternoon with little follow-up, and rest for a while in Mr. Vesigné's office. Then they visit the workshops and the *Pei-Ho*. They leave at 5 o'clock in the evening, by car, in front of a crowd of curious people gathered in front of the gate [of the shipyard].⁶³⁴

This vivid description sketches perfectly how the changing destinations of La Ciotat's seafarers, related to the Company's expansion to the Far East, altered the experiences of the maritime community. Seafarers' trajectories had profoundly changed, not only due to their switch from deck to engine room, but also due to altering sea-routes and their familiarisation with French colonised territories in the Far East.

6.4.5 Starting their career: from ship-boys to provisional enrolled seamen

The examination of the different patterns with which seamen started their careers at sea can provide more insight into the transition from sail to steam. It should be pointed out that the analysis lacks the register of ship-boys (*mousses*), and novices (*novices*) for the first generation examined. For this reason, the analysis can only discuss those careers that began in the second and third sample generations (in particular, those that started their career around 1855 and 1880,

⁶³⁴Journal Chateigner, 28 Janvier 1871 [Original: Grand remue-ménage dans le bureau du M. Vesigné pour la réception des ambassadeurs chinois. Des garçons européens et chinois du « Pei-Ho » apportent dans le petit bureau du vin, du lait, du thé. Toutes les voitures de la Compagnie et un omnibus sont allés à la gare pour recevoir les chinois. Beaucoup des dames viennent aux bureau des Messageries pour voir les Chinois. Ils arrivent à 3h après midi avec peu de suite et se reposent un moment dans le bureau de M. Vesigné. Puis ils visitent les Ateliers et le « Pei-Ho ». Ils repartent à 5h du soir, en voiture, devant une foule de curieux massée devant la grille].

respectively). By examining how the sailors in La Ciotat commenced their careers, the analysis can distinguish different professional trajectories during the nineteenth century.

In the second generation, boys who wanted to begin a career at sea were provisionally enrolled as ship-boys in the *matricule des mousses*. Ship-boys were young men, aged more than 7 and less than 15. They were placed on a ship in order to learn seamanship, under the direction of a crewmaster.⁶³⁵ In La Ciotat, there were various categories of ship-boys during this period. Firstly, some ship-boys started their career at sea via fishing boats. When they qualified as sailors, they either continued in the fishing sector, or moved to sailing ships and/or steamships. This was the main typology for a boy originating from a local fishing background in coastal France.

Another category of ship-boy was those who came from the hospice of Marseilles or the charity of Toulon, as orphans. The practice of placing orphan boys as ship-boys began during the *Ancien Regime*, in an effort to increase the labour pool of seafarers in France⁶³⁶. In La Ciotat, this category of ship-boy stayed in the households of a captain and owner fisherman (*patron pêcheur*), and worked on his fishing boat during the period before permanent registration as sailors. Fishermen Blanc, Toche, Belly, and Gaffarel were prominent names found as hosts and employers of ship-boys. In addition, in the second sample generation examined, a large number of boys entered the shipping sector directly. Furthermore, many boys embarked only on steamships, and focused their career within the engine room, either as engine crew (stoker, assistant stoker, or coal trimmer) or as apprentice engineers. This data, together with the above analysis on the role of *Messageries Maritimes* in the transition of seafaring professions from sail to steam, confirms once more the high pace of innovation in La Ciotat post 1850, and the clear focus of new seafarers on steam shipping.

In the third sample generation, those individuals who wanted a career at sea enrolled on the register of provisional enrollments (*matricule des inscrits provisoires*) rather than the previous register of ship-boys (*matricule des mousses*). This title change already indicates the different perception of the seafaring profession in the 1850s, and 1880s. Some of the third sample generation

⁶³⁵Murielle Bouyer, “La place des mousses dans les effectifs du département maritime nantais au XVIII^e siècle (premiers résultats d’analyse),” in *Cahiers Nantais “Jeunes regards sur les terres atlantiques”*, no. 61 (2004): 80.

⁶³⁶Bernard Allemandou, *Les «bourdeaux» enfants de la misère. Sauvetage ou massacre? Bordeaux 1811-70* (Pessac: Maison des sciences de l’homme d’Aquitaine, 2018).

ship-boys (born either in La Ciotat or other towns of France), started to work directly in steamers, mainly in lower ranks of the engine crew, such as coal trimmer (*charbonnier*) or assistant stoker (*soutier*). In addition, there was also another category of *inscrits provisoires*; those who started their career directly as an apprentice engineer (*élève mécanicien*) in steamships. Those categories, both opened and closed their seafaring career in the engine room. This was especially the case with boys who began as apprentice engineers, eventually attaining the highest rank of chief engineer.

The above evolution of ship-boy careers is also obvious from the development of the education system for ship-boys in Provence. In 1836, the Royal Navy formed the first “*Ecole des mousses*” in Toulon. This school focused on the education of sailors for service on French warships.⁶³⁷ Also, in 1839, the CCIM, for the first time in maritime education, formed an ‘*Ecole des mousses*’ in Marseilles. The CCIM pointed out that one of the aims of this school was “the work of charity, which has both the useful purpose of providing sailors for our shipping, and grasping a good number of young vagabonds from the weaknesses that idleness brings”⁶³⁸. A child admitted to the *Ecole des mousses* in Marseilles received the necessary practical instruction (at a minimum, six months), for active service on commercial vessels. He received training to understand the various parts of rigging and sails, the practice of multiple manoeuvres on site, and was taught how to swim. As for general education, the apprentices of the *Ecole des mousses* were taught to read, and write, as well as basic knowledge of arithmetic and geography.⁶³⁹ In both schools, the apprentices had a combination of service, both nautical training ships, and commercial vessels.⁶⁴⁰ The officers and non-commissioned officers on board were responsible for teaching the practice of seamanship, sailing, swimming, and management of embarkations. Any failures by ship-boys were punished severely by the use of a whip or a reduction of food rations (never bread). In addition, *Messageries Maritimes* established in La Ciotat their own *Ecole des mousses*, for use

⁶³⁷Régaudiat, “Le Chambre de Commerce de Marseille et l’enseignement maritime,” 190.

⁶³⁸Délibération de la Chambre de Commerce de Marseille du 30 octobre 1839 [Original: [un] œuvre de bienfaisance, qui présente tout à la fois le but utile de fournir des marins à notre commerce et d’arracher un bon nombre de jeunes vagabonds aux vices qu’enfante l’oisiveté].

⁶³⁹*Sémaphore de Marseille*, 15 mai 1867.

⁶⁴⁰Timon-David, “L’Ecole des Mousses” in *Société de Statistiques de Marseille*, vol. 19 (1856), 41–53.

by those who wanted to follow a seafaring career in the company's liners. As Joseph-Édouard Vence wrote, the *Ecole des Mousses* of *Messageries Maritimes* opened in November 1853.⁶⁴¹

The industrial revolution and steam propulsion introduced a higher pace of career evolution and progression at sea. During the sailing-era, ship-boys learned seamanship, and the necessary skills on the deck from a sailor. Contrariwise, with the advent of the industrial revolution, most seafaring careers started directly at the steamships or workshops of the *Compagnie des Messageries Maritimes*, with most individuals focusing on the engine room. At the beginning of the twentieth century (1902), the closure of the *Ecole des Mousses* in Marseilles marked a milestone that proved to be the end of the process of transition from sail to steam. The CCIM declared that “steamships have replaced sailing ships. We should no longer produce ship-boys but engineers and stokers”.⁶⁴²

6.4.6 The origins of the sailors as an indicator of change of the maritime community

Another indicator that shows the transformation of the seafaring population during the period of transition is the place of birth of sailors. In the first sample generation, the origin of the seafaring population was much more concentrated in La Ciotat, and the region of Provence. An 83% share of sailors were born in the town, whilst others came from the neighbouring ports of Marseilles, Toulon, Cassis, and Hyeres. During this period, only one man registered as a sailor in the *Inscription Maritime* was born in Italy. From the second sample generation, the share of sailors born in the town declined significantly to 40%, with 16% born in Marseilles. A further 16% share came from the region of Provence, whilst 22% were born in other regions of France. Foreigners accounted for a 5% share. Most foreign sailors came from coastal areas of Italy, either Liguria or Corsica. Interestingly, one sailor from Barcelona and another from Algiers were also enrolled in the registers of La Ciotat (see Map 6.1).

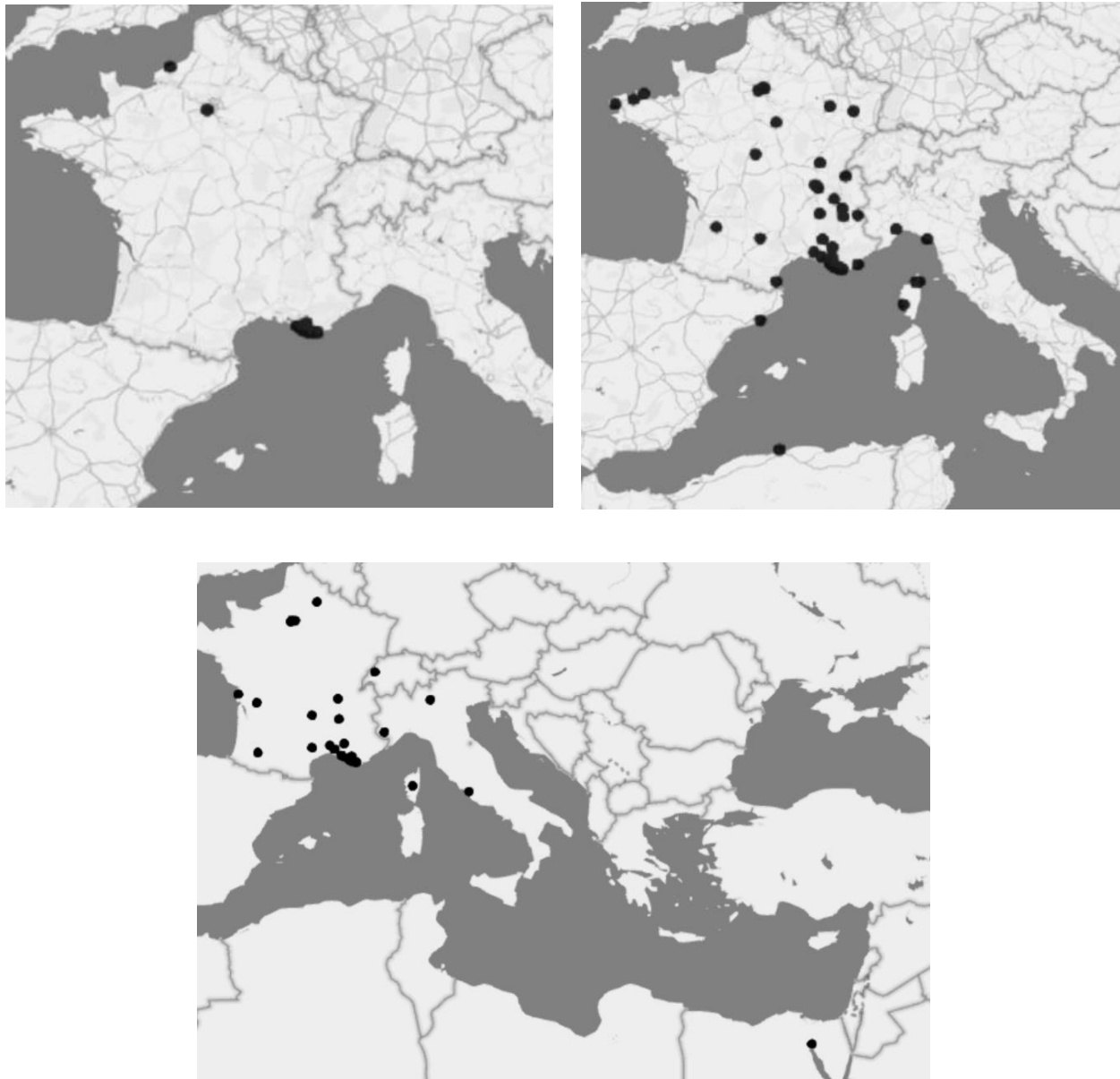
In the third sample generation (those born between 1865 and 1875) the analysis can observe a concentration of sailor births in La Ciotat, a 64% share, with 17% born in Provence. Only 3% were foreigners, either Italians or one who was born in the Suez area (see Map 6.1). This change

⁶⁴¹Journal JEV, 07 novembre 1853.

⁶⁴²See the report of Canaple, *Recueil des travaux de la chambre de commerce*, 1902, 467 [Original: les vapeurs ont remplacé les voiliers. On ne doit plus produire des mousses mais des mécaniciens et des chauffeurs].

between the proportion of second and third sample generation seamen born in La Ciotat can be explained by the high presence of *Messageries Maritimes* in the port, and the use of La Ciotat as an apprenticeship centre for new stokers, and engineers. It is very possible that a part of the new generation of boys in the town were directly absorbed by the company as labour supply for steam liners.

Map 6.1. Place of birth of sailors born in 1800-10 (left); 1840-50 (right) and 1865-1875 (below).



Processed data by : Database "Sailors - La Ciotat".

What is patently clear from the 1850s onwards, is the internal mobility of French men who wished to work as seafarers in La Ciotat. In the pre-industrial era, the seafaring population were mainly from La Ciotat, or the local coastal area, however, from the 1850s, La Ciotat became a focal point for seafaring activities, with individuals prepared to move from Paris, Bretagne, and the upper regions of Provence. To this end, the presence of *Messageries Maritimes*, and the use of La Ciotat as an apprenticeship centre, offered new work opportunities on land and at sea. Also, even though some foreigners were present in the seafaring population of La Ciotat, the proportion was minimal. This was related to French legislation that barred the foreign population from the *Inscription Maritime*. However, what is evident is that most immigrants were employed in the shipyards of *Messageries Maritimes*, whilst part of the local population transitioned towards the shipping activities of the company.

6.5 The *inscrits maritimes* in La Ciotat in transition: the captains of La Ciotat

The occupational structure of La Ciotat regarding the significant decline in captain numbers noted in chapter five, can be confirmed by the study of the database ‘Inscription Maritime, La Ciotat – Captains’. The number of captains enrolled in La Ciotat, decreased from the 1830s onwards. In 1830, the *Inscription Maritime* registered 135 captains in the port, this dropped to 99 in 1845.⁶⁴³ A similar decrease can be observed in the second half of the nineteenth century. As Table 6.3 indicates, the number of enrolled captains born from 1850 onwards, dropped significantly.

Post 1850, the analysis can also observe a transition of enrolled captains towards steam shipping. Beginning with the generation born in the 1830s (who worked as captains from 1855), the captains of La Ciotat transitioned their career towards steam shipping. Captains who began their career around 1825, and were still active in the registers of *Inscription Maritime* in the 1850s, remained in command of sailing ships. In this generation, the analysis can only find three cases of steam ship command. The oldest captain in La Ciotat who experienced this transition was Charles Reynaud, (born in 1794). He worked as a captain on deep-sea going vessels, sailing on the large

⁶⁴³SHD-Toulon, 14 P 122, Mémoires Statistiques (1830 - 1845).

three-masted ships of Marseilles towards Reunion, Zanzibar, Martinique and Calcutta. In 1854, he moved to the steamers of *Messageries Maritimes*, where he worked for two years, mainly as lieutenant. Captain Louis Joseph Brug (born, 1802), and Captain Victor Fabre (born, 1809) embarked on steamships in 1853, and 1859 respectively, but only for one voyage, working as lieutenant, and second captain. After these voyages, they both remained inactive in La Ciotat.⁶⁴⁴

Table 6.3. Number of captains enrolled in La Ciotat given their date of birth.

Period born	Started working as captains	Number of captains
before 1810	before 1825	20
1811-20	1835-1845	18
1821-30	1846-1855	15
1831-40	1856-1865	12
1841-50	1866-1875	17
1851-60	1876-1885	7
1861-70	1886-1895	6
1871-80	1896-1905	13
1881 onwards	1906 onwards	3

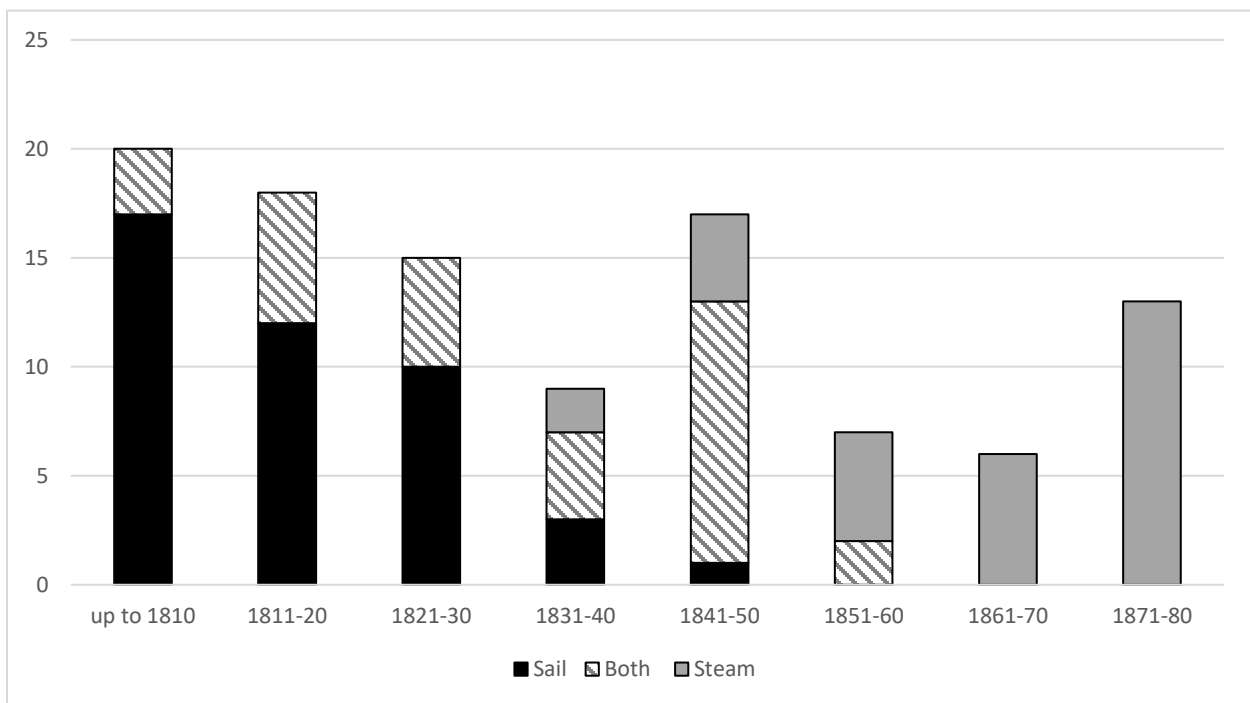
Processed data by: Database ‘Inscription Maritime, La Ciotat - Captains’.

As Figure 6.6 indicates, in the sample generation born 1811-20, even though most captains embarked on sailing ships, those that moved to steamers remained and worked there for the rest of their career. All cases made the change from sail to steam in the 1850s, and remained on steamers until the 1860s. This was also the experience of captains born in 1821-30. Most focused their career on the large sailing vessels of Marseille’s shipowners, and began to work on new steamers from the mid-1850s onwards. In the above two generations, even though the number of captains decreased, they essentially worked in sailing ships for their entire career. In the generation of captains born in 1831-40, the analysis can find the first examples who never embarked on sailing

⁶⁴⁴SHD-Toulon, 14 P 131, Matricule de capitaines. Database: ‘Inscription Maritime, La Ciotat - Captains’.

vessels. The main transition can be observed from those born from the 1840s onwards, and who began to work as captains in the 1860s. One example worked only on sailing ships, whereas most started their career on sailing vessels, and moved to steamers during the 1870s, and 1880s. What can be observed is that those that moved to steamers usually did not return to sailing ships, except for some rare cases of interchange between sail and steam. Subsequent to the development and evolution of steamships, and the decline of sailing ships, captains born post 1860 never again embarked on sailing ships.

Figure 6.6. Number of captains of La Ciotat who worked on sailing ships, steamships or both.

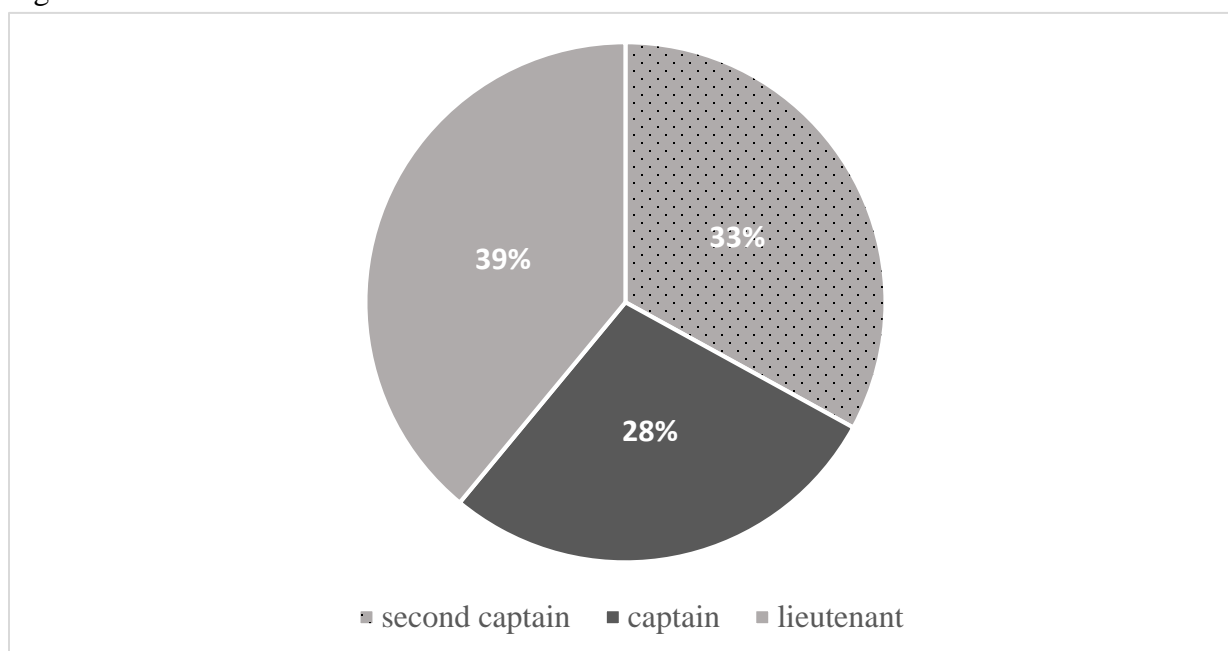


Processed data by: Database 'Inscription Maritime, La Ciotat - Captains'.

The captains of La Ciotat did not only decline in numbers. Career advancement seemed relatively slow. During the age of sail, most men enrolled in the captains' registers commanded sailing ships. In comparison, captains born in the period 1840-60 had a different career trajectory. Figure 6.7 indicates that of the proportion of time spent on board steamships, only 28% commanded the ship, whereas 39% of their time onboard was spent as lieutenant, and 33% as second captain. This was a common pattern in France during this period - this was linked to a

general crisis in the profession, including the decline of prestige and social status enjoyed by a captain in the pre-industrial era. The role of the *Compagnie des Messageries Maritimes* in the evolution of the profession of captain was as key as in the case of sailors. Observing the careers of captains born between 1840 and 1860, a 54% share was employed in the *Compagnie des Messageries Maritimes*, whilst 46% were employed by other French steamers. Even though only half of captains worked with *Messageries Maritimes*, the company significantly influenced their professional trajectory (see below).

Figure 6.7. Repartition on work onboard steamships for the seamen enrolled in the captains' registers born 1840-60.



Processed data by: Database 'Inscription Maritime, La Ciotat - Captains'.

6.6 The reasons of decline: the role of the large steam navigation companies and the insufficient education of merchant captains.

The case of captains in France during the period of transition from sail to steam is characteristic of the changes in shipping. Since the mid-nineteenth century, and the growth of steam shipping, the profession of captain experienced a significant crisis. During this period, the

captain was at the heart of the technical evolution; with changes in commercial structures, and the appearance of large shipping companies tarnishing the prestige of the profession. As ships increased in size and cost (particularly, invested capital), captains, who were previously investors as either shipowners or shareholders (*quarataires*), and possessed, apart from their nautical skills, important commercial competencies, saw their field of action diminished by restricting themselves to the practice of navigation.

Simultaneously, increased ship size led to a decline in the number of captains required, therefore, many captains accepted voyages as second captain, lieutenant, or boatswain. The large steam shipping companies, who wanted to optimise their profitability, played a leading role in the evolution of the captain's role. Their increasing influence led to the erosion of commercial prerogatives enjoyed by captains: he became the executor in the service of investors, and was pressed by the shipping company to fulfill the objectives of their service accurately, and with speed. Hence, the captain became an employee, his main obligation was related to the command of the vessel only.⁶⁴⁵

In addition, by using different employment strategies, the steam shipping companies followed a dual track recruitment policy for both naval officers and merchant captains in order to command their steamers.⁶⁴⁶ In fact, most steam commanders of *Messageries Maritimes* came from the French Navy. In 1854, two-thirds of commanders were naval officers, and only one-third came from the merchant marine.⁶⁴⁷ This predominance was related to naval officer experience on steamships, contrary to captains of merchant shipping, who were mainly used to working on sailing ships. As a result, a convention of 1851 signed between the company and the state permitted *Messageries Maritimes* to bypass existing maritime legislation, and hire naval officers instead of

⁶⁴⁵See: Eric W. Sager, *The Marchant Marine of Atlantic Canada (1820 - 1914)* (Montreal: McGill-Queen's University Press, 1989).

⁶⁴⁶In France, the commanders of ships were distinguished between captains of merchant shipping (*Capitaine au long cours*), who followed the courses of the *Ecole d'Hydrographie* and passed the exams for the captain's certificate (*brevet du capitaine au long cours*), and naval officers, who trained on warships and, since 1830, followed the courses of the *Ecole Navale* of Toulon.

⁶⁴⁷Berneron-Couvenhes, *Les Messageries Maritimes*, 457.

steamer captains. Also, naval officers were attracted by salaries offered by private steam companies.

One of the reasons for this drop in captain numbers was their lack of practical education in relation to new technologies. Even though they had a high level of theoretical education acquired through the *Ecoles d'Hydrographies* (geometry, algebra, physics, chemistry and astronomy), the adaptation of their educational needs with regards industrialised shipping, was relatively slow. This adaptation of officer training to account for the technical innovations within shipping was one of the major issues of this period, and it became clear that technical changes had to be recognised. In 1846, an ordinance imposed the obligation for ship officers to have knowledge of marine engines,⁶⁴⁸ and ten years later, an imperial decree (26 January, 1857) modified the exams for captains certificate. The exam consisted of two parts: an application exam related to rigging, maneuvering, and gunning, and a theory exam related to mathematics, navigation, instruments, nautical calculations, and marine engines.⁶⁴⁹

In 1890, the Ministry of Navy declared to the CCIM that “candidates for the certificate of captains in merchant shipping (*capitaines au long cours*) find in the *Ecole d'Hydrographie* of Marseilles, a relatively limited technical instruction [and] they appear less and less to possess the breadth and variety of general knowledge required for command”.⁶⁵⁰ For this reason, the Ministry proposed (to the CCIM) the formation of a commercial school. Consequently, a year later, the CCIM formed a naval section in the *Ecole Supérieure de Commerce* in Marseilles. This section was designed to prepare students for exams relating to the *brevet du capitaine au long cours*.⁶⁵¹

⁶⁴⁸Cochard, *Le marins du Havre*, 88.

⁶⁴⁹H. Eloy and J. Guerrand, *Des capitaines maitres et patron ou traité de leurs droits et obligations au point de vue commercial, civil, administratif et pénal et dans leurs rapports avec les armateurs, chargeurs et assureurs*. Tome I (Paris: Guillaumin et Co, 1860), 56–68.

⁶⁵⁰ACCIM, M J 83 221/1, Circulaire du ministre de la Marine, Barbey, aux chambres de commerce, 18 août 1890. cited by: Régaudiat, “Le Chambre de Commerce de Marseille et l’enseignement maritime,” 192. [Original: les candidats aux brevets de capitaine au long cours ne trouvent dans les écoles d’hydrographie et les manuels nautiques qu’une instruction technique relativement restreinte [et] paraissent de moins en moins posséder l’étendue et la variété des connaissances générales que requiert le commandement des grands navires contemporains].

⁶⁵¹E. Prève, *Notice sur les cours de navigation ouverts à l’Ecole supérieure de commerce de Marseille* (Marseille, 1892).

