

FACTORY OF LIVES

The Evolution and Architecture of Biella's Company
Towns between the 19th and 20th centuries

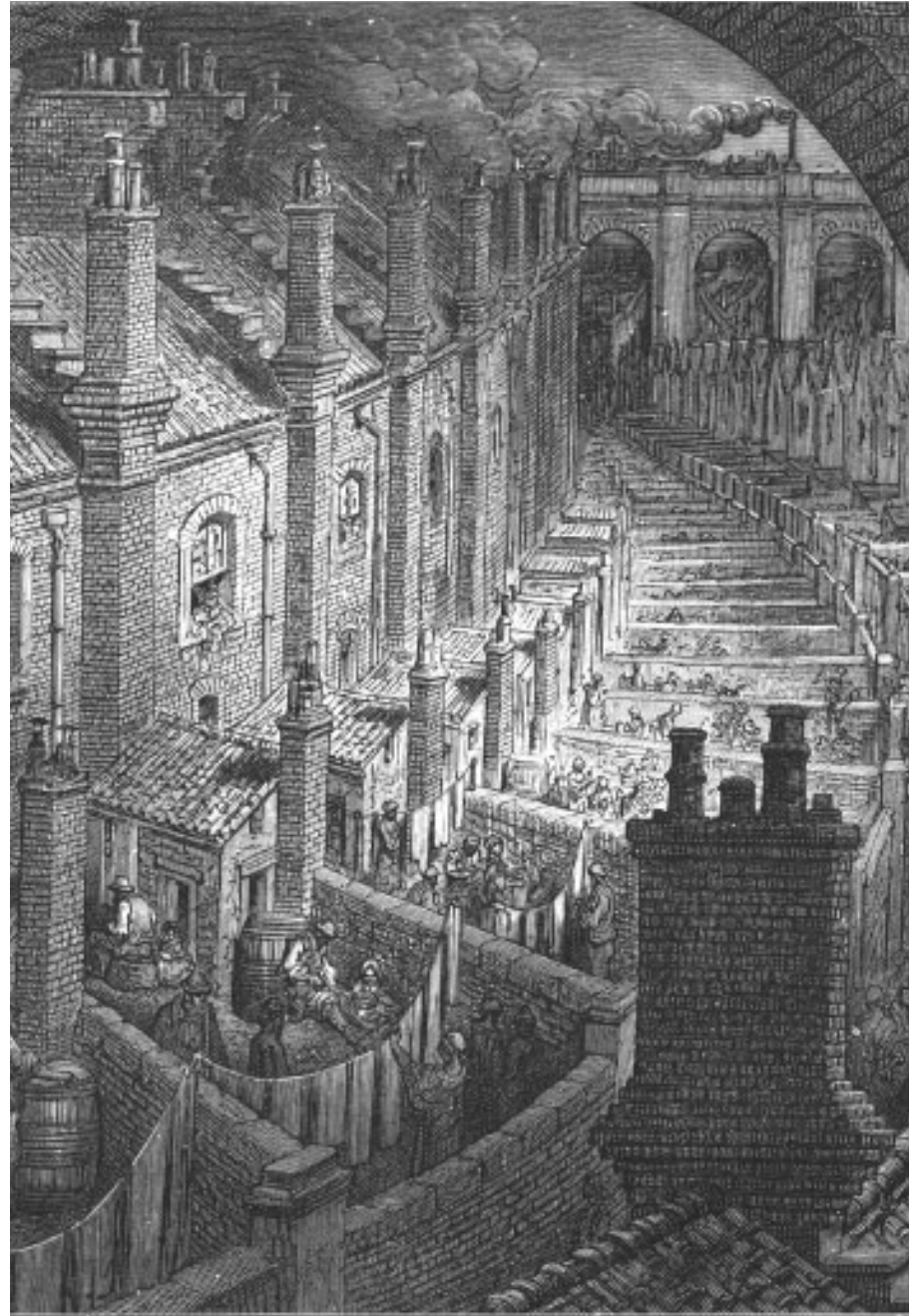
Serena Mazzetti

FACTORY OF LIVES

The Evolution and Architecture of Biella's Company

Towns between the 19th and 20th centuries

The Industrial Revolution: The New Social Structure of the 18th Century	6
Chapter 1. Between Ideology and Achievement: Paternalism as a Response to the New Social Needs	14
Chapter 2. Company Towns in Biella: Living and Working in the Factory	24
Chapter 3. The Role of Women: Ensuring Moral Values and Reproduction	62
The Factory Today: From the Company Town to the Total Factory	66
Annex: Interviews	71
Bibliography	90



London - by train, artwork by Gustave Doré. From Gustave Doré, Blanchard Jerrold *London, a pilgrimage: historical visions of the capital*, (The British Library Board, WF1/1856), 2015

The New Social Structure of the 18th century

As Roberto Masiero highlighted, scientific reasoning is impossible without definitions:

*"[...] It is definitions that enable the construction of disciplinary and disciplinary logics and languages. In philosophical terms, it can be said that there are no regional ontologies (the different knowledges) without definitions. Each definition seeks to lead us to and grasp the essentials of the word, concept or thing subjected to definition; it determines a sense surround (or gnoseological surround) in which disciplines and scientific communities are rooted [...]"*¹

This reasoning, however, turns out to be difficult to apply to the topic of Company Towns, which have arisen since the 18th century. The complexity of the various ideologies and determining factors underlying this phenomenon, which, perhaps, have never been witnessed before, cannot be adequately captured by a definition.²

Therefore, this thesis aims to explore the driving forces behind this new *residential model of capitalist utopia*.³ First, the new social framework and the new problems arising as a result of the Industrial Revolution will be introduced. Thus, in the first chapter, special attention will be devoted to the emergence of a strong sense of paternalism, which will shape Company Towns and the Utopian Socialism Movement. In particular, Company Towns will represent the core of the first chapter because, as the existing scholarship showed, giving a univocal definition of this phenomenon has been and still is very difficult to achieve. For instance, it is worth mentioning two of the attempts to provide a consistent definition of Company Towns, like Robert Owen's one, according to which *"if the invention of so many machines has multiplied the output of labor in many fields, for the immediate benefit of some men, while worsening the condition of many others, this [the Company Town] is a machine for multiplying the physical efficiency and mental well-being of the whole society in an unlimited way, without harming anyone however rapid its spread"*.⁴

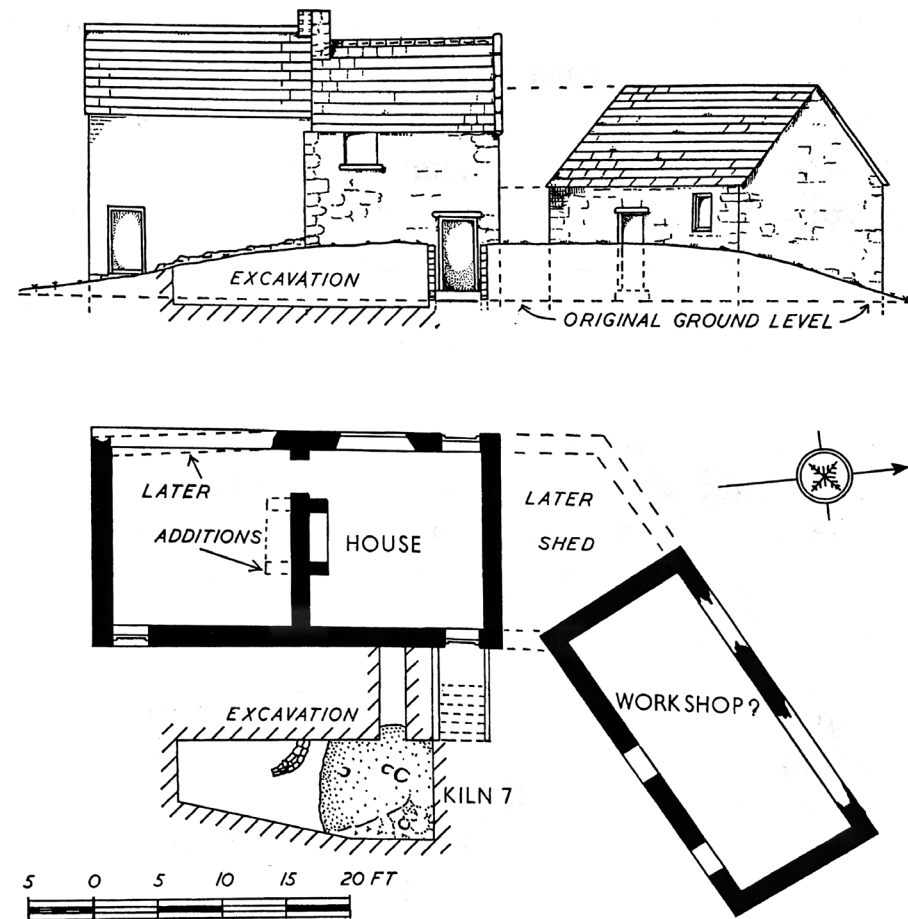
Augusto Ciuffetti instead pointed out that Company Towns are an expression of paternalism. According to him, they are *"the expression of a mentality typical of nineteenth-century entrepreneurs, which, in an exploitative dimension, associates power with authority, and command with an idea of superiority, aimed at nullifying all forms of conflict, defusing all union claims, and managing worker sociality. The goal is to defend the continuity of production, which can be interrupted by absenteeism and strikes. It is, therefore, a matter of disciplining social life, imposing on all workers a precise ideology, that of the industrialist, capable of guiding them at all times of the day. In this perspective, moral values, educational norms and educational content, transmitted in schools and by central figures, also play a key role in social mediation and consensus building. Both teachers and priests, indeed, are often salaried by entrepreneurs. It is no coincidence that the Company Towns, within which paternalism takes shape, with the construction of houses and dormitories, the opening of canteens, drugstores, clinics, schools and kindergartens, and the establishment of pension funds, allow the entrepreneur, in a neo-feudal dimension, to systematically control his workforce, both inside and out-*

1. Roberto Masiero, *Nel definire il restauro*, As quoted by Renato De Fusco, *Company Town in Europa Dal XVI al XX Secolo*, Nuova Serie Di Architettura (Milano: Fr. Angeli, 2017), 9. Translation by author, original text in Italian.

2. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 7-9.

3. Roberto Gabetti, *Villaggi operai in Italia: la Val Padana e Crespi d'Adda*, Saggi 628 (Torino: Einaudi), 1981, 37..

4. Robert Owen, *A new view of society and other writings*, 285-286, in *Company Town in Europe from the Sixteenth to the Twentieth Century*, Renato De Fusco, Nuova Serie Di Architettura (Milan: Fr. Angeli, 2017), 69. Translation by author, original text in Italian.



Elevation and floor plan of a typical house of 1679 in England in the proto-industrialization period. From P. S. Barnwell, Marilyn Palmer, and Malcolm Airs, *The Vernacular Workshop: From Craft to Industry, 1400-1900*, (York: Council for British Archaeology, 2004), 34

5. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali: villaggi e quartieri operai in Italia tra Otto e Novecento*, (Strumenti & documenti), 2004, 7. Translation by the author, original text in Italian.

6. Mario Tronti and David Broder, *Workers and Capital*, Published in Italian as *Operai e capitale* by Einaudi in 1966 and 1971, republished by DeriveApprodi in 2006 and 2013, Translation by David Broder 2019

7. Expression extract from Vittorio Gregotti, "Company Town to Provide and To Separate an Open Letter to Giorgio Agamben", (Rassegna 70), in *Burning farm*, 1997.

8. Bronisław Geremek, *Poverty: A History* (Oxford, Cambridge, Mass: Blackwell, 1994), 20. As quoted by Theodora Giovanazzi, "Poverty and Architecture the Fuggerei as an Early Example of Affordable Housing", in *Burning Farm*, October 10, 2023, 1-2.

9. Theodora Giovanazzi, "Poverty and Architecture the Fuggerei as an Early Example of Affordable Housing", in *Burning Farm*, October 10, 2023, 1-2.

10. Vittorio Gregotti, "Company Town to Provide and To Separate an Open Letter to Giorgio Agamben", (Rassegna 70), in *Burning farm*, 1997.

11. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 46.

side the factory".⁵

The main European examples of Company Towns will be introduced, including Mulhouse, in France, which will be an important influence for the Italian case.

The second chapter will focus on the process of Industrialization throughout Italy and the development of the Company Towns in the context of Biella.

In the last chapter, the role of women within Company Towns will be considered. Women, I here posit, have played a silent and invisible but crucial role in the development of capitalism. Invisible in the same way the factory itself will become at the end. The process involving the factory went through various forms of evolution, as will be seen through the case studies, moving from a centralized and well-defined factory to the "Total Factory"⁶ that encompassed the entire society until its total disappearance.

The philosophy behind this phenomenon was "to Provide and to Separate".⁷ The first verb is related to what Bronisław Geremek defined as the "economy of salvation".⁸ This expression indicated the basis of beneficence, which established an exchange between a donor, desiring to redeem his soul from sin, and a receiver, obligated to offer prayers for the soul of his benefactor.⁹ Similarly, the great private entrepreneurs emerged with industrialization and acted as benefactors to the workers by providing them with a house and an improved standard of life, in return for their absolute loyalty and productivity towards them. However, the reasons behind the charitable activities promoted by factory entrepreneurs were again different, mirroring the increasing centrality of early capitalism typical of the time. The second verb pertained instead to the notion of "isolation" that Vittorio Gregotti introduced in his letter to Giorgio Agamben. By incorporating an attitude of segregation and exclusion, he discussed how architects unintentionally repeated Agamben's concept of the camp, both through the isolation and the provision of specialized spatial domains. This was achieved in the case of Company Towns by initially separating private and public spaces, residences and workplaces, and even domestic interior spaces, to achieve a greater specialization of functions, labor, and, as a result, sexual division. This separation of each component of social life made possible and easy an in-depth analysis until the absolute standardization and minimization of humans' vital needs. Social life was transformed into biological life, a field that facilitated horizontal control over every aspect of workers' lives, an unconscious preparation for the advent of global biopolitics.¹⁰

To understand and analyze the phenomenon of Company Town, it is necessary to start from its origins. Indeed, the historical context in which this event occurred was the Industrial Revolution, a period of great progress but also of serious drawbacks of the system, foreshadowing today's society.¹¹ It originated in England during the eighteenth century, coinciding with the rise of industries, of which textiles was one of the first and fundamental sectors to be developed.

Before the Revolution, it was called Proto-Industrialization, a term used to indicate the transformation from a largely craft-based rural economy to an industrial, machine-based one. It must be noted that domestic



Women working wool at home. From Ugo Mosca, *Lavoro, economia e finanza nel Biellese dalla metà dell'800 ai giorni nostri*. (Gaglianico, Biella: Botalla editore), 2012, 153

12. Colum Giles, “The Yorkshire textile loomshop: from weaver’s cottage to the factory”, in P. S. Barnwell, Marilyn Palmer, and Malcolm Airs, *The Vernacular Workshop: From Craft to Industry, 1400-1900*, (York: Council for British Archaeology, 2004), 75-81

13. Adam Menuge, “Domesticated factories and industrialised houses: the buildings of the Northamptonshire boot and shoe industry”, in *Ibid*, 123

14. “Industrial revolution: the textile industry”, Accessed December 30, 2023, [15. Th. S. Ashton, *La rivoluzione industriale 1760-1830*, as quoted by Renato De Fusco *Company Town in Europa Dal XVI al XX Secolo*, Nuova Serie Di Architettura \(Milano: Fr. Angeli, 2017\), 54. Translation by author, original text in Italian.](https://www.google.com/search?q=video+storia+industrializzazione+tessile&sc_esv=576600514&sxsrf=AM9Hk-Kmbgz3WGX1ILtoPn4KnMMnhY-m6y_g%3A1698267502706&ei=boE5Z-ZrZKqCB9u8PqPqH8Ag&ved=0ahUKEwiayO25i5KCAxW-ggP0HHSj9AY4Q4dUDCBA&uact=5&oq=video+history+industrialization+textiles&gs_lp=Egxnd3Mt-d2l6LXNlcnAiKHZpZGVvIHNo3JpYS-BpbmRlc3RyaWFsaXp6YXppb25lIHRI-c3NpbGUyBRAhGKABSIslUPcBW-MoJcAF4AZABAjgBcKABYwWqAQM2LjK4AQPIAQD4AQHCAgcQlxiwAx-gnwgIKEAAYRxxjWBBiwA8ICBBAG-CfCAgQIRgV4gMEGAAGQYgGAZAGB-g&scient=gws-wiz-serp#fpstate=ive&v-ld=cid:cde60e8f,vid:FHoFh-QJvvg,xt:0,”</p></div><div data-bbox=)

16. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 53-54.

17. “Il Movimento Operaio”, Accessed November 14, 2023, <https://www.youtube.com/watch?v=OofMEkEimIk>. Proletariat, is so called, as they were no longer the owners of the tools of labour, but rather their only wealth was their offspring.

textile production predominated until these years. As a demonstration of this phenomenon, the typical “home” of the time always presented a living area and a workspace, often detached in the garden but still connected to the main residence. Therefore, housework operated as a family business with only a few employees. Specialized labor was required, which demanded a lot of time and expertise. While the *pater familia* used to transmit the challenging arts of the trade to his sons, agricultural production remained the primary focus. The time each person invested in the proto-industrial activity was inversely proportional to the income from agriculture, also depending on the seasons.¹² The domestic workplace was characterized by flexible schedules which accommodated domestic needs or obligations, as well as moments of sharing since the behavior was not under the constant control of a higher authority. Here the boundaries between work and domestic life were flexible and the members themselves can be informally included in the work circle.¹³ Merely consider how the woman played a role of complete collaboration in those years, as opposed to the next era, during which she was completely subordinated to her husband.

Manual textile production was also rather slow and unstable. With the increasing population of those years and, therefore, the demand for textiles, mechanization of labor was necessary. The first inventions of new machines arrived due to the discovery of new energy sources, which allowed for an increase in speed and production. First came water power, building factories near rivers and streams, then steam power, through coal mining, resulting in an epochal change and initiating the actual Industrial Revolution.¹⁴ It became essential to separate the polluting and noisy work from the domestic environment, enclosing it in a single, safe, hygienic and tailor-made place: the Factory. Machines were now the real protagonists, allowing fast mass production coupled with unskilled labor, which was cheaper. Everything is embodied in the relationship between time and production. As Ashton observed:

“One of the main psychological features of the Industrial Revolution was precisely a new sense of time.”¹⁵

It was from this moment that the expression “time is money” was born, as well as quantity, quality and low price, as the basis of modern industrial design.¹⁶

Industrialization gave rise to new social classes: the entrepreneurial bourgeoisie and the proletariat.¹⁷ The former embraced the ideology of industrial capitalism, the hegemonic class of nineteenth century society, replacing the agricultural nobility. Conversely, the other new class received a monthly wage from the former, who were the owners of the machinery and capital required to purchase production necessities. This put them in a position of perpetual exploitation and complete subordination, hence the class struggle. Indeed, the worker produced surplus value, which was absorbed solely by the capitalist for their own exclusive benefit. With the principle of free negotiation, it was asserted that while ownership of the instruments of production, as well as any other kind of private property, constituted a right, labor was only a duty, challenging trade associations, workers’ unions, anything that could prevent the absolute exercise of capitalism’s economic power.