The high proportion of naval officers on board Messageries' steamers lasted throughout the Second French Empire (1852 - 1870). In 1870, 65% of commanders were lieutenants, and students of the *Ecole Navale* (founded in 1830 in Toulon), whereas captains who completed their studies in the *Ecole d'Hydrographie*, and passed exams for the certificate of captain, represented only 35%. This proportion changed in 1890, when captains represented 56% of commanders onboard *Messageries'* steamers, and 44% were lieutenants. Nevertheless, the progression of their career was much slower than in the past. In 1870, *capitaines au long cours*, in order to become commanders on board (captains) waited 7.3 years, whereas in 1890 the period to become a commander increased to 14.9 years.⁶⁵² In addition, even though the proportion of naval officers and merchant captains seemed to be balanced during the Third Republic, most were hired by non-Mediterranean regions of France, rather than the ports of Provence.

This evolution of the profession, and the strategies of the new steam navigation companies to recruit officers rather than captains resulted in a drastic decline in the numbers of students at the *Ecole d'Hydrographie* and of captains nationwide: that is, from 524 students in 1865, the number fell to 125 in 1890, and those who had achieved the certificate of captain decreased from 309 in 1865, to 125 in 1890.⁶⁵³ This long-term development had a profound impact on La Ciotat captains. Given the fact that the economy of the port was strongly tied to the *Compagnie des Messageries Maritimes*, the strategies of the company to recruit captains from other regions of France, and to focus on naval officers instead of merchant marine' captains, influenced the employment status of captains from the town.

The *capitaines au long cours* were not satisfied with these conditions and the decrease of their prestige within the shipping industry. In 1870, through a petition submitted to government, they actively complained about the strategies of large steam navigation companies, especially, the *Compagnie des Messageries Maritimes* (together with the support of the state) hiring naval officers, rather than captains. They stated that the concession signed between the company and the state in 1851 (which allowed the employment of naval officers) was disastrous for their profession. They added that:

⁶⁵²Berneron-Couvenhes, *Les Messageries Maritimes*.

⁶⁵³Gerard Le Bouëdec, "Gens de mer et acteurs portuaires," in *Les Français, la terre et la mer*, 529.

All this happened [...] in spite of the laws of the French Navy, which forbid any act of commerce by military officers; despite the prescriptions of the Commercial Code, which declares that no one can trade unless he is a merchant. However, there is no doubt that commanding a merchant ship is an act of commerce and that a military officer is not a merchant. [...] [Such] measures are fatal to the future of captains, because their [career] advancement cannot be occurred in the [latter] companies. [...]. It necessarily results from it that a young officer, entering from 25 to 30 years in the service of these companies, can only arrive with difficulty and always late to a command before the age limit, which is set at 55 years. In addition, by the considerable reduction in sailing ships, a large number of captains are too often unable to find command, and remain all their lives in the lower posts of petty officer and lieutenant, including, that the conditions of remuneration do not allow them to secure their future.⁶⁵⁴

Hence, the progress of large steam navigations companies, such as the *Compagnie des Messageries Maritimes*, profoundly affected the work of captains, and influenced a decisive transformation related not only to their professional, but also their social status (as previously described, during the age of sail). The decrease of the number of captains, together with the decline of their professional position on board steamers led to important social reconfigurations in La Ciotat's maritime community.

⁶⁵⁴*Pétition des capitaines au long cours à Messieurs les Sénateurs et à Messieurs les Députés* (Marseille: Barlatier-Feissat père et fils, 1876) [Original: Tout cela s'est fait, Messieurs, malgré l'esprit des lois organisatrices de la marine française, qui interdisent tout acte de commerce aux officiers militaires ; malgré les prescriptions du Code de Commerce, qui déclare que nul ne peut faire acte de commerce s'il n'est commerçant. Or, il n'est pas douteux que commander un navire marchand est un acte de commerce et qu'un officier militaire n'est pas commerçant. [...] [Ces] mesures sont fatales à l'avenir des capitaines au long-cours ; car leur avancement, ne pouvant se produire dans les compagnies dont nous avons parlé. [...] Il en résulte forcément qu'un jeune officier, entrant de 25 à 30 ans au service de ces compagnies, ne peut arriver que bien difficilement et toujours tardivement à un commandement avant la limite d'âge, qui est fixée à 55 ans. De plus, par la diminution considérable des navires à voiles, un grand nombre de capitaines au long-cours se voient trop souvent dans l'impossibilité de trouver de commandement et restent toute leur vie dans les postes inférieurs de second et de lieutenant, dont les conditons de rémunération ne leur permettent pas d'assurer leur avenir].

6.7 The professional transformation of La Ciotat's seafarers.

During the second half of the nineteenth century, the industrial transformation of shipping and shipbuilding developed new professional categories. The ship became a floating factory, where the traditional sailors coexisted with new professions associated with the marine engine, creating a distinctive spatial segmentation between deck and engine room. Seamen became industrial workers, and mechanisation brought new experiences at sea. New, different skills emerged that were not related to the control of the wind and the extensive mastering of rigging and sails. This highlighted the arrival of workers, designed to reproduce at sea, the tasks carried out by machines on land.⁶⁵⁵ The transformation of seafaring professions raised the question of the sociological profile of new seamen, caused by the transport revolution.

The examination of the revenues of seafarers during this period is a critical path to understand the transformation of seafaring professions not only from sail to steam, but also specifically in relation to the *Compagnie des Messageries Maritimes*. For such a study, several important aspects should be taken into account: wages during specific periods on sailing ships and steamers, and in particular, the steamers of *Messageries Maritimes*; the cost of living in the south of France; the households of seafarers; and extra expenses that seamen had to pay, or cost reductions (such as their nutrition). In addition, the revenues of seafarers should be compared with other professions in the town, especially the wages for each professional category of worker at the shipyards. Even though it is not possible to complete such a detailed analysis, due to the lack of archival material, the existing literature should help to sketch a general picture of remuneration for maritime professions, and thus, demonstrate the main social characteristics of this transformation.⁶⁵⁶

⁶⁵⁵On this topic, see for example Sager, *The Marchant Marine of Atlantic Canada*.

⁶⁵⁶The main path for the study of seafarers' revenues is the examination of the *Matricules d'Armements* (crewlists) stored in the Service Historique de la Defense-Toulon. This, together with the archives of *Messageries Maritimes* in Havre (related only to the officers onboard) can offer a clear picture of the remuneration of seafarers during this period. However, the pandemic did not allow collection of this valuable material. The existing literature, even though it is limited and mainly related to the Atlantic coast of France, can give an important representation of this matter. See for exemple the work of Nicholas Cochard, "Salaires et niveaux de vie des marins du commerce au XIX^e siècle à partir de l'exemple Havrais," *Revue d'Histoire Maritime*, no. 8 (2014): 113–32, as well as Le Bouëdec, "Gens de mer et

In relation to officers serving onboard steamers at the end of the nineteenth century, Gerard le Bouëdec indicates that the wage of captain was slightly higher than that of chief engineer (300-350 francs / month for captain, and 250-300 francs /month for chief engineer).⁶⁵⁷ Remuneration specifically, in large steam navigation companies was much more elevated, confirmed by both Nicholas Cochard for the *Compagnie Generale Transatlantic*, and Marie Berneron-Couvenhes for the *Compagnie des Messageries Maritimes*. Large steam shipping companies, in order to maintain a stable crew, formed an exclusive wage package for all personnel on board. In 1853, *Messageries Maritimes* established a higher remuneration package for all crew that were employed for more than one year with company steamers⁶⁵⁸ This package consisted of an annual bonus proportional to the number of years completed in service.⁶⁵⁹ According to Couvenhes, during the Second French Empire, the engine officers did not achieve the salary and prestige of captains. According to company archives, commanders of steamers commenced employment with a salary of 500 francs / month, whilst chief engineers received 300 francs / month. Nicholas Cochard notes that in the steamers of *Compagnie Generale Transatlantic*, the captain was paid exactly the same as the chief engineer (400 francs / month), while a second captain received 300 francs / month.⁶⁶⁰ However, even though the captain and chief engineer had almost the same salary, the prestige of the chief engineer on board was never as high as that of captain. The functions of the chief engineer were

acteurs portuaires,” in *Les Français, la terre et la mer*, 525–62; the study of Couvenhes in regards to the salaries of officers in Messageries Maritimes’ steamers, and the study of the revenues on steamers made by Jean Randier, *Histoire de la marine marchande française, des premiers vapeurs à nous jours* (Paris: Editions Maritimes et d’Outre Mer, 1980).

⁶⁵⁷Le Bouëdec, “Gens de mer et acteurs portuaires,” 528. Regarding the relation between captain’ and chief engineer’ wages, Cochard in his article “Salaires et niveaux de vie des marins du commerce au XIX^e siècle” shows that, in most of the cases, the salaries were mainly the same.

⁶⁵⁸The same picture is portrayed by Nicholas Cochard regarding the Strategies of CGT. Cochard “Salaires et niveaux de vie des marins du commerce,” 120.

⁶⁵⁹Berneron-Couvenhes, *Les Messageries Maritimes*, 164.

⁶⁶⁰Cochard, *Le marins du Havre*, 121. Nicholas Cochard’s research is based on the *matricules d’armements*, maintained in the regional archives of Havre. The difference between the captain and the chief engineer in the analysis of Couvenhes can be due to the use of the Company’s archives.

exclusively technical, as they did not interact with passengers, and did not have any role regarding freight.⁶⁶¹

Second captain and second engineer were just below the top hierarchy on board, for both deck and engine room. The salary of a second engineer was the equivalent of a lieutenant, approximately 150 to 200 francs / month.⁶⁶² In all studies completed, salary gaps between captain and second captain, and between chief engineer and second engineer, were significant. A second captain received a similar wage as a second engineer, approximately 180 francs / month, while a lieutenant salary was equal to a third engineer (120-125 francs / month).⁶⁶³ The above overview provides an understanding of how the maritime community of La Ciotat reaffirmed its position and prestige with a shift from deck officers to engine officers. However, even though their salaries were relatively similar, the community did not achieve the prominence experienced during the sailing era, that is, an abundance of important and skilled captains in the town.

Apart from officers, other professions on board steamers also experienced a profound alteration, in fact, the experience of working onboard ships changed dramatically during this time. One of the professions that declined in importance was that of an experienced sailor. On steamships, sailor duties consisted of setting sail, raising anchors, docking, unloading cargo, and maintenance of the vessel. Even though steamers were still provided with masts at this time, their importance was reduced, and thus, the number of sailors decreased. This development was reflected in salary. Sailors and novices were the least well paid onboard, with 60 francs, and 40 francs per month, respectively.⁶⁶⁴

The changes in the nature of maritime crews during the second half of the nineteenth century led to an increased spatial opposition between deck crew, whose place had been diminished, and machine crew, which now became essential. In the engine room, the work of stokers was challenging and strenuous work. They were responsible for the production of steam and thus, the movement of the ship and the accuracy of the shipping service. Day and night, stokers

⁶⁶¹Berneron-Couvenhes, *Les Messageries Maritimes*, 467.

⁶⁶²Ibid. 466.

⁶⁶³Le Bouëdec, "Gens de mer et acteurs portuaires," 528.

⁶⁶⁴Christophe Charle, *Histoire sociale de la France au XIX^e siècle* (Paris: Le Seuil, 1991), 114.

had a physically demanding job of shoveling coal into the engine furnace.⁶⁶⁵ The temperature of the engine room varied between 48 and 56 degrees Celsius.⁶⁶⁶ Stokers were required to form a controlled fire in an optimal manner. For this reason, it was necessary to have previous experience in the production of steam. Most stokers had already worked as trimmers and knew how to master a fire, and also, how to distinguish the different grades of coal, and the way they burned.⁶⁶⁷ The conditions in the engine room, including lack of sunlight and high temperatures, was totally different from the conditions on the deck of a sailing ship. La Ciotat seamen experienced this transition, with more than 50% of their time spent in the engine room. This offered a totally different working experience on board.

In addition, the hard work required in the engine room was recognised by shipowners and shipping companies, at least for European engine crews, who received between 90 and 120 francs / month.⁶⁶⁸ In reality, the European stokers were the supervisors of Arab stokers employed by the steam companies.⁶⁶⁹ In fact, the crew of *Messageries Maritimes'* steamers was composed of both European and foreign personnel. At the time of the opening of the Indochina line, the *Messageries Maritimes* was authorised to depart from the Navigation Act (1793), which obliged shipowners to recruit only French seamen, and employ a percentage of foreign seafarers. Their numbers exceeded 25% of the total workforce, while for the steamers travelling beyond Suez, both on the main lines of China and Australia, and the annexed lines, foreigners represented almost half of the crew.⁶⁷⁰

⁶⁶⁵Ulrich Welke, "Vapeur et travail industriel dans la navigation maritime commerciale au XIX^e siècle," *Revue d'Histoire Maritime*, no. 18 (2014): 25.

⁶⁶⁶See: Enric Garcia-Domingo, "The impact of mechanization on Spanish Maritime Labour (1834 - 1914): from seamen to sea workers," in Delis et al., *Seafaring Lives in Transition* [forthcoming]; Richard Gorski, ed. *Maritime Labour: Contributions to the history of work at sea (1500 - 2000)* (Amsterdam: Amsterdam University Press: 2007); Enri Garcia-Domingo, *El mundo del tranajo en la marina mercante espanola, 1834 - 1914* (Barcelona: Universitat de Barcelona & Icaria Editorial, 2017); Sager, *Seafaring Labour: the Merchant Marine of Atlantic Canada*; Eric W. Sager, *Ships and Memories. Merchant Seafarers in Canada's Age of Steam* (Vancouver: UBC Press, 1993); Yrjo Kaikuaiainen, *Sailing into twilight: Finish Shipping in an Age of Transport Revolution, 1860-1914* (Helsinki: SHS, 1991).

⁶⁶⁷Welke, "Vapeur et travail industriel," 26.

⁶⁶⁸Nicholas Cochard gives 110 to 132. Cochard "Salaires et niveaux de vie des marins du commerce," 121.

⁶⁶⁹Berneron-Couvenhes, *Les Messageries Maritimes*, 477.

⁶⁷⁰*Ibid.* 453.

Unlike the deck crew, who were composed of Europeans, the engine crew was predominantly made up of indigenous peoples. They were often Somalis, recruited in Aden or in Djibouti by a *surang* (in English *serang*), an Indian or Arab head, who was employed in order to bridge the linguistic gap, by directing the foreign stokers, and translating the orders of the European officers and stokers.⁶⁷¹ This recruitment could be partially explained by the fact that Arab people were more likely to withstand the infernal heat, and hard work required, especially on lines that traversed the Red Sea. The Arab stokers and trimmers were separated from the rest of the crew, mainly due to language barriers.⁶⁷²

The industrial growth of the port of La Ciotat had profound ramifications on the seafaring population. The evolution of the sailors and captains provides evidence of the transition of the maritime community. Even though they had a strong connection to the sea, sailors in La Ciotat became industrial workers. The captains declined in numbers and were employed in lower ranks on board steamers, often losing social status. Concurrently, with the disappearance of the traditional seafaring professions of the age of sail such as sailor, ship-boy, and captain, the seafaring professions relating to the marine engine, such as stoker and engineer, increased at a rapid pace. While captains were declining, chief engineers were increasing in numbers, while stokers replaced sailors in the social construct of the town. These changes show the transformation of the town of La Ciotat, which from a traditional maritime community dominated by wooden vessels, fishing boats, skilled captains, sailors, and fishermen, transitioned during the second half of the nineteenth century to an industrial maritime community.

6.8 Conclusion

The examination of the evolution of La Ciotat's seafaring labour force consists of an excellent paradigm of a profound transition of a port-town from sail to steam. As the technical base of *Messageries Maritimes*, La Ciotat experienced a transformation of activities both ashore

⁶⁷¹Laurent Jolly, "Pratiques d'embauche en situation coloniale: les Messageries Maritimes du golfe d'Aden (1862-1940)," *Le Mouvement Social*, no. 4 (2020): 111–27.

⁶⁷²For the use of Indian and Arab stokers in the European fleet, see also: Gopalan Balachandran, *Globalizing Labour? Indian Seafarers and World Shipping* (c. 1870 - 1945) (New Delhi: Oxford University Press, 2012).

and at sea, with the majority of the population connected in some way to the company. The maritime community became the industrial labour pool of the company, both for the shipyards, and the engine room of their steamers. The adaptation of the existing seafaring professions towards steam, and the company strategy to form a labour pool for the engine room confirms, once more, the influence of the company on the local maritime community.

The community integrated into the practices of an industrial economy, and experienced a total cultural transformation. The sailors transitioned from a mixture of maritime and agricultural activities, to dependence on a waged labour system, controlled strictly by the company. Even though the traditional maritime culture of the population was in decline, the town maintained a strong connection with the sea. The decline of the sailor as a highly-skilled professional was balanced by the rise of an industrial skilled maritime worker, on board ships. In this way, the prestige of the seafaring population was reaffirmed through an industrial career model, which maintained a strong bond with the sea.

CHAPTER 7. The maritime community of La Ciotat into industrial capitalism: an overview of a social transformation.

7.1 Introduction

During the second half of the nineteenth century, the industrial growth of the port, including the development of large-scale shipyards and workshops of *Messageries Maritimes*; economic transition towards industrial shipbuilding; rapid urbanisation (due to immigration); changing demographic dynamics; the transformation of the occupational structure of the town; and the metamorphosis of seafaring lives, gave La Ciotat a new social character. The social dynamics in the town were now transformed, with a decline of the existing local elite, the presence of immigrants with subsequent social effects that gave a new perception of town character, a rise in cultural diversity, violence, and prostitution (especially in the port area), the advent of large steel-based steamers, and the growth of syndicalism.

This chapter will examine the long-term impact of social changes through an analysis of the newly transformed maritime community, which rose to prominence during the second half of the nineteenth century. The chapter will concentrate on the decline of the town's elite, the social integration of immigrants (including their employment and mobility patterns), and the rise of violence, prostitution and cultural diversity. In addition, the chapter considers the formation of a working-class society in the town, observed through the rise of syndicalism and the momentous strikes of 1911. This chapter is a portrayal of every-day life in the town, and the social and cultural impact of the transition towards industrial shipbuilding in the era of industrial capitalism.

7.2 The changing elite of La Ciotat.

The profound change for the maritime community and the transformation of local maritime culture through industrial shipbuilding is evident within the composition of the town's elite. The rise of industrial capitalism led to new social structures that eliminated the existing social patterns of a maritime community prior to industrialisation, where local merchants, and captains represented the town elite. This decline in the status (and number) of captains, as observed in

chapters five and six, had follow-on effects on the subsequent decline of the local elite. In particular, in 1831, 72 household heads followed the professions of captain - this probably constituted the wealthiest part of society. During the predominance of the sailing ship, among the many agents involved in colonial trade, the captain occupied a prominent role.⁶⁷³ The complexity of the responsibilities of captains during the sailing era went beyond the skills of ship navigation; additionally, captains were attributed with all the characteristics of skillful merchants. As observed in chapter one, the role of the captain (as connected with specific shipowners of Marseilles) represented a responsible agent with a diversity of merchant and financial tasks in the service of large trading houses. In ports visited, it was the captain who was often the sole judge of commercial decisions, even if specific instructions had been given to him before his departure.⁶⁷⁴ The knowledge of the market and the professional relations he maintained in different ports, the reliability of his character, and possibly his quality as co-owner of the vessel, were the main arguments for his recruitment.⁶⁷⁵ In this regard, he indeed represented a significant figure in the local society of his hometown. According to the census of 1831, other professions that represented an equal or higher social status in the town included: four merchants [*negociants*]; two doctors; and two notaries. In the nominative census of 1911, the proportion of captains declined sharply. The analysis indicates seventeen captains, eight merchants [*negociants*], and six commercial representatives.

The evolution of the *Cercle du Commerce*, the local society of nobles in La Ciotat, is also indicative of the decline of the pre-existing local elite. The *Cercle du Commerce* was formed in 1834 and “was composed by the most honorable people of the town”.⁶⁷⁶ In 1852, the *Cercle*’s

⁶⁷³Frédéric Candelon-Boudet, “‘Comme il jugera à propos...’. De la responsabilité du capitaine marchand dans l’approvisionnement des Iles françaises d’Amérique au XVIII^e siècle,” in *Entrepreneurs des mers. Capitaines et marins du XVI^e au XIX^e siècle*, eds. Gilbert Buti et al. (Paris: Riveneuve éditions, 2017), 61.

⁶⁷⁴Laurent Pavlidis, “Capitaines provençaux dans l’Océan Indien au XIX^e siècle: entre mission assignée et liberté d’action. Une recherche impossible?,” in *Entrepreneurs des mers*, 105–6.

⁶⁷⁵Jann M. Witt, “During the voyage every captain is monarch of the ship: The merchant captain from, the seventeenth to the nineteenth century,” *International Journal of Maritime History* 13, no. 2 (2001): 166–84; Helen Doe, “Power, authority and communications: The Role of the Master and the Managing Owner in nineteenth-century British merchant shipping,” *International Journal of Maritime History* 25, no. 1 (2013): 103–25.

⁶⁷⁶AD BdR, 4 M 650, Cercle du Commerce [Original: elle est composée des personnes les plus honorables du pays].

representative wrote to the region and highlighted once again that “this society is composed by the elite of the inhabitants of the town”.⁶⁷⁷ In correspondence sent to the Prefect in 1852, 1864, and 1876, member lists of local society were included. This is an interesting information source for prominent professions within the town elite. In 1852, from 112 members of the *Cercle*, 52 were captains in the merchant marine (two in receipt of pension), six were lieutenants (three in receipt of pension), and two were sailors. In addition, membership included the Professor of the *Ecole d’Hydrographie*, three merchants, and 15 proprietors. The list also includes Louis Benet. The remaining members included two doctors, two judges, the mayor, and some administrative professions (such as the tax collector, and cashiers). The predominance of captains within the membership list demonstrates the importance of the sea in the social status of the local population.

In 1864, the *Cercle* membership list remained similar to that of 1852. From 108 members, 52 were captains in the merchant marine, five were lieutenants (in receipt of pension), and the Commissionaire of the *Inscription Maritime*. Interestingly, even though captains remained predominant in society, the list of 1864 also includes the French Minister of Agriculture and Commerce, Armand Behic, who was also director and president of the board of shareholders of *Messageries Maritimes*, and three office managers, a workshop manager, and two engineers, all employed in the *Messageries Maritimes* shipyard.⁶⁷⁸ Therefore, even at this stage, there was a clear emergence of a new social order in the town, connected to industrial growth.

In 1876, the *Cercle du Commerce* membership list declined to 26. From those, there were 14 captains 12 of whom were retired. There was also, one office manager, an engineer, together with notaries, and Doctors of the town.⁶⁷⁹ In the same year (April 1876), Chateigner wrote in his journal: “The *Cercle du Commerce* disappeared. Twenty of its old members requested their admission on the *Cercle Philharmonique*”.⁶⁸⁰ Those that asked to be admitted to the *Cercle Philharmonique* were notaries, a tax collector, two doctors, the director of the gaz factory, a soap

⁶⁷⁷AD BdR, 4 M 650, Cercle du Commerce [Original: Le Cercle [...] compte à son soin l’elite des habitants de notre ville].

⁶⁷⁸AD BdR, 4 M 650, Cercle du Commerce.

⁶⁷⁹AD BdR, 4 M 650, Cercle du Commerce.

⁶⁸⁰Journal Chateigner, 18 avril 1876. [Original: Le Cercle du Commerce, qui vivotait (1er janvier 1872) a disparu. Vingt de ses anciens membres sollicitent leur admission au Cercle Philharmonique].

manufacturer, the director of the shipyard and workshop of *Messageries Maritimes*, five engineers, a pharmacist, and only one captain. The following comment by historian Jean Jeansoulin (who annotated the journal) was telling: “We are at the end of notable inhabitants of La Ciotat”.⁶⁸¹

The *Cercle Philharmonique* was formed in 1864, as *Cercles Philharmonique des Ateliers du Service Maritime des Messageries Impériales* – it included high ranking employees of the shipyards, such as commissionaires, engineers, and managers, together with a few workers such as fitters, boilermakers, and draughtsmen.⁶⁸² The discontinuance of the *Cercle du Commerce*, and the rise of the *Cercle Philharmonique* reflects the loss of the old local elite, connected mainly to prominent seafaring professions in the pre-industrial era, and the rise of a new industrial elite linked to industrial growth.

However, as observed through the distribution of domestic servants in town households at the end of the nineteenth century, the new elite were not as established or as solid as the previous long-standing class. The professions of household heads who employed a domestic servant can also be an accurate path to trace the elite composition of the town. Firstly, the number of households that employed a paid domestic worker declined dramatically between 1851 and 1911. There were 102 domestic servants employed and registered in specific households in 1851, however, this number dropped to 49 in 1911, despite significant population growth. The households that employed a domestic worker indicate socially prominent occupations. In 1851, those households were mainly related to maritime professions such as captains (twenty-four households with a domestic servant), together with the households of a lieutenant, a marine officer, and a harbor master. The high-ranking maritime professions formed the nucleus of La Ciotat’s elite, and a large number of them were also registered as proprietors or rentiers (in total forty-two households of captains in 1851). The presence of trade and commerce, and the active participation of La Ciotat in the old Levantine trade known as *caravane maritime*,⁶⁸³ with extensive shipping links and the network system of overseas trade, offered prosperous earnings, which were visible in La Ciotat regardless of the decline in 1831. In addition, in the same year, other households that

⁶⁸¹Journal Chateigner, 18 avril 1876 [Original: Nous avons là la fine des notables ciotadens].

⁶⁸²AD BdR, 4 M 650, Cercle Philharmonique.

⁶⁸³Panzac, *La caravane maritime*.

employed domestic workers included: a doctor; a professor; a notary; the director of the post office; a customs tax collector; the mayor; an engineer; and six merchants.

In 1911, the landscape of households with domestic workers was much more dispersed. The analysis found only eight captains as household heads who employed a *domestique*, together with six merchants, four engineers, a cashier, a watchmaker, a notary, a pharmacist, a doctor, the chief of the rail station, and 16 proprietors/rentiers, where the profession was not specified. The above analysis demonstrates the prominent maritime culture in the town in 1851, associated with the sailing ship era and the related predominance of captains as the elite. Contrariwise, in 1911, the predominance of high-ranking maritime professions had disappeared. The decline of the profession of captain as the leading figure of high social status, as was demonstrated in chapters five and six, is clearly evident. The town elite in relative terms was smaller than that of 1851, and were represented by individuals that often were not born in the town, for example, the Director of the shipyard and workshops of *Messageries Maritimes* in 1911, Eugène Raymond, was born and raised in Marseilles.

The changing character of the maritime economy in La Ciotat focused on land-based industrialisation was also apparent in the evident absence from the nominative censuses of several other essential occupations related to this type of economy. It is also noteworthy that the major commercial and financial sector of the maritime economy was not located in La Ciotat, for example, brokers, agents, and shipping firm executives, were non-existent. There is also a clear absence of professions related to shipping services, such as commission agents, traffickers, and merchants. And importantly, shipowners were not based in the town. The economy of La Ciotat was now specialised in shipbuilding services. The dominant shipbuilding industry together with the new modes of transport that made the trip to Marseilles easier,⁶⁸⁴ and the emergence of industrial capitalism, with new forms of management in shipping, led to a sharp decline of the local elite in the town. It is evident that the absence of a powerful elite during the second half of the nineteenth century indicates once more the role of La Ciotat in the system of ports of Provence, and the strong dependence on Marseilles. During the second half of the nineteenth century, La

⁶⁸⁴Since the 1880s La Ciotat was connected (twice per week) with Marseilles, Toulon, and Saint Tropez by the steamboat “Anne-Marie”, and daily by train.

Ciotat evolved into an industrial outport of Marseilles, where the working class were mainly concentrated.

7.3 Demographic changes and social relations: the immigrants within the city.

Immigrants had a profound effect on the long-term development of social and structural change.⁶⁸⁵ Population changes play a significant role in political, social, and economic changes. The industrialisation of the port and subsequent population growth formed a significant Italian community in the town. Post 1870, this increased Italian presence justified the establishment of an Italian consul in La Ciotat, an act welcomed by the Italian community.⁶⁸⁶ In addition, during the 1870s, the church of *Pénitents Bleus* was designated as the parish church of the Italian population, and almost every Sunday, a priest arrived from Marseilles in order to perform Mass.⁶⁸⁷ Along with this, several Italian associations (*Cercles*) had been formed in the town, such as the “Gli Alpini”, “Alféa”, “Filo-Drammatica” and “Unione Latina”.⁶⁸⁸

During the second half of the nineteenth century, the rising Italian population formed new social patterns and created new social conflicts, related to both economic and nationalistic factors. Italians were blamed for lowering wages in the shipyard, and thus affecting working conditions. A report given to the prefect of Bouches-du-Rhône by La Ciotat’s police officer regarding relations between French and Italian workers in the shipyards and workshops of *Messageries Maritimes*, reflects the level of Italian integration in the town. He states that “the relations of French and

⁶⁸⁵Lee, “Socio-economic characteristics,” 158. See also: Emilienne Leroux, *Histoire d’une Ville et de ses Habitants: Nantes*, vol. 1, *Des origines à 1914* (Paris: L’Harmattan, 2014); James H. Johnson and Colin G. Pooley, eds. *The Structure of Nineteenth-Century Cities* (London: Architectural Press, 1982).

⁶⁸⁶Journal Chateigner, 26 janvier 1878, 28 mai 1882 & 10 septembre 1884.

⁶⁸⁷Journal Chateigner, 15 avril 1874 & 1 juillet 1876.

⁶⁸⁸Journal Chateigner, 28 mai 1882, 30 avril 1887 & 6 avril 1897.

foreign workers are quite good. Nevertheless, the French do not associate with Italians, as they do not see them favourably, because they lower the wages and do not have a good character”.⁶⁸⁹

In his journal, Augustin Chateigner referred to incidents that occurred in the town between French and Italians. In November 1887, after a stabbing of a French resident by a Piemontese, he stated that “It is urgent to increase the police services for the population's safety. Scenes like those of yesterday have been happening too often for some time”.⁶⁹⁰ A year later, in April 1888, the newspaper *Le Petit Marseillais* in a section entitled “Les Italiens de La Ciotat” wrote that on Sunday around 8:30 in the evening, sailors from the *Sindh* were attacked and stabbed by Italians. The same evening, the performance given at the municipal theatre by the *Cercle de la Fusion Chorale* was disturbed by vociferations by a drunk Italian threatening those around him with a knife. “The population is deeply outraged by the sad spectacles that the Italians made too often in La Ciotat”.⁶⁹¹

However, the point of view of an Italian journalist that came to the south of France in order to investigate and report the situation relating to these conflicts, was different:

The bad thing is that, in Marseilles, as in Toulon, in La Ciotat, and La Seyne, wherever many Italians are employed, the attacks are almost always carried out by a group of individuals against a single man. Seven or eight [French] workers join together and attack an Italian worker when he passes alone. The French workers study boxing, the fists fencing, and the kicks, and the Italians mostly do not know them. [...] The survival instinct made Italians look for the weapon that most frightens the French. They found that the French are afraid of the blade; it is enough for them to see a knife to ensure they will flee away. [...] The more modest people have adopted the use of the revolver, but none of the [Italian] colony, unless you speak French or Provençal, no one dares to go out late at night, or in

⁶⁸⁹AD BdR, 1 M 879, Enquête sur la population ouvrière de l'Arrondissement de La Ciotat, Novembre 1882. [Original: les rapports des ouvriers français et étrangers sont assez bons. Mais les français ne frayent guère avec les Italiens, qu'ils ne voient pas de bon œil parce qu'ils font baisser le taux des salaires et qu'ils n'ont pas bon character].

⁶⁹⁰AMLC, Journal Chateigner, 4 Octobre 1887 [Original: Il paraît urgent, pour la sécurité de la population, que l'on augmente les services de police. Des scènes dans le genre de celles d'hier se produisent trop souvent depuis quelque temps].

⁶⁹¹*Le Petit Marseillais*, 4 avril 1888 [Original: La population est vivement indiquée par les scènes dont les Italiens donnent trop souvent le triste spectacle à La Ciotat].

*certain uneventful moments, without any weapon whatsoever. How about a city where foreigners find themselves in these conditions?*⁶⁹²

During this period, in all of littoral Provence, relations between Italians and French were tense, and deteriorated further in the 1880s due to the growing political tensions between the two countries. The establishment of a French protectorate in Tunisia in 1881 frustrated Italy's imperialistic ambitions. A year later, Italy joined the triple alliance of Austria, Hungary, and Germany – this further deepened the conflict with France. These conflicts fueled a deep nationalism expressed widely by the popular French press, and formed widespread xenophobic feelings toward the local Italian population.⁶⁹³ The peak of these violent relations was the large-scale riots in the salt mines of Aigues Mortes in the southern Camargue, when many Italians were wounded and/or killed by a violent attack by French salt mine workers.⁶⁹⁴

The reconstitution of the Italian households in La Ciotat shows the degree of their geographical mobility in the region, and/or their stability in the town. By examining the place of birth of children born in Italian households, the analysis can observe that in most cases, children were born in the town; hence, the parents were permanently settled there. Some Italian households had children born in other parts of Provence, mainly in Marseilles, La Seyne-sur-Mer, Port-de-Bouc or Toulon. This reflects the internal mobility in the industrial maritime cluster of Provence, and the existence of a regional labour market related to industrial shipbuilding. However, the

⁶⁹²Giovanni Battista Arnaudo, *Gli Italiani a Marsiglia. Lettere sei alla Gazzetta Piemontese con aggiunte ed annotazioni* (Torino: Roux e Favale, 1881), 38–40 [Original: Il male si è che, a Marsiglia, come a Tolone, alla Ciotat, alla Seyne, ovunque sono impiegati molti italiani, le aggressioni sono quasi sempre fatte da un gruppo d'individui contro un uomo solo. Sette, otto operai, o quel ch'è peggio, cinque o sei nerri si unsicono insieme ed assaltano un operaio italiano quando passa solo [...]. Gli operai francesi studiano molto la boxe, la scherma dei pugni e dei calci, e gli italiani per lo più non la conoscono. [...] L'istinto della conservazione ha fatto ricercare agli italiani l'arma che più spaventa il francese. Essi hanno scoperto che i francesi hanno paura della lama ; basta che essi veggano un coltello per essere sicuri che fuggono. [...] La persone più ammodo hanno adottato l'uso della rivoltella, ma nessuno della colonia, a meno che non parli il francese o il provenzale come un marsigliese, nessuno osa uscire la sera tardi, o in certi momenti poco tranquilli, senza un'arma qualsiasi. Che ne dite voi di una città un cui gli stranieri si trovano in queste condizioni?].

⁶⁹³Leo Lucassen, *The Immigrant Threat: The Integration of Old and New Migrants in Western Europe since 1850* (Urbana: University of Illinois Press, 2005), 79–82.

⁶⁹⁴Gérard Noiriel, *Le massacre des Italiens. Aigues-Mortes, 17 août 1893* (Paris: Fayard, 2010).

Italian immigrants of La Ciotat seem to have some relative stability in the town. This can also be affirmed by the evolution of marital status and population age, and an increase of the married female population in the town (as noted in chapter four). The steady establishment of Italian immigrants may also be due to the welfare strategies of *Messageries Maritimes*, to create a constant pool of local labour.

The integration process of Italians in La Ciotat cannot be assessed only by separate incidents that occurred in the town, and the evolution of stereotypes between French and Italian males. An important indicator that can measure the social integration of the Italian population in La Ciotat during the second half of the nineteenth century is mixed marriages. The analysis of the census 1911 database provides evidence of 91 households (out of a total of 2,856 households) in the town where either husband or wife were born in France. This is a rate of 3% of the total households, and 18% of Italian households separately. In this case, the Italian member of the mixed household was naturalised French. In this context, even though the place of birth of the children of Italian couples reveals their permanence in the town, the small number of intermarriages also shows the limited rate of social interaction and integration of Italians during the second half of the nineteenth century.

It is interesting to trace the role of the foreign population, mainly Italians, in the professional composition of La Ciotat. Given the nominative census of 1911, 58% of the active Italian male population exercised a profession related to heavy industry, machinery operation, and manufacture. From those, 10% were registered as “*manoeuvre*” or “*journalier*”. Other than that, the Italian male population was occupied in food-related industries, as bakers or butchers, or as hairdressers, tailors, and gardeners. The Italian female population of the town were mainly occupied as domestic servants. Women also work as tailors, gardeners, and daily labourers (*journaliers*).

7.4 The social character of the port: violence, prostitution and cultural diversity.

Although the maritime trade of the port was limited to cobblestones and agricultural products, La Ciotat became an industrial port-town acquiring some of the social characteristics of

other prominent ports. The port area, frequented by steamers in need of repair and maintenance, teemed with sailors and stokers.

Table 7.1. Seafarers registered in the steamers anchored in the port (1886 - 1911).

YEAR OF CENSUS	NUMBER FRENCH	OF NUMBER FOREIGNERS	OF TOTAL
1886			124*
1891			132*
1896	39	49	88
1901	65	9	74
1911	42	177	219

Source: AMLC, Listes de denomb, 1886, 1891, 1896, 1901, 1911. *The nationality is not included for these two years.

This is also demonstrated by the nominative census of the town, as since 1886 the number of seafarers inside *paquebots* were registered.⁶⁹⁵ Table 7.1 indicates that during census periods, the number of people on board docked steamers could fluctuate from 74 to 219. This included seamen employed as crewmen, awaiting vessel repair prior to their voyage. Officers, deck crew (sailors), and engine personnel (stokers) frequented the port quays. Therefore, the docked ship crews, shipyard workers, and the growing Italian community created new social characteristics that altered the social dynamics of the town.

The changes in everyday life can be seen through different events as presented by the local press, or vividly described by Chateigner in his journal, or by the frequent correspondence between the Mayor and the Police Commissionaire, with the Bouches-du-Rhône Prefect.⁶⁹⁶ Often, sailors

⁶⁹⁵By a decree of 1st March 1891, the population present in the town but not resident should be included in the recapitulation data of the nominative census. Even though the decree was issued in 1891, the census of 1886 includes this data too. [Population comptée à part conformément à l'article 2 du décret de 1^{er} mars 1891].

⁶⁹⁶This is the Series 1M and 4M in the Departmental Archives of Bouches-du-Rhône.

and stokers disembarked in La Ciotat to eat in taverns in the port and at the *cite ouvrière*. The town became used to Indians, Chinese, and Somalis, who were employed by the steamers as either stokers or waiters. The presence of different nationalities (that were not residents) in the town led to a rise of violence in the port. Often, this violence ended with minor injuries.⁶⁹⁷ As the Prefect pointed out in his letter to the Minister of the Interior (in 1871), the presence of a large mixed group of foreigners and passing workers (*ouvrier de passage*) caused disorder in the town.⁶⁹⁸

One incident, described by the local press, occurred in 1892 between three local dockers and three “*nègres*” stokers. During the fight, one of the stokers was seriously injured. The remaining foreign stokers disembarked and continued the fight with the dockers, who eventually threw one of the stokers of the *Australien*, into the sea. The journal depicts the following scene:

In a few moments, the “neger” crews of the Australien, the Salazie, and the Pei-Ho, about sixty in number, armed with batons, shovels, and stakes, left their ships and, despite the defense of the guard on duty and of a customs officer, opened the door of the shipyard and, furious, uttering cries of anger, they knocked through their path, reaching men, women and children with their blows.

The panic that ensued in the port finally concluded following the direct intervention of steamer *surangs* who calmed the stokers down, and walked them back on board.⁶⁹⁹ In 1907, some sailors of *Yang-Tse* began to throw firecrackers at five Chinese seamen employed by the steamer *Tourane* – the seamen were drinking at Bar *Martiale*. The fight consisted of punches, kicks, and the use of bottles. The Chinese (feeling set upon) took refuge in the shipyards of the *Messageries Maritimes*, closing the door with the help of the shipyard guardian.

Apart from fights, the presence of foreign seafarers was evident in many other aspects of everyday life. For example, the *Mardi Gras* carnival was celebrated vibrantly by all inhabitants of La Ciotat, both French and Italians, as well as both French and foreign seamen from onboard

⁶⁹⁷Journal Chateigner, 16 July 1907.

⁶⁹⁸AD BdR, 1 M 879.

⁶⁹⁹*Le Petit Marseillais*, 6 Juin 1892 [Original: En peu d’instants, les équipages nègres de l’Australien, du Salazie, du Pei-Ho, au nombre de soixante environ, armée de matraques, de pelles, de pieux, quittèrent leur bord et, malgré la défense du gardien de service et d’un douanier, ouvrirent la porte du chantier et, furieux, poussant des cris de colère, ils frappèrent à tort et à travers sur leur passage, atteignant de leurs coups des hommes, des femmes et des enfants].

steamers. “With the nightfall, sailors walked the *Carmentran* on the quays. It was burned in the *Place des Fruits*, at the sounds of an accordion and the drums of black people, who stroked tin cans”.⁷⁰⁰ On 15th March 1896, Arab stokers and sailors of the steamer *Ville-de-La Ciotat*, celebrated the victory of the Ethiopian Emperor Menilek II against Italian troops at the battle of Adwa.⁷⁰¹ “With flags, banging on pots and pans, they walked towards the town hall, singing and greeting people, who often returned their salute”.⁷⁰² In February 1900, Arab stokers and trimmers from the steamers *Annam* and *Irraouady*, crossed the town with French and Turkish flags to celebrate their annual Ramadan festival. One, wearing a sheep skin led the procession – he was painted with an array of different colours, and wore a fez.⁷⁰³ All these various celebrations, related either to Provençal tradition, or to national and religious events of foreign seafarers, demonstrates how the life of the port was animated, enhancing the multicultural characteristics of La Ciotat.

Another element of the changing social characteristics of the town was the rise of prostitution. Police archives maintained in the departmental archives of Bouches-du-Rhône and the Municipal Archives of La Ciotat, together with the journal of Augustin Chateigner, provide relevant information concerning the evolution of brothels within the town. In November 1876, two brothels closed down due to their proximity to the school, and the constant fights that occurred in the neighbourhood.⁷⁰⁴ Following this closure, Chateigner signaled “the necessity of a brothel in La Ciotat, where 12.000 souls live, and plenty of unmarried workers as well as seamen of various nationalities come from docked ships in the port”.⁷⁰⁵

⁷⁰⁰Journal Chateigner, 5th March 1878. The *Carmentran* was a tradition of Provence, when during the last day of the carnival, the *Mardi Gras*, they made and burned the carnival’s mannequin, the *Carmentran*. [Original: A la tombée de la nuit, des matelots ont promené le *Carmentran* sur les quais. Il a été brulé à la place aux Fruits, aux sons d’un accordéon et du tam-tam des noirs, qui frappaient sur des boîtes de conserve].

⁷⁰¹With the victory in the military class at Adwa, on 1st March 1896, the Ethiopian forces checked Italy’s attempt to build an empire in Africa.

⁷⁰²Journal Chateigner, 15 March 1896.

⁷⁰³Journal Chateigner, 1 February 1900 & AD BdR, 1 M 795.

⁷⁰⁴AD BdR, 4 M 631, Maisons de tolérance.

⁷⁰⁵Journal Chateigner, 11 novembre 1876 [Original: La nécessité d’une telle maison à La Ciotat évulle de 12,000 âmes dans laquelle se trouve nombre des ouvriers célibataires, ainsi que des marins de divers nations provenant des navires abrités dans le port est avérée].

Some months later, on 30th November 1876, a brothel “finally” opened, followed by a further one on 11th March 1877. Chateigner noted that “many people approve of the opening [of the second house] because the existing brothel was badly kept, and was frequented especially by Negroes, and Chinese”.⁷⁰⁶ The opening of the second brothel in the *quartier de l’Escalet* (namely the area on the seaside nearby the shipyards), made some of the inhabitants furious, especially the previous mayor who had already promised that a second brothel would not be permitted. After opposition of “*un grand nombre de personnes notables*” who were opposed to the existence of “this sort of house” located close to the seaside, where the local population walked, etc., created the conditions for the brothel to close (October 1877).⁷⁰⁷ Chateigner also noted, that given the ongoing crisis in the shipyards during this period, including workforce dismissals, and more sporadic arrivals of ships for repair, the brothel activity declined, and most likely, they would have closed anyway due to lack of demand.⁷⁰⁸

In addition to ‘official’ brothels, it seems likely that illegal prostitution was present in the town. For example, in July 1879, the police closed three buildings that operated as hotels or cafes following complaints of young men caught by cafe maids in the streets.⁷⁰⁹ The appearance and then closure of brothels continued during this period. In 1890, the main brothel in the town closed due to complaints of fights on the road, and disrespect for public law. The clashes outside brothels, either between Italians or foreign seafarers, were a common characteristic of the town during this period. The inhabitants of La Ciotat frequently complained to the police.⁷¹⁰ In 1890, after the closure of a brothel, some inhabitants in the town requested through a petition to the Police:

[their] courteous attention to the situation created for the young people of the town and the floating population, due to the absence of a licensed house. This exposes them to indulge themselves towards people without any health guarantee, which certainly seriously

⁷⁰⁶Journal Chateigner, 11 mars 1877 [Original: [...] beaucoup de personnes approuvent car la maison de la rue Mouisset est, paraît-il, assez mal tenue et fréquentée surtout ‘par des nègres et des chinois].

⁷⁰⁷AD BdR, 4 M 631, Maisons de tolérance, Pétition des habitants de La Ciotat pour la fermeture de la maison de tolérance de Grands Moulins.

⁷⁰⁸Journal Chateigner, 12 octobre 1877.

⁷⁰⁹Journal Chateigner, 28 july 1879.

⁷¹⁰AMLC, FD. O6. 01., Maisons de tolérance.

*undermines their health and place them in a situation far below their resources to go and seek in another city what could have in the town.*⁷¹¹

During this period, the port of La Ciotat acquired new characteristics and began to resemble the social patterns of much larger commercial ports, that is, frequented by seafarers, shipyards workers, people of different nationalities, and prostitutes. The links between the new social structures in the town, and the appearance of the shipyards were more than obvious. The shipyards influenced the predominance of large numbers of single young men in the town, and maritime traffic increased the number of transient men. The port of La Ciotat was much more frequented by non-local men, either French or foreigners, who formed new social norms. Violence, prostitution, and cultural diversity changed the perception of the public space in La Ciotat.

7.5 Ship launchings as the major ceremonies in the town

In addition, the shipyards and their notoriety also reshaped the identity of the local community. The celebrations around ship launches were a significant event, which refashioned the public life of the town, where the majority of the local population enjoyed celebrating the achievements of shipyard work. Ship launches were the most important public ceremonies of the town. The entire city gathered at the quay to watch the vessel slip the berth, and enter the water. After the official speeches by the most prominent and important political figures of the day, who arrived in La Ciotat for the occasion, the company hosted a banquet for local and government officials, and visiting dignitaries. The launch of Messageries Maritimes vessels became an occasion for the town to celebrate. The description given in the newspaper *Le Clairon*, for the launch of *Natal* (1881), depicts perfectly, the image and significance of ship launches in La Ciotat.

When there is a launching, La Ciotat turns upside down. A massive crowd of foreigners arrive there by train, boat, car, on foot, from all the coast [...]. Already

⁷¹¹AMLC, FD. O6. 01., Maisons de tolérance [Original: Les soussignés sollicitent votre bienveillante attention sur la situation créée aux jeunes gens du pays et à la population flottante, pour l'absence d'une maison de tolérance qui les expose à se livrer envers des personnes ne présentant aucune garantie sanitaire qui certainement porte gravement atteinte à leur santé et de plus les placent dans une situation bien au-dessous de leur ressource pour aller chercher dans une autre ville ce qui pourrait avoir dans le pays].

yesterday evening, the hotels were full. With suitcases in hand, a number of travellers were going back and forth along the *Quai de la Tasse* looking for a place to stay. Ladies in formal dresses – we dress well for a launch – wandered sadly from hotel to hotel, very happy to finally accept a room in a furnished house for the use of sailors. This morning, at eight o'clock mass, Father Paraque announced that there would be neither sermon nor big mass, which would be replaced by three small masses “to allow the religious people to fulfill their duties, without depriving them of the pleasure of witnessing the launch of the ship”. At 9 o'clock, I head for the hold. The *Natal* stands there, with its long red hull supported by the crib. The colossal vessel destined for Australia's new service, via the Suez Canal [...], is 130 meters long, 12 meters wide, 10 meters high. Her gross tonnage is 3,882 tons. Her engine, of the compound system, built in the workshops of *La Ciotat*, is 2,400 nominal horsepower. [...]

A large number of workers work on the sound of drums. It is the time of removal from the ship of the forest of joists which support it like crutches, in order to leave it naked and alone in its static force, and after, to give it the forward thrust which makes it slide into the sea. Great blows of the mallet were driven under the keel, between the joints of the cradle, in order to lift the vessel. We blow up the spurs or lateral supports, the small ones first, then the medium ones; we soap the inclined plane where the cradle must slide, we wet the ropes that pass under the keel, so that by tightening, they lift it slightly.

The moment of movement arrives. It is eleven o'clock. On an improvised altar, the parish priest of *La Ciotat* said prayers. Then the priest, taking a branch of wood soaked in holy water, sprinkles it on the sides of the vessel, while he walks around. A solemn silence accompanies the blessing. All that remains is the large spindles, which support the upper parts of the ship. They are shot down with a mallet, accompanying them in their fall with cables. With great blows of an axe we cut the cables that hold the ship in place. [.....] The bow is already soaking in the sea, then the whole hull sinks into it... Everyone is standing up, with hats in hand, gripped. Some scream, others withdrawn by emotions, want to cry.

*The music of La Ciotat plays the inevitable Marseillaise. It is midday. The bell is ringing out. The Natal took to the sea.*⁷¹²

Ship launch ceremonies reflected both the golden age of high production, and crises in the shipyard. Many times, especially when unemployment was rising, ship launches signified the end of work and the prospect of unemployment in the town. In November 1899, with the launch of the *Atlantique*, Chateigner noted that “after the launch of the ship, the crowd of curious people could

⁷¹²*Le Clairon*, 5 juillet 1881 [Original: Quand il y a un lancement, La Ciotat est sens dessus dessous. Une foule énorme d'étrangers y arrive en chemin de fer, en bateau, en voiture, à pied, de tout le littoral [...]. Hier soir déjà, les hôtels étaient pleins. Le quai de la Tasse était sillonné d'une quantité de voyageurs, valise à la main cherchant un gîte. Des dames en toilette –on s'habille pour un lancement – erraient tristement d'un hôtel à l'autre, trop heureuses d'accepter enfin une chambre de maison garnie à l'usage des marins. Ce matin, à la messe de huit heures, M. le curé Paraque a annoncé qu'il n'y aurait ni prône, ni grand'messe, laquelle serait remplacée par trois messes basses « pour permettre aux fidèles de remplir leurs devoirs, sans les priver du plaisir d'assister au lancement du navire ». A 9 heures, je me dirige vers la cale. Le Natal s'y dresse, avec sa longue coque soutenue par les épontilles. Le colosse destiné au nouveau service de l'Australie, par le canal de Suez [...], mesure 130 mètres de long, 12 de large, 10 de haut. Son tonnage est de 3.882 tonnes. Sa machine, du système compound, construite dans les ateliers de la Ciotat, est de 2.400 chevaux nominaux. [...] Une légion d'ouvriers travaille en mesure, au son du tambour. Il s'agit de débarrasser le navire de cette forêt de solives qui le soutiennent comme des béquilles, de le laisser nu et seul dans sa force statique, puis de lui donner l'impulsion qui le fait glisser à la mer. A grands coups de maillet, on enfonce des coups sous la quille, entre les joints du berceau, pour le soulever. On fait sauter les épontilles ou soutiens latéraux, les petites d'abord, puis les moyennes ; on savonne le plan incliné où doit glisser le berceau, on mouille les cordes qui passent sous la quille, pour qu'en se resserrant elles la soulèvent légèrement. Le moment devient émouvant. Il est onze heures. Sur un autel improvisé, le curé de La Ciotat dit des prières. Puis le prêtre prenant une branche de bois trempé dans l'eau bénite, en asperge les flancs du navire, dont il fait le tour. Un silence solennel accompagne la bénédiction. Il ne reste plus que les grandes épontilles qui soutiennent les parties hautes du navire. On les abat à coups de maillet, en les accompagnant dans leur chute avec des câbles. A grands coups de hache, on coupe les câbles qui retiennent le navire à l'arrière de la vitesse acquise. Le vaisseau marche au milieu d'un brasier. L'avant trempe déjà dans la mer, puis toute la coque s'y plonge... Tout le monde est debout, découvert, haletant. Les uns crient, les autres, émus en dedans, ont envie de pleurer. La musique de La Ciotat joue l'inévitable Marseillaise. Il est midi. Les cloches sonnent. Le Natal a pris la mer].

notice with a crumb in the heart, the strange and sad aspect of the vast shipyards empty”⁷¹³. Some years later, in 1907, the launch was followed by a speech from Andre Lebon, who declared that he would like passionately, that these shipyard would see new liners to raise on their slipways, but he could not give this hope given the actual situation.⁷¹⁴

Image 7.1. Launching of a ship of *Messageries Maritimes*, La Ciotat, mid-nineteenth century.



Source: Online: <https://picclick.fr/Carte-LA-CIOTAT-Lancement-dun-Navire-aux-Chantiers-265235353888.html>.

⁷¹³Journal Chateigner, 5 novembre 1899 [Original: Lancement de l'Atlantique. [...] Apres cette mise à l'eau, la foule des curieux a pu constater, avec un serrement de cœur, l'aspect étrange et désolé des vastes chantiers de constructions vides...].

⁷¹⁴Journal Chateigner, 2 décembre 1907.

7.6 The rise of syndicalism in La Ciotat and the strikes of 1911: “Toute la ville est en grève”.

In the mid-nineteenth century, far-reaching changes began to occur in La Ciotat, which entered into a process of transition based on the transformation of the organisational and technological bases of production. Steam power and mechanisation in shipbuilding set the objective coordinates within which the process of class formation took place in La Ciotat. The growth of the factory system led to the transformation of the labour process, which itself was shaped by the relationship between the company and the labour force.

Trade Unionism in La Ciotat grew slowly. The fact that the labour movement was slow to rise was due to this process of transformation, and the evolution of the relationship between the company and the workers. A survey (completed in 1882) for the working population of the La Ciotat municipality considered them as republicans of whom only a small element were socialists, and without any real affirmed anarchists amongst them.⁷¹⁵ Interestingly, until the beginning of the twentieth century, there were only minimal attempts of strikes in the town. The strong paternalism of the company towards the workforce, together with strategies to reduce complaints and protests by dismissing mainly Italian workers (who were sent back to Italy), reduced unemployment in the town, especially during the first significant crisis in the shipyard in the 1870s. In addition, it seemed that the company did not allow any kind of protest or manifestation of one, by personnel. In 1892, after the dismissal of 50 workers, the *Petit Provençal* published a comment where it pointed out company practice to dismiss those workers that were members of the *Parti Ouvrier*.⁷¹⁶ In his report to the Prefect related to the demonstration of 1st May 1896, the Police Commissionaire wrote that regarding the workers in the shipyards of *Messageries Maritime*, there were a small number of them that actually wanted to participate. However, they finally abandoned the idea due to company intolerance to the participation of workers in any kind of political manifestation in the public space or sphere.⁷¹⁷

⁷¹⁵AD BdR, 1 M 879: Enquête sur la population ouvrière du département des Bouches-du-Rhône, Novembre 1882.

⁷¹⁶*Le Petit Provençal*, 28 août 1892.

⁷¹⁷AD BdR, 1 M 881: Manifestations au 1^{er} Mai 1896 au département du Bouches-du-Rhône.

Nevertheless, political ideas were present in the town through the organisation of public speeches, conferences, reunions, and banquets of socialists and anarchists, coming from all over the country. In 1868, the *Association Internationale des Ouvriers* (or *First International*) formed a section in La Ciotat. Some years later, in 1872, following a law that prohibited the political affiliations of workers, this section of the *Internationale* in La Ciotat closed.⁷¹⁸ In August 1872, the newspaper “*Le Travailleur*” appeared in La Ciotat – it operated for a month until a prohibition was enforced by the Police.⁷¹⁹ In May 1880, the Association “*La Libre Pensée*” was formed in the town after the conference of Paule Mink, a French feminism and socialist revolutionary, who appeared in the municipal theatre a month earlier.⁷²⁰ The socialist deputy Clovis Hugues, a socialist activist and journalist in Provence, who visited La Ciotat regularly (especially during the 1880s), defended socialism and the necessity for workers to be organised in a trade union. He also argued for a coalition between foreign and French workers.⁷²¹ Finally (in 1892), following a conference by Paul Lafargue (a deputy from Lille), a group of socialist studies was formed in the town. Some weeks after this event, this group gave birth to a section of the *Parti Ouvrier* in La Ciotat, the *Agglomeration Ciotadenne du Parti Ouvrier*.⁷²² This section would have a great success some weeks later, with a clear victory in the municipal elections, under the title “*Comité du Parti Ouvrier*”.⁷²³

During this period, only two strikes took place in La Ciotat. They both lasted only a few days. The first strike in the shipyards of *Messageries Maritimes* was called by women workers in the sail-making workshop. In the journal *Le Travailleur*, a woman who worked in the workshop published an article revealing the working conditions.

« *For a long time, the young ladies in the sail-making workshop, the tapestry workshop etc. have been forced to spend half of Sunday at their work. I wonder if it would not be more hygienic to let us rest at least one day a week. But that is not the dominant*

⁷¹⁸Journal Chateigner, 14 mars 1872.

⁷¹⁹Journal Chateigner, 7 août 1872 & 19 Septembre 1872.