Unfortunately, the advancement of technology also resulted in the de-

terioration of the living and working conditions of employees. The multitude of all these new interests increasingly attracted people from the countryside to the place where work was most available, hence the city, marking a phenomenon of urbanism that had never occurred in history. From a statistical perspective, considering a period of just one hundred years, from 1750 to 1859, the population of Manchester increased from 12.000 to 400.000 inhabitants, that of Glasgow from 30.000 to 300.000 and that of Leeds from 17.000. London, on the other hand, was the first European city to reach one million inhabitants by the end of the 18th century.¹⁸The many benefits that attracted people to the city, were counterbalanced by numerous inconveniences, especially within the housing field. Unhealthy and deteriorating, the old buildings in the center, were unable to withstand the new violent urbanistic pressures. They were occupied by newcomers, leading to the worst conditions of overcrowding and promiscuity. The problem of workers’ housing became the focus of the nineteenth century city. Friedrich Engels, through his books *The Condition of the Working Class in England* (1845) and *The Housing Question* (1872), offered the most reliable contribution to the general picture of the situation of the so-called slums. A survey conducted at the time revealed that 46% of 2.800 households in Bristol had only one room; in the East End in London, 1.400 houses were reported to be inhabited by 12.000 people and there were many underground dwellings. Problems of overcrowding and poverty contributed to elevated rates of crime and mortality.¹⁹ Inadequate sanitation facilities, water supply and most of all waste water disposal difficulties contributed to the repeated plague and tuberculosis epidemics. People were forced to keep up with alienating and inhuman rhythms dictated solely by machines. They worked between twelve and sixteen hours a day, breathing in harmful fumes, with wages at the minimum of survival.²⁰ Added to this picture of frustration and human degradation was the factor of alcohol, in which men, often isolated and deprived of those family relationships,²¹ took refuge by spending all their meager earnings in taverns.²²

It is easy to imagine what social consequences such environmental degradation could have led to.²³ These were, indeed, years of fomentation, in which entire masses of workers forced into this lifestyle, without any kind of protection or health care, began to revolt and organize themselves into guilds known as mutual aid societies, today’s trade unions. The biggest forms of protest were strikes and absenteeism in factories, a real plague for the productivity of capitalism. Consider the year 1848 when Karl Mark published *The Manifesto of the Communist Party*, promoting the abolition of classes and private ownership of the means of production, at the disposal of the community. Goals to be achieved through Strike and Revolution. While in 1864 the “First Socialist International” was born, an organization coordinating the workers of Europe.²⁴

Consequently, it can be inferred that these years were of great success and opportunity for the entrepreneurial bourgeoisie, but simultaneously of fear and terror for the workers. The major challenges concerned the poorest members of society. They became objects to be studied and analyzed under supervision, as they were considered incapable of self-management. Architecture became an educational tool through which the bourgeoisie assumed a moral duty: to educate the poor, the workers in

18. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 50.

19. Ibid., 51

20. Thesis by Vittoria Bazzan, Clara Crosa Galant, Sandra Preacco, *I villaggi operai : la questione delle abitazioni in Europa e in Italia tra 800 e 900, 1996*

21. Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica* (Chioma di Berenice, 2000), 16.

22. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, 50-51.

23. Antonio Piva, Paolo Caputo, Claudio Fazzini, *L'architettura Del Lavoro: Archeologia Industriale e Progetto* (Marsilio Editori, 1980), 127.

24. Il Movimento Operaio”, Accessed November 14, 2023, <https://www.youtube.com/watch?v=OofMEkEimIk>.

25. Thesis by Vittoria Bazzan, Clara Crosa Galant, Sandra Preacco, *I villaggi operai : la questione delle abitazioni in Europa e in Italia tra 800 e 900, 1996*

26. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali: villaggi e quartieri operai in Italia tra Otto e Novecento*, (Strumenti & documenti), 2004, I.

27. Ibid., 10.

28. Ibid., I-II.

this case, guaranteeing them a better, longer-lived and therefore more productive life, far removed from socialism.²⁵

On this ideology was based the philanthropism of the new entrepreneurs, known as factory paternalism.²⁶ They began to play the role of educators and managers of the workers exactly as a father does with his children.²⁷ Company Towns would be a true reflection of the most complete and organic form of this philosophy, passing through various stages of evolution, which were reflected in the evolution of urban layouts and residential house types. Micro-urban and self-sufficient models included services and activities for an all-around control over workers, from public to private life, anticipating the ONDs (After Work Organizations) and corporate welfare of the total factory in today’s society.²⁸

Paternalism as a Response to the New Social Needs:

*“The urban environment exploded as a result of industry thus becomes the spatial representation of a system that pits wage earners and bosses against each other: the factory represents the only coercive synthesis from which the sharp division of labor is reversed with its multiples in every even partial form of territory”.*²⁹

The recognition of the uncomfortable, if not inhumane, conditions of living and working in the factories, and the emergence of increasingly massive forms of protest and struggle, resulted in several public and private initiatives aimed at analyzing these conditions and identifying tools to overcome them.³⁰

An awareness of the limitations and inabilities of the liberal, laissez faire regime in solving problems without public intervention, started to develop. Nevertheless, the process of remediation was slow and often unaffordable for public agencies and municipalities. Increasing numbers of private individuals would take matters into their own hands,³¹ resulting in urban systems always being more responsive to their own unique logic. Unsurprisingly, some of these entrepreneurs also held key roles in politics. It is therefore intuitable how important it was for the larger factories to secure consensus and fight opposition around their corporate policies, which were increasingly characterized by monopolistic thrusts.³²

To summarize, the major challenges that entrepreneurs faced in this specific historical period were:

1. To stabilize the labor force, which was still very unstable and tied to the agricultural world
2. To prevent absenteeism and suppress all forms of protest against capitalism
3. To provide a home for the poor as a means of education and retention of the worker at work
4. Lastly, to improve the worker's living conditions and hygiene, ensuring consent, better health and, therefore, higher productivity.

A political line based on social consensus was used through a *system for mass solutions*. Several leading figures in the fields of philosophy, literature and sociology emerged as a result of the political debate which gave rise to the “Utopian Socialism” movement. Numerous alternative ideas and solutions to the social question at stake were given. The term “utopia”, taken from Thomas More's homonymous book of 1516, in which he described an imaginary island society, captures precisely the ideal but unrealizable character of these new thoughts.

Among the most prominent figures, it is worth mentioning Claude Saint Simon, characterized by a strong positivism in industrial progress, August Blanchi and Luis Blanc, reformist socialists, and Pier Joseph Prudon, in favor of the abolition of private property. Followed by Francois Fourier, Etienne Cabet and Robert Owen,³³ who laid the foundations on which Company Towns would later take shape, as a remedy in building and urban planning for the imbalances produced by the Industrial Revolution.³⁴

Francois Fourier was the theorist of the phalanstery³⁵ which was built on the initiative of a private individual and consisted of one single structure hosting 1.600 people. It was a collective, U-shaped building for



Engraving for a 1518 edition of the book of Thomas More, *Utopia*, 1516, by Hans Holbein the Younger, Image from <http://droit.wester.ouisse.free.fr/pages/Utopia.htm>

29. Mariani Riccardo, *Abitazione e Città Nella Rivoluzione Industriale*, (Florence: Sansoni, 1975), 24. Translation by author, original text in Italian.

30. Antonio Piva, Paolo Caputo, Fazzini Claudio, *L'architettura Del Lavoro: Archeologia Industriale e Progetto* (Marsilio Editori, 1980), 128.

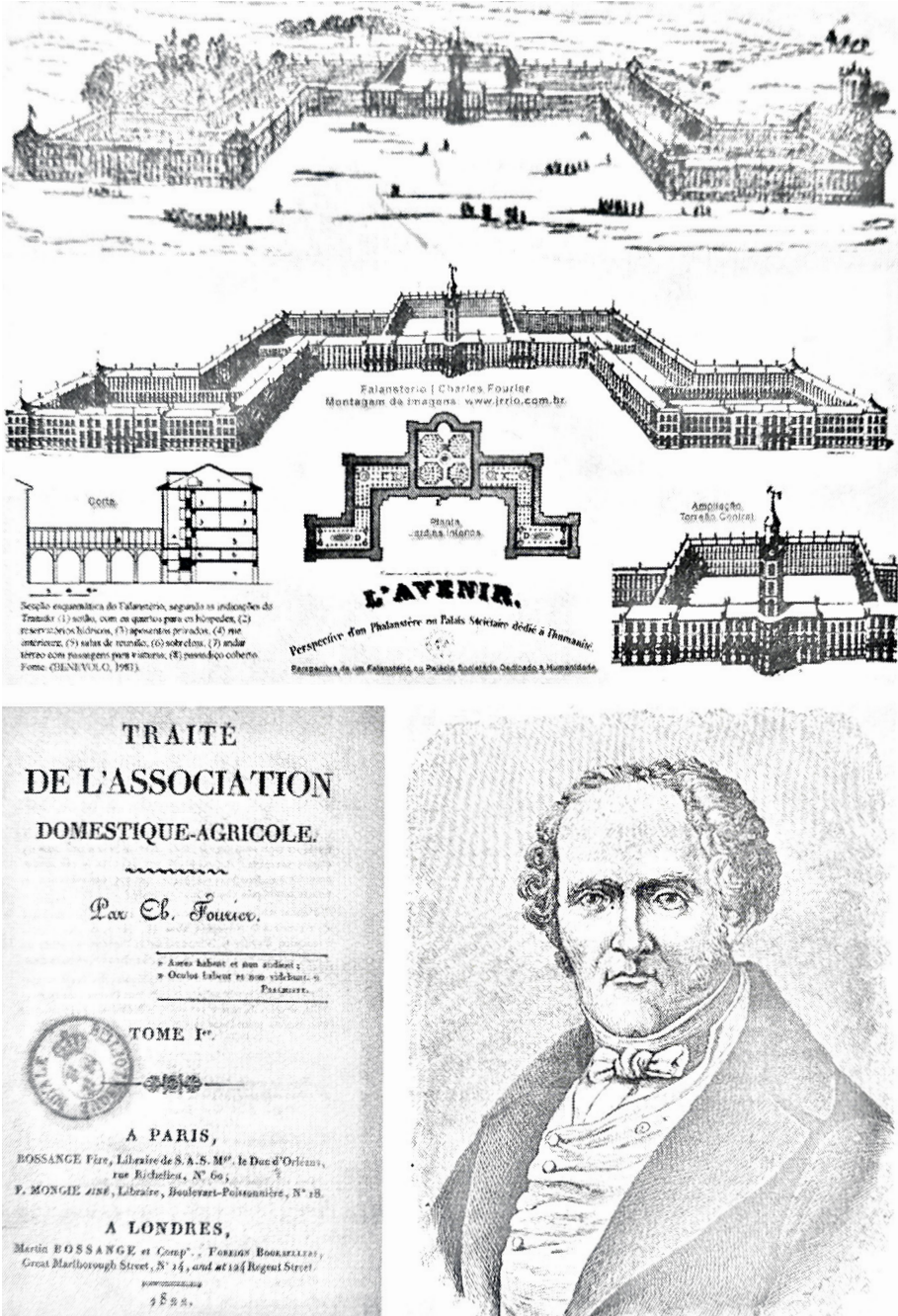
31. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 51.

32. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali: villaggi e quartieri operai in Italia tra Otto e Novecento*, (Strumenti & documenti), 2004, II-VII.

33. Antonio Piva, Paolo Caputo, Fazzini Claudio, *L'architettura Del Lavoro: Archeologia Industriale e Progetto* (Marsilio Editori, 1980), 132.

34. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, 52.

35. “I Villaggi Operai In Italia: Dalla Filosofia Alle Realizzazioni”. Accessed November 14, 2023. <https://www.youtube.com/watch?v=IpRaRnlitXY>



Fourier's phalansterio, drawings of the installation, cover of the treatise and portrait of the author. From Renato De Fusco, *Company Town in Europe From the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Ange-
li, 2017), 80

36. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali: villaggi e quartieri operai in Italia tra Otto e Novecento*, (Strumenti & documenti), 2004, 9.

37. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 81

38. Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica* (Chioma di Berenice, 2000), 19

39. Cavallero, Maurizia. *I Villaggi Operai in Italia: Dalla Filosofia alle Realizzazioni*. Lecture presented at the Alberione Library (Crypt Church S. Giulia in Turin, P.za S. Giulia 7), Turin, November 28, 2019. Video. YouTube. Director: Gigi Ambrosio. <https://www.youtube.com/watch?v=IpRaRNlitXY>. Consulted on November 14, 2023

40. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, 69.

41. "I Villaggi Operai In Italia:Dalla Filosofia Alle Realizzazioni". Accessed November 14, 2023. <https://www.youtube.com/watch?v=IpRaRNlitXY>

42. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, 69-70.

families whose purpose was to foster fellowship and the overcoming of all social differences. Such a project was destined to fail since the nature of Company Towns was the need for control and consensus, pursued through a strong accentuation of individuality, capable of breaking class unity and solidarity. For this reason, as it will be seen later, the main type was the one or two-family cottage, with independent entrances.³⁶ The intent to centralize all functions was an anticipation of Jean Baptiste Godin's Familistère and Le Corbusier's Unité d'Habitation.³⁷

Inspired by the ideas of Jean Jacques Rousseau's "Social Contract", Étienne Cabet in his 1840 book *Voyage en Icarie* described a community based on the total abolition of private property and the communion of the means of production. A city-state principle as a precondition for high economic performance. It did not withstand the impact of a severe economic recession, despite promising initial results in terms of prosperity.

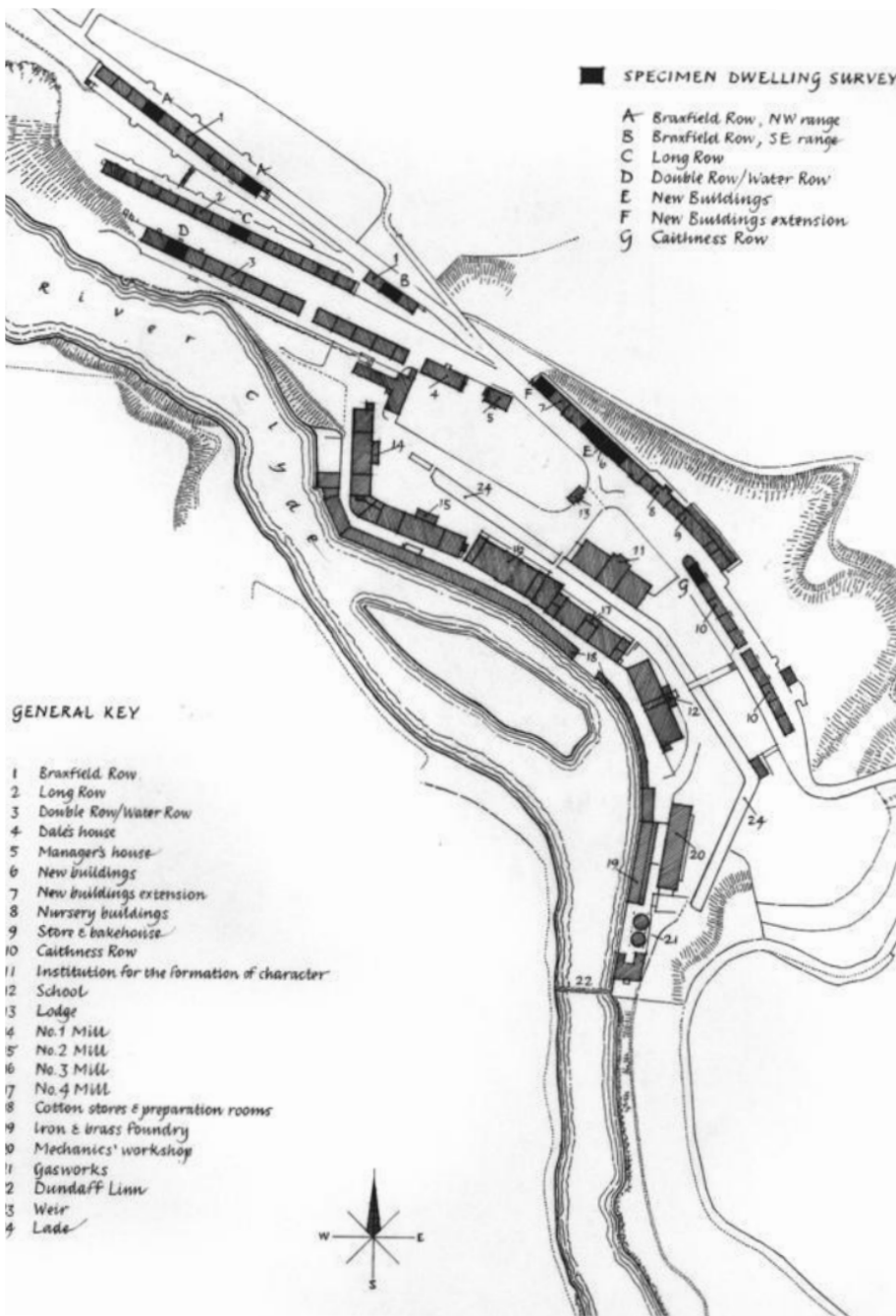
Indeed, other earlier examples could be mentioned. Although still far from Company Towns, some important features will already be present. Examples include the twelfth century community of Bèguinage, to the 16th-century Fuggerei, to N. Ledoux's Les Chaux de Fond saltworks, but also to the Certose project itself, where a localized and symbolic centrality of the factory was already present.³⁸

But the first real Company Town was made by Robert Owen, an enlightened entrepreneur who concretized his theories in New Lanark. He built a model social experiment around a spinning mill, a total involvement, ad hoc design of the entrepreneur.³⁹ The plan called for a large parallelogram plaza, the four sides of which were occupied by adult housing, communal dormitories for boys, storehouses, guest quarters and an infirmary. In the center, a building housed the church, school, kitchen and refectory. Outside the parallelogram were gardens, while industries and workshops were far away.⁴⁰ There were several significant innovations, such as the importance of education and a no-work policy for children under the age of 10 that guarantees high wages. Owen was the first to propose that the environment influenced men's personality and character. Then a positive and harmonious work environment was essential. He eliminated alcoholism completely and insisted on street cleaning, which resulted in a profit of more than 5 percent on the capital of his company in the first ten years. He also founded New Harmony, in the United States in 1824, which failed because of an excessive heterogeneity and conflicting interests. This latter project was the first utopian community not based on a religion.