⁷²⁰Journal Chateigner, 27 avril 1880, 25 mai 1880 & 3 novembre 1886.

⁷²¹Journal Chateigner, 7 juillet 1882 & 16 octobre 1885.

⁷²²Journal Chateigner, 12 mars 1892.

⁷²³Journal Chateigner, 29 avril 1892.

*subject of my letter. I want to tell you about what the vast majority of my comrades complain about. Throughout the week, we start our day at half-past six in the morning. It was only a fortnight ago that it was the same, even on Sundays. We do not know what influenced such a change in our working hours. Now on our seventh day, we do not start until seven in the morning and finish at noon, whereas, in the past, we used to be free at half-past eleven. Several of my comrades claim that this decision was taken only with the aim to give to the young ladies employed in the workshop, the time between six and seven in the morning, to fulfill their religious duties [and] to attend the mass. I will not vouch for the truth of this interpretation; however, I believe it is fair. However, my comrades would prefer to have the whole day to devote themselves to the care of their households and would see with pleasure that everyone was left [free] to look for the right time for the exercise of religion which becomes a very secondary question when one is forced to work in order to live”.*⁷²⁴

The same day, the women that worked in the workshops (of sail-making and tapestry) in the shipyards assembled and did not go to work.⁷²⁵ This was the first reference found of a strike in La Ciotat. In May 1883, another strike attempt was made, when around forty boilermaker workers

⁷²⁴*Le Travailleur*, 14 septembre 1872 [Original: Depuis longtemps les demoiselles occupées à la voilerie, à la tapisserie etc. sont astreintes à passer la moitié de la journée dominicale à leur travail, je me demande s’il ne serait pas plus hygiénique de nous laisser reposer au moins une journée par semaine. Mais là n’est pas l’objet dominant de ma lettre. Je vais vous dire de quoi se plaignent, en grande majorité mes camarades. Pendant toute la semaine, nous commençons notre journée à six heures et demi du matin. Il y a seulement quinze jours qu’il en était ainsi pour la journée du dimanche. Nous ne savons qu’elle influence a provoqué un changement dans nos heures de travail. Maintenant, notre septième journée ne commence qu’à sept heures du matin pour finir à midi, tandis qu’autrefois nous étions libres à onze heures et demie. Plusieurs de mes camarades prétendent que cette décision n’a été prise que dans le but de laisser aux demoiselles employées à l’atelier, le temps entre la sixième et la septième heure du matin, de remplir leurs devoirs religieux, d’assister à la messe...je ne me porterai pas garante de la vérité de cette interprétation ; cependant je crois qu’elle est juste. Mes camarades préféreraient avoir toute la journée pour se livrer aux soins de leurs ménages et verraient avec plaisir qu’on laissât chacun chercher l’heure propice aux exercices de la religion qui deviennent une question très secondaire lorsqu’on est forcé de travailler, pour vivre. Du reste, vous le savez, quand on est fervent chrétienne, une demi-heure ne suffit pas pour accomplir dévotement les devoirs d’une bonne catholique...].

⁷²⁵*Journal Chateigner*, 14 septembre 1872.

requested a wage rise. However, the strike did not happen following a meeting with the workshop chief engineer, who advised them to “wait and hope”.⁷²⁶

The situation changed at the beginning of the twentieth century when production declined in the shipyards and brought a wave of dismissals that led to constant unemployment in the town. With a letter to the Prefect of the region, the mayor of La Ciotat stated that unemployment (which began in October 1907) certainly will not end before the convention between the state and the *Compagnie des Messageries Maritimes*, which would take place at the earliest, towards the end of February 1909. Therefore, if the end of the crisis was predicted by that date, this means that profound unemployment would stay in the town for 17 months.⁷²⁷ In June 1908, Chateigner described the situation in the town. For eight months, even those that were still employed in the shipyards worked only two or three days per week. Many of them, unable to support their families, left the town.⁷²⁸ “This indefinite unemployment and these dismissals throw our town into disruption because everyone is affected. Now we only talk about the crisis of our shipyard and workshops because they are the soul of the town. The future looks dreary. Traders and storekeepers feel the sad effects, and the outcome of this crisis cannot be predicted anytime soon”.⁷²⁹

The great stagnation of the years following 1900 altered the mentalities of the population towards taking strike action. In 1908, a *comité des intérêts ciotadens* was formed - they sent a letter to the Prefect of Bouches-du-Rhône to highlight the reasons for high unemployment in the town. The workers of La Ciotat realised that the company were following a specific strategy of maintaining the crisis in the shipyards to wrest from the state as many advantages as possible during the pending renewal of the existing subsidy. This was meant to be agreed in 1908.⁷³⁰

⁷²⁶AD BdR, 4 M 652, Tentatives de grèves dans les chantiers de la Ciotat (2 mai 1883).

⁷²⁷AD BdR, 4 M 652.

⁷²⁸Journal Chateigner, 10 juin 1908.

⁷²⁹Journal Chateigner 21 mars 1908 [Original: Ce chômage indéfini et ces renvois jettent la perturbation de notre ville car tout le monde est touché. Maintenant, on ne s’entretient que de la crise de nos Ateliers, car ils sont l’âme du pays. L’avenir paraît bien sombre. Les commerçants et magasiniers en ressentent les tristes effets, et on ne peut prévoir de sitôt le dénouement de cette crise].

⁷³⁰AD BdR, 1 M 887, Crise et chômage dans les chantiers navals de la Ciotat, 1908.

On 1st June 1907, two delegates of the Federation of merchant-shipping seafarers of France, vested with power from the Marseille strike committee, went to their comrades on board the *Niger*, the *Polynesian*, and the *Djemnah* (anchored in La Ciotat), and urged them to leave their ships. The entire crew of each ship followed the orders of the delegates. The crew of the vessel *Tonkin*, which departed that morning for an engine test run, also disembarked from their ship upon arrival in La Ciotat. The *patrons pecheurs* of La Ciotat also joined the strike.⁷³¹ A year later (June 1908), the Union of seafarer waiters and caterers gathered at an assembly in Marseilles, and announced their support for the workers of the *Compagnie des Messageries Maritimes*' shipyard and workshops.⁷³² On 3rd July of the same year, a reunion organised by the Union of Merchant Shipping in Marseille took place in La Ciotat.⁷³³

On 5th July 1908, a meeting took place in the town's theatre, aiming to form a shipyard / workshop trade union at *Messageries Maritimes*. The representatives of the Marseille trade unions took part in the meeting, for example, the Union of Waiters onboard; the Federation of Engineers on board; and the Union of *Inscrits Maritimes*. All those present recommended the formation of a trade union at the shipyards in La Ciotat, which despite previous efforts, had yet to materialise in the town.⁷³⁴ With the participation of more than one thousand individuals, the *Syndicat Ouvriers des Constructions Navales* was formed in the town⁷³⁵. In the following three months, more than 900 workers joined the Union.

During this period (especially from late 1908 onwards), following a subsidy agreement between the *Compagnie des Messageries Maritime* and the French government, the shipyard workers awaited crisis end. However, little changed, with unemployment continuing to rise. The workers were furious. The Union of Workers decided to take action, declaring to the government that "they should reclaim actively to the state the reprise of work in the workshops and shipyard of La Ciotat".⁷³⁶ On 24th November, a Union delegation met with the Prefect of the region – they

⁷³¹Journal Chateigner, 1 juin 1907.

⁷³²Journal Chateigner, 4 juin 1908.

⁷³³Journal Chateigner, 25 juin 1908.

⁷³⁴Journal Chateigner, 5 juillet 1908 & *Le Petit Marseillais*, 5 juillet 1908

⁷³⁵*Le Petit Provençale*, 5 juillet 1908.

⁷³⁶Journal Chateigner, 12 octobre 1908.

argued that the negative attitude of the company did not give any indication of work resumption, instead, dismissals continued, despite the submission of the draft agreement between the company and the state to parliament.⁷³⁷ The Union argued that the company restricted and canceled necessary repairs because unemployment at La Ciotat seemed to be a means of blackmail in order to obtain a rapid vote for the subsidy conventions. This was in order to obtain better conditions in the new contract.⁷³⁸

The lack of orders, and continued unemployment in the shipyards, especially after the contract renewal with the state, led to a strike in 1910. On 8th June 1910, 97 workers, mainly riveters, drillers, and chamfers, stopped work, demanding a salary increase. The Commissionaire of Police in La Ciotat stated to the Prefect of the region that according to information he gathered from the Director of the shipyards, the company was not planning to meet this demand.⁷³⁹ He added that after some visits by the Director of the workshops to other construction workshops (in particular to those of Saint Nazaire), he argued that the workers of these construction sites were paid less than those in La Ciotat.⁷⁴⁰ The workers decided to end their strike on 14th June 1910.

Some months later, the trade union attempted to start a further strike on the launch day of the *Paul Lecat* (15th March 1911). They demanded an increase of night overtime rates, and also, the workers fund allowance. The Union requested that this allowance, which was 7,000 francs per year, should be increased to 25,000 francs in order to allow for a higher pension for the workers who had reached retirement age. However, as the Police Commissionaire specified in his report to the Prefect, the population of La Ciotat reacted negatively to strike action, as it would delay the launch of the *Paul Lecat*, and would lead to construction delays for the next ship. The café and restaurant owners and some merchants were also negative due to their expectation of loss of visitors to the town.⁷⁴¹

⁷³⁷Journal Chateigner, 24 novembre 1908.

⁷³⁸Journal Chateigner, 12 décembre 1908.

⁷³⁹AD BdR, 1 M 895, Grève des ateliers des Messageries de la Ciotat, juin 1910.

⁷⁴⁰AD BdR, 1 M 955.

⁷⁴¹AD BdR, 1 M 890, Menaces de grève des ouvriers des chantiers de construction de La Ciotat, Mars 1911 & Journal Chateigner, 8 mars 1911.

The reply of *Messageries Maritimes* came in the form of a telegram, directly by the President of the Company, Paul Lecat: “Union claims are substantively inadmissible and inexcusable as to when they are presented. [...] the Company leaves to the trade union the full responsibility for losses that the population will bear if the launch is postponed and the personnel reduced, which will have necessary and immediate consequences, without mentioning the prejudice that it will bring to the workshop’s existence”.⁷⁴² The strike was called off by the trade union.

However, following the above-mentioned attempts, a strike did take place between 14th and 24th June 1911. On 13th June, after the dismissal of six workers from the shipyard, the *Syndicat des Constructions Navales* voted in favour of a general strike.⁷⁴³ The Union requested reemployment of the six workers dismissed, and stated that the strike would continue until the company provided certainty that no further dismissals would occur. The red flag was hung outside the Union office – a declaration of strike action.⁷⁴⁴ A telegram was sent to government: “The Union of Naval Constructions having decided a general strike last night as a result [of] dismissed workers, suspends work. We ask for the reintegration of six comrades and suspension of dismissals as long as the construction of the ‘*Paul Lecat*’ is completed. If we obtain satisfaction, we are determined to get back to work immediately. Otherwise, we are determined to fight”.⁷⁴⁵ The general strike gripped the town. It was supported not only by the shipbuilding workers but also by the entire population, women, children, merchants, and quarrymen, and it had the full endorsement of seafarer unions based in Marseilles. Chateigner pointed out that “the continuing strike is no longer just a protest movement of shipbuilding workers but of the entire population”.⁷⁴⁶ Many newspapers

⁷⁴²Journal Chateigner, 11 mars 1911 [Original: Prétentions syndicat sont inadmissibles quant au fond et inexcusables quant au moment où elles sont présentées. [...] Compagnie laisse à syndicat entière responsabilité pertes que supportera population si lancement ajourné et réduction personnel qu’en seront conséquences nécessaires et immédiates, sans parler préjudice porté au principe même existence ateliers].

⁷⁴³Journal Chateigner, 14 juin 1911.

⁷⁴⁴Journal Chateigner, 14 juin 1911.

⁷⁴⁵Journal Chateigner 14 juin 1911 [Original: Syndicat Construction Navale ayant décidé grève générale hier soir par suite renvoi des ouvriers. Cessation complète du travail. Demandons réintégration 6 camarades et suspension renvois tant que « Paul Lecat » soit achevé. Si obtenons satisfaction sommes décidés reprendre immédiatement travail, sinon sommes décidés à la lutte].

⁷⁴⁶Journal Chateigner, 19 juin 1911.

published strike news under titles such as “all the town demonstrates”, and “the entire population of La Ciotat is on strike”.

Image 7.2. The parade of women and men to the tax collector’s office in order to burn their tax sheets (June 1911).



Source: Journal Augustin Chateigner

During the strike, there were many parades, meetings, and demonstrations at the port quays. On 22nd June, women and strikers, following a demonstration at the port, burned their tax returns in front of the tax collector’s office.⁷⁴⁷ During this period of strike action, a committee of “communist soups” was created as an expression of workers’ solidarity intended to give the poorest, a daily portion of soup and bread.⁷⁴⁸ The strike ended on 24th June, after a formal promise by the *Compagnie des Messageries Maritimes* that worker demands would be taken into

⁷⁴⁷*L’Univers*, 22 juin 1911.

⁷⁴⁸*Le Petit Provençal*, 23 juin 1911.

consideration. Thus, spirits calmed in the town - the population celebrated this outstanding achievement. Indeed, the law renewing the agreements between the State and the *Messageries Maritimes* was adopted on 30th December 1911.

The transition of the maritime community was reflected in the events that occurred in the town at the beginning of the twentieth century – this often related to the struggles of the community to deal with shipyard unemployment. The population of La Ciotat was an actor in the massive transformation of the social forces of production, and the transition to manufacturing work. On the eve of the twentieth century, it was clear that the town's population belonged to the world of factories, where tools, raw materials, the labour force, and management were gathered together in large, and noisy buildings. The strike that took place in 1911 had the full support of the entire population. The maritime community of La Ciotat was transformed, adopting the characteristics of an industrial working-class society.

7.7 Conclusion

During the second half of the nineteenth century, the industrial growth of the port of La Ciotat, including the alteration of work experience on board, the integration of seafarers into an industrial environment, and the appearance of industrial workers on land, transformed the maritime community. The profound change of the character of La Ciotat's maritime community can be seen by the sharp decline of the previous local elite, mainly related to prominent seafaring professions. Hence, the decline of captain's professional and social status confirms once more the transition of La Ciotat. The identity of the town was reshaped with the rise of violence and cultural diversity. Arabs, Somalis, and Chinese were common place in public life. The brothels became an integral part of the public space, often as a result of increases in the unmarried male population, and the transient nature of seafarers in the town. All these groups were closely linked to the *Messageries Maritimes* and their strategy to form an industrial pool of labour in La Ciotat both onboard and ashore. This formed a homogeneous maritime community. The public space of the town was hugely transformed, this was also due to the presence of large metal steamers either docked for repairs, or in the process of construction. In addition, the ship launches represented a change of

identity. If viewed from a nationwide perspective, the launches constituted a key element of the integration of La Ciotat into industrial capitalism.

The metamorphosis of the maritime community was confirmed by the emergence of trade unionism and the momentous strike that took place in the town in 1911. In this process of transition, the progression of syndicalism in the town was connected with the developing perception that the population had for the *Compagnie des Messageries Maritimes*, as well as the role of the state. The life of the town was marked by periods of stagnation, always related to agreements between the company and the State, as related to state subsidies, and shipbuilding policies. The change of attitude towards the company, from a paternalistic perspective, when workers considered the Director of the shipyards as a 'father', to constant class struggles, shows one more aspect of this transition, and the final integration into industrial reality. The strikes of 1911, followed by the beginning of the First World War (including the ceding of the shipyards to the *Société Provençale de Constructions Navales*, in 1916), closed a cycle of change in La Ciotat during the second half of the nineteenth century, - this shaped the maritime community in all possible aspects.

CONCLUSION

This thesis presented an analysis of the transformation of La Ciotat's maritime community, during the transition from sail to steam navigation. The study begins with the town's characteristics in the eighteenth century, and subsequent decline at the end of the *Ancien Regime*, and proceeds to the emergence of industrialisation in 1836, and the industrial and economic apogee during a long transformation process in the mid-nineteenth century. The research follows the maritime community of La Ciotat into the experience of a complex and highly variable process of industrial growth. This study attempted to respond to questions related to the economic and social processes and impacts of the transition from sail to steam for La Ciotat's maritime community, which was incorporated within the heart of the economic and social dynamics of the period. Together with this, the research brings to light an important yet unexplored aspect of the history of the *Compagnie des Messageries Maritimes*, that is, the company's technical base in La Ciotat, and the economic and social impact on the maritime community of the town.

The process of economic and industrial transformation of La Ciotat reflects the advent of industrial capitalism in the French Mediterranean. The case study of La Ciotat's transition demonstrates the development process of industrial capitalism. The progress of industrialisation in the town started from a local level, with Louis Benet and the formation of a partnership company for steam shipbuilding and machinery construction. It passed to a regional level with the formation of a joint-stock company, and the integration of Louis Benet into the network of *Grand'Combiens'* railway businessmen, also related to the coalmines of Grand'Combe (near the city of Beaucaire). And finally, La Ciotat's economy passed to a national level with a new subsidised steam shipping company, the *Société Anonyme, Compagnie des Messageries Maritimes* and the political, cultural, and economic integration of the town in a triangular management structure that included Paris (headquarters), Marseilles (port), and La Ciotat (technical base). During the second half of the nineteenth century, the port would complete an immense industrial transformation with the establishment of the *Compagnie des Messageries Maritimes*, and the formation of new economic structures.

Together with this, the role of the State in regulating the business plan of *Messageries Maritimes* through subsidies for the opening of new lines, and the commission of new ship

constructions, influenced the connection of La Ciotat with international economic and political networks. The relationship of the port with the *Compagnie des Messageries Maritimes*, which constituted a primary tool of French imperialism, made La Ciotat a significant partner of global expansion. Government-subsidised lines carried the French flag first to Algeria, then to Indochina, and China, as well as to Equatorial Africa, and Caledonia, aiming to influence and extend French political and economic hegemony. Most of this fleet was constructed and regularly repaired in La Ciotat's shipyards. This positioned the port at the centre of French maritime and colonial transport. It is evident that La Ciotat was influenced by two significant events that changed the course of world history during the nineteenth century: the progress and power of industrial technology; and the extensive colonisation of foreign territories by European forces. In an era of resurgent imperialism, La Ciotat played a prominent role in the development and expansion that took place, influencing the new map of global shipping. As a result, La Ciotat participated in a global maritime transportation system that connected the oceans of the World with the Mediterranean Sea.

Into this cycle of political and economic development, La Ciotat established local specialisations, and stimulated economic diversification related to industrial shipbuilding. The increasing mechanisation of the manufacturing process and associated spatial concentration, led to an evident tendency towards strong regional specialisation. The French Mediterranean coastline formed a novel industrialised region, a maritime industrial district, stretching from the port of Marseilles to the naval base of Toulon, of which the industrial shipbuilding centres of La Ciotat and La Seyne-sur-mer formed an integral part. Technological innovation, geographical concentration, specialisation, and vertical integration were amongst the main elements of industrial capitalism, and La Ciotat had them all.

In addition to the above, the formation of the *Compagnie des Messageries Maritimes* in La Ciotat constitutes a key element in the characteristics of the transition of the maritime community at multiple levels. The company became the leading employer in La Ciotat, and the town formed clear patterns of dependency with the company. State policies played a direct role in formulating a strong industrial environment. The case-study of La Ciotat demonstrates how the State together with a subsidised shipping company were responsible for the construction of a particular economic climate. Government programmes for the opening of new lines by *Messageries Maritimes* led to an irregular development of shipbuilding production, both during the French Second Empire, and

the Third Republic. French industrial policies promoted maritime industries, but also created sharp fluctuations in production. The production fluctuations generated analogue fluctuations in the workforce, and the population in the town. Stagnation periods and production reductions were so severe that the town registered population decreases. New subsidies sponsored new construction programmes, and influenced workforce increases and associated demographic growth.

After all, during the second half of the nineteenth century, La Ciotat's maritime community proved that an adaptive capacity could promote a profound economic and social transformation. The accelerated economic and social adaptability of La Ciotat to the new economic and industrial reality materialised just after a sharp decline of the sailing-ship economy at the end of the eighteenth century. Hence, the arrival of steam and iron were seen as a significant innovative solution that offered the town prosperity and a renewed reputation. The maritime community of the town adapted well to a new industrial reality, and transitioned the social and economic structures towards large-scale construction and maintenance of steamers.

The process of industrialisation began with the first signs of factory smoke and the first sounds of metal instead of wood inside the shipyard. The establishment of the *Compagnie des Messageries Maritimes* in La Ciotat, and the formation of heavy industrial shipbuilding activity, led to a major transformation of the port. Shipyard and workshop facilities rose with significant speed. Foundries, engineering, and metal workshops began to appear in the port together with slipways, a dry-dock, and large metal cranes. Industrial growth contributed to another characteristic of the town, mostly related to the sounds of metal workshops and the presence of large iron and steel steamships in the port. Moreover, working-class housing was created just nearby the shipyard and workshops. The growth of industrial housing and the infrastructure transformation were specific manifestations of the industrial revolution. Such geographical transformation represents the tangible landscape signature of the history of industrialism in La Ciotat.

The development of industrial capitalism went hand-in-hand with large-scale social processes. State intervention and the company's paternalistic strategies directed the pace of industrial growth in the town and influenced the labour, demographic, occupational, and social structures. During the second half of the nineteenth century, the town of La Ciotat underwent a significant alteration of its socio-demographic patterns. The experience of La Ciotat's maritime

community clearly demonstrates that official policies had a significant effect in fashioning the industrial climate, and therefore, shaping the maritime community. The expansion of industrial shipbuilding led to spectacular urban, demographic, and social change. The population had experienced astonishing growth, mainly owing to immigration. Industrial growth provided the impetus for a relevant migratory influx due to shipyard labour demands, which led to substantial demographic change. Population growth, urbanisation, and high immigration rates resulted in a profound transition of the demographic structure of the town. The demographic characteristics related to age, gender, and marital status composition, reveals the importance of the economic function of the port for the restructuring of the local maritime community. During the second half of the nineteenth century, the population of La Ciotat became significantly younger and shifted towards male inhabitants, with a predominance of young adult men who came to work in the shipyards, either alone or with their families. As well as this, population influx led to the assimilation of new cultural characteristics, related both to migration from the mountainous hinterland, and to substantial levels of foreign immigration.

Industrial revolution and the increase in specialisation brought fundamental changes to social structures and hierarchies. Steam and iron fashioned the identity and social behavior of La Ciotat's maritime community, with a significant transition from the society of the eighteenth century, where the number of women was higher than the number of men, to an industrial society, where the town was filled with young male workers. The town was restructured with the presence of a large foreign population, mainly Italian workers and families, who accepted the work opportunities offered by the shipyards. The symbiosis of local and foreign residents reshaped social relations in the town, and formed new social patterns related to labour relations, and the rise of nationalism.

The transformation of the port's economic function, the demographic growth, and the rise of immigration, had significant effects on the occupational structure of the town, and on social stratification. The evolution of seafaring professions, for example, craftsmanship, heavy industry, and wooden shipbuilding, changed the character of La Ciotat's maritime community. Seafaring professions (such as captains and sailors) together with handicrafts and craftsmanship professions (related to wooden shipbuilding) dropped dramatically, whilst manufacturing professions and unskilled labour, related to large-scale metal shipbuilding industry, registered enormous growth. Together with this, the rapid development of the factory system of production led to the

proletarianisation of labour - an unskilled waged labour-force emerged. The economic growth of the town led to new social implications that thoroughly altered social dynamics, with an important impact on local labour relations.

The transition to an industrial society was substantially complete in La Ciotat by the First World War. The most significant structures of twentieth-century society were already in place, and changes were advanced in all relevant fields. The maritime community of La Ciotat was, by then, totally transformed: captains and sailors were replaced by engineers and stokers; local craftsmen related to wooden shipbuilding production were replaced by factories, machines, and a large unskilled labour force; and the image of wood and sail in the port was replaced by metal and steam-engine smoke. The power of the urban-based elite mainly related to the prominent social status of maritime professions of the sailing era were eclipsed, and replaced by an industrial one related to the *Compagnie des Messageries Maritimes* and the shipyard. Successively, the town acquired all the characteristics of a working-class society, and industrial workers had a prominent role in redefining its identity.

The maritime community of La Ciotat was divided between land and sea, namely an urban (mainly migrated) shipbuilding workforce, and an industrialised seafaring workforce. However, the presence of the *Messageries Maritimes*, and its role in restructuring both the shipbuilding and seafaring labour of La Ciotat, succeeded in forming a unique industrial maritime community, which had a strong employment relationship with the company. The maritime community of La Ciotat did not become immediately aware of itself as a pre-eminently working-class society. Identity and political behaviour were also in a process of change during the mid-nineteenth century, and often followed the interaction between management structures, state intervention, and specific local conditions. The identity of La Ciotat's maritime community was shaped by the intersection between a large private shipping company, the state, industrial policies, and industrial production, and therefore followed the patterns and relationships of the community with both the Company, and the State. The *maritimité*, as described in chapter one was turned towards a new perception of society, strongly connected with industrial maritime activities.

The metamorphosis of the identity of La Ciotat's maritime community was apparent in the transforming characteristics of the public space that reveal broader patterns of behaviour related to a new redefined identity. The population became accustomed to the active role of La Ciotat in

French imperial expansion. The presence of diplomatic foreign visitors, such as Chinese ambassadors, as well as Chinese, Somali, Arab, and Indian seafarers, together with substantial numbers of Italian workers, totally changed the town's public space, promoting a pronounced cultural diversity. The town was defined by the social and cultural lives of men with various ethnicities, in particular, shipbuilding workers, unmarried young men, and passing seafarers. These aspects reformulated the town's public space and identity, and increased deviant behaviours in the town. Violence among seafarers (both French and foreign) was a common occurrence in the town. Furthermore, young male workers and transient seafarers contributed to a significant rise in prostitution. Together with this, the identity of La Ciotat's maritime community became industrial, and the perception of the community was hugely shaped by ship launches. The ship launch ceremonies constituted the principal public events that made the town and the working classes famous nationwide. In this way, the perception of the local community was reshaped externally by the fame of the *Compagnie des Messageries Maritimes*, and the shipyards.

Regardless of the transition from sail to steam, La Ciotat's maritime community retained strong ties with the sea. The maritime culture of the population readjusted to a new industrial maritime culture, including: the presence of the largest French steam shipping company; the dependency of the population on the shipyard and workshops; the existence of large metal vessels in the port; ship launches as a main ceremony in the town; transient seafarers; and shipbuilding workers. This reinforced the ties of the population with the sea, and formed a new industrial maritime culture. Steam replaced iron, the commanding figure of the captain was replaced by the status of the Company, and sailors were replaced by industrial shipbuilding and steamship workers - all of this led to the emergence of a strong working-class population in La Ciotat.

The history of La Ciotat had been inextricably linked to industrial developments since this period. The adaptation of the industrial shipbuilding economy of the port created strong routes of industrial trajectories; a deep path dependence that determines the identity of the town to the present day.⁷⁴⁹ In 1916, shipyard management was transferred to the *Société Provençale de Constructions Navales* (SPCN), and once again, it flourished economically following the First World War. However, in 1940, the shipyard went bankrupt. In the same year, it was bought by the

⁷⁴⁹For the definition of "path dependence" in economic geography see: Walker, "The geography of production," 111–32.

Terrin Group and was named *Chantiers Navales de La Ciotat*. The excellence of La Ciotat's shipyard made it famous worldwide, especially for the construction of oil tankers. Aristotle Onassis ordered the tanker *Olympic Splendour* (20,595 gross registered tons, and 34,333 deadweight tons), which was launched in 1954 at the Chantiers Navals de La Ciotat.⁷⁵⁰ In 1976, the vessel *Esso-Westernport* was launched, a 100,000 m³ LNG (liquefied natural gas) carrier which was at the time, the largest ship in the world.

Since the 1970s, the prolonged economic function of the French Mediterranean as a touristic resort, together with the Asiatic competition with the rise of Japanese and South-Korean shipyards, restructured the French and European shipbuilding sectors, and also, accordingly, reshaped the economic function of La Ciotat. A decisive step was taken with the *Plan Davignon* (named after its author, Étienne Davignon), forwarded to the European Commission in 1977, this scheduled the liquidation of large-scale industrial shipyards in the French Mediterranean. For Brussels, the Mediterranean coast has only one "natural" vocation: tourism. In 1982, in a last attempt to strengthen the shipbuilding sector, La Ciotat's shipyard together with the *Ateliers et Chantiers de France* in Dunkerque, and the *Constructions Navales et Industrielles de la Méditerranée* (CNIM) in La Seyne-sur-mer, formed the *Société des Chantiers du Nord et de la Méditerranée* (NORMED). Four years later, the Jacques Chirac Government announced the end of public funds for the shipbuilding industry. Consequently, in 1987, the shipyard of La Ciotat closed for the first time since 1851, following French industrial policy on shipbuilding. After huge protests in the town, the workers decided to occupy the shipyards to fight against the construction of luxurious hotels in the shipyard area.

Even though the shipyard of La Ciotat changed ownership many times during the last two centuries, it has always been considered as one of the most important shipbuilding centres of the Mediterranean. Following the closure of the shipyard in 1987, the changing maritime economy of Provence, related mainly to an expanding touristic industry in the Côte-d'Azur, forced La Ciotat to readjust once again, towards the new needs of the French Mediterranean. Since the 2000s, the shipyards of La Ciotat are a coherent part of this economy, having transformed activity and

⁷⁵⁰Gelina Harlaftis and Christos Tsakas, "The Role of Greek Shipowners in the Revival of Northern European Shipyards in the 1950s," in Niels P. Petersson et al., eds. *Shipping and Globalization in the Post-War Era. Contexts, Companies, Connections* (Cham, Switzerland: Palgrave/Macmillan, 2019), 185–212.

function towards ‘*une station-service de luxe*’. It is now considered one of the largest yacht maintenance, and refitting seaports of the Mediterranean.⁷⁵¹ The maritime community of La Ciotat, always connected with the regional economy, was transformed from a traditional maritime community in the age of sail, to an industrial shipbuilding working-class society, and ultimately, to a touristic, yet industrial society. As the mayor of the town, Patrick Boré, declared in the New York Times in 2015, “Paris has its Eiffel Tower; we have the shipyard”.⁷⁵²

Image 8.1. The shipyard of *Messageries Maritimes*, the dry dock with its rolling crane in La Ciotat.



Source: Online [Website: <http://www.bottin-ciotaden.fr/> (accessed: 25/10/2021)].

⁷⁵¹Philippe Jacqué, “Les mégayachts, planche de salut des chantiers navals de La Ciotat”, *Le Monde*, 29 November 2017 [online : https://www.lemonde.fr/entreprises/article/2017/11/29/les-megayachts-planche-de-salut-des-chantiers-navals-de-la-ciotat_5221782_1656994.html (accessed 15/10/2021)].

⁷⁵²Christopher F. Schuetze, “Superyachts to the rescue”, *The New York Times*, 18 January 2015, [online: <https://www.nytimes.com/2015/01/17/business/international/superyachts-bring-new-life-to-french-shipbuilding-port.html> (accessed 15/10/2021)].

Image 8.2. Emile Loubon, The port of La Ciotat (1841).



Source: Wikicommons [Online: https://commons.wikimedia.org/wiki/File:Emile_Loubon-La_Ciotat.jpg (accessed: 21/10/2021)].

Image 8.3. The shipyard of La Ciotat and the town present day.



Source: Online: https://yachtharbour.com/news/mb92-la-ciotat-awarded-exclusive-use-of-23-000sqm-on-upcoming-4000-t--shiplift-2745?src=home_page_latest_list_pos_3e (accessed on 12/10/2021).

APPENDIXES

CHAPTER 2: The advent of steam in La Ciotat: the first phase (1836-1851)

Appendix 2.1. AD BdR, 364 E 615, Notaire Giraud,

15 Avril 1839, Acte de Depôt de la société de Louis Benet

L'an mil huit cent trente-neuf et le quinze avril par devant nous, Me Jean Baptiste Luc Giraud et son collègue, notaires de Marseille, soussignés, a comparu Monsieur Louis Benet, négociant, domicilié et demeurant à La Ciotat, se trouvant momentanément à Marseille, logé boulevard du Misée no 20, patenté à la mairie de Marseille no 433, 5^{ème} catégorie, 1^{re} classe. Lequel a par présentes, déposé à Me Jean Baptiste Luc Giraud l'un des notaires à Marseille soussignés, pour être mis au rang de ses minutes et en être par lui délivré tels extrait et expéditions qu'il appartiendra :

un des deux originaux et l'inventaire y annexé d'un acte en date à Marseille du six avril présent nous, sous seings privés duquel il conste qu'une société en commandite et par actions a été formée entre le dit Mr Louis Benet, gérant, et Mr François Fournier, cogérant, et les personnes qui ont signé le dit acte en qualité de commanditaires et celles qui se rendront cessionnaires des actions créées par le dit acte de société ou à créer par la suite.

Le but de cette société est :

1^o l'exploitation de l'atelier de construction de machines à établi à La Ciotat par Monsieur Louis Benet,

2^o l'établissement à Marseille d'un atelier de réparations pour les machines marines et autres, 3^e la construction des machines locomotives, 4^e, la construction des navires de toutes dimensions soit en bois soit en fer, avec ou sans machines à vapeur.

La raison sociale est Louis Benet et Cie. La dite société a pour dénomination: Atelier de construction de machines à vapeur de La Ciotat. Le fond social, y compris l'apport par Monsieur Louis Benet, des ateliers, emplacements et dépendances sis à La Ciotat est de neuf cent mille francs représentés par dix huit cents actions de cinq cents francs chaque, prises par les commanditaires qui ont signé le dit acte de société.

Le gérant est autorisé à créer et céder jusqu'à concurrence de neuf cent actions, en sus des dix huit cents actions ci-dessus indiquées.

Cette société a commencé le sic avril présent mois et finira le sic avril de l'année mil huit cent cinquante un.

Lequel acte de société et l'inventaire ci-annexé certifiés véritables par le comparaissant seront enregistrés avec les présentes auxquelles ils demeureront annexés.

Dont acte fait et passé à Marseille en l'étude et dans les minutes du dit Me Giraud, et à Mr Benet, comparaissant, signé avec les notaires après lecture faite.

Signés Benet, Giraud et illisible.

Par le présent acte sous seing privé qui sera déposé chez un notaire aussitôt qu'il aura été revêtu des signatures des parties et dont une copie sera remise à chacune d'elles les soussignés Baron James de Rothschild, Louis Benet, Jean Luce, Roux de Fraissinet et Cie, Drouilhard et Benoit et Cie, Emile Martin Jules Talabot, Léon Talabot, Pauline Talabot, Louis Veaute, Eugène Abrie, Daniel Mourier père, Joseph Ricard, Simon Théron, Fournier frères, Théophile Delort et Théophile Périer arrêtent entre eux ce qui suit.

Titre 1 : Formation et objet de la société

Article 1^{er} : Il est formé un société en commandite et par actions entre les sieurs Baron James de Rotschild, Louis Benet, Jean Luce, Roux de Fraissinet et Cie, Drouilhard et Benoit et Cie, Emile Martin Jules Talabot, Léon Talabot, Pauline Talabot, Louis Veaute, Eugène Abrie, Daniel Mourier père, Joseph Ricard, Simon Théron, Fournier frères, Théophile Delort et Théophile Périer, tous comme associés commanditaires et le sieur Louis Benet comme gérant de la société. Toutes les personnes qui se rendent cessionnaires des actions créées ci après seront par le seul fait de la cession,

censés adhérer aux présents statuts comme simples commanditaires et sans partager en rien la responsabilité du gérant.

Article 2^{ème} : L'objet de la société est

1. l'exploitation de l'atelier de construction des machines établi à La Ciotat par le sieur Louis Benet,
2. l'établissement à Marseille d'un atelier de réparation pour les machines marines et autres,
3. la construction des machines locomotives,
4. la construction des navires de toutes dimensions, soit en bois soit en fer, avec ou sans machines à vapeur

La base de la fabrication des machines dans l'atelier de La Ciotat sera l'introduction des meilleures méthodes anglaises. Pour arriver à ce résultat, le gérant devra traiter avec Monsieur Rober Stephenson et de manière que cet habile ingénieur se charge de diriger la construction des locomotives à La Ciotat dans les mêmes conditions et avec les mêmes soins que dans l'atelier de New Castle (sic) qui porte son nom.

Le gérant devra également s'assurer par un traité, le concours de l'un des principaux constructeurs de machines marines d'Angleterre afin de réunir tous les moyens nécessaires pour construire à La Ciotat des machines à vapeur aussi bonne et aussi bien finies que celles qui sortent des meilleurs ateliers d'Angleterre.

Article 3^{ème} : La raison sociale est Louis Benet et Cie. Le titre de la société est Atelier de construction de machines à vapeur à La Ciotat.

Article 4^{ème} : l'existence de la société date de ce jour. Sa durée sera de douze années.

Article 5^{ème} : le siège de la société est à La Ciotat. Toutefois, le gérant pourra établir un bureau à Paris et un autre à Marseille pour les opérations commerciales.

Titre II : fonds social

Article 6^{ème} : Le fonds social se compose

10 de l'apport fait par le sieur Louis Benet des ateliers de La Ciotat et dépendances tels qu'ils existent suivant inventaires ci-annexé. Le dit apport franc de chaque hypothèque et avec garantie des troubles est fait pour la somme de trois cent mille francs, valeur vérifiée et débattue par les associés et représentés par six cents actions de cinq cents francs l'une, d'une somme de six cent mille francs à verser par les souscripteurs et représentés par douze cents actions de cinq cents francs l'une. En sorte que la totalité du capital social se composera d'une valeur de neuf cent mille francs représentée par dix-huit cents actions de cinq cents francs l'une.

Article 7^{ème} : les dix huit cents actions représentant le capital social ont souscrit comme il suit

Louis Benet	600 actions représentant son apport
Baron James de Rothschild	80 actions
Drouilhard et Benoist et Cie	150 actions
Emile Martin	40 actions
Théophile Périer	42 actions
Roux de Fraissinet et Cie	70 actions
Jean Luce	70 actions
Simon Théron	76 actions
Joseph Sicard	50 actions
Théophile Delord	33 actions
Fournier Frères	42 actions
Louis Veaute	54 actions
Jules Talabot	80 actions
Léon Talabot	80 actions
Paulin Talabot	80 actions
Eugène Abrie	54 actions
Daniel Mourier	54 actions
Louis Benet	145 actions
Total	1800 actions

Aucun des associés commanditaires ne peut être obligé à verser de fortes sommes que le montant de sa souscription ci dessus. Les versements seront effectués par les souscripteurs de neuf cents actions en gérant et contre récépissé.

Article 8^{ème} : Le gérant est autorisé à créer et à céder jusqu'à concurrence de neuf cents actions en sus des dix-huit cents créées par l'article précédent. Ces neuf cents actions ne pourront être cédées qu'à des compagnies qui offriront à la société des compensations avantageuses. Elles ne pourront l'être qu'au pair moyennant une prime dont profitera la société. Dans le cas où il serait reconnu par l'assemblée générale des actionnaires qu'il y a convenance à augmenter le fond capital de la société, l'assemblée déterminera le chiffre de cette augmentation et autorisera le gérant à émettre de nouvelles actions pour compte de la société. Les nouvelles émissions d'actions ne pourront jamais avoir lieu au dessous du par et de plus, dans le cas seulement où d'après le dernier inventaire approuvé par l'assemblée générale un dividende de cinq pour cent de bénéfice au moins aurait été distribué aux actionnaires, en outre, dans l'intérêt dû aux actions. Dans le cas d'émission de nouvelles actions, les souscripteurs du présent acte auront par préférence la faculté de s'en charger au pair, chacun d'eux dans la proportion des actions souscrites au présent acte. Celles des nouvelles actions à émettre qui n'auraient pas été acceptées par un ou plusieurs souscripteurs du présent acte, seront vendues par le gérant mieux des intérêts de la société et jamais au dessous du pair. Les souscripteurs au présent acte devront exercer cette faculté dans le mois qui suivra à partir du jour où l'assemblée générale aura décidé l'émission.

Article 9^{ème} : Dans le cas de retard de paiement du premier versement ou des appels subséquents qui pourront être faits par le gérant dans les limites déterminées par l'article précédent, de la part d'un souscripteur ou de son cessionnaire, il leur sera fait sommation au domicile élu par eux ou qui se trouvera être de droit en vertu des présents statuts, d'effectuer ce paiement et faute par eux de le faire justice, l'action sur laquelle le retard aura porté, fera retour à la société et sera annulée de plein droit à l'égard du propriétaire qui sera déchu de tout droit de répétition pour les paiements effectués jusqu'alors sur le montant de la dite action. Les numéros des actions ainsi annulés seront insérés dans les journaux consacrés aux publications légales à Marseille et à Paris. Les conditions nécessaires et non comminatoires seront imprimées sur les titres des actions afin que les porteurs n'en puissent prétendre cause d'ignorance et pour faciliter leur exécution, il sera délivré à chaque

nouveau versement un titre nouveau qui remplacera le précédent titre, lequel demeurera nul et de nul effet par le seul fait de l'expiration du délai accordé pour effectuer le paiement exigible.

Article 10^{ème} : Les fonds versés et non employés seront placés en bons du Trésor ou versés en compte courant à la Banque de France ou à celle de Marseille ou déposés chez le receveur général des Bouches-du-Rhône ou chez les banquiers de la société.

Article 11^{ème} : Il ne pourra être fait dans aucun cas d'appel de fond excédant le montant des actions. Chaque actionnaire ne pourra être tenu qu'au versement du montant de ses actions.

Titre III : Des actions

Article 12^{ème} : Les actions sont nominatives. Elles portent la signature du gérant et sont revêtues du timbre de la société apposée par les soins de la commission de surveillance.

Article 13^{ème} : Chaque action donne droit à

1. à une part proportionnelle dans toutes les valeurs comportant l'actif social,
2. à un dividende d'intérêt annule de cinq pour cent payable de sic en sic mois à prendre sur les produits de l'entreprise,
3. à une part proportionnelle au nombre total des actions dans les bénéfices nets déterminés comme il sera dit à l'article 17^{ème}.

Article 14^{ème} : Chaque action est indivisible à l'égard de la société qui n'en reconnaît aucun fractionnement. Ainsi tous les copropriétaires individu d'actions seront tenus de se faire représenter auprès de la société par une seule et même personne.

Article 15^{ème} : En cas de perte d'un titre d'actions, le gérant ne pourra être tenu d'en délivrer un autre que deux ans après que le propriétaire du titre perdu lui en aura fait la déclaration. Le nouveau titre délivré annulera l'ancien. Pendant ce temps, les intérêts et les dividendes dus à l'action perdue seront en réserve pour être remis à l'actionnaire avec le nouveau titre qu'il aura réclamé.

Titre IV : Recettes, dépenses, bénéfices

Article 16^{ème} : Les recettes annuelles sont appliquées à couvrir les frais généraux d'administration, les frais de fabrication et généralement les frais quelconques occasionnés par l'entreprise et enfin l'intérêt à cinq pour cent.

Article 17^{ème} : Ces réductions opérées, il sera prélevé dans l'excédent cinq pour cents applicables à la formation d'un fond de réserve et douze et demi pour cent assurés au sieur Louis Benet, gérant, en compensation de ses peines et soins. Le surplus sera distribué également entre toutes les actions.

Article 18^{ème} : Le fonds de réserve pourra être employé par le gérant à l'extension des opérations sociales mais seulement lorsqu'il excédera la somme de cinquante mille francs et sans qu'il faille être réduit au-dessous de ce chiffre quand il l'aura atteint.

Titre V : Obligations et droits des gérants

Article 19^{ème} : La société est gérée par le sieur Louis Benet, gérant, et par le sieur François Fournier, cogérant. Les gérants administrent les affaires de la société avec des droits actifs et passifs et font les dites quelconques résultant de leur qualité. Il est interdit au gérant de s'occuper directement ou indirectement d'aucune affaire étrangère à la société. Le sieur Louis Benet, gérant, recevra à titre d'abonnement, une indemnité annuelle de quatre mille francs pour le pouvoir des frais de réception de correspondants et autres frais personnels relatifs à l'entreprise. Le sieur François Fournier, cogérant, recevra pour indemnités de ses peines et soins, une somme annuelle de trois mille francs. Dans le cas où un des gérants viendrait à cesser ses fonctions pour quelque cause que ce soit, l'autre gérant continuerait de gérer les affaires de la société. Le gérant qui aura cessé ses fonctions sera remplacé si le comité de surveillance le requiert et dans ce cas, le remplaçant sera reconnu par une assemblée générale convoquée et délibérant comme il sera dit à l'article 40^{ème} sur une liste triple présentée par le gérant et acceptée par le comité de surveillance.

Article 20^{ème} : Cent des actions souscrites par le sieur Louis Benet, gérant, resteront en dépôt et à titre de cautionnement de ses engagements envers la société.

Article 21^{ème} : Les opérations de la gérance seront constatées par une comptabilité en partie double. Chaque année les gérants feront dresser l'inventaire de la situation active et passive de la société.

Pour le dit inventaire ; servir de base à la répartition des dividendes et être mis sous les yeux des actionnaires en assemblée générale. Les gérants rendront compte en outre tous les trois mois à la commission de surveillance de la situation des affaires de la société. Copie de ce compte-rendu sera déposé dans les bureaux de la société à Marseille.

Article 22^{ème} : L'assemblée générale sur le rapport de la commission de surveillance aura le droit dans tous les cas de prononcer la dissolution de la société et d'arrêter le mode à suivre pour sa liquidation.

Article 23^{ème} : Le décès, l'interdiction ou la faillite des gérants ne suspendront pas de droit les opérations de la société. Aucun de ces événements ne pourra donner lieu à l'apposition des scellés ni à aucune espèce d'inventaire des biens et papiers de la société.

Titre VI : commission d'examen et de vérification.

Article 24^{ème} : Il sera créé à Marseille une commission d'examen et de vérification des registres de gérants. Cette commission sera composée de trois à cinq membres et d'un censeur. Ce dernier, pris parmi les gérants de la société des mines de la Grand-Combes et des Chemins de Fer du Gard est chargé spécialement de visiter les ateliers de fabrication et de réparation et de rendre compte à la commission. Les membres de cette commission seront nommés annuellement au scrutin secret et à la pluralité des voix par l'assemblée générale. Par exception, sont nommés pour faire partie de la commission pendant les cinq premières années, Messieurs Joseph Ricard, Simon Théron et Théophile Périer. Monsieur Paulin Talabot, l'un de gérants de la Société des Mines de la Grand-Combes et des chemins de fer du Gard, remplira les fonctions de censeur pendant le même espace de temps.

Article 25^{ème} : Pour toute partie de cette commission, il faudra être membre de vingt actions au moins. Toute aliénation qui réduirait au dessous de ce nombre les actions possédées par l'un des membres de la commission annulerait son mandat.

Article 26^{ème} : Si dans l'intervalle des réunions annuelles de l'assemblée générale, la commission se trouvait réduite à moins de trois membres, elle compléterait ce nombre par une élection faite à l'unanimité des membres restants.

Article 27^{ème} : Les pouvoirs donnés par les actionnaires aux membres de la commission d'examen et de vérification s'étendent et se bornent à tous les actes compris dans les attributions des commandites.

Article 28^{ème} : Les fonctions de la commission consistent à recevoir et examiner les comptes des gérants et à faire l'assemblée générale annuelle un rapport sur ces comptes et sur la marche de l'entreprise. Les gérants seront tenus de communiquer à la commission, un mois avant l'époque fixée pour la réunion de l'assemblée générale, toutes les pièces qu'ils se proposent de soumettre à cette assemblée. Tous les moyens de surveillance et de vérification seront mis à la disposition par les gérants qui sont tenus sur sa demande de lui communiquer tous les registres, comptes et pièces de toutes espèces.

Titre VII : Assemblée générale

Article 30^{ème} : L'assemblée générale se réunit une fois chaque année entre le premier janvier et le premier avril sur la convocation des gérants. La convocation devra avoir lieu par lettres adressées un mois d'avance au domicile élu par chaque actionnaire et par annonces insérées dans deux des journaux les plus répandus de la capitale, dans un journal de Marseille et aussi dans un journal de Nîmes. L'assemblée générale peut être en outre réunie extraordinairement par les gérants dans la même forme : mais dans ce cas les lettres de convocation doivent énoncer le motif de la réunion.

Article 31^{ème} : Tout actionnaire ayant droit de faire partie de l'assemblée générale peut se faire représenter par un mandataire pourvu que ce mandataire soit lui-même actionnaire et membre de l'assemblée. Les pouvoirs des mandataires peuvent être spéciaux.

Article 32^{ème} : Chaque actionnaire aura une voix par vingt actions jusqu'à concurrence de cinq voix et sans que ce nombre puisse être dépassé quel que soit celui des actions possédées.

Article 33^{ème} : L'assemblée générale sera présidée par celui des actionnaires présents propriétaires de plus grand nombre d'actions ou à son refus par celui qui a eu le plus grand nombre après lui. Le secrétaire sera désigné par le président et les trois plus jeunes des membres de l'assemblée rempliront les fonctions de scrutateurs.

Article 34^{ème} : L'assemblée générale délibère quel que soit le nombre des actionnaires présentés. Elle entend le rapport de la commission de surveillance et de vérification sur les comptes présentés par les gérants, comptes qu'elle approuvera s'il y a lieu. Dans ce cas seulement, le sieur Louis Benet gérant, ne pourra voter et le nombre d'actions possédées par lui n'entrera pas en compte dans le calcul de la majorité. L'assemblée délibère sur toutes les propositions faites par les gérants, soit pour la modification du présent acte soit pour tous autres cas pouvant intéresser la marche de la société qui n'auraient pas été prévus et réglés par le présent acte. Elle délibère sur les cas de dissolution et d'augmentation de capital.

Titre VIII : dissolution, liquidation et transformation.

Article 35^{ème} : Si trois inventaires successifs établissent que les produits annuels de l'entreprise sont inférieurs aux dépenses, la dissolution pourra être proposée par les gérants et elle sera délibérée par une assemblée générale imposée et délibérant conformément à ce qui sera prescrit à l'article 40^{ème}. Si par suite des pertes éprouvées par la société, son capital social se trouvait réduit à moitié d'après un inventaire régulier établi par les gérants et approuvé par l'assemblée générale, la dissolution aurait lieu de droit et devrait s'opérer immédiatement.

Article 36^{ème} : La société étant dissoute par quelque cause et à quelque époque que ce soit, la liquidation sera faite par les soins des gérants sous la surveillance de trois commissaires nommés par l'assemblée générale.

Article 37^{ème} : Dans tous les cas, les résultats de cette liquidation déduction faite de tous les engagements à éteindre seront partagés au marc le franc entre toutes les actions de la société.

Article 38^{ème} : En cas de difficultés ou dans le cours de la société ou sur la liquidation entre la société et les gérants ou entre les actionnaires et la société, elles seront jugées par trois arbitres dont deux au moins négociants. Quel que soit le nombre et la division des parties en cause, ces arbitres dont deux au nommés d'office par le tribunal de commerce de Marseille sur la requête de la partie la plus diligente des associés renonçant en tant que de besoin au droit de nomination personnelle. Le tribunal fixera le délai dans lequel devra être prononcé la sentence et aura la faculté de proroger au besoin ce délai ultérieurement. Les arbitres seront dispensés de toutes formalités de

justice et jugeront comme amiables compositeurs. Leur sentence sera définitive. Elle ne sera susceptible d'aucun appel ou recours en cassation.

Article 39^{ème} : Toute procédure contre les actionnaires pourra être valablement faite à Marseille au domicile y élu par chacun et sans autre délai que les délais ordinaires comptés d'après la distance du domicile ou demeure au siège du tribunal où devra être porté ce litige, quel que puisse être d'ailleurs l'éloignement du domicile réel de chaque actionnaire. En conséquence, chaque souscripteur avec le nouveau successif d'actions sera tenu, aussitôt qu'il deviendra membre de la société d'élire un domicile à Marseille ; à défaut de quoi ce domicile sera de droit établi chez le procureur du roi à Marseille.

Titre IX : Modification de l'acte social.

Article 40^{ème} : Dans le cas où il y aurait lieu, soit d'augmenter le capital social soit dans le cas aussi où l'expérience viendrait à démontrer la nécessité ou la convenance de modifier certaines dispositions du présent acte, les résolutions et modifications jugées nécessaires seront soumises à une assemblée générale convoquée ad hoc au moins trois mois d'avance, dans laquelle le nombre des actionnaires présents ou représentés devra réunir plus des deux tiers des actions.

La majorité pour rendre les décisions valables sera des trois quarts des actions présentes ou représentées. Si cette première réunion était sans résultat, la commission pourra, si elle le juge convenable, convoquer une seconde assemblée qui décidera à la majorité des actions présentes ou représentées.

Fait à Marseille, le dix avril mil huit cent trente neuf à double original.

Approuvé le contenu ci-dessus : Fournier F

Double original : approuvé l'écriture ci-dessus : Jn Luce

Approuvé l'écriture : L. Benet

Approuvé l'écriture tant pour moi que pour mes frères Jules et Léon : Paulin Talabot

Approuvé l'écriture : Delors

Lu et approuvé : Abrie

Approuvé l'écriture : Th Périer

Approuvé l'écriture : Jn Ricard

Approuvé l'écriture : F Théron

Approuvé l'écriture ci-dessus : nous souscrivons pour cent cinquante actions : Drouillard, Benoit et Cie.

Lu et approuvé: L Veaute

Appendix 2.2. Ships constructed in La Ciotat the period 1832 to 1850

Sources:

- 1) SHD-Toulon, 14 P 122, Mémoires Statistiques (1831-1845).
- 2) Paul Bois, *Le grand siècle des Messageries Maritimes* (Marseille: CCIMP, 1992).
- 3) Yves Laget, *Notre Histoire de la Construction Navale à La Ciotat. De l'antiquité à nos jours* (La Ciotat: Association Joseph-Édouard Vence, 2011).

Appendix 2.2. Ships constructed in La Ciotat between 1832 and 1851

Year	Name of ship	Tonnage	Length	Width	Type of ship	Destination	First Shipowner	Hull	Propulsion	Engine (CV)
1832	<i>La Réunion</i>	462	28,02	8,47	Three masted	Antilles	Toussaint Benet	bois		
1833	<i>Adele</i>	431	31,24	8,27	Three masted	Colonies	Toussaint Benet	bois		
1834	<i>Luçon</i>	434	30,38	8,27	Three masted	Colonies	Toussaint Benet	bois		
1835	<i>Emma</i>	463	30,70	8,76	Three masted	Colonies	Toussaint Benet	bois		
1835	<i>Amélie</i>	280			Three masted	Colonies	Capitaine Figaret	bois		
1835	<i>Hougly</i>	450			Three masted	India	Maison Altaras	bois		
1835	<i>Victor</i>	245	24,65	7,54	Three masted	Deep-sea going voyage	Etienne Carnavant	bois		
1836	<i>Phocéén</i>	333	45	7,46	Steamship	Mediterranean	Perier et Cie	bois	paddle wheels	120
1837	<i>Rhône</i>				Steamship	Languedoc	Thérond & Cie	bois	paddle wheels	
1837	<i>Hérault</i>				Steamship	Languedoc	Thérond & Cie	bois	paddle wheels	

1837	<i>Saumon</i>				Steamship	Rhône	Cie navigation à vapeur sur le Rhône	wood	paddle wheels	
1837	<i>Occitanie</i>	300			Three masted	Antilles		wood		
1838	<i>Vésuve</i>	222	40,20	6,52	Steamship	Rhône	Cie Navigation à vapeur sur le Rhône	wood	paddle wheels	
1838	<i>L'Utile</i>				Steamship	Mediterranean	Fraissinet & Cie	wood		
1838	<i>Phénicien</i>	346	50.87	7,51	Steamship	Mediterranean	Perier & Cie		paddle wheels	120
1838	<i>Jeune Edouard</i>	242			Three masted	America	Edouard Farenc	bois		
1838	<i>[?]</i>	276			Three masted	Antilles		bois		
1838	<i>St Edouard</i>	276			Three masted	Cabotage		bois		
1839	<i>Le Pitulier</i>	130			Brig		Augustin Fabre	bois		
1839	<i>L'Alfred Delie</i>	et 108			Brig			bois		
1839	<i>La Victoire</i>	102			Brig			bois		

1840	<i>Le Saphir</i>	127	36	5.67	Steamship	Navigation Marseilles- Toulon	Adolphe Chappon			
1840	<i>Grand-Combe No 1</i>	91	26,90	5,86	Steamship	Rhône	Talabot	fer		
1840	<i>Courrier du Senegal</i>	96			Brig			wood		
1840	<i>Bengaly</i>	268			Three masted	Merchant		wood		
1841	<i>Grand-Combe No 4</i>	91	26,90	5,86	Steamship	Rhône	Talabot	fer		
1841	<i>Rubis</i>	300	36,00	5,67	Steamship		Adolphe Chappon	wood		
1841	<i>Phocéén II</i>	500	49,80	7,05	Steamship	Paquebot-poste d'Etat	Périer et Cie	wood		120
1841	<i>Cettois</i>	150			Brig			wood		
1842	<i>Egyptus</i>	524	55,42	10,2	Steamship	Paquebot-poste d'Etat	Etat	wood	paddle wheels	220
1842	<i>Osiris</i>	507	55,37	10,2	Steamship		Etat	wood	paddle wheels	220
1842	<i>Télémarque</i>	467			Steamship		Etat	wood	paddle wheels	

1842	<i>Jeune Triol</i>	97			Brig	Merchant					
1842	<i>Desiré</i>	87			Brig	Merchant					
1842	<i>La Parfaite Felicité</i>	99			Goelette	Merchant					
1843	<i>Ajaccio</i>	430	44,54	6,80	Steamship	Paquebot-poste d'Etat	Etat	wood	paddle wheels	220	
1843	<i>Palinuro</i>	580	49,8	8,3	Steamship	French Navy	Cie de Deux-Sicules	wood	paddle wheels	200	
1844	<i>Mycéne</i>	499	49,80	8,30	Steamship	French Navy	Cie de Deux-Sicules	wood	paddle wheels	200	
1844	<i>Narval</i>	399	45	8	Steamship	French Navy	Etat	iron		160	
1845	<i>Philippe Auguste</i>	248	50,80	7,01	Steamship	Marseilles-Algeria	Bazin et Cie	iron		180	
1845	<i>Hellespont</i>	236	50,75	6,89	Steamship	Constantinople Marseilles	Rostant et Cie	wood	paddle wheels	180	
1845	<i>Bosphore</i>	236	50,75	6,89	Steamship	Constantinople Marseilles	Rostant et Cie	iron		180	
1846	<i>Oronte</i>	387	52,18	7,10	Steamship	Levant	Rostant et Cie	iron		180	
1846	<i>Bonaparte</i>	152			Steamship		Valery	iron	propeller	100	

1847	<i>Salamandre</i>				Steamship	Mediterranean	Etat			140
1847	<i>Ariel</i>				Steamship	Mediterranean	Etat			120
1847	<i>Mérovée</i>	464	52,12	7,15	Steamship	Algeria	Bazin et Cie	iron		180
1847	<i>Saint-Georges</i>				Steamship		Rubattino	iron		
1847	<i>Bonaparte</i>	152			Steamship	Corsica	Cie Valery			152
1847	<i>Compte de Paris</i>	235	42,80	6,15	Steamship	Corsica	Cie Valery	iron		120
1848	<i>Pharamonde II</i>	407	51,25	6,80	Steamship	Algeria	Bazin et Cie			140
1848	<i>Ville de Grasse</i>	90			Steamship			iron		60
1848	<i>Goéland après Danubio</i>	67			Steamship	Mediterranean	Austrian Lloyds	iron		
1849	<i>Précurseur</i>				Steamship	Provence	Sicardo et Cie			
1850	<i>Progrés</i>	283	47,89	6,44	Steamship	Corsica	Cie Valéry	iron		120
1851	<i>San Rio</i>				Steamship			iron		
1851	<i>Industrie</i>	283	47,89	6,48	Steamship	Corsica	Cie Valéry	iron	paddle wheels	120

CHAPTER 3. The second phase of transition: The Compagnie des Messageries Maritimes and the complete industrialisation of La Ciotat (1851 - 1916)

Appendix 3.1. Shipbuilding production in La Ciotat (1851-1916).