These more philanthropic experiences, pioneered first in England and subsequently in the United States of America, were of limited duration but they stimulated a series of successive reforms.⁴¹ According to George Colo, the intent was to spread a new way of life, distancing the "elect" from human wickedness.⁴²

The culmination of this organic philanthropic paternalism resulted in the definition of Company Towns as a model. Noteworthy among the most emblematic cases are Noisel and Mulhouse in France, the neighborhoods built by the Krupps in Essen, Germany, or the village Saltaire, near Bradford in England, built by Titus Salt in 1853.

This latter stood, like many factories at the time, on the banks of the Aire River, which supplied water power to the spinning mill. It aimed



Floor plan of the New Lenark Company Town, . <https://canmore.org.uk/collection/343732>

43. Renato De Fusco, *Company Town in Europe From the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 20.

44. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali : villaggi e quartieri operai in Italia tra Otto e Novecento*, (Strumenti & documenti), 2004, 18-20.

45. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, 90

46. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali : villaggi e quartieri operai in Italia tra Otto e Novecento*, 21

47. Société immobilière de Paris in Ibid, 92. Translation by the author, original text in French.

48. Antonio Piva, Paolo Caputo, Fazzini Claudio, *L'architettura Del Lavoro: Archeologia Industriale e Progetto* (Marsilio Editori, 1980), 133

49. Thesis by Alessia Stivala, *Una casa a ognuno I villaggi operai: Dal socialismo utopico al paternalismo industriale. Il villaggio operaio Poma a Miagliano*, Master's Degree Course in Architecture for the Restoration and Enhancement of Heritage, Polytechnic University of Turin - College of Architecture DAD -Department of Architecture and Design, 2013, 29

50. Theodora Giovanazzi, "Poverty and Architecture the Fuggerei as an Early Example of Affordable Housing, in *Burning Farm*, October 10, 2023, 16.

51. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali : villaggi e quartieri operai in Italia tra Otto e Novecento*, 2004, 39

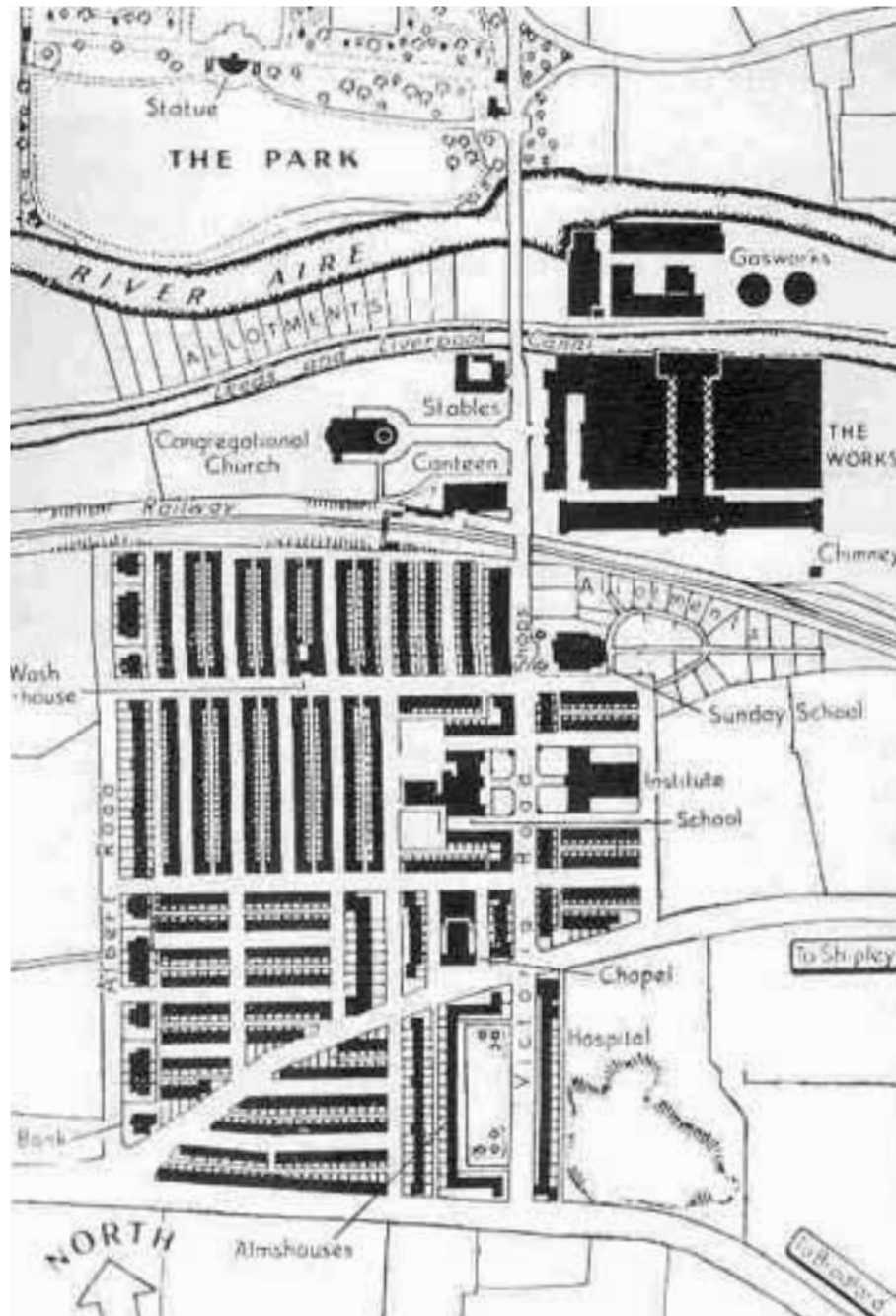
to reduce conflicts between owners and workers by providing comfortable homes and trying to combat vices such as alcoholism. For the first time, the building type of the cottage appeared, based on the model of *terraced houses*. Each home presented a garden, a bathroom, a kitchen, a living room and three rooms: one for parents, one for sons and one for daughters.⁴³ Saltaire, represented a model of orderly planning within a region characterized by industrial activity, away from an urban center that was often chaotic and rough. It presented a rigid *zoning* criterion. An implementation of excessive paternalism in order to achieve high labor consensus and neutralize any social impulses. The intent was to minimize worker depression by incorporating various amenities into the settlement, such as stores, a church, a college, an auditorium, gardens, a football field and a cricket pitch.⁴⁴

Another emblematic case was the industrial village of Mulhouse in France, which arose in 1853 on the initiative of an association, the "Société Mulhousienne des Citeès Ouvrières".⁴⁵ Although overly schematic, the neighborhood served as a pivotal example of an intervention which effectively solved urban problems like overcrowding, urban disorder, lack of sanitation, and misery.⁴⁶ However, what made this Company Town a remarkable model was the type of single-family and two-family cottages. The so called *pavillon* or, later, the *mulhousienne* house, was characterized by its square floor plan, elevated location (one to two stories), and opposite-sided entrances. It was divided into two living quarters by a full-height dividing wall that was shared by both structures. Each dwelling was comprised of the following: a living room, two upper-floor bedrooms, a compact kitchen, and an attached vegetable garden. As the Société immobilière de Paris itself wrote:

"Each house will be built for a single family, without communication, and will include a courtyard and garden in addition to the building".⁴⁷

It is also important to mention the role played by the Universal Expositions of those years, during which contemporary problems were discussed, trying to identify a *model* solution to be promoted, a repeatable world in its integrity. The first time the social problem of workers was mentioned was in London in 1851.⁴⁸ During the Exposition of Paris in 1867, the Mulhouse *pavilion* house model was promoted as an ideal prototype, defining standards and canons to be met. This type of home provided greater separation and individualization and, therefore, easier control. Additionally, it fulfilled the criteria for salubrity by providing adequate ventilation, light, air, and sun exposure, separation of functions and sexes, and isolation to prevent the transmission of diseases.

The importance of all these criteria denoted the emergence of a new figure in this historical period: the hygienic engineer. He was the real designer,⁴⁹ determining the beginning of what Tafuri would call "The Crisis of Form".⁵⁰ By this expression, he referred to the crisis of the link between architecture and its ability to express symbolic values, a crisis of architecture as a means of representation. Similarly, the house, like architecture more generally, was a new solution in response to new problems, aimed at maximizing and standardizing spaces and functions. The *standard of living* was taken as a reference to minimize costs, ensure ease of maintenance and simplify the construction process.⁵¹



Floor plan of the Saltaire Company Town. From Renato De Fusco, *Company Town in Europe From the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli, 2017), 86

52. Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica* (Chioma di Berenice, 2000), 22

53. Theodora Giovanazzi, "Poverty and Architecture the Fuggerei as an Early Example of Affordable Housing, in *Burning Farm*, October 10, 2023, 16

54. Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica*, 22

55. Roberto Gabetti, *Villaggi operai in Italia: la Val Padana e Crespi d'Adda*, Saggi 628, (Torino: Einaudi), 1981, 38-42.

56. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali: villaggi e quartieri operai in Italia tra Otto e Novecento*, (Strumenti & documenti), 2004, 37.

57. Roberto Gabetti, *Villaggi operai in Italia: la Pianura Padana e Crespi d'Adda*, 38-42.

58. Thesis by Vittoria Bazzan, Clara Crosa Galant, Sandra Preacco, *I villaggi operai: la questione delle abitazioni in Europa e in Italia tra 800 e 900*, 1996

59. Roberto Gabetti, *Villaggi operai in Italia: la Pianura Padana e Crespi d'Adda*, 40.

Following this historical and ideological analysis, it is possible to delve into the enumeration of the most important points which characterized Company Towns as a capitalist utopian residential model; the same that will be possible to find in all the cases will be analyzed.

1. Firstly, Company Towns were distinguished by the fact that they were privately initiated as micro-urban developments. Often secluded in rural areas, unaffected by land costs, close to the new distribution systems that emerged during the Industrial Revolution to ease the movement of goods and labor. They were characterized by a rigid, orthogonal order of streets and cottages. The streets played merely a distributive role, since square or meeting spaces were missing, to avoid social aggregations as much as possible. It is completely self-sufficient and equipped with its own infrastructure of communication and services.⁵² A system closed in on itself, highlighted often by the presence of the *wall* or *fence* demarcating a clear boundary. As in the case of Fuggerei these were symbolic elements of strong identification and representation of the settlement, a physical boundary between the order and disorder of the city, between honorable and dishonorable citizens, also as a means of discerning moral from immoral behavior and a reminder of the values to be followed. Moreover, the wall took on the dual function of a protective device and control over the inhabitants.⁵³ It embodied a profound anti-urban logic towards the city, where it is now the factory that plays the role of the firm political, social and urban development leader, instead of the church, as in medieval villages.⁵⁴

2. Numerous services were crucial to allow corporate villages to be independent, including kindergartens, schools, theaters, recreational facilities for both men and women, hospitals, cemeteries, economic kitchens, public baths and so on. All these forms of assistance have taken on a dual role, economic and ideological. Humanitarian drives from entrepreneurs aimed at educating and improving the lives of the poor, who would otherwise have no better, but with an underlying principle of production and worker loyalty to the workplace.⁵⁵ Normally, only teachers salaried directly by the entrepreneur's family can enter village schools, to create new future workers, disciplined and loyal to the boss.⁵⁶ A rigid functionalism that will be the basis of an early gender division, which will also be found at the household level, allowing the control and monopoly of the worker's life from the working sphere, in the factory, to the private sphere, in leisure time; from birth (hospital) to death (cemetery).⁵⁷

3. The worker's house, which corresponded to the Mulhouse model, for the more developed Company Towns, was of fundamental importance, as it tied the worker's life to the factory, becoming a blackmail in case of ambiguous behavior. Home, indeed, represented property, something the peasants could never have outside factory work.⁵⁸ It was meant to elevate morally and materially the condition of the less well-off, putting the worker in daily contact with the bourgeois, as if with the intention of aristocratizing the poor through architecture.⁵⁹ Home and work become inextricably linked: you can no longer have one without the other. To the point that house rent, which was not to exceed one-sixth of wages, was directly deducted from assets. It was used as a tool for creating a 'New Man'. If, on returning from a tiring day, the worker was returned to a beautiful, spacious, bright and clean house, with a wife and children to

60. Thesis by Vittoria Bazzan, Clara Crosa Galant, Sandra Preacco, *I villaggi operai: la questione delle abitazioni in Europa e in Italia tra 800 e 900*, 1996

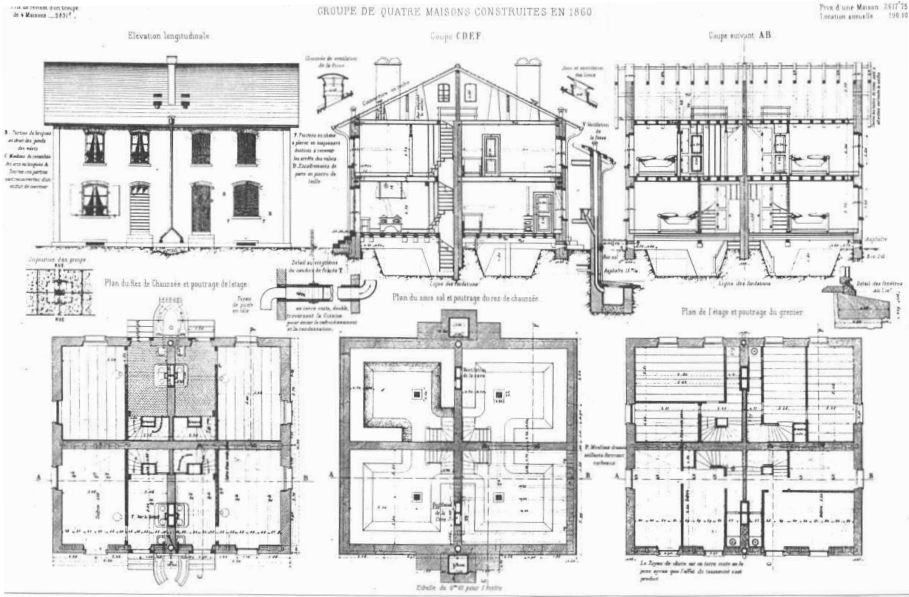
61. Alberto Abriani in *Villaggi operai in Italia: la Pianura Padana e Crespi d'Adda*, as quoted by Roberto Gabetti, *Villaggi operai in Italia: la Pianura Padana e Crespi d'Adda*, Essays 628 (Turin: Einaudi), 1981,45. Translation by the author, original text in Italian

62. Thesis by Alessia Stivala, *Una Casa a Ognuno I Villaggi Operai: Dal Socialismo Utopico al Paternalismo Industriale. Il Villaggio Operaio Poma a Miagliano*, Master's Degree Course in Architecture for the Restoration and Enhancement of Heritage, Polytechnic University of Turin - College of Architecture DAD -Department of Architecture and Design, 2013, 23

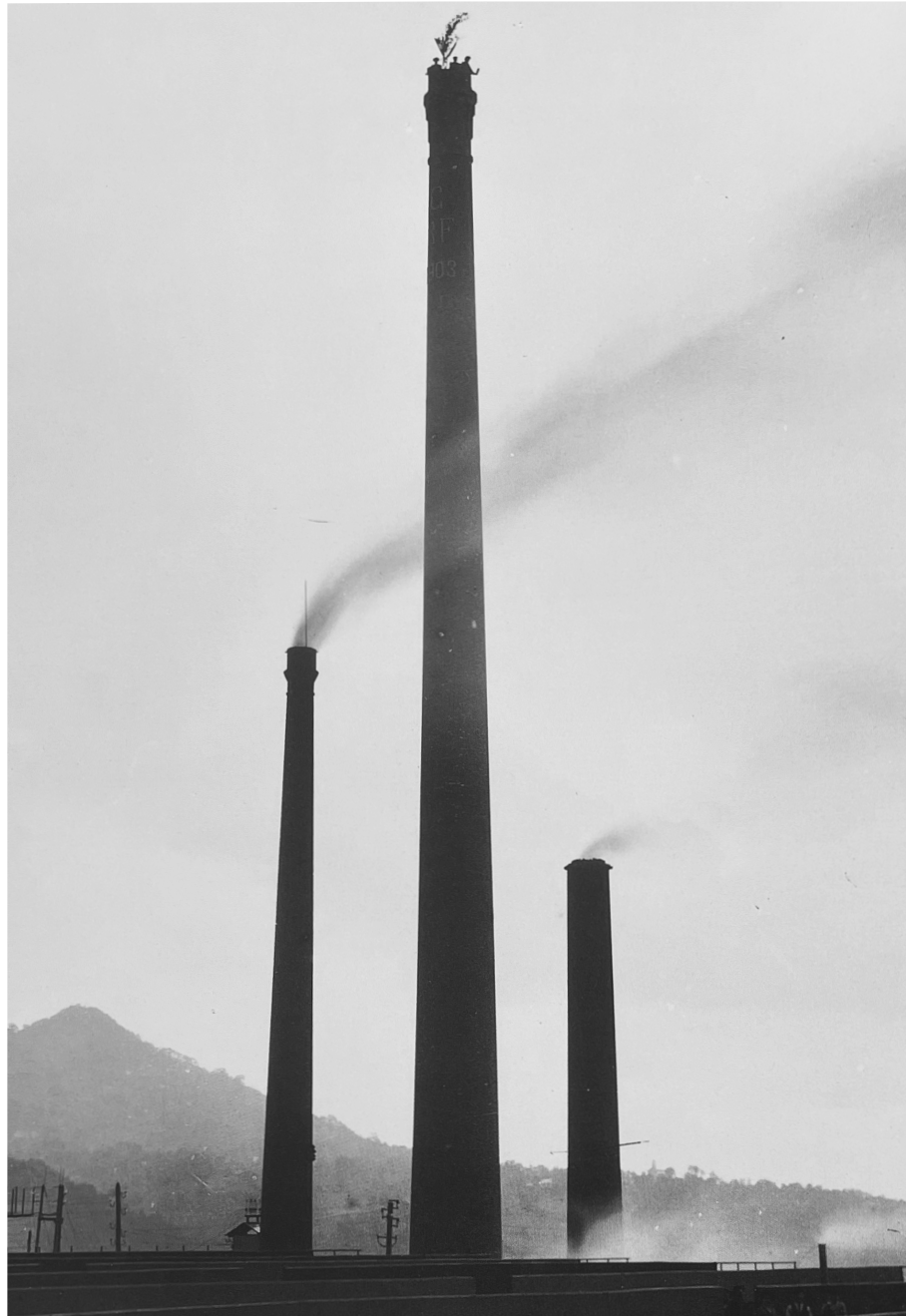
support, he would avoid taking refuge in taverns, saving money and getting away from that human degradation typical of industrial cities.⁶⁰

4. Alberto Abriani defines the house as follows:
“Urban country house; possibly single-family, but also double, serial, workers’, with productive garden-hort, located on the outskirts of an urban agglomeration. Tending toward rural architecture, its role is to enable a family to be fed, (thus to maintain low wages); to foster a “healthy and moral life”; to create a sense of ownership; to stabilize labor; and to disseminate worker concentrations to prevent the outbreak of social conflicts”.⁶¹