Sources: AFL, 1997-002-4714, Navires construits à La Ciotat pour les Messageries Maritimes (1851 - 1915). For the tonnage (Gross tonnage and Net tonnage) as well as for the Width the Appendix 14 titled “Tableau de la flotte, 1851 - 1914” of Berneron-Couvenhes, *Les Messageries Maritimes*, pages 789-799, was used.

Appendix 3.2. Ships purchased by the Compagnie des Messageries Maritimes (1851 - 1916).

Sources: Berneron-Couvenhes, *Les Messageries Maritimes*, Appendix 14, pages 789-799.

Appendix 3.1. Shipbuilding production in La Ciotat (1851-1916).

Name of the ship	No	Length	Width	Tonnage (tb)	Tonnage (tn)	Hull	Propulsion	Horsepower (CV)	Speed (knots)	Date of keel laying	Date of launching	Delivery date	Year of radiation	Reason of radiation
PERICLES	1	53.40	7	340	281	iron	paddle wheels	120	9	December 1851	May 1852	July 1852	1870	demolition
THABOR	2	68.40	9	930	489	iron	paddle wheels	480	12	April 1852	July 1853	October 1853	1870	sold
SINAL	3	68.40	9	883	491	iron	paddle wheels	480	12	October 1852	February 1854	July 1854	1875	demolition
CARMEL	4	67.60	10	932	485	iron	paddle wheels	480	12	May 1853	October 1854	January 1855	1874	demolition
AVENTIN	5	59.70	8	625	250	iron	paddle wheels	700	9	December 1853	August 1856	December 1856	1858	lost in the sea

DANUBE	6	10																	
			76.20	1,039	623	iron	propeller			1200	13	June 1854	August 1855	November 1856	1878		demolition		
CYDNUS	7	10																	
			76.20	1,196	627	iron	propeller			1,000	13	March 1855	August 1856	November 1856	1875		demolition		
HERMUS	8	9																	
			71.00	778	471	iron	propeller			650	11	September 1855	March 1857	April 1857	1879		demolition	demolition	demolition
PHASE	10	10																	
			76.20	1,053	617	iron	paddle wheels			370	?	May 1856	December 1857	April 1858	1879		demolition	demolition	demolition
PANSILIPPE	11	8																	
			65.00	689	397	iron	paddle wheels			1,200	10	November 1856	June 1857	December 1857	1870		demolition	demolition	demolition
NEVA	13	10																	
			79.00	1,085	617	iron	propeller			1,200	13	June 1857	October 1858	February 1859	1875		demolition	demolition	demolition
BALKAN	14	7																	
			60.40	630	258	iron	paddle wheels			300	9	June 1857	February 1858	March 1858	1874		demolition	demolition	demolition

TAURUS	15	8	65.20	419	298	iron paddle wheels	300	9	February 1858	July 1858	July 1858	1874	demolition
GUIENNE	16	9	101.70	1,945 [after 2,596]	1,168 [after 1,391]	iron paddle wheels [after propeller]	500 [after 1,200]	10.5 [after 13]	August 1858	October 1859	March 1860	1873	lost in the sea
IMPERATRICE	18	12	101.10	2,188	1,553	iron paddle wheels	1,550	12	October 1858	September 1860	March 1861	1887	sunk
DONNAI	22	12	102.05	2,410	1,684	iron paddle wheels	1,600	12	November 1858	March 1861	August 1862	1888	lost
BEARN	17	12	101.70	2,470	1,173	iron paddle wheels	1,300	11	March 1859	June 1860	July 1860	1865	lost
ALPHEE	25	8	90.22	1,551	1,233	iron propeller	1,075	12	August 1860	August 1861	February 1862	1899	sold
ERYMANTHE	26	9	90.22	1,793	908	iron propeller	1,075	12	November 1860	February 1862	July 1862	1895	sold

DUPLEIX	27	9	92.80	1,484	871	iron propeller	1,600	12	December 1861	July 1862	September 1862	1889	sold
PELUSE	33	10	94.15	1,501	1,180	iron propeller	1,600	12	June 1862	February 1863	May 1863	1891	sold
MOERIS	34	10	94.15	1,501	1,167	iron propeller	1,600	12	August 1862	May 1863	September 1863	1890	sold
SAID	35	10	94.15	1,680	1,163	iron propeller	1,600	12	February 1863	October 1863	February 1864	1891	sold
EMIRNE	36	9	88.55	1,154	728	iron propeller	1,200	13	June 1863	January 1864	April 1864	1890	sold
MOZAMBIQUE	37	9	88.55	1,154	653	iron propeller	1,200	11	July 1863	March 1864	June 1864	1890	sold
VOLGA	42	10	98.40	1,529	885	iron propeller	1,200	12	November 1863	November 1864	February 1865	1894	sold

ILISSUS	44	9	94.10	1,235	775	iron	propeller	1,200	11	June 1864	April 1865	August 1865	1887	sold
NIEMEN	45	10	102.00	1,692	1,176	iron	propeller	1,400	12	December 1864	September 1865	January 1866	1893	lost
TIBRE	46	10	102.00	1,711	1,151	iron	propeller	1,400	12	June 1865	April 1866	November 1866	1902	sold
ERIDAN	47	10	102.00	1,824	1,149	iron	propeller	1,400	12	September 1865	June 1866	August 1866	1905	sold
HOUGLY	48	9	115.50	2,898	1,864	iron	propeller	2,400	13	June 1866	March 1867	August 1867	1878	lost
TANAIS	49	10	102.00	1,824	1,156	iron	propeller	1,400	12	June 1866	October 1867	January 1868	1901	sold
TAGE	50	10	101.20	1,691	1,165	iron	propeller	1,200	12	June 1867	May 1868	October 1868	1886	lost

SCAMANDRE	51	101.20	10	1,757	1,386	iron	propeller	1,600	14	October 1867	July 1868	January 1869		
EBRE	52	101.20	10	1,602	1,198	iron	propeller	1,200	12	June 1868	December 1868	January 1869	1892	sold
GIRONDE	53	121.80	12	3,218	2,064	iron	propeller	1,200	12	July 1868	January 1869	Septemb r 1869	1908	sold
AMAZONE	54	117.00	13	3,396	2,107	iron	propeller	2,300	14	September 1868	May 1869	October 1869	1898	sold
SINDH	55	117.00	12	3,379	2,104	iron	propeller	2,300	14	November 1868	July 1869	January 1870	1901	sold
PEI-HO	56	117.00	12	3,892	2,145	iron	propeller	2,400	14	May 1869	October 1869	April 1870	1902	sold
AVA	57	117.02	12	3,307	2,103	iron	propeller	2,400	14	July 1869	January 1870	August 1870	1900	sold

MEI-KONG	58	12	117.03	3,279	2,100	iron	propeller	2,400	14	October 1869	May 1870	July 1871	1877	lost
SENEGAL	59	11	125.00	3,717	2,368	iron	propeller	1,900 [after 7,000]	13 [after 13.5]	February 1870	September 1870	May 1872	1913	sold
NIGER	60	10	125.00	3,726	2,357	iron	propeller	1,900 [after 7,000]	13 [after 13.5]	March 1870	December 1871	October 1872	1914	sold
IRAOUADDY	61	12	125.00	3,783	1,960	iron	propeller	2,900	14	January 1872	December 1872	March 1873	1908	sold
ANADIR	62	12	125.00	3,592	1,960	iron	propeller	2,900	14	December 1872	August 1873	January 1874	1889	lost
ORENOQUE	63	12	125.00	3,816	2,484	iron	propeller	2,900	14	July 1873	February 1874	August 1874	1925	sold
DJEMNAH	64	12	125.00	3,721	2,254	iron	propeller	2,900	14	December 1873	September 1874	March 1875	1918	torpedoed

EQUATEUR	65	124.94	12	3,724	2,350	iron propeller	2,400	15	July 1874	June 1875	December 1875	1922	sold
PARANA	66	124.94	12	3,850	2,350	iron propeller	2,400	15	May 1875	March 1876	September 1876	1877	lost
YANG-TSE	67	124.94	12	3,798	1,882	iron propeller	2,900	14	September 1875	January 1877	August 1877	1911	sold
CONGO	68	124.97	12	3,897	1,987	iron propeller	2,900	14	October 1876	March 1878	August 1878	1913	sold
OXUS	69	124.98	12	3,791	1,880	iron propeller	2,900	13	January 1878	April 1879	October 1879		sold
SAGHALIEN	70	130.75	12	4,000	2,554	iron propeller	2,900	13	February 1879	July 1880	January 1881		sold
NATAL	71	130.76	12	4,016	2,554	iron propeller	2,900	13	February 1880	July 1881	February 1882		

MELBOURNE	72	12	130.77	4,099	2,423	iron	propeller	3,400	15	January 1881	December 1881	August 1882	1921	sold
CALEDONIEN	73	13	130.84	4,248	2,093	iron	propeller	3,400	15	October 1881	June 1882	December 1882	1917	torpedoed
SYDNEY	75	13	130.84	4,127	2,501	iron	propeller	3,400	15	May 1882	November 1882	March 1883		sold
SALAZIE	76	13	130.85	4,193	2,089	iron	propeller	3,400	15	July 1882	April 1883	August 1883	1913	sold
YARRA	77	13	130.86	4,255	2,084	iron	propeller	3,400	15	January 1883	August 1883	February 1884	1917	torpedoed
OCEANIEN	78	13	130.87	4,162	2,081	iron	propeller	3,400	16	June 1883	June 1884	January 1885	1922	sold
CORDOUAN	79	14	102.97	2,998	2,075	steel	propeller	1,900	13	August 1883	January 1884	May 1884	1911	sold

ORTEGAL	82	14														
			102.97	3,694	2,108	steel	propeller		1,900	13	December 1883	November 1844	April 1885	1911	sold	
HAI-PHONG	83	10														
			88.72	1,548	874	iron	propeller		1,400	14	November 1884	May 1885	August 1885	1922	sold	
Portugal	84	14														
			140.20	5,357	3,372	steel	propeller		4,800	17	July 1885	July 1886	August 1887	1916	torpedoed	
MANCHE	86	11														
			94.32	2,393	1,251	iron	propeller		1,400	13	July 1886	March 1887	July 1887	1923	sold	
LA PLATA	88	14														
			146.25	5,807	2,814	steel	propeller		5,400	17	July 1887	June 1888	April 1889	1924	sold	
AUSTRALIEN	90	15														
			152.64	6,376	3,550	steel	propeller		7,000	18	January 1888	May 1889	March 1890	1918	torpedoed	
DOURO	96	11														
			105.33	2,724	1,566	iron	propeller		1,500	13	June 1888	February 1889	July 1889	1910	lost	

POLYNESIEN	97	15	152.64	6,373	3,550	steel	propeller	7,000	18	July 1888	April 1890	January 1891	1918	torpedoed
MPANJAKA	99	8	66.08	685	415	steel	propeller	500	11	September 1888	January 1889	May 1889	1916	sold
ARMAND-BEHIC	100	15	153.94	6,467	2,808	steel	propeller	7,500	18	June 1889	April 1891	February 1892	1924	sold
VILLE DE LA CIOTAT	101	15	153.95	6,389	3,563	steel	propeller	7,500	18	July 1890	April 1892	December 1892	1915	torpedoed
ERNEST-SIMONS	102	14	141.95	5,543	2,896	steel	propeller	5,800	18	February 1892	September 1893	August 1894	1927	torpedoed
CHILI	103	15	147.90	6,097	2,771	steel	propeller	5,800	18	June 1893	October 1894	August 1895	1926	sold
CORDILLERE	104	15	147.90	6,379	2,451	steel	propeller	5,800	18	May 1894	October 1895	July 1896	1926	sold

LAOS	105	15	141.95	6,458	3,920	steel propeller	7,200	12	November 1895	November 1896	July 1897	1932	sold
INDUS	109	16	141.95	6,026	2,966	steel double propeller	7,200	19	May 1896	August 1897	March 1898	1916	torpedoed
TONKIN	112	16	141.95	7,184	3,514	steel double propeller	7,200	19	December 1896	March 1898	December 1898	1932	sold
ANNAM	114	16	141.95	6,334	4,073	steel double propeller	7,200	15	October 1897	November 1898	September 1899	1916	torpedoed
PACIFIQUE	115	10	93.98	1,958	900	steel propeller	1,500	14	April 1898	March 1899	September 1899	1925	sold
ATLANTIQUE	116	15	147.98	6,908	3,473	steel double propeller	7,200	19	September 1898	November 1899	May 1900		
HIMALAYA	117	15	136.98	5,620	3,564	steel double propeller	3,300	13	May 1900	November 1902	April 1903	1917	torpedoed

LOUQSOR	118	16	141.35	6,889	4,444	steel double propeller	3,300	13	May 1903	April 1904	October 1904	1930	sold
EL-KANTARA	119	14	141.35	6,888	4,427	steel double propeller	3,300	13	May 1903	August 1904	April 1905	1926	sold
EUPHRATE	120	16	141.35	6,888	4,427	steel double propeller	3,300	13	May 1904	April 1905	October 1905	1915	lost
GANGE	121	16	141.35	6,886	4,425	steel double propeller	3,300	14	Septembe r 1904	August 1905	January 1906	1917	sunk
SONTAY	133	16	141.35	7,446	4,648	steel double propeller	3,300	13	October 1906	December 1907	June 1908	1917	torpedoed
PAUL LECAT	136	19	161.30	12,989	7,546	steel propeller	11,000	17	May 1910	May 1910	September 1912		
ANDRE LEBON	142	19	161.30	13,682	7,377	steel propeller	11,000	17	October 1912	October 1912	July 1915		

Appendix 3.2. Ships purchased by the Compagnie des Messageries Maritimes (1851-1916).

Name	Date of entry in the service of MM	Date of construction	Shipyard	First owner	Length	Width	Hull	Tonnage (tb)	Tonnage (tn)	Propulsion	Horsepower (CV)	Speed	Date of radiation	Reason
Eurotas	1851	1836	Ars. Rochefort	State	57	10	Wood	623	423	paddle wheels	160	8.5	1854	sunk
Lycurgue	1851	1836	Ars. Lorient	State	57	10	Wood	688	413	paddle wheels	160	8.5	1856	demolition
Mentor	1851	1836	Ars. Cherbourg	State	57	9.9	Wood	622	397	paddle wheels	160	8.5	1856	demolition
Léonidas	1851	1836	Ars. Brest	State	57	9	Wood	633	374	paddle wheels	160	9	1858	demolition
Tancrede	1851	1836	Ars. Brest	State	57	9.7	Wood	681	410	paddle wheels	160	9		

Scamandre (1)	1851	1836	Ars. Rochefort	State	57	9.9	Wood	698	413	paddle	wheels	160	9	1858	demolition
Sésostris	1851	1836	Ars. Cherbourg	State	57	9.9	Wood	685	423	paddle	wheels	160	8.5	1852	returned
Télémarque	1851	1842	La Ciotat	State	56	9.4	Wood	467	363	paddle	wheels	220	9	1865	demolition
Egyptus	1851	1843	La Ciotat	State	64	10	Wood	803	493	paddle	wheels	220	9	1858	sinking
Nil (1)	1851	1843	Bordeaux (Arman)	State	64	10	Wood	837	502	paddle	wheels	220	9	1862	demolition
Osiris	1851	1843	La Ciotat	State	64	10	Wood	846	507	paddle	wheels	220	9	1866	demolition
Caire	1851	1843	Ars. Lorient	State	64	10	Wood	806	483	paddle	wheels	220	9	1866	demolition

Alexandre	1851	1843	Bordeaux (Arman)	State	64	10	Wood	803	493	paddle	wheels	220	9	1862	demolition
Hellespont	1851	1846	La Ciotat	Cie Rostand	51	6.9	Iron	587	394	paddle	wheels	180		1859	sinking
Oronte	1851	1846	La Ciotat	Cie Rostand	52	7.9	Iron	387	276	paddle	wheels	180	9.5	1867	demolition
Bosphore	1851	1846	La Ciotat	Cie Rostand	50	8.9	Iron	391	234	paddle	wheels	180	10	1867	demolition
Liban	1854	1853	Bordeaux (Arman)/ British engines	MM	63	8.7	Iron	850	480	paddle	wheels	300	11	1854	sinking
Capitole	1854	1853	Bordeaux (Arman)/ British engines	MM	63	7.6	Iron	537	334	paddle	wheels	540	9	1873	demolition

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Vatican	1854	1853 - 1854	Bordeaux (Arman)/British engines	MM	59	7.6	Iron	466		paddle wheels	200	9	1873	?
Mérovée	1854	1847	La Ciotat	Cie Bazin	55	7.2	Iron	457	268	paddle wheels	180	10	1867	demolition
Philippe- Auguste	1854	1845	La Ciotat	Cie Bazin	55	50	Iron	414	248	paddle wheels	180	9.5	1862	sold
Sphinx	1854	1835	London	Cie Bazin	47	7.5	Wood	580	358	paddle wheels	160	7	1862	demolition
Euphrate	1854	1853	London	Australasian Pacific Mail C°	78	11	Iron			propeller	350	11	1884	demolition
Gange	1854	1853	Glasgow (Scott)	Australasian Pacific Mail C°	81	11	Iron			propeller	800	10	1887	demolition

Indus	1854	1853	Glasgow (Reid)	Australasian Pacific Mail C ^o	78	11	Iron		propeller	300	?	1888	demolition
Pharamond	1854	1848	La Ciotat	Cie Bazin	54	6.8	Wood 407	189	paddle wheels	140	8.5	1857	sinking
Tage (1)	1854	1837	Havre (A. Normand)	Cie CF Midi	55	7.2	Wood 400	233	paddle wheels	175	7	1860	demolition
Amsterdam	1854	1836	Havre (A. Normand)	Cie CF Midi	47	7.5	Wood 580	358	paddle wheels	160	7	1860	demolition
Tamise	1854	1854	Glasgow (Thomson)	MM	72	8.9	Iron 900	717	propeller	540	9	1879	demolition
Clyde	1855	1855	Glasgow (Thomson)	MM	72	8.9	Iron 803	506	propeller	500	9	1872	sold

Mersey	1855	1854	Glasgow (Smith & Roger)	MM	72	8,9	Iron	958	546	propeller	540	9	1876	demolition
Jourdain	1855	1855	Birkenhead (Laird)	MM	79	9.3	Iron	814	754	propeller	675	10	1863	sinking
Cheliff	1855	1855	Dumbarton (Denny)	MM	67	9.2	Iron	790	473	propeller	450	9	1875	sold
Metidja	1855	1855	Dumbarton (Denny)	MM	70	8.1	Iron	675	405	propeller	425	9	1870	sold
Simois	1855	1853	Birkenhead (Laird)	South America C ^o *	75	11	Iron	1530	804	propeller	700	9	1872	sold
Hydapse	1855	1854	Birkenhead (Laird)	South America C ^o *	73	9.1	Iron	967	580	propeller	700	9.5	1864	sinking

Borysthène	1856	1855	Birkenhead (Laird)	South America C ^o *	76	8.8	Iron	1158	694	propeller	650	10	1865	sinking
Méandre	1856	1855	Birkenhead (Laird)	MM	76	10	Iron	1004	677	propeller	750	10	1883	demolition
Sully	1856	1854	La Seyne (Taylor)	MM	59	8.7	Iron	680	363	propeller	200	10	1861	sinking
Henri IV	1856	1854	La Seyne (Taylor)	MM	58	8.2	Iron	683	359	propeller	540	9	1861	sinking
Céphise	1857	1857	La Seyne (FCM)	MM	71	9,4	Iron	810	?	propeller	380	?	1863	sinking
Quirinal	1858	1858	La Seyne (FCM)	MM	65	8	Iron	689	397	paddle wheels	1200	10	1872	demolition

Amérique	1859	1858	La Seyne (FCM)	Cie de Navigation Mixte	76	11	Iron	1902	1058	propeller	420	12	1875	demolition
Navarre (devient Rio Grande en 1872)	1860	1860	La Seyne (FCM)	MM	102 puis 104	93	Iron	2100 after 2735	1168 after 1435	paddle wheels after propeller	1300 after 400	12 after 13	1891	demolition
Estramadour e (devient Mendoza en 1872)	1860	1860	La Seyne (FCM)	MM	100	12	Iron	2132 after 2577	1279	paddle wheels after propeller	1300 after 1300	11 after 12.5	1891	demolition
Saintonge	1860	1860	Bordeaux (Arman)	MM	79	9.7	Iron	826	598	paddle wheels	675	8.5	1880	demolition
Aunis	1861	1861	Bordeaux (Arman)	MM	79	9.7	Iron	826	598	paddle wheels	675	8.5	1882	demolition
Meinam	1863	1863	La Seyne (FCM)	MM	89	9.6	Iron	1582	939	propeller	1600	12	1893	sold

La Bourdonnais	1863	1863	La Ciotat/ La Seyne (FCM)	MM	88	9.6	Iron	1582	951	propeller	1600	12	1896	demolition
Tigre	1863	1863	La Seyne (FCM)	MM	107	12	Iron	2746	1869	paddle wheels	500	12	1904	demolition
Aréthuse	1864	1864	London (Samuda Bros)	MM	84	10	Iron	1184	685	propeller	250	11	1897	demolition
Godavery	1864	1863	Bordeaux (Arman)	MM	93	9.7	Iron	1428	907	propeller	1200	13	1898	demolition
Nil (2)	1864	1864	La Seyne (FCM)	MM	98	9.5	Iron	1734	1040	propeller	1200	12	1874	sinking
Menzaleh	1865	1865	La Seyne (FCM)	MM	105	9.8	Iron	1912	840	propeller	1200	12	1887	sinking
Delta	1865	1862	West Hartlepool (Spence and Co)	Compagnie de Liverpool	68	9.8	Iron	1218	802	propeller	600	9	1891	sinking

Copernic	1865	1861	Newcastle (Andrew Leslie and Co)	Compagni e de Liverpool	82	9.8	Iron	1372	1149	propeller	1000	11	1889	demoliti on
Rion	1865	1863	Linz (Autriche)	MM	?	?	?	420	?	paddle wheels	?	?	1867	sold
La Seyne	1876	1876	La Seyne (FCM)	Germain frères (Le Havre)	105	12	Iron	2353	1151	propeller	2000	13	1909	collision- >sinking
Saïgon	1881	1881	Greencock (Caïrd & C)	MM	75	9.6	Iron	1275	925	propeller	700	12	1894	sinking
Médoc	1884	1884	La Seyne (FCM)	MM	103	14	Steel	3655	2274	propeller	1900	13	1914	fire- >demolit
Matapan	1885	1885	La Seyne (FCM)	MM	103	14	Steel	3565	2641	propeller	1900	13	1910	demoliti on
Yorounba	1886	1883	Barrow	Compagnie française de l'Afrique Occidentale (Verminck)	83	11	Iron	1910	1298	propeller	1000	11	1888	sinking

Nerthe	1888	1874	Glasgow (Stephens)	Hapag		114	12	?	3719	2133	propeller	2900	13	1897	demolition
Guadalquivir	1888	1888	Le Havre (Forges et Chantiers)	MM		112	12	Steel	2598	1534	propeller	1400	13	1903	attack → fire/lost
Guadania	1888	1888	Le Havre (Forges et Chantiers)	MM		112	12	Steel	2573	1608	propeller	1450	13	1922	demolition n
Dordogne	1889	1889	Le Havre (Forges et Chantiers)	MM		117	13	Steel	3750	2134	propeller	2200	14	1911	demolition
Charente	1889	1889	Le Havre (Forges et Chantiers)	MM		117	13	Steel	3835	2167	propeller	2200	14	1911	demolition
Brésil (devient Dumbéa en 1903)	1889	1889	La Seyne (FCM)	MM		147	14	Steel	5876	2776	propeller	5400	17	1928	demolition

Bagdad	1895	1891	Dundee (Courlay)	Hellenic Steam Navigation Company	104	12	Steel	2382	1503	propeller	1400	11	1935	cyclone- >sinking
Memphis	1895	1892	Dundee (Courlay)	Hellenic Steam Navigation Company	100	12	Steel	2492	1472	propeller	1400	11	1916	torpedoed- >sinking
Sidon	1895	1892	Dundee (Courlay)	Hellenic Steam Navigation Company	104	112	Steel	2575	1472	propeller	1400	12	1922	demolition
Persépolis	1896	1896	Londerry (Bigger)	Liverpool Maranham SS C)	86	11	Steel	1807	949	propeller	1400	12	1922	demolition
Dupleix	1897	1897	La Seyne (FCM)	MM	102	12	Steel	2407	1445	propeller	2300	15	1928	demoliti on
Sinai	1898	1898	La Seyne (FCM)	MM	126	14	Steel	4624	2961	double propeller	3300	15	1916	torpedoed ->sinking

Bosphore	1903	1889	Greenock (Caird & C°)	Compagnie Péninsulaire et Orientale	111	13	Steel 3503	2205	propeller	2200	12	1922	demolition
Danube	1903	1889	Greenock (Caird & C°)	Compagnie Péninsulaire et Orientale	111	13	Steel 3508	2207	propeller	2500	12	1923	demolition
Crimée	1903	1889	Greenock (Caird & C°)	Compagnie Péninsulaire et Orientale	111	13	Steel 3819	2048	propeller	2200	12	1923	demolition
Kouang-Si	1904	1904	Le Havre (Forges et Chantiers)	Compagnie de l'Est Asiatique Français	130	15	Steel 6472	4203	propeller	3000	13	1922	demolition
Yunnan	1904	1904	Le Havre (Forges et Chantiers)	Compagnie de l'Est Asiatique Français	131	15	Steel 6474	4213	double propeller	3000	13	1915	torpedoed ->sinking
Annam	1904	1902	Copenhague (Burmeister)	Compagnie de l'Est Asiatique Français	131	15	Steel 6075	3890	propeller	2400	12	1917	torpedoed- >sinking

Colombo	1904	1882	La Seyne (FCM)	Compagnie Nationale de Navigation	120	12	Steel	3807	2948	propeller	1800	12	1910	demolition
Cachar	1904	1883	La Seyne (FCM)	Compagnie	109	13	Steel	3645	3231	propeller	2000	13	1914	demolition
Cao-Bang	1904	1902	La Seyne (FCM)	Compagnie Nationale de Navigation	135	14	Steel	6659	?	propeller	4400	15	1906	sinking
Ville de Pernambuco	1905	1880		Compagnie des Chargeurs Réunis	91	11	Steel	2170	1200	propeller	1000	10	1907	demolition
Meinam	1907	1907	Newcastle (Palmers)	MM	130	16	Steel	6149	3950	propeller	3300	12	1934	demolition
Pei-Ho	1907	1907	Glasgow (Barclay)	MM	130	16	Steel	5956	3782	propeller	3760	13	1934	demolition

Normand	1910	1893	Belfast (Harland)	Pacific Steam Ship Navigation C°	114	13	Steel	3624	2269	propeller	2200	11	1923	demolition
Basque	1910	1893	Belfast (Harland)	Pacific Steam Ship Navigation C°	114	13	Steel	3621	2284	propeller	2200	11	1923	demolition
Caucase	1911	1899	Dumbarton (Denny Bros)	P. Henderson & Co	114	14	Steel	4132	2636	propeller	1800	9.5	1923	demolition
Ispahan	1911	1900	Dumbarton (Denny Bros)	P. Henderson & Co	113	14	Steel	4126	2667	propeller	1800	9.5	1923	demolition
Breton	1911	1886	Belfast (Harland)	Iran Steam Ship C°/G. Sloman (Hambourg)/Hamburg Amerika Linie	119	13	Steel	3793	2394	propeller	1900	10	1917	torpedoed → sinking
Mossoul	1913	1898	Glasgow	Elder Dempster Lines	108	13	Steel	3175	1953	propeller	1650	12	1917	torpedoed → sinking

Imérina	1914	1899	Stockholm (Richardson)	Hamburg Amerika Line (HAPAG)	94	13	Steel 2830	1755	propeller	1200	10	1932	sinking
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Appendix 3.3. *Excelsior*, 28 October 1913, The launching of “André Lebon” in 1913 in La Ciotat.



Source: Taken by RetroNew

CHAPTER 4. The town in transition: demographic restructuring of La Ciotat (1831 —1911).

Appendix 4.1. Civil Status by age, 1851.

AGE	MALE				FEMALE			
	Boys	Married	Widows	Total	Girls	Married	Widows	Total
0-10	546			546	537			537
11-14	144			144	152			152
15-19	182	1		183	223	6		229
20-24	152	11		163	145	75	4	224
25-29	81	88	2	171	80	115	5	200
30-34	41	98	8	147	57	133	5	195
35-39	27	138	2	167	33	127	11	171
40-44	22	122	6	150	23	135	18	176
45-49	15	119	4	138	20	117	17	154
50-54	9	99	11	119	29	87	27	143
55-59	8	93	22	123	39	48	28	115
60-64	5	86	12	103	36	81	40	157
65-69	12	56	19	87	13	29	36	78
70-74	4	28	18	50	17	21	34	72
75-79	8	10	16	34	8	10	31	49
80-84	7	11		18	2	34		36
85-89	3	7		10	2	9		11
90-94	0	2		2	0	2		2
95-99	1266	969	120	2355	1416	1029	256	2701

Processed data by: AMLC, Liste de dénombrement de la population, 1851 [Database: “Sailors - La Ciotat” 1851].

Appendix 4.2. Civil Status by age, 1876.

AGE	MALE				FEMALE			
	Boys	Married	Widows	Total	Girls/ Unmarried	Married	Widows	Total
1-10	923			923	792			792
11-14	344			344	311			311
15-19	406			406	419			419
20-24	373	61		434	215	166	1	382
25-29	534	244	2	780	24	59	2	85
30-34	352	290	7	649	95	332	12	439
35-39	259	314	13	586	53	325	15	393
40-44	129	286	7	422	43	287	20	350
45-49	87	268	18	373	29	247	27	303
50-54	45	192	21	258	21	189	36	246
55-59	15	144	22	181	14	97	37	148
65-69	15	101	24	140	14	90	42	146
70-74	11	68	20	99	22	42	46	110
75-79	6	26	20	52	8	23	36	67
80-84	4	28	19	51	2	18	53	73
85-89	3	8	19	30	6	3	26	35
90-94		3	7	10	5		22	27
95-99					2		3	5

Processed data by: AMLC, Liste de recensement de la population, 1876.

Appendix 4.3. Civil status by age.

AGE	MALE				FEMALE			
	Boys	Married	Widows	Total	Girls	Married	Widows	Total
1-10	955			955	858			858
11-14	362			362	384			384
15-19	368			368	364	98		462
20-24	656	263		919	225	552	15	792
25-29	287	254	6	547	53	325	15	393
30-34	259	314	6	579	43	287	20	350
35-39	214	271	13	498	29	247	27	303
40-44	183	264	9	456	21	189	36	246
45-49	141	122	18	281	14	97	37	148
50-54	11	117	22	150	14	90	42	146
55-59	13	59	21	93	22	42	46	110
65-69	14	28	7	49	8	23	36	67
70-74	4	14	5	23	2	18	53	73
75-79	3	6	6	15	6	3	26	35
80-84	1	2	1	4	5		22	27
85-89		1	2	3	2		3	5
90-94		3	1	4				

Processed data by: AMLC, Liste de dénombrement de la population, 1881.

Appendix 4.4. Civil status by age (1886).

AGE	MALE				FEMALE			
	Boys	Married	Widows	Total	Girls	Married	Widows	Total
0-10	1029				929			
11-14	399				425			
15-19	404				394	109		
20-24	674	262	7		279	606	18	
25-29	277	245	7		81	368	18	
30-34	246	300	15		69	316	22	
35-39	202	259	10		53	276	29	
40-44	170	254	20		45	219	39	
45-49	127	109	24		38	127	42	
50-54	13	128	23		17	102	47	
55-59	19	67	9		25	46	52	
65-69	16	32	6		10	27	40	
70-74	6	17	8		3	20	59	
75-79	4	7	2		7	4	27	
80-84	4	3	4		7		23	
85-89	2	2	2		3	1	4	
90-94	2	1	1					

Processed data by: AMLC, , Liste de dénombrement de la population, 1886.

Appendix 4.5. Age structure of Male Unmarried Population in La Ciotat the years 1851, 1876, 1881 and 1886 (absolute numbers and % compound annual rate of growth).

	1851	1876		1881		1886	
Population:	5,196	10,058		9,702		10,682	
Average staff*:	-	2,439		2,183		2,572	
AGE	Boys	Boys	%	Boys	%	Boys	%
0 to 10	546	923	3%	955	1%	1029	2%
11 to 14	144	344	6%	362	1%	399	2%
15 to 19	182	406	5%	368	-2%	404	2%
20 to 24	152	373	6%	656	15%	674	1%
25 to 29	81	534	22%	287	-9%	277	-1%
30 to 34	41	352	30%	259	-5%	246	-1%
35 to 39	27	259	34%	214	-3%	202	-1%
40 to 44	22	129	19%	183	8%	170	-1%
45 to 49	15	87	19%	141	12%	127	-2%
50 to 54	9	45	16%	11	-15%	13	4%
55 to 59	8	15	4%	13	-3%	19	9%
60 to 64	5	15	8%	14	-1%	16	3%
65 to 69	12	11	0%	4	-13%	6	10%
70 to 74	4	6	2%	3	-10%	4	7%
75 to 79	8	4	-2%	1	-15%	4	60%
80 to 84	7	3	-2%			2	
85 to 89	3					2	

Processed data by: AMLC, Listes de dénombrement de la population (1851, 1876, 1881, 1886).

*The monthly average staff per year was calculated by the AMC, Fonds de Messageries Maritimes, Registres Entrées [Database “‘Shipyard’s Employment Registers - La Ciotat’].

Appendix 4.6. Age structure of Male Married Population in La Ciotat the years 1851, 1876, 1881 and 1886 (absolute numbers and % compound annual rate of growth (CARG %)).

	1851	1876	1881	1886			
Population:	5,196	10,058	9,702	10,682			
Average staff*:	-	2,439	2,183	2,572			
AGE	Married	Married	%	Married	%	Married	%
20 to 24	11	61	18%	263	66%	262	0%
25 to 29	88	244	7%	254	1%	245	-1%
30 to 34	98	290	8%	314	2%	300	-1%
35 to 39	138	314	5%	271	-3%	259	-1%
40 to 44	122	286	5%	264	-2%	254	-1%
45 to 49	119	268	5%	122	-11%	109	-2%
50 to 54	99	192	5%	117	-8%	128	2%
55 to 59	93	144	2%	59	-12%	67	3%
60 to 64	86	101	1%	28	-14%	32	3%
65 to 69	56	68	1%	14	-16%	17	4%
70 to 74	28	26	0%	6	-15%	7	3%
75 to 79	10	28	7%	2	-19%	3	10%
80 to 84	11	8	-1%	1	-18%	2	
85 to 89	7	3	-2%	3	0%	1	

Processed data by: AMLC, , Listes de dénombrement de la population (1851, 1876, 1881, 1886).

*The monthly average staff per year was calculated by the AML, Fonds de Messageries Maritimes; Registres Entrées [Database ‘Shipyard’s Employment Registers - La Ciotat’].

Appendix 4.7. Age structure of Female (F) Unmarried Population in La Ciotat the years 1851, 1876, 1881 and 1886 (absolute numbers and % compound annual growth rate).

AGE	1851			1876			1881			1886		
	F/Unmarried	F/Unmarried	%	F/Unmarried	F/Unmarried	%	F/Unmarried	F/Unmarried	%	F/Unmarried	F/Unmarried	%
0 to 10	537	792	2%	858	2%	929	2%					
11 to 14	152	311	4%	384	5%	425	2%					
15 to 19	223	419	4%	364	-3%	394	2%					
20 to 24	145	215	2%	225	1%	279	5%					
25 to 29	80	24	-3%	53	24%	81	11%					
30 to 34	57	95	3%	43	-11%	69	12%					
35 to 39	33	53	2%	29	-9%	53	17%					
40 to 44	23	43	3%	21	-10%	45	23%					
45 to 49	20	29	2%	14	-10%	38	34%					
50 to 54	29	21	-1%	14	-7%	17	4%					
55 to 59	39	14	-3%	22	11%	25	3%					
60 to 64	36	14	-2%	8	-9%	10	5%					
65 to 69	13	22	3%	2	-18%	3	10%					
70 to 74	17	8	-2%	6	-5%	7	3%					
75 to 79	8	2	-3%	5	30%	7	8%					
80 to 84	2	6	8%	2	-13%	3	10%					
85 to 89	2	5	6%									

Processed data by: AMLC, , Listes de dénombrement de la population (1851, 1876, 1881, 1886).

Appendix 4.8. Age structure of Female/Married Population in La Ciotat the years 1851, 1876, 1881 and 1886 (absolute numbers and % compound annual growth rate).

AGE	1851			1876		1881		1886	
	F/Married	F/Married	%	F/Married	%	F/Married	%		
15 to 19	6			98		109	2%		
20 to 24	75	166	5%	552	47%	606	2%		
25 to 29	115	59	-2%	325	90%	368	3%		
30 to 34	133	332	6%	287	-3%	316	2%		
35 to 39	127	325	6%	247	-5%	276	2%		
40 to 44	135	287	5%	189	-7%	219	3%		
45 to 49	117	247	4%	97	-12%	127	6%		
50 to 54	87	189	5%	90	-10%	102	3%		
55 to 59	48	97	4%	42	-11%	46	2%		
60 to 64	81	90	0%	23	-15%	27	3%		
65 to 69	29	42	2%	18	-11%	20	2%		
70 to 74	21	23	0%	3	-17%	4	7%		
75 to 79	10	18	3%						
80 to 84	34	3	-4%			1			
85 to 89	9								
90 to 94	2								

Processed data by: AMLC, , Listes de dénombrement de la population (1851, 1876, 1881, 1886).

Appendix 4.9. Map of France with separated regions and departments



Source: <https://i.pinimg.com/originals/14/bf/be/14bfbe457feb0a58aa19f8def5e93296.jpg>

CHAPTER 5. The town in transition: the socio-professional structure of La Ciotat (1831 - 1911).

Appendix 5.1. Recapitulation data of occupations as it was given in the end of the Nominative Census of the year 1851.

Séries et groupes de professions	Patrons ou chefs d'exploitation			Ouvriers, journaliers, homme de peine, manœuvres, etc		
	Sexe masculin	Sexe féminin	TOTAL	Sexe masculin	Sexe féminin	TOTAL
I. AGRICULTURE						
1. Propriétaires cultivant exclusivement leurs terres	58	19	77			
2. Métayer ou colons	151	133	284			
3. Idem propriétaires	19		19			
4. Journaliers (vignerons, jardiniers, laboureurs, etc.)				100	127	227
5. Idem propriétaires	20	10	30			
Total	248	162	410	100	127	227
II. INDUSTRIE						
i. GRANDE INDUSTRIE OU MANUFACTURES						
6. Industrie extractive (mines, carrière, salines)	9		9	3		3
ii. PETITE INDUSTRIE DU MARCHANDS						
7. Industrie du bâtiment	65		65	146		146
8. Industrie de l'habillement et de la toilette	90	442	532			
9. Industrie de l'alimentation	76	125	201	45		45

10. Industrie des transports	67	115	182			
11. Industries du luxe	10	12	22			
12. Autres états	32	18	50			
Total	349	712	1061	194		194
III. PROFESSIONS LIBERALES						
13. Propriétaires vivant du produit de leurs propriétés, rentiers	80	117	197			
14. Pensionnés de l'Etat, des communes	97		97			
15. Magistrats, fonctionnaires et employés du gouvernement	32		32			
16. Employés des communes	11		11			
17. Employés chez des particuliers ou dans des administrations particulières	9		9			
18. Militaires et marins	330		330			
19. Pharmaciens; médecins et sages-femmes	6	3	9			
20. Avocats, officiers ministériels, agents d'affaires etc.	5		5			

21. Instituteurs et professeurs	12	4	16			
22. Hommes de lettres et savants	1		1			
23. Ecclésiastiques	5		5			
Total	588	124	712			
IV. DOMESTICITE						
24. Domestiques	6	370	376			
Total	6	370	376			
Total of active population	1185	998	2183	294	127	471
V. INDIVIDUS SANS PROFESSIONS						
25. Sans moyens d'existence connus	15	65	80			
26. Infirmes vivant dans les hospices	5	4	9			
27. Femmes vivant du travail ou de revenus de leurs maris		640	640			
28. Enfants en bas âge à la charge de leurs parents	685	717	1402			
Total	705	1426	2131			

Source: AMLC, Listes de dénombrement de la population 1851.

Appendix 5.2. Recapitulation data of occupations as it was given in the end of the Nominative Census of the year 1876.

Séries et groupes de professions	Individus exerçant directement la profession comme:						Famille des précédents:		Domestiques attachés à la personne	
	Patrons ou chefs d'exploitation		Employés, commis, etc.		Ouvriers, journaliers, homme de peine, manœuvres		parents à tous degrés et autres vivant avec les précédents			
	M	F	M	F	M	F	M	F	M	F
I. AGRICULTURE										
Propriétaires cultivant exclusivement leurs terres	51	2			174	237	140	204		
Fermiers, métayers et colons	532							691		
Autres professions agricoles (vignerons, bucheron, charbonniers, jardiniers, maraichers, fleuristes etc)										
Total	583	2			174	237	140	895		
II. INDUSTRIE										

Industries minière, usinière et manufacture	3		139		2203	227	424	1406	12	38
Petite industrie (arts et métiers), pêche	219	118			59	110	82	198		
Total	222	188	139		2262	337	506	1604	12	38
III. COMMERCE ET TRANSPORTS										
Banquiers, commissionnaires, négociants	6		8				18	14	13	
Marchands en détail	112	238	41	37			92	113	16	42
Total	118	238	49	37			110	127	29	42
IV. PROFESSIONS LIBERALES										
Gendarmerie et police	2		13				12	23		
Cultes	1		5					3		3
Religieux et religieuses	1	1	11	52						
Fonctionnaires et employés de l'Etat et des communes	7		16				8	14		3
Instituteurs et professeurs	3	6	6	4			2	4		
Avocats, notaires, avoués, huissiers, etc	3		2					7		3
Médecins, dentistes, sages-femmes, vétérinaires, pharmaciens,	6	3	1				3	11		4

herboristes, pédières, oculistes etc										
Artistes, peintres, sculpteurs	2							2	2	2
Total	25	10	54	56			25	64	2	15
Total active	948	438	242	93	2436	574	781	2690	43	95
V. PERSONNES VIVANT EXCLUSIVEMENT DE LEURS REVENUS										
Propriétaires et rentiers	109	40					72	120		18
Pensionnés de l'Etat	196	87					17	102		15
Total	305	127					89	222		33

Source: AMLC, Listes de dénombrement de la population 1876

Appendix 5.3. Recapitulation data of occupations as it was given in the end of the Nominative Census of the 1886.

Séries et groupes de professions	Individus exerçant directement la profession comme:						Famille des précédents:		Domestiques attachés à la personne	
	Patrons ou chefs d'exploitation		Employés, commis, etc.		Ouvriers, journaliers, homme de peine, manœuvres, etc		parents à tous degrés et autres vivant avec les précédents			
	M	F	M	F	M	F	M	F	M	F
I. AGRICULTURE										
Propriétaires cultivant	51				50	15	135	350		

exclusivement leurs terres										
Fermiers, métayers et colons	355						300	523		
Horticulteurs, pépiéristes, maraichers	19						48	25		
Bucherons, charbonniers	3			8	5	6	4			
Total	428			58	20	489	802			
II. INDUSTRIE										
Industrie extractive (mines, carrière, salines)	25				155		150	316		
Fabrication d'objets en métal	1		125		1,821	140	328	2,085		10
Industrie du bois	4				5		6	16		1
Produits chimiques										
Industrie du bâtiments	29				101		75	155		
Industrie de l'éclairage	1		2		10		12	18		
Industrie de l'ameublement	2				4	6	6	5		
Industrie de l'habillement et de la toilette	12	18			3	144	18	22		2

Industrie de l'alimentation	85				5		50	147	12	28
Industries relatives aux sciences, lettres et arts (fabricants de papier, imprimeurs, relieurs, etc.)	1				6		4	5		1
Industries du luxe (horlogers, bijoutiers, objets d'art, chasse, pêche, etc.)	9						9	8		5
Etablissements de l'Etat (tapis, porcelaines, poudres, tabacs, armes, etc)	7						11	10		4
Total	176	18	127		2110	290	669	2787		51
III. TRANSPORTS										
Transports maritimes (cabotages, long cours, pêche, etc.)	110				230	75	165	175		
Transports par route, ponts et voirie	3				3		5	4		

Transports par chemin de fer			3	5	40		20	45		
Postes et télégraphes					1					1
Note: Les matelots, mariniers, pêcheurs, etc. doivent être classés aux Ouvriers. Les officiers marins, les chefs de gare, de station, aux Employés										
Total	113		3	5	274	75	190	224		1
IV. COMMERCE										
Hôteliers, cafetiers, logeurs, cabaretiers	80	5					95	155		
Marchants au détail - Alimentation	3				3		9	3		3
Marchants au détail - Ameublement										
Marchants au détail - Habillement										
Marchants au détail - Divers										
Total	83	5			3		101	158		3
V. FORCE PUBLIQUE										
Armée de terre										
Armée de mer										
Gendarmerie et Police	15						12	11		
Note. Tous l'effectif doit être classé à la colonne Patrons										

Total	15						12	11		
VI. ADMINISTRATION PUBLIQUE										
Fonctionnaires, agents et employés de tous ordres payés par l'Etat	11						12	13		3
Fonctionnaires, agents et employés de tous ordres payés par les départements et les communes			10		15		30	25		
Note: Tous les employés de l'Etat, sans exception, doivent être classés aux Patrons, Les concierges, garçons de bureau, hommes de peine, aux Ouvriers										
Total	11		10		15		42	48		3
VII. PROFESSIONS LIBERALES										
Cultes										
Catholiques - Clergé séculiers			5		3		6	2		3
Catholiques - Clergé régulier			14	30						3
Professions judiciaires										
Magistrats	3						5	2		1
Officiers ministériels	3						2	4		3
Professions médicales										

Médecins et chirurgiens, officiers de santé	4						4	6		4
Pharmaciens, herboristes	2		2				1	2		2
Sages-femmes		4					3	4		4
Enseignement										
Professeurs et insituteurs publics	7	6					2	2		
Professeurs et insitututeurs privés		1						1		1
Sciences, lettres et arts										
Architectes et ingénieurs civils	4						3	3		1
Artistes musiciens, sculpteurs, peintres, graveurs, etc.								1		1
Total	24	11	21	30	3		26	27		23
VIII. PERSONNES VIVANT EXCLUSSIVEMENT DE LEURS REVENUS										
Propriétaires (autres que les propriétaires agricoles qui figurent au 1er	112	35					70	117	3	20

Rentiers, pensionnaires et retraités, réfugiés à la solde de l'Etat	190	90					18	154		8
Total	302	125					88	271	3	28

Source: AMLC, Listes de dénombrement de la population, 1886.

Appendix 5.4. The occupational structure of the population of La Ciotat in 1831, by head of household [in numbers]

SECTOR/PROFESSION	Number of individuals exercising this profession
AGRICULTURE AND ANIMAL HUSBANDRY	167
FISHING	90
MINING	0
BUILDING	82
MANUFACTURE	
Machinery (machinery manufacture and machinery assemblers)	2
Metal workers	16
Wood workers	17
Wood preparation workers	16
Construction workers/artisan and labourers	
Construction workers/craftsmen	8
Day laborer - unskilled (journaliers)	21
Skilled labor unspecified (ouvriers)	27
Clothing and related professions	72
Food processing	42

TRANSPORT	
Dockers and Freight Handlers & Transport equipment operators	27
Seafarers (ship boys, sailors, captains)	272
DEALING/SMALL BUSINESS	39
SERVICE WORKERS	68
PROFESSIONAL, TECHNICAL AND RELATED WORKERS	63
DOMESTIC SERVICE	not mentioned
Total professions	1154
Illegible	46
Proprietors	125

Processed data by: AMLC, Listes de dénombrement de la population 1831 [Database 'Census - La Ciotat' 1831].

Appendix 5.5. The occupational structure of the population of La Ciotat, separated to women/men, in 1851 [in numbers].

SECTOR/PROFESSION	Number of individuals exercising this profession	
	MALE	FEMALE
AGRICULTURE AND ANIMAL HUSBANDRY	326	300
FISHING	172	2
MINING	13	
BUILDING	229	
MANUFACTURE		
Machinery (machinery manufacture and machinery assemblers)	20	
Metal workers, sheet-metal workers & metal processors	139	
Wood workers	19	
Wood preparation workers	21	
Day Laborers	42	95
Skilled labor (not specified)	2	4

Clothing and related professions	76	338
Food processing	67	44
TRANSPORT		
Dockers and Freight Handlers & Transport equipment operators	31	
Navigation	236	
DEALING	27	78
SERVICE WORKERS	44	69
PROFESSIONAL, TECHNICAL AND RELATED WORKERS	79	47
DOMESTIC		152
Proprietors/Rentiers	4	124
Former or retired	15	
Total professions	1548	1126
Illegible	80	

Processed data by: AMLC, Listes de dénombrement de la population 1851 [Database 'Census - La Ciotat' 1851].

Appendix 5.6. The occupational structure of the population of La Ciotat, separated to women/men, in 1911 [in numbers].

SECTOR/PROFESSION	Number of individuals exercising this profession	
	MALE	FEMALE
AGRICULTURE, FORESTRY AND ANIMAL HUSBANDRY	219	24
FISHING	63	
MINING	88	
BUILDING	357	
MANUFACTURE		
Machinery		
Machinery (machinery manufacture and machinery assemblers)	215	

Electriciens	45	
Stationary Engine and related equipment operators	6	
Transport equipment operators	31	
Wood workers	38	
Metal workers, sheet-metal workers & metal processors	467	
Labourer - unskilled (manœuvre)	178	5
Day labourer – skilled	174	24
Other labor workers	2	
Clothing and related profession	60	124
Food processing	132	6
TRANSPORT		
Dockers and Freight Handlers & Transport equipment operators	49	
Navigation	181	
DEALING/SMALL BUSINESS	85	39
SERVICE WORKERS	103	76
DOMESTICS	1	106
PROFESSIONAL, TECHNICIAN AND RELATED WORKERS	290	19
Proprietors	125	
Renters	10	4
Total professions	2784	423
Illegible	50	

Processed data by: AMLC, Listes de dénombrement de la population 1911 [Database 'Census - La Ciotat, 1911].