The presence of the garden was therefore essential. It allowed, not only a minimum of self-sufficiency for families but also an excellent use for the workers’ leisure time, marking the rhythm of the seasons and helping them survive the alienating and always equal rhythms inside the factories.⁶²



Workers’ dwellings prototype in Mulhouse, designed by engineer Emile Mülle.
From Thesis by Stivala, Alessia. *Una Casa a Ognuno I Villaggi Operai: Dal Socialismo Utopico al Paternalismo Industriale. Il Villaggio Operaio Poma a Miagliano*. Master’s degree program in Architecture for Heritage Restoration and Enhancement, Polytechnic University of Turin, College of Architecture DAD, Department of Architecture and Design, 2013, 28



Three Chimneys, by Simone Rossetti, from *Archive Sella Foundation*, early 1908

Living and Working in the Factory: The Industrial Revolution in Italy

As already mentioned, the phenomenon described up to this point, the Industrial Revolution and all that it implied, later expanded throughout Europe. First in Germany, Belgium and France, whose main social interventions have already been analyzed, and, lastly, in Italy. We must also consider the concomitance, from that period, of two serious agricultural famines in Europe. The first occurred between 1816 and 1817, due to climatic causes and, thirty years later between 1845 and 1849, the second, causing many victims and forcing masses of willing peasants to move to the cities in search of work.⁶³

In Italy, industrialization proceeded much slower, as it was more tied to the agricultural world. The reason is clear: owning land, a few fruit trees, a vegetable garden and a few dairy animals represented a secure, if modest, basis for self-consumption. An element of certainty compared to the uncertainty of the market.⁶⁴ Valerio Castronovo in his book *l'industria italiana dall'ottocento ad oggi* well describes the current situation:

*"Italy thus found itself, at the time of its establishment as a unitary state, in the condition of a latecomer, of a country lagging far behind economically compared to a part of Western Europe already far more advanced and careful to bar the way for other competitors".*⁶⁵

It is therefore undoubted that one of the main reasons that pushed for the implementation of various paternalistic works was to stabilize and attract a workforce that was initially reluctant to centralized production and to accept a drastic change of traditional work and living habits.⁶⁶

The first settlement closest to the idea of a Company Town in Italy was the San Leucio manufacturing colony of 1778, near Caserta. At the behest of King Ferdinand IV of Bourbon, that represented a synthesis of workers' residences and workplaces. It presented a clear and precise symmetrical urban layout, around a factory. Each worker was guaranteed a house with running water and private toilets. An anticipation, in more modest dimensions, of Company Towns.⁶⁷

In this country, there was a general delay on the problem of workers' houses and political and social emergencies. They began only in the 1880s, thanks also to the curiosity of several Italian entrepreneurs at the London and Paris Expositions, places of exchange and transmission of technological ideas and models.⁶⁸ It was the wool entrepreneur Alessandro Rossi who first imported European paternalistic ideologies to Italy. Indeed, the cities were full of workers that lived in attics and sixty-nine percent of workers in Turin owned only one room, where people of different ages and sexes lived, without water and light. Often latrines were shared by four or five families, and placed next to living quarters, encouraging the spread of serious epidemics.⁶⁹ Rossi, the true theorist of the pioneering phase of Italian industrialism,⁷⁰ built the first workers' village in Italy, precisely in Schio, close to the northern Italian city of Vicenza. It emerged still quite close to the city's historical center, around the six-story "high factory". The idea of Rossi, a member of parliament and senator of the Italian government, was to create a garden-city, in collaboration with landscape architect Antonio Negrin. The project presented terraced houses and vegetable gardens, devoid of community spaces except the ones related to the functionalism of social services; such as a library,

63. "Industrial revolution: the textile industry", Accessed December 30, 2023 at 15:24:45.

64. Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 125.

65. Valerio Castronovo, *Industria Italiana dall'Ottocento*, as quoted by Cavallero, Maurizia in "I Villaggi Operai In Italia: Dalla Filosofia Alle Realizzazioni". Accessed November 14, 2023. <https://www.youtube.com/watch?v=IpRaRNlitXY>. Translation by the author, original text in Italian.

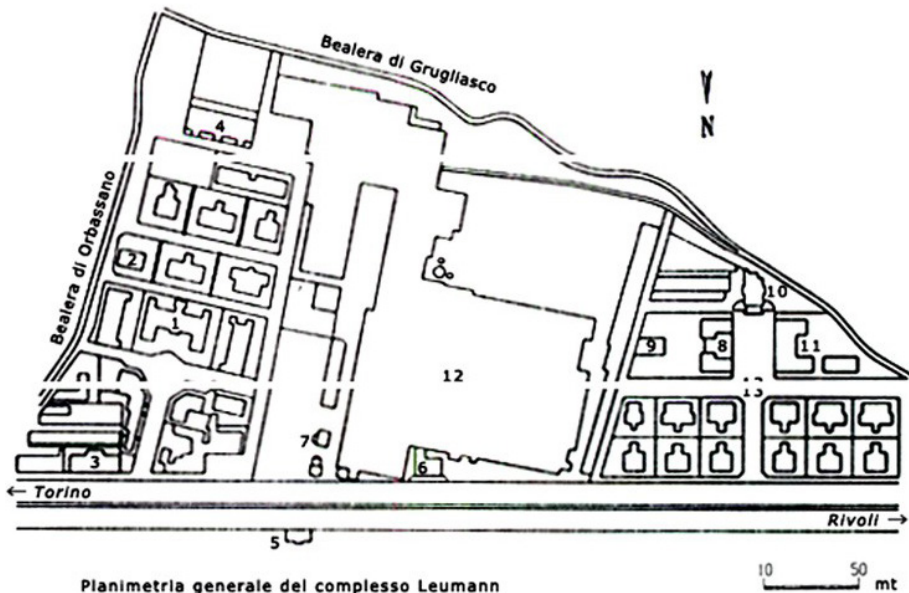
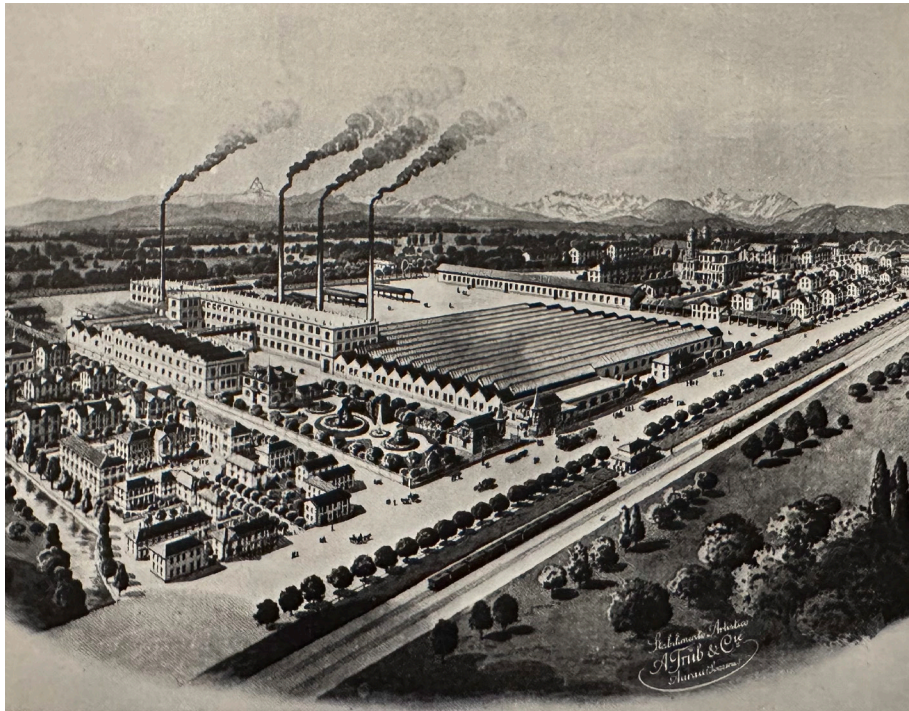
66. Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, 125.

67. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 35-44.

68. Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica* (Chioma di Berenice, 2000), 37

69. Thesis by Vittoria Bazzan, Clara Crosa Galant, Sandra Preacco, *I villaggi operai: la questione delle abitazioni in Europa e in Italia tra 800 e 900*, 1996

70. Stefano Merli, *Proletariato di fabbrica e capitalismo industriale: il caso italiano, 1880-1900*, Strumenti. Anastatic Reprints (Florence, 1976), 362.



Postcard and floor plan of the Leumann Company Town, from Gabetti, Roberto. *Villaggi operai in Italia: la Val Padana e Crespi d'Adda*. Saggi 628. (Torino: Einaudi), 1981, 214

71. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali: villaggi e quartieri operai in Italia tra Otto e Novecento*, (Strumenti & documenti), 2004, 30-33.

72. “I Villaggi Operai In Italia:Dalla Filosofia Alle Realizzazioni”. Accessed November 14, 2023. <https://www.youtube.com/watch?v=IpRaRnItXY>

73. Renato De Fusco, *Company Town in Europe from the Sixteenth to the Twentieth Century*, Nuova Serie Di Architettura (Milan: Fr. Angeli), 2017, 111-16.

74. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali: villaggi e quartieri operai in Italia tra Otto e Novecento*, 35.

75. Ibid., 44.

school, kindergarten, drug store, a new church, public baths, wash houses and a boarding school for female workers who came from neighboring countries.⁷¹

It opened the doors to other workers’ villages among the most important in Italy, including Leumann Village in Collegno, in the province of Turin, and the Crespi d’Adda Village, fifteen kilometers from Bergamo, which is considered the most complete and best-preserved among all the Company Towns in Italy, part of the UNESCO World Heritage Site.

The village of Leumann was founded in 1875 on the initiative of the Swiss entrepreneur Napoleon Leumann. It arose in an isolated area, abundant with water and along the railway axis that connected Turin with the Susa Valley and France. It was divided into two parts, the east and west parts of the central factory. Characterized by orthogonal streets, whose houses were assigned according to the number of entities in the family and merit. A Catholic Church was established to avoid long journeys of the workers to the city center and, thus, limiting distractions along the way within taverns. An important initiative was the creation of vouchers, granted only to employees. They could pay for their meals at a minimal price, benefiting, however, the merchant of the village. There was a kindergarten, a school, entrusted to teachers chosen and paid for by Mr. Leumann himself, a boarding school, a medical-surgical clinic, a theater and a retirement community.⁷²

The case of Crespi d’Adda also arose in 1875, on the initiative of entrepreneur Cristoforo Benigno Crespi. It presented at its best all the characteristics by definition of a Company Town. It consisted of pavillon houses settled in an extremely rigid urban composition around the factory, which was divided into four locations, reflecting the various stages of product processing. The longest axis divided workspaces from rest spaces, leading to the entrance of the village and cemetery. There was an extreme hierarchy between the workers’, managers’ and bosses’ houses, all the way to the majestic castle of the bosses, the Villa Crespi d’Adda. Similarly divided is the cemetery, with the pharaonic mausoleum of the Crespi family towering above the ranks of graves all equal. Significant was the presence of the doctor’s and priest’s homes on a hill, who seemed to supervise, even in the face of good visibility, the proper physical and ethical conduct of the community.⁷³ The church dedicated to St. Mary of Busto Arsizio, the birthplace of the Crespi family, had an institutional role. Attendance at the mandatory Sunday morning mass served as an additional opportunity to emphasize the various social roles and, symbolically, the power of entrepreneurs.⁷⁴

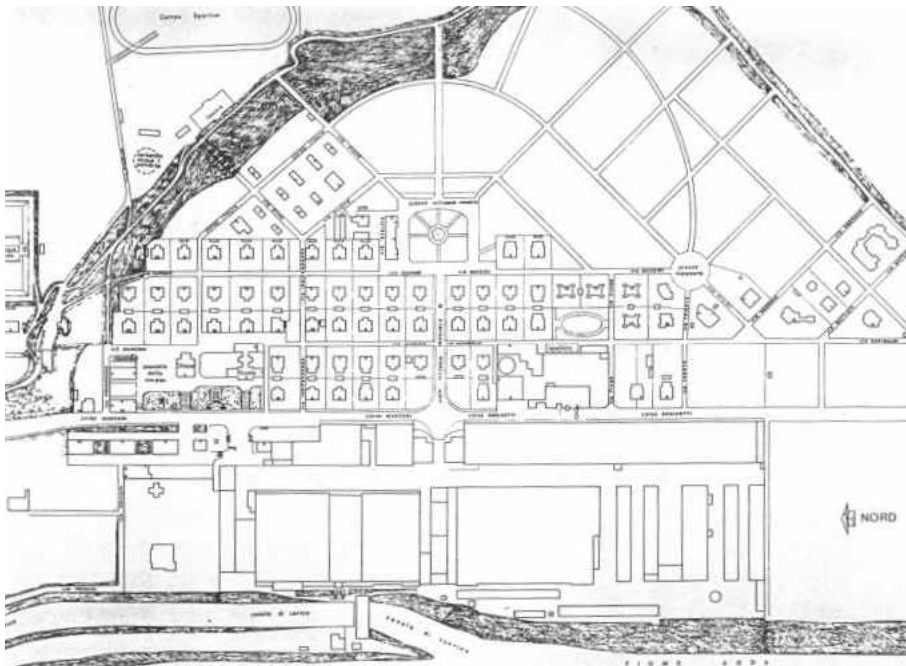
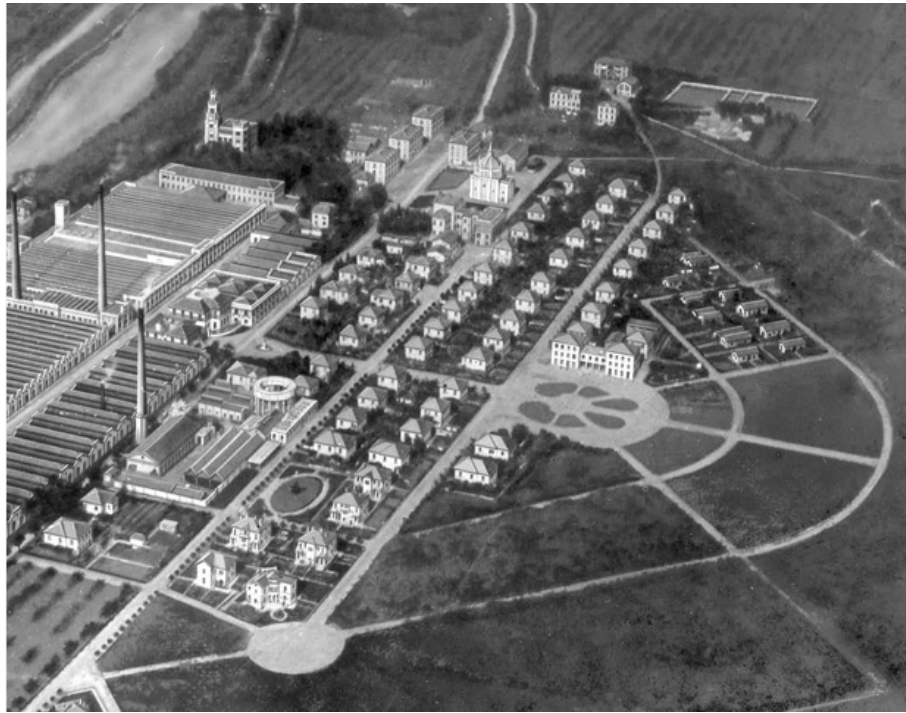
On this matter, it is important to note the role of the Catholic Church in Italy. Pope Leo XIII published the encyclical of “Rerum Novarum” in 1891, in response to the disputes that arose after the Porta Pia breach in 1870. He declared the Vatican’s position on the incipient social question, against socialism by defending private property as a natural right and the family in the traditional sense. The Church saw advantages in the assistance provided to charity, considered the main social virtues, condemning strikes. At the same time, it supported proper state intervention in economic matters.⁷⁵

From this analysis, it can be deduced that industrialization in Italy was extremely localized. It is not coincidental that the principal industries and

76. Franco Macchieraldo, *La Pettina, la storia, le genti: la vicenda industriale della Pettinatura Italiana di Vigliano* (Gaglianico, Biella: Bottalla, 2018), 19.

77. Piero Sraffa Istituto Tecnico Commerciale, *Dalla famiglia alla fabbrica : aspetti dell'industrializzazione nel Biellese*, (Program Socrates; Comenius Azione 1), 1997, 11

social achievements emerged in the northern Alpine arc close to abundant water sources and steep slopes providing water jumps for motive power. Here, often, agriculture itself was not so prosperous, especially near mountainous fields. The nation developed into an industrialized North and an agricultural and increasingly backward South, resulting in a strong imbalance.⁷⁶ The city of Biella, the so-called “city of a hundred smokestacks”, or “the Italian Manchester” stood out, excelling industrially, despite being in area, population and number of municipalities among the smallest provinces in all of Piedmont.⁷⁷



Aerial photography and floor plan of the Crespi d'Adda Company Town, from Gabetti, Roberto. *Villaggi operai in Italia: la Val Padana e Crespi d'Adda*. Saggi 628. (Torino: Einaudi), 1981, 116-117

Living and Working in the Factory: The Case of Biella

Biella is a small province in Piedmont. Whose modest size seems surprising when compared to its great national and European wealth and influence in the textile world. In the nineteenth century, there was a great migration movement to Biella, which in a short time grew from 10,000 to 19,000 inhabitants. It involved movements not only from the countryside but also from Friuli and Veneto. But why precisely Biella?

In the middle of the 1800s, Biella was the poorest province in the Savoy state in terms of agricultural production. This meant that inhabitants often exchanged home-produced artefacts for food products to survive.⁷⁸ It was, on the whole, an area of mainly pastoral vocation, considering the meager agriculture. Biella has a rich historical background in the processing of traditional textiles, specifically hemp and wool, dating back to the Middle Ages. The area is distinguished by its mountainous or hilly terrain, which facilitated frequent and abundant water jumps that supplied motive power for mills, turbines, and transmission shafts, which were powered by belts and utilized to operate the machinery in the factories. As of this moment, Biella textile workers continue to use the phrase “Dai acqua!” (Give water!) to initiate the operation of the machines. Water allowed them to avoid the high cost of fuel, which was quadrupled for steam plants. The abundance and quality of the water facilitated the initiation of the process that would position Biella among the frontrunners. The waters coming from the local streams, had, in fact, a favorable chemical composition. Its composition was devoid of hardness, as these streams flowed in soils which were poor in chalk and limestone. This gentleness made it possible to obtain the emulsions needed for washing and cleaning cloth with fewer soaps and chemical additives. However, Quintino Sella observed that the determining reason for Biella’s industrial development was the character of the inhabitants. Throughout history, they were characterized by a love of work and tenaciousness, a spirit of parsimony and a certain boldness in their undertakings. The tendency to work was so great that an affluent young man would not have found any colleague being lazy up to the point of being ashamed of it. An additional benefit was the opportunities that many local entrepreneurs’ offspring had abroad, importing many of the new ideologies to Biella. In 1816, Pietro Sella, through an internship in England, understood that mechanical looms offered significantly greater advantages. Since England prohibited their export, he turned to the Cockerill brothers in Belgium to purchase and import one example of each machine.⁷⁹ Efficient road and rail networks were developed to follow, especially at the first *Biella Exposition in 1882*, after the one in Paris in 1867, where already five local companies had participated as reported in one of the many local periodicals of the time, *Il Biellese*.⁸⁰

Naturally, with mechanization, worker associationism increased, giving rise, although late, to an important labor and women’s movement, given the latter’s high number,⁸¹ resulting in increasing class consciousness and the emergence of mutual aid societies, cooperatives, savings banks and finally resistance leagues. These organizations provided types of solidarity and community which the family could no longer provide for the members of the new industrial society.⁸² Just to mention an example,



The city of Biella as seen from the funicular railway, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

78. Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere* (Designers Riuniti, 1980), 125.

79. Piero Sraffa Istituto Tecnico Commerciale, *Dalla famiglia alla fabbrica : aspetti dell'industrializzazione nel Biellese*, (Program Socrates; Comenius Azione 1), 1997 28

80. Piero Sraffa Istituto Tecnico Commerciale, *Dalla famiglia alla fabbrica : aspetti dell'industrializzazione nel Biellese*, 36-37

81. Stefano Merli, *Proletariato di fabbrica e capitalismo industriale: il caso italiano, 1880-1900*, Strumenti. Anastatic Reprints (Florence, 1976), 213

82. Ibid., 17



Stream running through the city of Biella, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

83. Franco Macchieraldo, *La Pettina, la storia, le genti: la vicenda industriale della Pettinatura Italiana di Vigliano* (Gaglianico, Biella: Bottalla, 2018), 19.

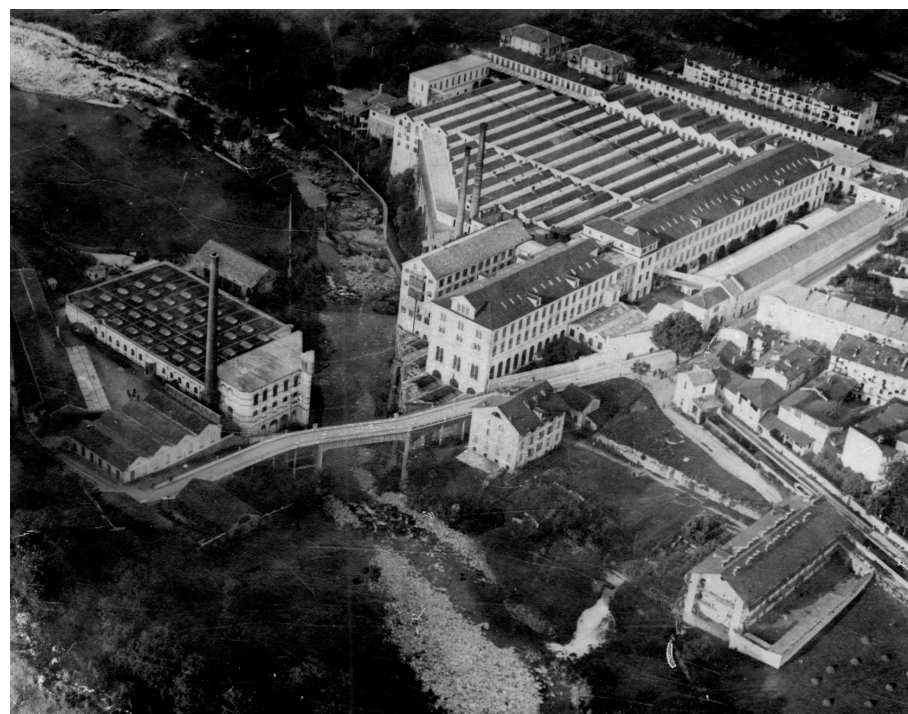
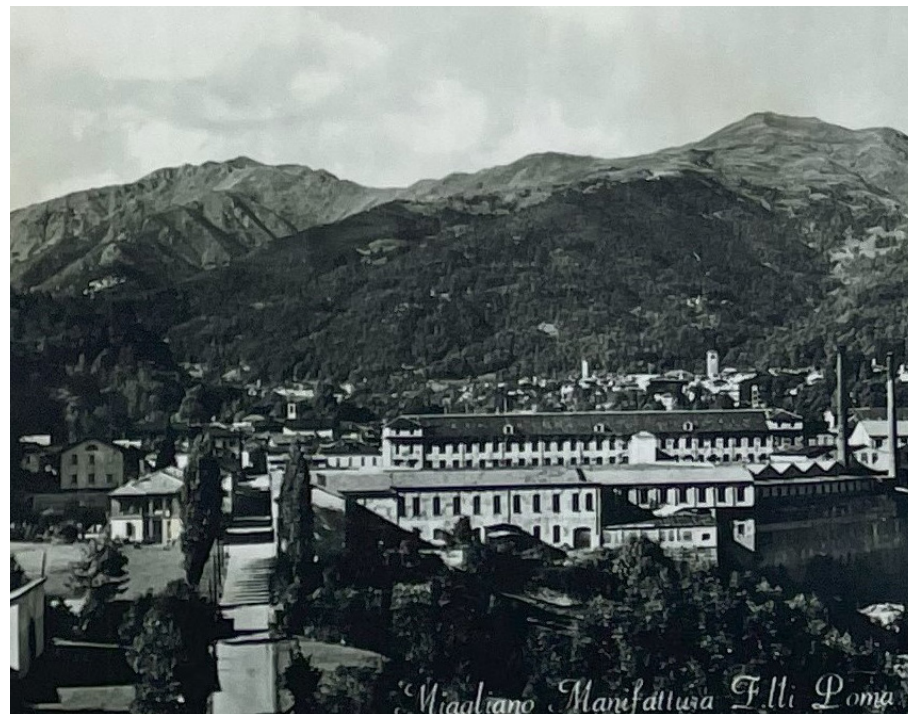
84. F. Piero Sraffa Istituto Tecnico Commerciale, *Dalla famiglia alla fabbrica: aspetti dell'industrializzazione nel Biellese*, (Program Socrates; Comenius Azione 1), 1997, 45-46. Translation by the author, original text in Italian

85. Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere* (Designers Riuniti, 1980), 127.

in 1864 a general strike in Biella forced textile industrialists to sign a new regulation, which guaranteed a reduction of working hours from twelve to eleven a day and better conditions in the factory.⁸³ It is sufficient to mention that in the same year, weavers earned 1.50 liras a day, young boys 20 to 30 cents, and women 40 to 60 cents. This figure may suggest a preference for child and female labor, which was entrusted with excessive loads that caused skeletal and pelvic malformations in the case of women. There were children at the age of 8 or 9, working even during the night. An economic situation bordering on survival, considering that the minimum living expenses for one person turned out to be 317 liras per year, far higher than the 217 a weaver earned by working at least 235 days. Additionally, there were considerable wage deductions in the form of severe penalties. Just to get an idea of what was meant and the conditions to which workers were reduced, some of the penal obligations are clarified below:

*“[...] Follonieri. Not twisting the cloth in one hour, a penalty of half a day. Removing the cloth without twisting it, is a penalty of half a day. Folling without the necessary moisture, half a day. Folling when the cloth does not turn in the stacks, half a day. Placing abandoned by all without carefully invigilating the six fullers with the assistance of several persons or at least one without any interval, penalty to those who were intended of one day. Losing the bath at the wash-house or extracting it too watery, half of the day [...]”.*⁸⁴

It can be deduced that Biella was inhabited by prominent entrepreneurs and important families. This city was the birthplace of the Sella family and the foundation of the related bank, which, certainly, represented a fundamental role in the financing of these great paternalistic works of those years. As a result, the combination of all these factors made Biella an Italian industrial power with a high number of social interventions following the example of the major European models. In particular, this paper will analyze three of the most completed and significant Company Towns (Migliano, Vigliano, Tollegno) in this area, highlighting how paternalism went through an evolutionary process.⁸⁵



Main entrance road to Poma Company Town, from *RetiarchiviBiellesi* historical archives, 1930

Aerial photograph Cotonificio Poma with the new “S” bridge, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

86. Information extracted from interview by author with Mauro Vinetti, son of the mayor of Miagliano, November 20, 2023.

87. Thesi by Alessia Stivala, *Una casa a ognuno I villaggi operai: Dal socialismo utopico al paternalismo industriale. Il villaggio operaio Poma a Miagliano*, Master’s Degree Course in Architecture for the Restoration and Enhancement of Heritage, Polytechnic University of Turin - College of Architecture DAD -Department of Architecture and Design, 2013, 68

88. Quote by Fratelli Poma, *Manufacture de Coton Fratelli Poma Fu Pietro. Établissements & Institutions Ouvrières* (Turin, 1900), as quoted in Rete Archivi Biellesi, *Villaggio operaio F.lli Poma*. Translation by the author, original text in Italian.

89. Ugo Mosca, *Biella in the 1900s: History of some of the leading entrepreneurs of Biella and their achievements*, (Gaglianico, Biella: Botalla publisher, 2021), 108-9.

90. Interview by author with Nigel Thompson, founder of the *Biella the Woolf Company Consortium*, November 15, 2023.

91. Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 139.

92. Information extracted from interview by author with Mauro Vinetti, son of the mayor of Miagliano municipality, November 20, 2023.

93. Ugo Mosca, *Biella in the 1900s: History of some of the leading entrepreneurs of Biella and their achievements*, 162

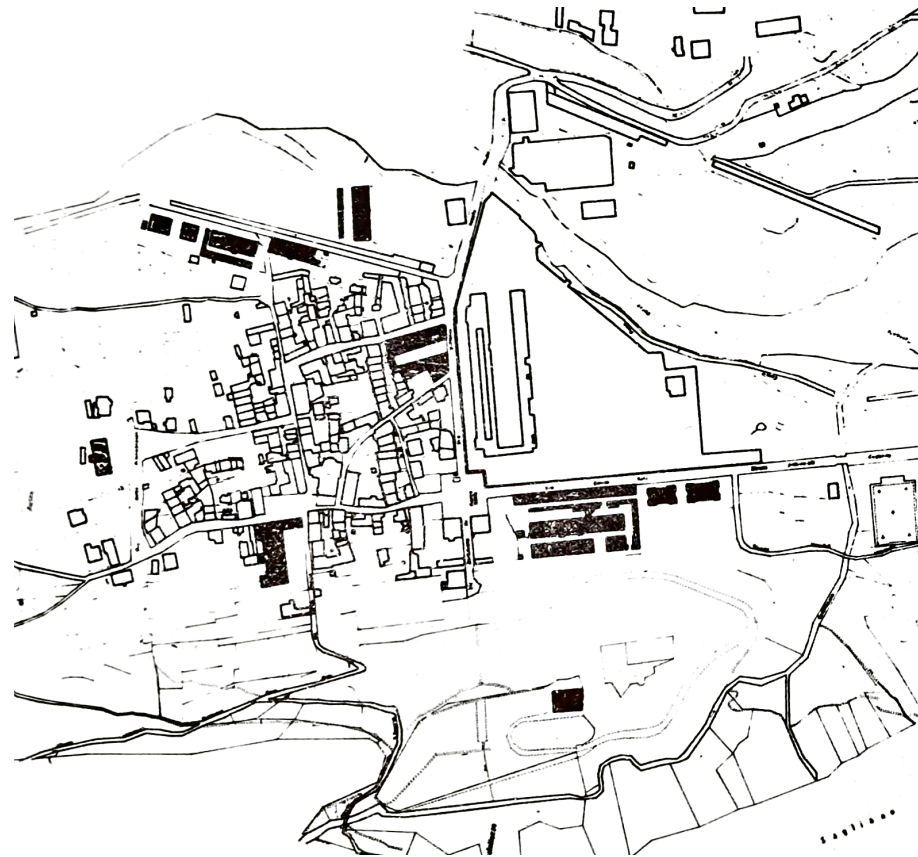
Living and Working in the Factory: Poma Company Towns, Miagliano, 1870

The first case study will be treated is the Poma’s Company Towns, which was not only the first in the Biella area but even one of the first in all of Italy. Miagliano was the smallest municipality in northwestern Italy and the third in the whole country. A village developed, in medieval times, around the church, as confirmed by the three narrow, irregular streets branching off from it, one of which reaches a square. Highly contrasted with the development to come around the Factory, which displayed an almost scientific rigor and order. It stretched over a wide flatland, on the right bank of the Cervo stream, where there was a mill for processing hemp. Although devoid of roads, the area was affluent of precipitous and rushing waters because of its streams. It was here that the brothers Giovanni and Pietro Poma saw a space already rich in tradition, suitable for their grandiose plans as enlightened entrepreneurs.⁸⁶ They were the first to realize the advantages of mechanical looms. In 1863 their factory at Piazze in Biella was no longer sufficient. They bought the mill in Miagliano, where they started the Cotonificio F.lli Poma di Miagliano, one of the largest cotton factories in Italy. Year by year they expanded and, as the book written by the Poma themselves on the occasion of the Exposition in Paris of 1900 suggested:⁸⁷

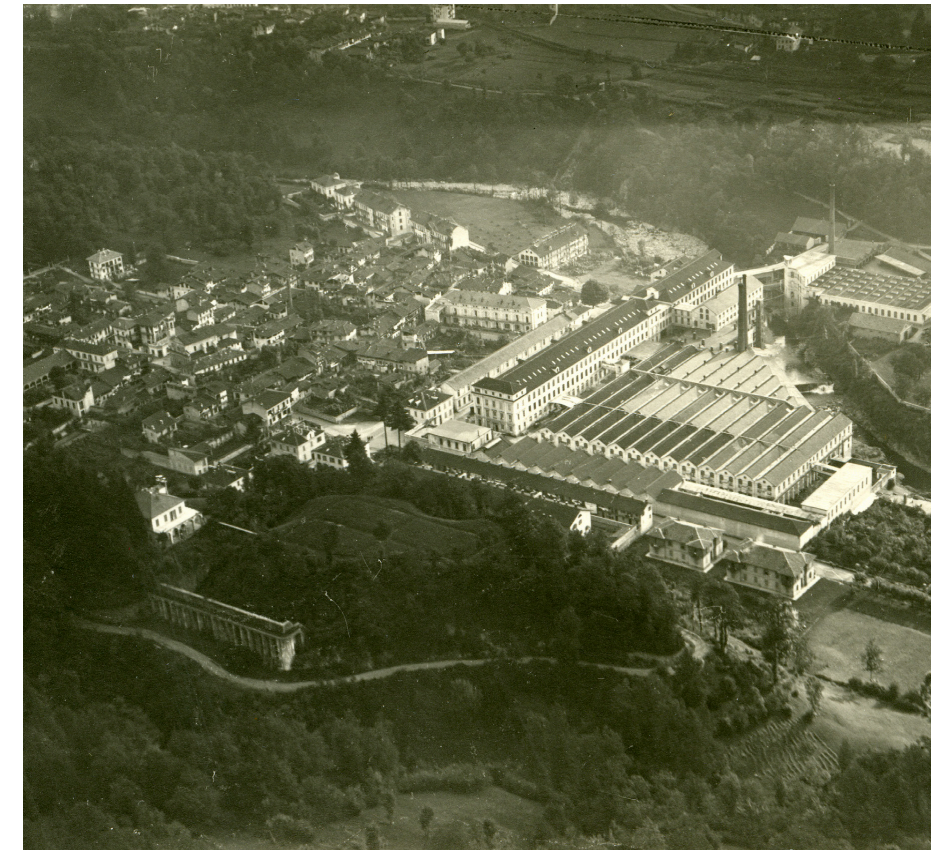
“[...] by the beginning of 1900 the factories already consisted of 37 bodies, of which 23 constituted the actual factories while, the other 14, formed a complex of social works: the houses for workers, employees, kindergarten, club, food store. The Miagliano plant covered an area of 24 hectares divided and scattered according to the very needs of the land and was designed and built by engineer Giovanni Pezzia”.⁸⁸

They later opened other locations in the area of Biella, although the one in Miagliano remained the main base, as a result of an organized and scientific division of labor, hosted a total of 4,000 workers. Due to World War I, the first real cotton crisis broke out, caused by difficulties in exporting manufactured goods, followed by a second crisis due to overproduction. In 1930 they began to close one establishment after another, culminating in the closure of the one in Miagliano in 1958. In 1961 it was bought by the Botto family of industrialists, becoming *Lanificio Botto*. A wool factory, still owned by them.⁸⁹ Since 2008, to these days, a new collaboration has been started, named “Biella the Woolf Company Consortium”, by Nigel Thompson, a native of Bradford, whose brother lived in the Saltaire Company Town, a story that repeats itself.⁹⁰

The steep slopes of the terrain forced the buildings to be distributed partly on the slope, partly facing the Cervo stream, connected by a series of bridges and internal junctions. The canal coming from Cervo, the ditch, had a flow rate of 3.000 litres of water per second coming down a 21m drop.⁹¹ As depicted by the pictures it was used as a wash-house by the women of the village, but also as a “swimming pool” by the children.⁹² Hydraulic engineering work was planned to increase the motive power of the water. Three “Francis” turbines were installed, with an internal impeller spiral conveyor with differentiated helices, producing 19 KWH.⁹³ Photos of the completed factory denote the development of the typology of factory structure, from *vertical* to *horizontal*, wherever there was sufficient flat land, freed from the need to harness motive



Floor plan Poma Company Town highlighting in black the facilities. From Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 130



Aerial photograph Cottonificio Poma, by Simone Rossetti, from *RetiarchiviBiellesi* historical archives, 1930



Villa of the Poma family on the hill, by author, 2024
Three cottages of the Poma sons and the Poma Cotton Mill coming down the hill on which the masters' villa was built, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

94. Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 127

95. Thesis by Alessia Stivala, *Una Casa a Ognuno I Villaggi Operai: Dal Socialismo Utopico al Paternalismo Industriale. Il Villaggio Operaio Poma a Miagliano*, Master's Degree Course in Architecture for the Restoration and Enhancement of Heritage, Polytechnic University of Turin - College of Architecture DAD -Department of Architecture and Design, 2013, 62

96. Quote by Fratelli Poma, *Manufacture de Coton Fratelli Poma Fu Pietro. Établissements & Institutions Ouvrières* (Turin, 1900), in Rete Archivi Biellesi, *Villaggio operaio F.lli Poma*. Translation by the author, original text in Italian.

97. Information extracted from the interview by author with Davide Varesano, resident of Poma Miagliano Company Town, December 9, 2023.

98. Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, 129-132

power, thanks to the discovery of electricity.⁹⁴ The constant need for raw materials and labor from the surrounding area led to the construction of communication roads. Those coming from Andorno, from the other side, to reach the bridge had to ride a dangerous descent on horseback. In 1919, the road profile was corrected with the construction of an “S” bridge, supported by the old bridge, still considered a miracle of the technology of those times. In addition, a railroad station was established to provide labor from Biella and neighboring towns in Miagliano. Despite the pioneering interventions, the Poma family realized that the real lifeblood in the veins of the Cotton Factory were the arms of the workers, a total of 2150 workers to be precise. The entrepreneurs came from a deeply Christian family, which, as explained earlier, was often linked to ideas favoring paternalistic intervention in social renewal.⁹⁵ They established homes for their workers and employees. For social control and peace, however, they built adequate services:

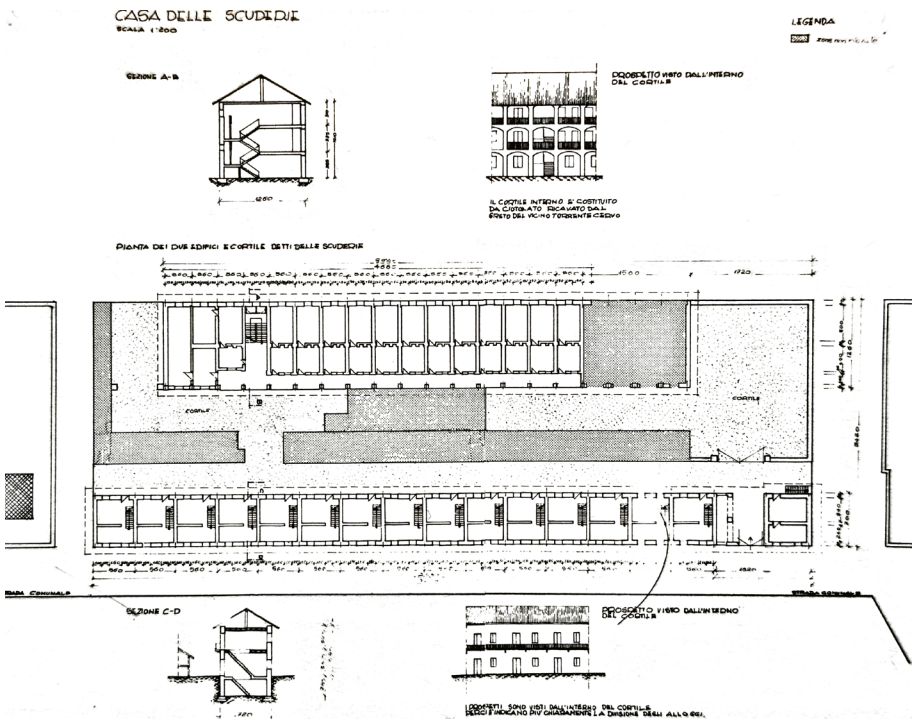
*“a kindergarten and schools are open to youth, so that they may in the future provide useful men for society and themselves”.*⁹⁶

The design of the village was based on the French example of Mulhouse, after several trips of the entrepreneurs on site. In this case, total involvement was natural, since it was born “from nothing”. There was originally a cemetery at the place where now the entrance to the village is situated. It was moved, where it is now so that the entrance could be designed, for those coming from Biella, skirting the side of the entire plant, to enjoy the rush, which flows into a square. The road leading to the manor house is on the left, while the road to the factory is on the right. The latter is situated atop a diminutive hill to command a comprehensive vista and authority over the entire village. The gates of the Poma family park were opened every Sunday, allowing the workers' families to stroll through in their free time. Three bell towers can be seen on the main facade of the villa, overlooking the village and the factory. During the week it was these that punctuated village life, to which the factory alarms were tuned. On Sundays, a festive day, the hours were instead marked by the church. Descending the hill to the entrance clearing, one first sees the three villas of the founders' sons and then the factory, which has a strongly symbolic connotation demonstrating a meticulous study of the smallest details.⁹⁷

The first two workers' houses analyzed here were adapted to the new requirements from pre-existing buildings, as suggested by their respective names: “Case delle scuderie” (Stables Houses) and “Casa stendisaggio” (Dryer house). In the first case, the building at the end of the courtyard with three floors above ground had a load-bearing masonry gallery structure, overlooked by 28 total dwellings, each consisting of two rooms, a kitchen, and a bedroom. Access was via a common staircase with only two toilets per floor. The north side was reserved for the boarding school for unmarried girls arriving from the regions of Friuli and Veneto,⁹⁸ managed by nuns, which had a separate entrance to avoid possible ambiguous aggregations. The building with two above-ground floors had 16 two-room dwellings with an interior staircase. In the courtyard, low buildings contained latrines, showers and wood storage. In the second case, on the ground floor, accommodations had two rooms connected to an upper one by an interior staircase. On the third floor, lodg-



99. Information extracted from the interview by author with Davide Varesano, resident of Poma Miagliano Company Town, December 9, 2023.



Washerwomen at work in front of the “Gera houses” and at the background the two managers’ villas on Poma Street. From *RetiarchiviBiellesi* historical archives, 1930
Plans, sections, elevations of the “Case delle scuderie”. From Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 131

ings had one or two rooms maximum, facing a balcony structure with four toilets at the sides of the common stairs on each floor. The garden was divided into small vegetable gardens for each dwelling. Along the same street, Via Poma, which approached the irrigation ditch, we find the “Case della Gera”, meaning gravel in Biellese dialect, a reminder of their proximity to the stream. These were new buildings for the Company’s employees, built of load-bearing masonry as well, with four stories above ground. Here, there were twelve lodgings per building, ranging from two to four rooms. Toilets were arranged outside the building, two per floor. These are followed by villas for factory directors. Load-bearing masonry buildings with two floors above ground, one a single-family house and the other a two-family house. Both were characterized by a division wall and a garden. In the latter, there could not be any lack of palm trees, an exotic element of nobility and wealth.⁹⁹ The dwellings had cellars, attics, stairways and indoor toilets. It is noticeable that along the same street were homes for all social classes, from workers to employees to managers. The house was the means of an apparent policy of social peace, but also a tool for separation and distinction. Typology, decoration, indoor or outdoor bathrooms, a vegetable garden or an exotic yard, and independent entrances or entrances facing onto a common balcony, which allowed for less privacy, were all features of belonging to a specific social class. They were parallel worlds, which were yet only a few meters apart, divided only by a wall. Similarly, along the street of the “Stable Houses” we find the last dwellings built, the “Lorazzo Houses”. Taking up the French cottage typology, with two floors for four families each, they presented symmetrical and specular dwellings. These were employee cottages, again divided only by a wall from a completely different world, the workers’ houses. Rents were deducted directly from their wages for a price that varied according to size and number of rooms, being lower than the rent for any other room.¹⁰⁰

In terms of services, a “Cucine Economiche” (Economic Kitchen) was established for workers who lived far away, while a “Food Cooperative Society” was set up for those who lived in the village. Only people who worked for the Cotton Factory were allowed access to it. A table of food prices was hung inside the dining hall; if there were any changes, employees were notified two days in advance. Prices were slightly lower than normal. The strict supervision over the quality of the food and its preparation made the kitchen very attractive and at the same time preferable to eat privately. Those who wanted to eat at the Economic Kitchen had to obtain tokens because money was forbidden. These tokens were provided by the entrepreneurs themselves and the amount was deducted from the fortnightly wages. Regulations stipulated that no one could enter the Kitchen with the intention of drinking, or in a state of inebriation, as well as if one had already been expelled for some negligence. The names of those who had committed abuses were also written on a placard to serve as a warning. The kitchen, regulated by a chef chosen and salaried by the masters themselves, was open during vacations, but only for lunch. Besides, there was another workers’ house consisting of 364 rooms for 800 workers and another house for employees of the same type as the “Gera Houses”. The most architecturally interesting are the harmonic distribution of the facades, the elegance of the staircases, and the cross



The worker's home "Stendissaggio", by Sergio Ramella, from *RetiarchiviBiellesi* historical archives, 1930

The worker's home "Case Lorazzo", from *RetiarchiviBiellesi* historical archives,

vaults. In 1874, a kindergarten for employees' children was established. It housed up to 150 children who learned to read, write, and study. The food supplied to the children was not completely free because the workers had to get used to providing for their children's needs. However, the monthly cost was minimal. The kindergarten was run by nuns and was furnished with modern furniture, children's toys, and a room where mothers could breastfeed their children. Given the large number of female workers, who were more economical and docile than their male counterparts, it was allowed for them to take time off work specifically for breastfeeding. Not surprisingly, right next to the kindergarten, a sewing school was established just for women and girls. In addition, there was a doctor, chosen and salaried by the Poma brothers, with an associated infirmary, where care was ensured in case of need while serving as a place to check on unjustified absenteeism. For leisure, males spent their time at the "Circolo Stella", an after-work meeting place with a bar and other entertainment or a walk in the stately park, as already mentioned. An elementary school and a washhouse were also established, as was the actual "court" of the village, serving as an important social gathering place for all women. Finally, a deposit box was set up, where every Monday workers had the opportunity to deposit a portion of their wages, recorded in a special booklet, and withdraw their credit without limit. This was an effort to accustom laborers to save money rather than waste it.¹⁰¹

101. Thesi by Alessia Stivala, *Una casa a ognuno I villaggi operai: Dal socialismo utopico al paternalismo industriale. Il villaggio operaio Poma a Miagliano*, Master's Degree Course in Architecture for the Restoration and Enhancement of Heritage, Polytechnic University of Turin - College of Architecture DAD -Department of Architecture and Design, 2013, 89-90

Living and Working in the Factory:
Trossi and Rivetti Company Town, 1919-1924

Passing through the second case study, even in the case of the Company Town of Vigliano, some common features behind industrial development can be found. Perhaps the most emblematic case of an organic paternalism arrived at the height of its development, already on its way to taking off.

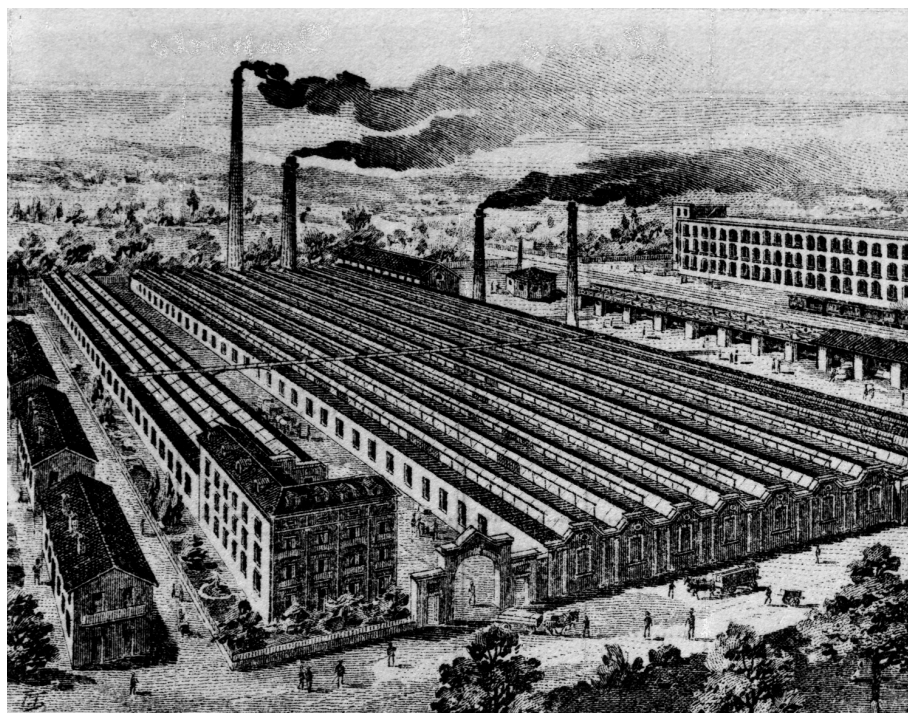
Vigliano was a purely rural center. The Molinaria irrigation ditch, which had an outflow on the Cervo stream, irrigated the land and operated two mills for the processing of hemp and rice. It was here that Agostino Agostinetti, also founder of the Tollegno Spinning Factory, decided to build in 1882 a two-story above-ground factory, one hundred meters long and twelve meters wide, for washing, carbonizing, and slabbing wool for third parties. On the site chosen, a detour of the ditch was obtained after various frictions with the municipal administration, obtaining the necessary motive power. It was a place that had all the basic prerequisites: proximity to a water source, low prices due to being built on land used for agriculture, possible synergies, and the presence of cheap, mostly peasant labor.¹⁰² As opposed to farming, where even precipitation could destroy months of labor, the factory provided a guarantee and a secure occupation. However, land does provide a minimum level of self-sufficiency. The factory ensured that there was no direct censorship of the land; on the contrary, it integrated agricultural and industrial labor by rotating the two throughout the day, following a model referred to as “part-time farming” by sociologists.

Agostinetti collaborated with Carlo Trossi, who, having acquired extensive knowledge of wool, played a pivotal role in the strategic decision-making process that propelled Vigliano to the forefront of worsted wool manufacturing. Left alone by Agostinetti’s untimely death, Trossi added raying and dyeing operations. The intention was to make a worsting for third-party processing. Through contacts gained from working abroad, like with a Belgian company, he met James Hill, owner of a comb factory in Bradford (for which Carlo was the representative for Italy). In 1904, during a visit to the factory, Hill confessed that he was amazed at how little soap the local waters required for wool washing, compared to England. He helped provide capital, founding *Pettinatura Italiana Limited*, based in Bradford, in 1905. Its production began as specialized English personnel arrived in Vigliano to train workers. It signifies the immense influence of the Factory during that period, when not only was the ditch specifically rerouted, but it also determined the entirety of the town’s subsequent urban development by affecting the construction of major roads and railways to facilitate the transport of labor and goods, including greasy wool.

Women’s emancipation began with the advent of World War I. They were massively hired in the factories to replace the male labors called to the war front. These years, represented an occasion of great enrichment for textile companies, thanks to the reconversion of production for the conflict, producing cloth for the military. In Biella industries would supply 70 percent of the Italian army’s need for cloth and flannel. Carlo Trossi was determined to act independently and managed to convince the textile industrialists Rivetti family, at the time already very successful, to buy the English shares. In 1916 *Pettinatura Italiana* was born, run



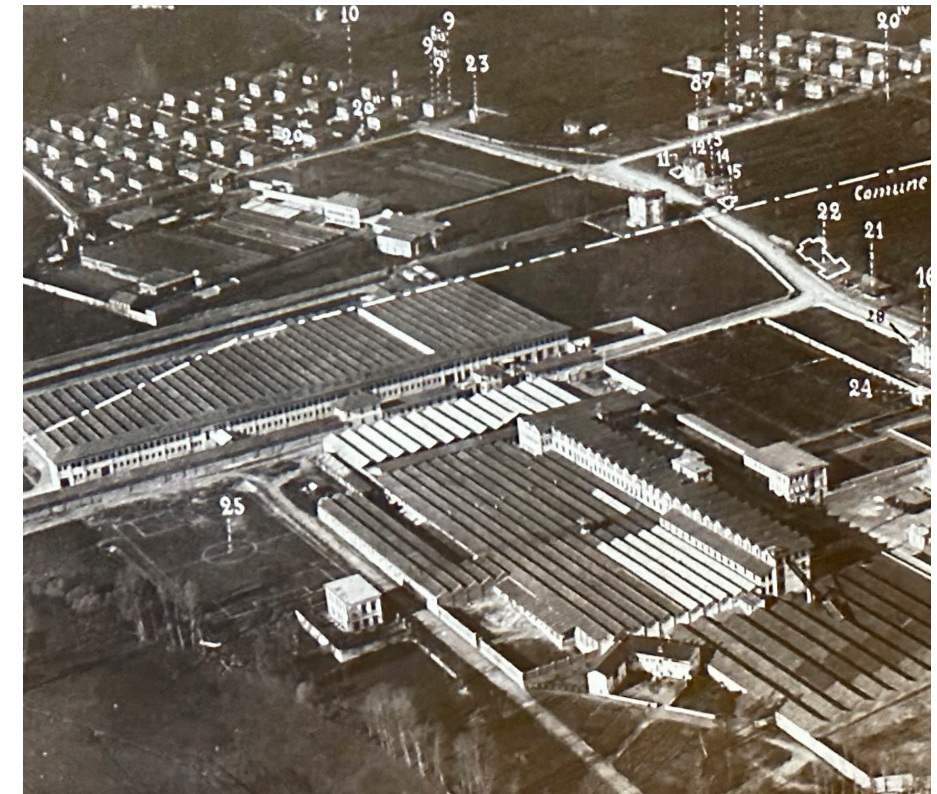
102. Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica* (Chioma di Berenice, 2000), 24-25.



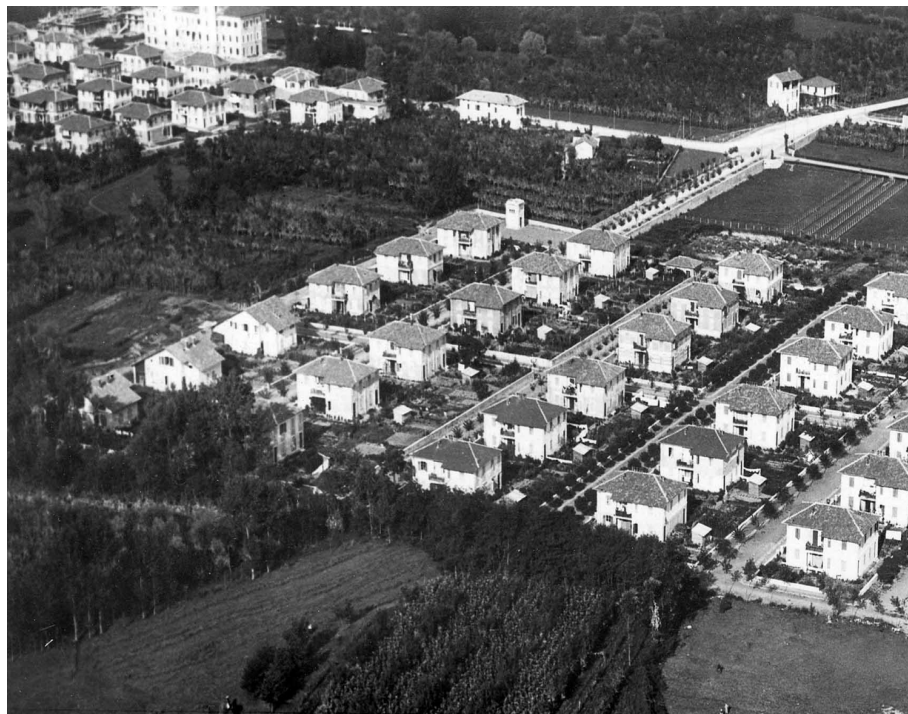
Carlo Trossi and Pettinatura Italiana of Vigliano under construction in the background, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s
Postcard La Pettina of Vigliano, from *Archive Sella Foundation*, early 1900s



Floor plan Trossi and Rivetti Company Town. From Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 153



Aerial photograph showing Pettinatura Italiana of Vigliano Biellese, the Lanificio Mosca, the Trossi village (top left) and the Rivetti village (top right), by Simone Rossetti, from *RetiarchiviBiellesi* historical archives, 1930



Women at Work Spinning Mill of Vigliano and Trossi and Rivetti Company Towns,
by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

by the Trossi and Rivetti families. The factory's high productivity drew many people from eastern Italy to meet the demand for the product. The so-called *Pettina* employed laborers from Friuli and Veneto, who were escaping from the invasions of the Austrians in the sad days of Caporetto. Even in the 1950s, it was the *Pettina* that would provide work for the flooded Polesine people seeking their fortunes. Especially in 1921, with the founding of the *Rivetti Filanda*, it would even be the entrepreneurs themselves, as in the case of the Poma family, who would personally travel to the region of Veneto. They would convince entire families or girls to leave for Biella, promising them a job and a home, as the culture of work was intrinsic to their nature and they were highly specialized in the field.¹⁰³

Therefore, the question of housing arose all the more. It was Trossi who was the first to build a village near the Pettina in 1919; two years later the Rivetti village was born, next to the spinning factory of the same name. They emerged in a rectangular area surrounded by countryside. Both featured multi-family villas, based on the Mulhouse model, with electric light, running water and the indispensable vegetable garden. All were distributed on an orthogonal grid resulting from the intersection of roads with exclusively distributive functions. The main road coming from the factories, Via Quintino Sella, connected all the services and the respective two villages, creating a sort of inverted "T", all lined with rows of trees. There were public wash houses, a bakery, stores and a lot more. A real "industrial small town" with low density to better ensure hygiene and few aggregations. A total of sixty buildings were constructed, thirty nine for the Trossi Village and twenty one for the Rivetti Community, each of a unique uniformity of volumes, shapes and materials, differing only in a few decorative elements as a function of that "social competition". The area occupied by the Trossi Village measured about 49.800 square meters, roughly 7 soccer fields, while the Rivetti ones occupied an area of 22.800 square meters, slightly less than half of the former. The plot of each house, with the vegetable garden, measured just over 1.000 square meters.