Appendix 5.7. Occupational structure of La Ciotat and HISCO coding, 1831 (Based on the head of household)

SECTOR/ PROFESSION	French	English	Number of individuals exercising this profession	HISCO coding
I. AGRICULTURE AND BREEDING				
Farming	cultivateur	agriculturist	153	61220
	jardinier	gardener	5	61270
	paysan	general farmer labor	3	
Breeding	berger	shepherd	6	62430
Fishing	pêcheur	fisherman	90	64100
II. BUILDING				
Construction workers:				
Bricklayers, Stonemasons and Tile Setters	maçon	stonemason/ bricklayer	22	95135
Carpenters, Joiners, and Parquetry workers	charpentiers	carpenters	27	95410
	menuisier	carpenters	15	95410
	calfat	caulker	16	95440
Painters	peintre	painter	2	93120
III. MANUFACTURE				
Machinery:				
Machinery manufacture	mécanicien	mechanic/engineer	1	84100
Machinery fitters, machinery assemblers and precision- instrument makers	horloger	watch maker	1	84220

Wood preparation workers	scieur de long	pit sawyer	16	73210
Labor				
Hoisting Equipment Rigger	maitre de greément	rigging master	1	97205
Ship Joiners	pouleur	pulleys manufacturer	3	95445
Craftsmen not elsewhere classified	vannier	basket maker	2	94220
	rempailleur de chaises	chair mender	1	
	maitre de la bois	woodworker	1	
Unskilled labor	journalier	day laborer	21	99920
	ouvrier	worker	27	99921
Metal work:				
Locksmiths	serrurier	locksmith	3	83930
Blacksmiths	forgeron	blacksmith	3	83110
Hammersmith	frappeur	hammersmith/hitter	1	83120
	maréchal	blacksmith	6	83110
Other	riveur	riveter	1	83990
Goldsmith	orfevre	goldsmith	1	
Sheet-metal workers	ferblantier	tin-smith	1	87340
Wood workers				
Cabinet makers and related woodworkers	charron	cartwright	3	81925
	malletier	other cabinetmakers and related woodworkers	1	81990
	tonnelier	cooper	12	81930
	malletier	trunk-maker	1	81990

Clothing and related professions				
Tailors, Dressmakers, Sewers, Upholsterers and related workers				
	couturières	dressmaker	9	79140
	maitre de tailleur	tailor	1	79100
	tailleur/tailleuse	tailor	5	79100
	voilier	sail-maker	2	79920
Shoe makers and leather goods makers	bourellier	saddler	1	80320
	cordonnier	shoemaker	24	80110
Milliners and Hat Makers	chapelier	hatters/artisan	1	79320
Upholsterers and related workers	matelassière	mattress maker	1	79640
Spinners, Weavers, Knitters, Dyers and related workers	filateur/fileur	spinner	5	75220
	fileur de coton	cotton spinner	2	75220
	auffier	filets maker	4	75220
	cordeuse	rope maker	9	75710
Dyers	teinturier	dyer	3	75622
Alimentation				
Baking	boulangier	baker	24	77620
Butchers	boucher/ bouchère	butcher	6	77310
Grain millers and related workers	meunier	miller	4	77120
Bakers, Pastry cooks and confectionery makers	confisseur	confectioner	2	77660
	f. de pates	makaroni maker	1	77640

	gréfier des pates	makaroni maker	1	77641
Dairy products processors	latier		2	
Other food processors	poissonier/-ère	fish preparator	1	77940
IV. TRANSPORT				
Material handling and related equipment operators, dockers and freight handlers				
Dockers and Freight Handlers	portefaix	porter	12	97190
Transport equipment operators:				
Animal and animal-drawn vehicle drivers	charretiers	coachman	6	98620
	voiturier	wagoner	8	98620
	muletier	mule driver	1	98690
Seafarers	caboteur	coaster	8	98120
	capitaine	captain	72	04215
	maitre caboteur	coastal captain	7	98120
	marin	sailor	183	98135
	pilot cotier	pilot	2	98135
V. TRADE/SMALL BUSINESS				
Working proprietors:				
Tobacco retail	debitant de tabac	tobacco retailer	2	41030
	revendeuse	commissioner	17	41030
	marchants	merchant	7	41025
	négociant	merchant	4	41026
Salesmen, shop assistants and related workers:				
Street vendors, canvassers and news vendors	mercier	haberdasher	7	41025
Sales workers/Other	chiffonnier	rag picker	1	49030

	maître de la bois	woodworker	1	
VI. SERVICE WORKERS				
Launderers, Dry-cleaners and pressers	blanchisseuse	female bleacher	7	56010
	lassiveuse	laundreuse	2	56010
	repasseuse	ironer	5	56065
Cooks, Waiters, Bartenders and Related workers	traiteur	food seller	2	53130
Workers proprietors in service:				
Café keepers	cabaretier/ cafetier	café keeper	7	51050
	aubergiste	inn keeper	2	51020
Hairdressers, Barbers, Beauticians and Related Workers	perruquier	wigmaker	5	57090
	coiffeur	hair dresser	1	57025
	cuisinier	cook	5	57025
Building caretaker	gardien du château	guard	1	55100
Protective Service Workers				
Military	officier de marine	marine officer	8	58320
	office de santé	health officer	1	58320
	lieutenant de vaisseau	lieutenant	4	58320
Non-commissioned officer	fourriers de la mairie	quartermaster	2	58330
	brigadier	policeman	1	58330
	gendarme	policeman	5	58330
VII. PROFESSIONAL				
Technicians	dessinateur	designer	1	03310

Medical and related professionals:				
Medical doctors	médecin	physician	2	06105
	chirurgien de la marine	surgeon	1	06110
Jurists	juge de paix	judge of the peace court	1	12210
	notaire	notary	2	12310
Teachers	professeur d'hydrographie	professor in the Ecole d'Hydrographie	1	13030
	professeur	professor/teacher	1	13030
	instituteur	teacher	8	13030
Workers in religion	prêtre	priest	2	14120
	curé	chief priest	1	14140
Administrative and Managerial workers:				
Government administrator	trésorier des invalides	treasurer	1	20210
General Manager	constructeur	constructor	5	21110
Operations Manager	directrice de la poste	director in the Post office	1	21970
Clerical and related workers				
Government Executive Officials:				
Tax collectors	receveur de l'enregistrement	tax collector	1	31020
	receveur des droits réunis	tax collector	1	31030
Customs officers	douanier	customs officer	24	31040
	officier d'octroi	customs officer	1	31040
	receveur des douanes	customs officer	3	31040

	verificateur de douanes	customs officer	1	31040
Other	commis	commissioner	3	31090
Mail distribution clerks	facteur de la poste	postman	1	37030
Clerical and related workers not elsewhere classified	Syndic des gens de mer	seafarers trustee	1	39340
PROPRIETORS				
	proprietaire	proprietors	125	-1
FORMER OR RETIRED				
	ancien marin	former sailor	2	-1
	ancien marchand de farine	former flour merchant	1	-1
	douanier en retraite	former customs officer	3	-1
	receveur des douanes en retraite	former customs officer	1	-1
	ex. commissaire de la police	former policeman	1	-1
	lieutenant de vaisseau en retraite	former lieutenant	2	-1
	officier de marine en retraite	former marine officer	2	58320
TOTAL PROFESSIONS			1154	
ILLEGIBLE			46	

Appendix 5.8. Occupational structure of La Ciotat, 1851 (Based on active population male/female):

SECTOR/ PROFESSION	French	English	Number of individuals exercising this profession		HISCO coding
			M	F	
I. AGRICULTURE AND BREEDING					
Farming	cultivateur/cultivatrice	agriculturist	276	232	61220
	jardinier/jardinière	gardener	7	4	61270
	metayer	farmer	30		61110
	agriculteur	agriculturist	1		61220
	paysanne	paysant		59	61110
Breeding	berger/bergère	shepherd	11	5	62430
Forestry	bucheron	wood-cutter	1		63110
Fishing	peseur/peseuse	fisherman	172	2	64100
II. MINING					
Miners and quarrymen	mineur	miner	2		71105
	carrier	quarry worker	11		71110
III. BUILDING					
Construction workers:					
Bricklayers, stonemasons and tile setters	maçon	stonemason/ bricklayer	54		95135
	tailleur de pierres	stone cutter and finisher	3		82020
	cantonnier	paviour	3		95160

Carpenters, Joiners, & Parquetry workers	charpentier	carpenter	134		95410
	menuisier	carpenter	1		95410
	calfat	caulker	26		95440
Painters	peintre	painter	5		93120
	ouvrier peintre en bateaux	ship painter	3		93120
IV. MANUFACTURE					
Machinery:					
Machinery manufacture	mécanicien	mechanic	11		84100
	ajusteur	fitter	5		84100
Transport equipment operators	chauffeur	stoker	2		98220
Machinery fitters, machinery assemblers and precision- instrument makers	horloger	watch maker	2		84220
Wood preparation workers	scieur de long	pit sawyer	20		73210
Other	vannier	basket maker	1		94220
General labor	journalier	day laborer	42	95	99920
Metal work:					
Locksmith	serrurier	locksmith	24		83930
Blacksmiths	forgeron	blacksmith	56		83110
	maréchal ferrant	blacksmith	1		83110
Other	riveur	riveter	3		83990
Sheet-Metal worker	ferblantier	tin-smith	3		87340
	chaudronnier	boiler maker/	35		87310

		sheet metal worker			
Metal Processors	tourneur	turneur	3		82050
	tourneur au métaux	metal turneur	6		82050
	fondeur	melter	3		72100
	remouleur	grinder	2		
	tourneur en fer	iron turneur	1		82051
Gold smith	orfèvre	goldsmith	2		
Wood work					
Cabinet makers and related woodworkers	tonnelier	cooper	8		81930
	charron	wheelwright	8		81925
	ébéniste	cabinet maker	1		81120
	rempailleur de chaises	chairs repairer	1		
Clothing and related professions					
Tailors and Dressmakers					
	couturière	dressmaker		4	79140
	modiste	women's hats maker		8	79320
	tailleur d`habits	tailor	11		79100
	tailleur/tailleuse	tailor	12	306	79100
	tailleuse pour hommes	tailor for men		3	79100
Shoe makers & leather goods makers	cordonnier	shoemakers	35		80110
Milliners and Hat Makers	chapelier	hatter	1		79310
Upholsterers and related workers	matelassière	mattress maker		3	79640

Sail Maker	voilier	sail-maker	4		79920
Spinners, Weavers, Knitters, Dyers and Related workers:					
Knitters	tricoteuse	knitter		2	75500
	tricoteuse de bas	knitter		8	75500
Rope Makers	cordier	rope maker	9		75710
Spinners and Winders	fileuse	female spinner		2	75220
	auffier	filets maker	1		
Weavers and related workers	tisserand	weaver worker	2		75400
	drapier/ drapière	draper	1	1	75400
Sewers and Embroiderers	piqueuse de robes	stitcher		1	79510
Alimentation :					
Food and beverage processors:					
Baking	boulangier	baker	39	3	77620
	garçon boulangier	apprentice baker	1		77620
Butcher	boucher/bouchère	butcher	11	2	77310
Grain millers and related workers	meunier/meunière	millier	1	1	77120
Bakers, Pastry cooks and confectionery makers	confiseur	confissionner	2		
	distillateur	distiller	1		
Other still and reactor operators	liqueriste	distiller of liquor	1	3	74490
Dairy products processors	laitière	milkmaid		8	
Oil Presser	fabricant d`huile	oil producer	3		77920

Other food processors	poissonier/poissonière	fish preparator	8	23	77940
Presrving cook	saleuse de poisson	fish salting		4	77410
V. TRANSPORT					
Material handling, related equipment operators, dockers and freight handlers					
Dockers and Freight Handlers	portefaix	porter	11		97190
Transport equipment operators					
Animal and animal-drawn vehicle drivers	charrettier	coachman	24		98620
	voiturier	wagoner	6		98620
	cocher	coachman	1		98620
	maitre du port	dock master	1		98920
Other Motor-Vehicle Drivers	conducteur de voitures	car driver	2		98590
Seafaring	mousse	ship boy	29		98135
	marin	sailor	164		98135
	maitre au cabotage	coastal navigation captain	1		98120
	capitaine marin	captain	42		04219
Workers not elsewhere classified	porteuse d'eau	water carer		4	99910
	fossoyeur	grave-digger	1		99910
	balayer owner	sweeper	1		99910
V. DEALING/SMALL BUSINESS					
Working proprietors:					
Tobacco retail	debitant de tabac	tobacco retailer	4	1	41030

Wine and spirits shop keepers	receveur buraliste	tobacconist	1		41030
	debitante de biere	beer retailer		1	41030
	debitante de liqueurs	liquor retail		1	41030
	epicière	grocer		4	41030
Other	merchand/e de comestibles	merchant of edible products	1	29	41025
	marchand de cotton	coton merchant		1	41025
	marchand de draps	cloth merchant		2	41025
	marchand de fromage	cheese merchant	1		41025
	marchand drapier	merchant draper	4		41025
	marchand mercier	haberdasher	1	2	41025
	marchande d`huile	oil merchant	5		41025
	marchande de tissus	tissues merchant		1	41025
	marchande de vin	wine merchant		4	41025
	marchande épicière	grocer		1	41025
	marchant de drapeaux	draps merchant		2	41025
	mercier/mercière	haberdasher	2	1	41025
	revandeuse de filets	filets reseller/commissioner		2	41030
	revendeuse	reseller/commissioner		15	41030
	revendeuse d`huile	oil reseller/commissioner		1	41030
	revendeuse de pain	bread reseller/ commissioner		1	41030
	revendeuse de poissons	fish reseller/ commissioner		2	41030
	revendeuse de riz	rise reseller/ commissioner		1	41030
	revendeuse de vin	wine reseller/ commissioner		5	41030
Sales workers/Other	chiffonnier/chiffonière	rag picker	2	1	49030
	charbonnier	coal dealer	1		41025

VII. SERVICE WORKERS					
Launderers, Dry-cleaners and pressers	blanchisseuse	female bleacher/laundresse	22		56010
	lessiveuse	laundresse	7		56010
	repasseuse	ironer	17		56065
Cooks, Waiters, Bartenders and Related workers					
cooks	cuisinier/cuisinière	cook	3	1	53100
Workers proprietors in service					
Café keepers	cabaretier/cabaretière	café keeper	4	1	51050
	cafetier/cafetière	café keeper	4	2	51050
Hotel and Restaurant	aubergiste	inn keeper		11	51020
	logeuse	lodging-house keeper		2	51040
	hospitalière	inn-keeper for poor		4	51090
Hairdressers, Barbers, Beauticians and Related Workers	perruquier	wigmaker	6		57090
	coiffeur	hair dresser	5		57025
	garçon coiffeur	apprentice hair dresser	1		57026
Building caretakers, charworkers and cleaners	gardien de l`atelier	guardian of workshop	1		55100
	concierge de la prison	concierge of the prison		1	55125
	concierge	concierge		1	55125

Maids and related housekeeping service workers	serveuse de l'hospice	servant in the hospice		1	53210
	domestique	domestic servant		134	54010
	servante	servant		8	54010
	femme de chambre	chambermaid		1	54030
	bonne d'enfants	nursemaid		4	54035
	gardeuse d'enfants	children carer		1	54035
	nourrice	foster-mother		2	54035
	femme de confiance	companion		1	54040
Protective Service Workers:					
Policemen and Detectives	garde champêtre	village policeman	2		58220
	agent de police	policeman	1		58220
	gendarme	constabulary	4		58220
Military	militaire	military man	1		58300
	sergent	sergeant	1		58300
	officier	officer	2		58320
	Lieutenant de Gendarmerie	officer	2		58320
	owner Lieutenant de Vaisseau	officer	3		58320
	canonnier	gunner	1		58340
	marechal de logis de gendrarmerie	officer	1		58340
	capitaine d'infanterie	officer	2		58320

VII. Professional, technical and related workers					
Architects, Engineers and related workers					
Engineers	ingenieur civil	civil engineer	1		02210
	constructeur	constructor	1		02210
	constructeur de navires	shipbuilder	3		21110
	agent voyer	highway and street construction engineer	1		02230
Technicians	dessinateur	designer	1		03310
Medical and related professionals:					
Medical doctors	docteur en médecine	doctor	3		06710
Pharmacists	pharmacien	pharmacist	3		06710
Medical workers					
	garde malade	nurse		3	07210
	accoucheuse	obstetrician		4	07310
Jurists	juge de paix	judge of the peace court	1		12210
	notaire	notary	2		12310
Teacher	instituteur/institutrice	teacher	3	4	13030
	maître/maîtrise de langue	teacher	1	1	13034
	professeur	teacher	5		13036
	professeur d'hydrographie	teacher in the Ecole d'Hydrographie	1		13037
	directeur de pensionnat	school director	1		13940
	directeur de l'école chrétien	head teacher	1		13940

Workers in religion	frère de l`ecole chrétien	priest	2		14120
	prêtre vicaire	priest	3		14120
	pretre	priest	1		14120
	religieuse	member of religious order		31	14140
	curé de la paroisse	chief priest	1		
Administrative and managerial workers:					
Operation manager	directeur de la poste	director of mail service	1		21970
	Maire de la Ciotat	town's Mayor	1		20110
Clerical and related workers:					
Government Executive Officials:					
Tax collector	receveur des domaines	tax collector	2		31020
Custom officers	douanier	customs officer	6		31040
	fermier de l`octroi	customs officer	1		31040
	brigadier des douanes	customs officer	6		31040
	owner captain des douanes	customs officer	1		31040
	préposé des douanes	customs officer	9		31040
	receveur des douanes	customs officer	2		31040
	employé des douanes	customs officer	1		31040
Government executive officials not elsewhere classified					
	commis	clerk	8		31090
	heussier	usher	1		31090
	[secrétaire] de la santé	health secretary	1		31090
Book keepers, cashiers and related workers	teneur de livres	book keeper	1		33110

Mail distribution clerks	courrier des postes	postman	1		37030
	messenger	messenger	1		37040
Stock clerks	mesureuse d`huile	oil measurer		2	39150
Correspondence and reporting clerks	Syndic des gens de mer	seafarers trustee	1		39340
PROPRIETORS					
Renters					
	rentier		4		-1
	rentière			124	-1
Former or retired	retraité de l`Etat	state pensionner	1		
	retraité des douanes	custom clerk pensionner	1		
	pensionnè par l`Etat		1		
	ancien cultivateur	former agriculturist	1		61220
	ancien maçon	former stonemason/brickl ayer	1		95135
	ancien tonnelier	former cooper	1		81930
	ancien tailleur d`habits	former tailor	1		
	ancien marin	former sailor	3		98135
	ancien charpentier	former carpenter	1		95410
	ancien calfat	former caulker	1		95440
TOTAL PROFESSIONS			1548	1126	
ILLEGIBLE			80		

Appendix 5.9. Occupational structure of La Ciotat, 1911 (In absolute numbers & Based on active population male/female):

SECTOR/ PROFESSION	French	English	Number of individuals exercising this profession		HISCO coding
			M	F	
I. AGRICULTEUR AND BREEDING					
Farming	agriculteur	agriculturist	7		61110
	cultivateur	agriculturist	138	20	61220
	fermier	farmer	1		61110
	horticulteur	horticulturist	3		61270
	journalier agric.	general farmer labor	5		
	viticulteur	vine grower	1		61235
	jardinier/e	gardener	51	4	61270
Breeding	berger	shepherd	5		62430
Forestry	bûcheron	wood-cutter	7		63110
	brigadier forestier	forest-ranger	1		63220
Fishing	pêcheur	fisherman	63		64100
II. MINING					
Miners and quarrmen	mineur	miner	2		71105
	carrier	quarry worker	86		71110
III. BUILDING					
Construction workers					
Bricklayers, Stonemasons and Tile Setters	maçon	stonemason/bricklaye r	96		95135

Bricklayers, stonemasons and tile setters	cantonnier	paviour	7		95160
	chef cantonnier	chief roadman	1		95160
	scaphandrier	diver	1		95960
	tailleur de pierres	stone cutter and finisher	5		82020
Carpenters, Joiners, and Parquetry workers	charpentier	carpenter	92		95410
	menuisier	carpenter	69		95410
	calfat	caulker	5		95440
	jointeur	joiner	10		95420
Painters	peintre	painter	71		93120
IV. MANUFACTURE					
Machinery					
Machinery manufacture	chef mécanicien	chef mecanician/engineer	1		84105
	officier mécanicien	officer mechanician/ engineer	1		84100
	mécanicien	mechanic/engineer	30		84100
	ajuteur	fitter	177		84100
	graisseur	oiler and greaser	3		84980
Machinery fitters, machinery assemblers and precision-instrument makers	horloger	watch maker	3		84220
Electrical fitters and related electrical workers	electricien	electrician	25		85510

Stationary Engine and related equipment operators	machéniste	engine-driver/machinist	6		96910
Transport equipment operators	apprenti chauff.	apprentice stoker	1		98220
	chauffeur	stoker	30		98220
Metal workers and metal processors:					
Locksmith	serrurier	locksmith	76		83930
Blacksmiths, toolmakers and machine-tool operators	armurier	armourer/gunsmith	1		83920
Tool makers	outilleur	outilleur/tool maker	3		83220
	modeleur	model-maker	6		83240
Blacksmiths	fergeron	blacksmith	74		83110
	forgeur	blacksmith, toolmaker or machine-tool operator, specialisation unknown	2		83000
	Maréchal Ferrant	blacksmith general	3		83110
Hammersmith	frappeur	hammersmith/hitter	1		83120
Other	chauffeur de rivet	rivet heater	1		83990
	riveur	riveter	45		83990
Sheet-Metal workers	ferblantier	tin-smith	11		87340
	ferblantier	tin-smith	17		87340
	chaudronnier (chaud., chaudron etc)	boiler maker/ sheet metal worker	115		87310

Plumpers and Pipe Fitters	plombier	plumber	2		87150
Metal Processors	étameur	tin coater	1		72830
	fondeur	melter	8		72100
	mouleur	metal moulder	8		72500
	Perceur	piercer	31		82090
	tourneur	turneur	62		82050
Sawyers	chanfreineur	chamferer	26		73210
Labor					
General Labor					
	manoeuvre	unskilled worker	133	2	99911
	apprenti/e	apprentice	27	3	99920
	ouvrier	chief worker	9		99920
	journalier/e	day laborer	174	24	99920
	ouvrier MM	worker in Messageries Maritimes	8		99900
Other labor	balayeur	sweeper	1		99910
	fossoyeur	grave-digger	1		99910
	Scaphandrier	diver	1		95960
Wood workers					
Cabinet makers and related woodworkers	Raboteur	wood planer	2		81275
	charron	cartwright	9		81925
	malletier	other cabinetmakers and related woodworkers			81990
	ébéniste	cabinet maker	2		81120
Clothing and related professions					

Tailors, Dressmakers, Sewers, Upholsterers and related workers	couturière	dressmaker		26	79140
	pantalonnaière	other tailors/dressmakers		1	79190
	tailleur/tailleuse	tailor	5	39	79100
Shoe makers and leather goods makers	bourelrier	saddler	3		80320
	cordonnier	shoemaker	43		80110
Milliners and Hat Makers	modeuse	women's hats maker		13	79320
Sewers and Embroiderers	brodeuse	embroidery worker		12	79565
Upholsterers and related workers	matelassière	mattress maker		1	79640
Spinners, Weavers, Knitters, Dyers and related workers	tapissière	tapestry maker		15	75435
Sail Makers	voilier/e	sail-maker	9	17	79920
Alimentation:					
Food and beverage processors:					
Baking	boulangier	baker	65	1	77620
Butcher	boucher	butcher	22	1	77310
	charcutier	pork-butcher	1		77390
	garçon charcutier	pork-butcher	2		77390
Bakers, Pastry cooks and confectionery makers	confisseur	confectioner	4		77660

	patissier	pastry baker	4		77630
	vermicelier	makaroni maker	5		77640
Other still and reactor operators	liquorist	distiller of liquor	10		74490
Grain millers and related workers	meunier	miller			77120
Dairy products processors	laitier	milker	16	3	77510
Other food processors	poissonier	fish preparator	3	1	77940
V. TRANSPORT					
Material handling and related equipment operators, dockers and freight handlers					
Dockers and Freight Handlers	portefaix	porter	5		97190
Transport equipment operators					
Animal and animal-drawn vehicle drivers	charretier	coachman	28		98620
	voiturier	wagoner	4		98620
Motr-vehicle drivers	camionneur	truck driver	5		98555
	conducteur	driver	1		98500
Transport equipment operators	maitre de port	dockmaster	1		98920
Transport equipment operators not elsewhere classified	garde-barrière	other transport equipment operators	1		98990
	gardien de phare	lighthouse-man	1		98940
Excavators					
	terrassier	excavator	3		97415

Seafaring	badelier	batelier/boats man	1		
	capitaine	captain	1		04215
	capitaine au long cours	captain	16		04215
	marin	sailor	156		98135
	matelot	sailor	1		98135
	navigateur	navigator/pilot	6		04140
VI. DEALING/SMALL BUSINESS					
Working proprietors					
	négociant	merchant	8		41020
	marchant	merchant	1		41025
	marchants de vin	wine merchant	3		41025
Technical salesmen, Commercial Travellers and Manufacturers Agents	voyager du commerce	commercial representative	1		43200
Commercial traveller	représentant	commercial representative	2		43200
	representant de commerce	commercial representative	3		43200
Insurance, Real Estate and Securities Salesmen	agent d'affaires	solicitor	1		44100
Retail trade	libraire	book seller	1		41030
	debitant de tabac	tobacco retailer	5		41030
	droguiste	druggist		1	41030
	débitant de vins	wine trader	1		41030
	épiciier/e	grocer	10	20	41030
	fleuriste	florist		2	41030
	buraliste	tobacconist		1	41030

	receveur buraliste	tobacconist or/and collector of taxes	1		41030
	debit. de boissons	beverage dealer	2		41030
	débitant/e	retail	2	1	41030
Wholesale/retail trade	charbonnier	coal dealer	9		41025
	commerçant/e	tradesman	27	13	41025
Salesmen, shop assistants and related workers					
Street vendors, canvassers and news vendors	marchand forain	fair-pedlar	1		45220
	mercier	merchant	3	1	45220
Sales workers/Other	chiffonnier	rag picker	4		49030
VII. SERVICE WORKERS					
Launderers, Dry- cleaners and pressers	blanchisseuse	female bleacher/laundresse		8	56010
	buandière	washerwoman		1	56010
	lingère	liner-stitcher		20	56010
	repasseuse	ironer		21	56065
Cooks, Waiters, Bartenders and Related workers					
cooks	cuisinier/e	cook	12	7	53100
waiters	garçon	waiter	3		53210
	garçon du cafe	waiter	5		53210
	garçon limonadier	lemonade-maker	1		53210
Workers proprietors on service					
Café keepers	cabaretière	café keeper	1		51050
	cafetier	café keeper	5		51050

	limonadier/e	lemonade-maker	6	3	51050
Hotel and restaurant	hotelier	hotel keeper	6		51020
Hairdressers, Barbers, Beauticians and Related Workers	coiffeur/e	hair dresser	22	7	57025
	coiffeur patron	hair dresser	6		57026
	coiffeur apprenti	hair dresser apprentice	1		57027
	perruquier	wigmaker			57090
Service workers	garçon d'hôtel	hotel servant	1		59990
Professional, technical and related workers					
Architects, Engineers and related workers					
Engineers	ingénieur	engineer	5		02000
Architects	architecte	architect	2		02120
Civil Engineers	agent voyer	highway and street construction engineer	1		02230
Mechanical Engineers	ingénieur de marine	ship construction engineer	1		02450
Technicians	dessinateur	designer	29		03310
Medical and related professionals					
Medical doctors	docteur en médecine	doctor	6		06105
	médecin	doctor	1		06105
Pharmacists	pharmacien	pharmacist	4		06710
Pharmaceutical Assistants	préparateur en pharmacie	pharmaceutical assistant	2		06810
Medical workers	infirmier	nurse	4		07110
	sage femme	midwife	2		07310

	aide pharmacien	practical aid in pharmacy	2		06810
Professional workers					
Accountants	comptable	book-keeper	1-		11010
Jurists	avocat	lawyer	1		12110
	juge de paix	judge of the peace court	3		12210
	notaire	notary	2		12310
Teachers	professeur	teacher	1		13030
	instituteur/ institutrice	teacher	20	8	13030
	professeur de piano	piano-teacher		1	13190
	Proviseur Honoraire	head teacher	1		13940
	gouvernante	governess	2		13960
Workers in religion	Prêtre	priest	1		14120
	aumonier		1		14140
	ecclésiastique	priest	1		14140
	vicaire	religious workers	1		14140
Sculptors, painters, prhotographers and related creative artists	encadreur	framer	2		16250
	aquarelliste	artist	1		16220
Painting restaurer	restaurateur	restaurant keeper	5		16160
Photographer general	photographe	photographer	2		16310
Composers and performing arts	artiste peintre	artist	1		17000
Other	archiviste	archivist	1		19130
	imprimeur	printer	3		92110

	typographe	typographer	2		92110
Administrative and Managerial workers:					
Government Administrators	administrateur de l'Inscription Maritime	administrator of Inscription Maritime	1		20210
	commis de marine	marine commissionaire	1		20210
	secrétaire g/al	government administrator	1		20210
	officier d'administration	administration officer	1		20210
	élève commisaire	administrator	1		20210
Managers	chef du bureau de la Mairie	manager municipality	1		21000
	constructeur des navires	shipbuilder	1		21110
	entrepreneur de camionnage	general manager	1		21110
	directeur des ateliers	director of the Workshops	1		21110
	entrepreneur de menuiserie	carpentry manager	2		21220
	entrepreneur	undertaker	1		21240
	entrepreneur maçon	contractor	2		21240
Supervisors	commis/e	clerk	19	4	22110
	surveillant MM	superintendent	5		22000

	chef du secrétariat	clerical supervisor	1		22110
	chef de gare P.L.M.	rail station master	2		22210
	chef d'atelier	supervisor in the workshops	7		22610
	chef de magasins	production supervisor	1		22610
	contremaître	foreman	4		22610
Clerical and related workers					
Clerical workers/Other	employé communal	municipal employee	1		30000
	employé mairie	town-hall employee	1		30000
Government executive officials:					
	employé d`octroi	city toll employee	3		31020
	receveur de l`octroi	tax collector	2		31020
	receveur de l'enregistrement	tax collector	1		31020
	receveur municipal	municipal tax collector	1		31020
	cap de douanes	customs officer	3		31040
	douanier	customs officer	7		31040
	patron des douanes	customs officer	1		31040
	préposé d` octroi	customs officer	2		31040
	préposé des douanes	customs officer	4		31040
	receveur des douanes	customs officer	1		31040

Book keepers, cashiers and related workers	caissier à la caisse d'épargne	cashier officer	1		33135
	employé à Banque Privée	bank employee	1		33140
Mail distribution clerks	postier	post office clerk	1		33170
	receveur de postes	post office counter clerk	1		33170
	employé de postes	post employee	1		37000
	aide des postes	postman assistant	1	2	37030
	facteur/ facteur de poste	postman assistant	5		37030
	messenger/e	messenger	3	2	37040
Clerical workers/other	garçon de bureau	office servant	4		39310
	huissier	process-server	1		39340
	clerc de notaire	lawyer clerk	2		39340
	appariteur	receptionist	1		39410
	employé PLM	raliway clerk	8		39960
	agent consulaire	representative	1		99999
	employe/e	clerk worker	25	2	30000
	aux ponts et chaussées		1		30000
	à l'usine à gaz		1		30000
	à l'employé du commerce		1		30000
Service workers:					
Working proprietos	gérante	working proprietor		1	51000
Maids and related housekeeping service workers	bonnel	bonne/ servant		1	54010

	domestique	domestic servant		100	54010
	fille de ménage	domestic servant		1	54010
	servant Hospice	servant		1	54010
	ménagère	housekeeper		1	54020
	femme de chambre	chambermaid		2	54030
	serviteur	servant	1		54030
Building caretakers, charworkers and cleaners	concierge	care-taker		6	55125
	concierge	care-taker		2	55125
	sacristain	sexton of verger	2		55140
Protective Service Workers					
Policemen and Detectives	chef de surveillance	policeman	1		58220
	garde maritime	policeman	1		58220
	garde champêtre	village policeman	1		58220
	agent de police	policeman	3		58220
	brigadier de police	policeman	1		58220
	gendarme	constabulary	9		58220
	gendarme de marine	marine gendarme	1		58220
Military	chef de bataillon	military officer	1		58300
	marechal	marshal	1		58320
	fourriers de la mairie	quartermaster (sergeant)			58330
	guetteur sémaphorique	officer	1		58330

	marechal de logis de gendarmerie	under officer in police	1		58330
Protective Service Workers not elsewhere classified	garde	guard	1		58940
	gardien	guardian	9		58940
Other	crieur public	town crier	1		
Proprietors	rentier	renter	14		-1
	proprietaire	proprietor	48		-1
	commis	clerk	25		-1

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