Starting from the Trossi Company Town, it featured three housing types: there were thirty five of type A, of the type B and one of the type C buildings. The first with two floors above ground, consisted of two dwellings per floor in a T-shaped rectangular plan system. On the ground floor, the entrances were separate and private, arranged sideways, while the upper floor was accessed via a common stairwell. It featured a kitchen of 12 square meters, two rooms one of 16 square meters and the other of 9 square meters, without a chimney but with a garden and a latrine ventilated through a window. It presented a total of 54 square meters and a height of 3.30 m. The exterior walls were 40 cm, while the interior divisions were between 25cm and 6cm. Type B consisted of two duplex lodgings, each with its own entrance and a floor plan reminiscent of the Greek cross. It was structured along two primary axes: one was positioned perpendicular to the street and delineated the separation between the lodgings; the other, which ran parallel to the street, supplied energy to the entire composition. The ground floor comprised an entrance hall and a 22.3 square meters kitchen, which was illuminated by a triforium and featured a staircase that extended to the upper floor. There were two



Trossi and Rivetti Company Towns, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

rooms, one measuring 16 square meters while the other 15 square meters, both illuminated by windows, followed by an air-conditioned lavatory. A porch in the rear of the residence is utilized for storage. A 17 square meters habitable space with a suspended ceiling and a three-mullioned window resembling the one below can be found on the upper floor. The structures and materials are similar to those used for all houses, but the internal distribution, construction and decorative details are more refined since these were dwellings for common workers. Finally, type C had one above-ground floor and featured three symmetrical dwellings, each with a separate entrance. The floor plan had a rectangular shape of 99 square meters. In the porch, obtained by subtraction of a portion, were two latrines. Two lodgings had a kitchen of almost 17 square meters and two rooms of 16 square meters, while the third had two rooms of 19 square meters each, equipped with a door to access the garden. This typology appeared to be the most austere, as it lacked verandas and balconies, interior latrines and exterior decoration. It occupied an area of about 50 square meters.

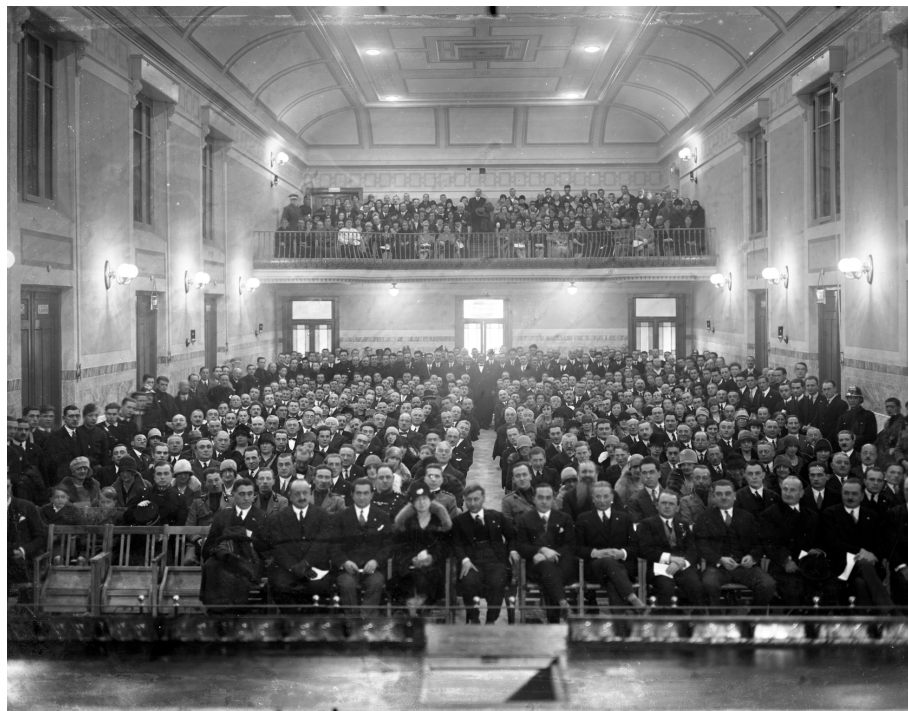
In the Rivetti Company Town, there were also type D and E cottages. The first, two-story, connoted two dwellings per floor, each with a kitchen, two rooms and latrines, very economical, in which the formation of two small projecting bodies on the ground floor allowed for abundant lighting. They had a more articulated floor plan and a more “stately” architectural language characterized by the presence of bow-windows. In type E the bow-windows were developed on the two floors, while in type D those on the ground floor became terraces on the first floor. Three of these houses were intended, although not explicitly stated, for the most “virtuous” employees from the professional technical schools of Rosazza, Piedicavallo and Campiglia Cervo.¹⁰⁴

The landlord-tenant relationship was regulated in *Book III, Title IX* of the *Civil Code*. Conversely, the standards for workers’ housing allocation were specified in a regulation that was printed in a specialized yellow booklet. To provide an indication of costs, a room in the village of Trossi costs 25 liras per month. The amount was paid to the Pettina in two instalments every fourteen days and, precisely, on the days when the wages were paid.

Moreover, there was no shortage of all kinds of services. In addition to those already mentioned, the consumer cooperative should be noted. For those who paid an entry fee of two liras and a hundred liras within 48 months after their admission, they received a voucher, through which they could buy goods at half price. Provided, of course, that the individuals in question were of good moral character and did not belong to subversive parties.¹⁰⁵ The presence of vegetable gardens and orchards ensured the supply of fruits and vegetables for the Economic Kitchen. According to interviews with some witnesses, who still live within the Company Town, the canteen had two separate entrances, one for factory and office workers, and two different menus. The former received just one meal per day; the second two different dishes. In 1923, in Rivetti Village, the ERIOS (anachronism of *Ermanno Rivetti Istituto Opere Sociali*) was inaugurated, offering bars, pool tables, reading rooms, and boules courts, frequented mainly by men in their free time. A football and athletics teams from the club took shape, as well as hiking groups.

104. Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica* (Chioma di Berenice, 2000), 33-41.

105. Franco Macchieraldo, *La Pettina, la storia, le genti: la vicenda industriale della Pettinatura Italiana di Vigliano* (Gaglianico, Biella: Bottalla, 2018), 104-5.



ERIOS and cinema-theater attended mostly by men, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

106. Informations extracted from the interview made by the author with Detomati Ezio and Cavicchioli Gigliola, a married couple who lived in the Company Town of Vigliano and worked in the Pettina, 10th December 2023

107. Franco Macchieraldo, *La Pettina, la storia, le genti: la vicenda industriale della Pettinatura Italiana di Vigliano* (Gaglianico, Biella: Bottalla, 2018), 103

108. Informations extracted from the interview made by the author with Bighetti Simonetta, who lived in the Company Town of Vigliano for her entire life, 10th December 2023

109. Informations extracted from the interview made by the author with Detomati Ezio and Cavicchioli Gigliola, a married couple who lived in the Company Town of Vigliano and worked in the Pettina, 10th December 2023

110. Franco Macchieraldo, *La Pettina, la storia, le genti: la vicenda industriale della Pettinatura Italiana di Vigliano*, 102-4.

111. Informations extracted from the interview made by the author with Franco Macchieraldo, whose father worked at the Pettina of Vigliano, 5th January 2024

112. Interview with Detomati Ezio and Cavicchioli Gigliola, witnesses of the Trossi and Rivetti Workers' Village, December 10, 2023. Translation by the author, original text in Italian

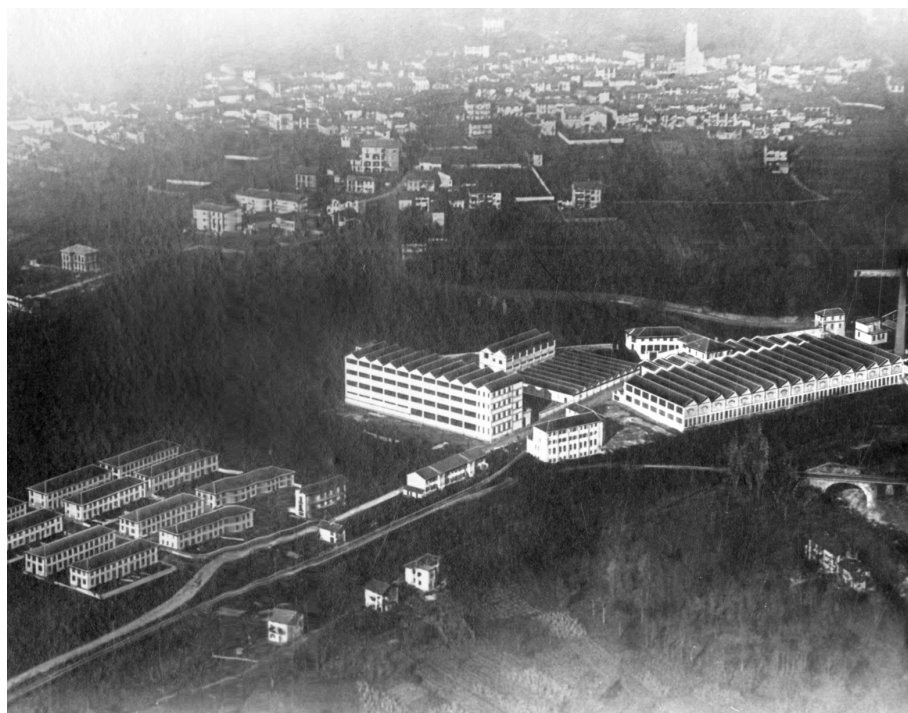
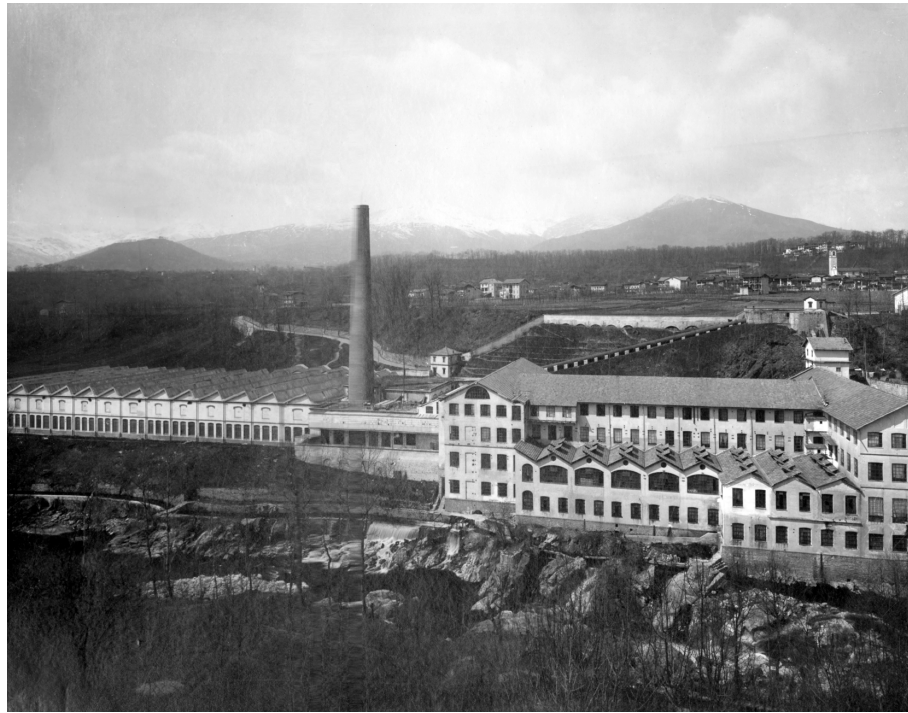
113. P Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica* (Chioma di Berenice, 2000), 72-74.

They often organized different group tours, all paid for by the company. There was also the Aurora club, more willingly attended by female workers, with sewing and home economics schools in the factory's kitchens,¹⁰⁶ the latter of fundamental importance in intervening in malnutrition and related diseases, the consumption of healthy drinks and foods that were nationally available such as grains, fruits and vegetables. In 1927, they opened a cinema-theatre, with 400 seats, radiator heating, dressing rooms for performers and special space for the orchestra.¹⁰⁷ As for the children of the employees, a kindergarten, a school, and a summer school were provided to engage them in excursions during the period when the schools were closed. In addition, as well etched in the memories of those interviewed, during some holidays, such as Epiphany, various gifts were bought by the entrepreneurs themselves for their children.¹⁰⁸ Several factors ensured a certain social peace and civic care: first of all, the leisure centers were managed by people chosen and salaried by the entrepreneur themselves, especially in the bar where the first enemy to be eradicated was alcohol. Moreover, a certain "social competition" was determined by various prizes that were distributed, for example, for the "best kept" vegetable garden or in case a woman decided to get married.¹⁰⁹ Most of all, however, the significant presence of a corps of *carabinieri* (Italian police) in the village, whose house was purposely placed at the entrance of Rivetti village, reinforced the importance of social order.¹¹⁰ The house of the head clerks, on the other hand, was symbolically placed just near the junction of the roads to Quintino Sella Street, which led directly to the factories. An extremely strategic location for control and visibility of all the persons walking or biking to work. On the way out of the factory, random checks were made on employees' bags to make sure they had not stolen anything.¹¹¹ A doctor was present with his clinic within the Company Town. As recounted by Cavicchioli Gigliola:

*"There were concessions, they whitewash all the houses every year and aid for all various work to be done on the houses. It was a supportive community".*¹¹²

In contrast to the Trossi village, which was predominantly inhabited by families from the Veneto region, the Filatura Rivetti required skilled labor, preferably female. This resulted in the arrival of a significant number of unmarried girls, a disruptive element that created a problematic social situation. Boys opted to take the village route past the "Turin Houses" rather than attend the oratory, primarily due to the lively dispositions of the female tenants. To restore order to Vigliano, it was therefore decided to establish a boarding school supervised by nuns following extremely stringent regulations. Finally, in the same village, a church and oratory were established in the name of St. Giuseppe. It was no coincidence that the namesake of master Giuseppe Rivetti was chosen, especially at that time, when he had taken full control of the Pettina, following the sudden death in a car accident of Felice Trossi, son of Carlo Trossi.¹¹³ Once again the two main matrices of the Company Towns can be noticed: the Church and the Factory. It seems to bestow a divine connotation upon the capitalist masters, to whom they offered everlasting grace and directed their prayers, in exchange for establishing the Factory, which ensured employment, wealth, property, housing, and consequently, an improved standard of living that produced additional labor force.

The case studies of Miagliano and Vigliano, are relatable as cases of



Spinning mill of Tollegno and its Comapny Town, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

Living and Working in the Factory: Company Town Filatura of Tollegno, 1920-1925

Company Towns because of the size they achieved and the degree of accomplishment that makes them autonomous from the pre-existing settlement, according to the philosophy in which every remedy and benevolent action was initiated for individual and productivist profit.

Similar is the case of Tollegno, which came into existence between 1920 and 1925. Until then it was another small village whose economy was based on cultivation, exploitation of the timber of the many forests and the processing of hemp. It was located in a rural area bordered again the Cervo stream. In 1861 Maurizio Sella established a Spinning Mill in Tollegno. The new factory benefited from the abundant water and the energy generated by turbines positioned slightly higher, by Poma manufacture in Miagliano. With contract processing, the *Filatura di Tollegno* spinning mill was established in 1900; by the years, it had expanded to employ up to 2,000 individuals. The establishment of the new company was facilitated by the capital shares contributed by notable elite entrepreneurs, including Rosazza, Agostinetti, and Ferrua, as well as the support of local bankers, including the Sella family, allowing great advantages at the financial level. It was the first firm in Italy to establish a trademark for yarns: “Lana gatto” (wool cat).¹¹⁴

The Company Town included various facilities, such as a kindergarten, an elementary school, a leisure club, a sports field, a boarding school, a canteen, a commissary, a laundry, a shoemaker, a doctor, and much more. As Luigi Ghiardo said:

*“In those times, there were public showers where once a week you could go to wash yourself, male and female. Access to showers was limited to once a week, usually on Saturdays. There was also a room where we went to watch television. I remember that usually in the summer we bought ice lollies to watch TV, they cost 25 lire”.*¹¹⁵

The village consisted of 16 buildings, 11 of which were residential, following a pattern of terraced houses (see *fig.1*), each with a separate entrance and a vegetable garden, distributed along four parallel streets intersected by straight streets. Each building has seven dwellings, except one of which has just four, each of two or four rooms, arranged on three above-ground floors, for a total of twenty four rooms per building. Additionally, another terraced house called the “Magician’s House”, built two stories above ground, with no basement and no vegetable gardens, comprising eight lodgings for each floor. It consisted of dwellings of three rooms each one, plus a tiny latrine. Moreover, there was another home, with only four lodgings, presenting the barracks typology. The latter was the first to be built in 1908 by Agostinetti & Ferrua for its employees.¹¹⁶ In the village, there were also various recreational activities.

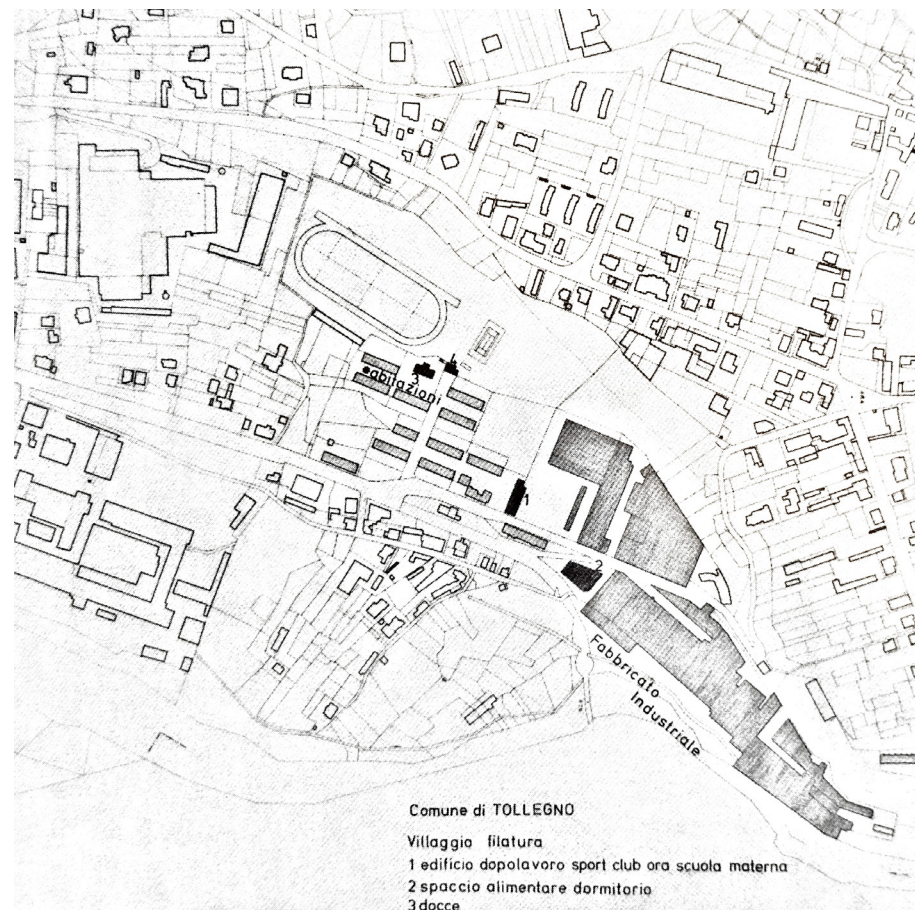
To better understand some important details of the atmosphere in the village it is enough to quote what Luigi Ghiardo mentioned during an interview conducted by the author:

“[...] The perceptions of managers also varied. Some were esteemed and respected, while others were viewed with suspicion. I remember that Mr Schneider was one of the managers who had a good reputation. He visited the village regularly, especially during the Christmas holidays. It was a special moment when he came to say hello door to door personally,

114. Thesisi by Alessia Stivala, *Una casa a ognuno I villaggi operai: Dal socialismo utopico al paternalismo industriale. Il villaggio operaio Poma a Miagliano*, Master’s Degree Course in Architecture for the Restoration and Enhancement of Heritage, Polytechnic University of Turin - College of Architecture DAD -Department of Architecture and Design, 2013, 118-24.

115. Information extracted from the interview made by the author with Luigi Ghiardo, who lived in the Filatura di Tollegno Company Town, January 5, 2024. Translation by the author, original text in Italian

116. Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 134-35.



Floor plan Tollegno Company Town. From Alberto Abriani, *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 149

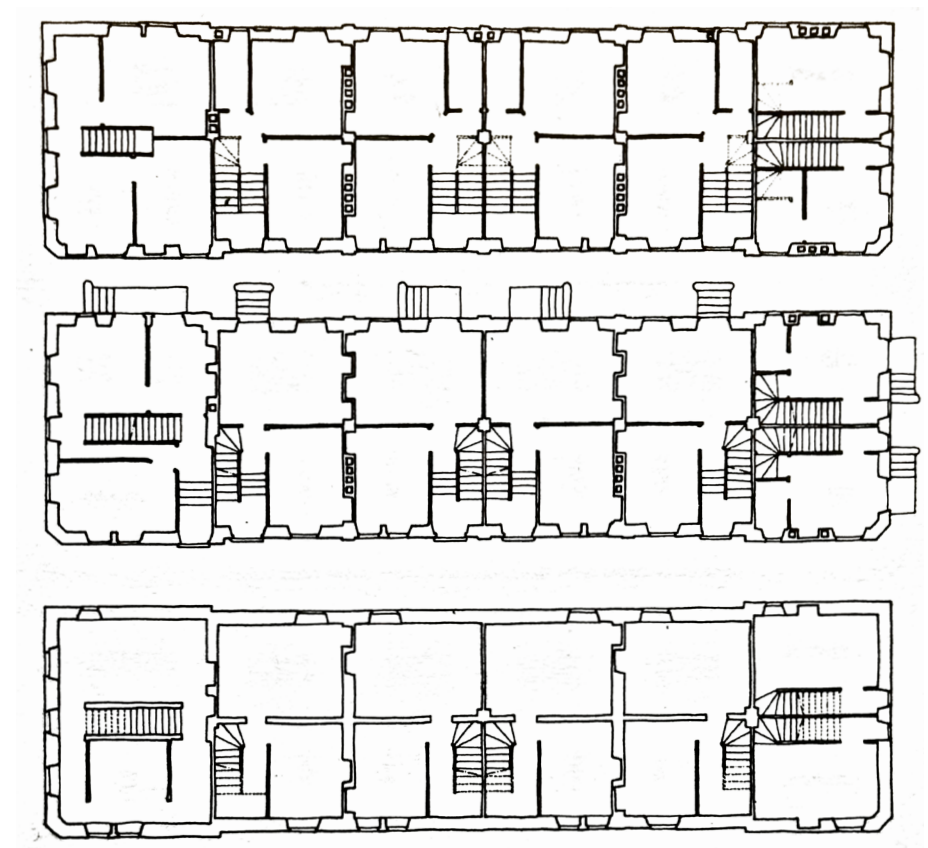


fig.1 Ground, first and second floors of terraced houses in Tollegno Company Town. From *Patrimonio Edilizio Esistente: Un Passato e Un Futuro: Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere*, (Designers Riuniti, 1980), 150



117. Information extracted from the interview made by the author with Luigi Ghiardo, who lived in the Filatura di Tollegno Company Town, January 5, 2024. Translation by the author, original text in Italian

118. Thesisi by Alessia Stivala, *Una casa a ognuno I villaggi operai: Dal socialismo utopico al paternalismo industriale. Il villaggio operaio Poma a Miagliano*, Master's Degree Course in Architecture for the Restoration and Enhancement of Heritage, Polytechnic University of Turin - College of Architecture DAD -Department of Architecture and Design, 2013, 40.



119. Cesare Piva, *I villaggi operai Trossi e Rivetti: un'analisi storico-architettonica* (Chioma di Berenice, 2000), 36.

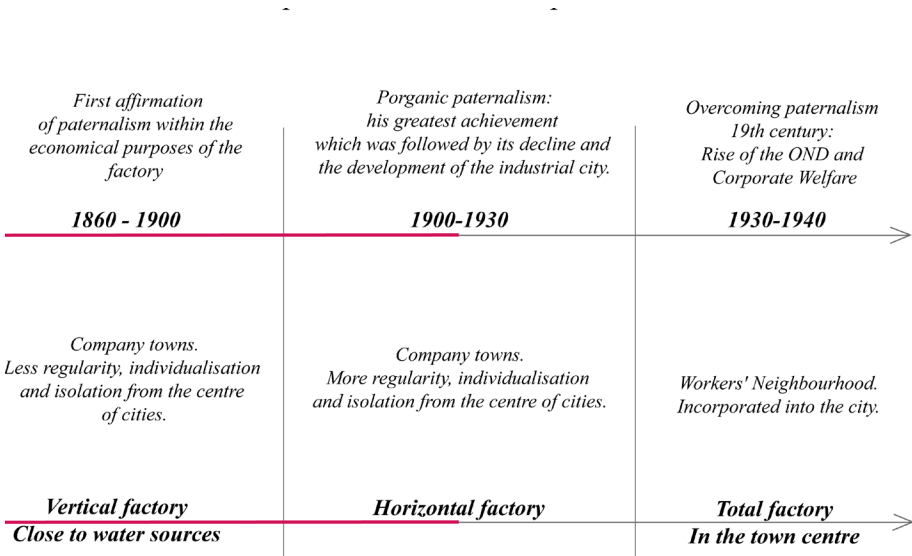
Terraced houses and “Magician’s house” in Tollegno’s Company Town, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s

*at every office, to say his good wishes. He also gave gifts to employees, demonstrating a certain interest and attention towards the workers. [...] People could walk freely in the streets with children, and there was a feeling of community and togetherness. Today it seems that this has changed, with less space for spontaneous solidarity”.*¹¹⁷

Apart from these three Company Towns, additional interventions were implemented in Biella. Because the workers’ dwellings of Pray, Coggiola, Portula, Trivero, and Ponzone were established and assimilated into the pre-existing townships and urban settlements, they cannot be considered self-sufficient villages. This observation highlights the extent to which Biella as a city emerged as a result of textile industrialization and the confluence of these interventions that still shape the current urban landscape.¹¹⁸ Presently, a considerable number of these factories have been decommissioned, and the villages have been repurposed. As houses were sold back to their owners, that sense of community and solidarity was lost. Careless modifications were frequently implemented, resulting in the complete loss of their identity. Despite being an almost “endangered” city, numerous factories continue to manufacture some of the world’s most prestigious fabrics, which are sold to the world’s most renowned brands, including Gucci and Luis Vuitton, to name a few.

Therefore, it can be concluded from this analysis that Company Towns were founded upon contradictory concepts. While on the one hand, they were the result of progress and development, on the other, they did not reject the necessity of remaining rooted in the peasant way of life to avoid the shock of the workers, forced to leave their land. An instance of primitive architecture can be observed in the absence of corridors within the houses, preferring passing rooms.¹¹⁹ However, it should be noted that the exterior decorations are simplistic. The intention behind them appeared to be a simplified reinterpretation of certain classical elements, intending to elevate the exterior of a typology that prioritizes cost reduction in construction. This notion of utilizing architecture to aristocratize the poor is reiterated. Two fundamental points of Tafuri’s critique of modern architecture come to mind: first, the fact that architecture is now marginal to the standards of hygiene and social control, that is, what he called the “crisis of the form”, as already mentioned. Also, a secularized use of classicism, once linked to Christianity, is later instead used as a symbol of exercised power. It is enough to consider the vertical factory in Miagliano, which embodies a sense of elegance reminiscent of the prototypical three-aisled basilica.

However, what is even more important, are the differences that arose in these three main case studies, a reflection of the evolution of Paternalism previously discussed in the thesis. As the diagrams (see *fig. 2*, *fig. 3*) shows, we speak of three evolutionary phases, which brought with them a shift in values and industrial and housing typologies, influencing the conception of “city” toward the new millennium. It begins with a first phase, between 1860 and 1900, coinciding with the birth of the establishment of this ideology. During this time the vertical factory was born. In the second phase, paternalism reached its most organic realization, from 1900 to 1930, with the arrival to the horizontal type of the firm, until



120. Augusto Ciuffetti, *Casa e lavoro: dal paternalismo aziendale alle comunità globali: villaggi e quartieri operai in Italia tra Otto e Novecento*, (Strumenti & documenti), 2004, I-II.

its decline and total failure from 1930. The Factory becomes “total” and the Company Towns are transformed into working-class neighbourhoods, perfectly embedded in the urban context, as it will be analyze better later.¹²⁰ This evolution is reflected in residential typologies. While we already see important social innovations in Miagliano, the workers’ houses still represent that “barracks” or gallery style, which still allows a certain degree of community and less privacy. What also needs to be mentioned is the presence of a square, an element banished from any other self-respecting Company Town. With the construction of the village in Tollegno and, even more in Vigliano, there was a gradual move toward making the dwellings always more independent, according to a pattern of increasing individualization and separation, echoing Agamben’s field idea of provision and separation already mentioned. Barracks houses are transformed into villas, juxtaposed and adjacent to one another in Tollegno, up to the Mulhouse model of Vigliano, eliminating any space of aggregation and using the wall to divide each private property from the other.

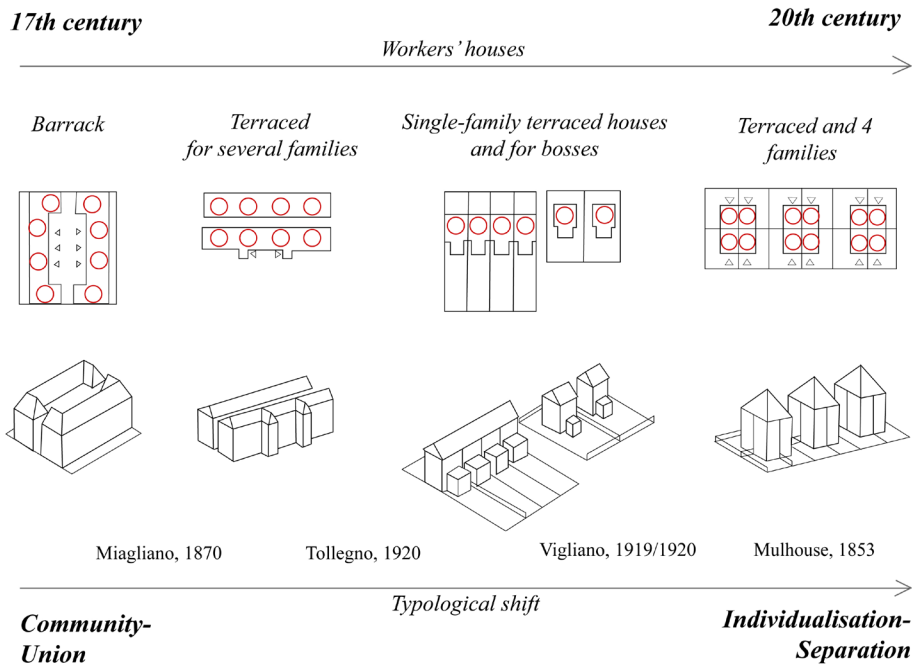


fig. 2 Diagram evolution paternalism. fig. 3 Diagram evolution typology of Wworkers’ Homes, drawn by author, adapted from Alberto Abriani, *I villaggi operai dell’Italia settentrionale come modello di insediamento* in: “Atti” del II seminario LAU, Gargnano, ottobre 1975



Wedding and mothers with their children on the streets of Tollegno's Company Town, by Giovanni Corona, from *Tollegno Photographic Archives*, 1948-1949

Ensuring Moral Values and Reproduction

Since the previous chapters have treated the organization of Company Towns as a model, and the paternalism philosophy that shapes them, is now time to consider a further aspect within Company Town, namely the role of women.

As already pointed out in the first chapter during the proto-industrial phase, women played an active role within Company Towns in participating with husbands in familial productive work. For instance, spinning work was a highly specialized and gendered sector. Then, with the rise of capitalism, a clear separation between public and private space was implemented, initiating a specific assignment of roles to the male and female figure within the family: to women were reserved the private space, isolated within the domestic walls, whereas men had control over the management of public life, thus social, economic and political. This demonstrates the significance of being married for women because it signified their formal integration into society, during which they assumed the acknowledged responsibilities of wives and mothers. Marriage also meant an important moment for the transmission of property, since the inheritance system excluded the woman. In the case of Company Towns, the marriage of an employee of the related factory represented a means of securing a home within the Company Town. It was thus within the domestic walls that women were esteemed, where they played a reproductive role. The creation of a harmonious working-class family in a healthy home environment was essential, as children would be the new labor force and husbands, in a serene environment, would avoid alcohol and other temptations which were considered unproductive. The factory employment of the married woman conflicted with the care of the household economy and with the maternal function that ensured the continuity of the family as an extension of capitalism.¹²¹

That is why we talk about biopolitics associated with the emergence of corporate paternalism. The company's philanthropic scope realized that the real focus should have been placed on women themselves:

*"It was through women we had to start fighting socialism and its execrable doctrines, and that alongside a deeply Christian wife, the husband would not long be a formidable socialist".*¹²²

Hence the importance of property and boarding schools. The latter was born out of objective economic need, on the destitution of the proletarian family, as rationalized breeding of socio-sexual contradictions through women's isolation and control.

It was only with the advent of the Great War, as mentioned above, that the emancipation of women in the factory started due to the increasing demand and the absence of men at the front. In Italy, 250,000 women were employed in the war industry.¹²³ They not only assumed the role of labourers but also emerged as proactive claimants with their spontaneity, uncompromising pragmatism and uncontrollable radicalism. They established labour leagues and numerous sections of the Socialist Party, becoming decisive figures in industrial protests. The women's movement had a great impact especially in the Biella area, given the high number of jobs during the war years. They manifested themselves not only through striking but also through speaking and writing. They gave speeches and

121. Paola Corti, Ottaviano Chiara, *Fumne: storie di donne, storie di Biella* (Turin: Clime-dia), 1999, 35-48.

122. Reybaud, *Etudes sur le régime des manufactures*, 1859, as quoted by Roberto Gabetti, *Villaggi operai in Italia: la Pianura Padana e Crespi d'Adda*, Essays 628 (Turin: Einaudi), 1981, 45. Translation by author, original text in French

123. Franco Macchieraldo, *La Pettina, la storia, le genti: la vicenda industriale della Pettinatura Italiana di Vigliano* (Gaglianico, Biella: Bottalla, 2018), 32.



124. Paola Corti, Ottaviano Chiara, *Fumne: storie di donne, storie di Biella* (Turin: Cliomedia), 1999, 78.



125. Dolores Hayden, *The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities* (Cambridge, Mass: MIT Press), 1981.

signed hundreds of subscriptions to political newspapers, in which they published letters and articles. A conspicuous documentary manifestation, of a long process of emancipation through culture, at the knowledge of literature, the means of communication, up to a proper political education. Women labourers persisted even during subsequent periods of peace, exhibiting greater flexibility, composure, and cost-effectiveness, in addition to specializing in the craft of spinning.¹²⁴ So much so that it was in Biella, near Miagliano that the “Mountain Pact” was signed in 1944. It represented the first act in Europe which recognized equal salary for men and women establishing the 8-hour workday. It would become Italian law only in the 1960s.

It is important to consider that women’s entry into the manufacturing sector meant that they faced additional challenges. As housewives and factory workers, they performed two jobs: factory work, socially recognized and paid, and domestic employment, unpaid and much less recognized. It was from the tired and angry women in the new private kitchens within the new housing types that the feminist movement was born. As the manufacturing industry grew, housewives found themselves increasingly isolated from their husbands who worked away from home, their children who attended school all day, and the rural social networks of relatives and neighbours that had been disrupted by migration to urban centers. Even today, feminism struggles in the name of balancing domestic work and personal aspirations, the conflict between traditional roles and modern aspirations, and the continuing debate over how domestic work should be valued and distributed in society remain a central issue.¹²⁵

The role of women is also clearly visible through the case studies analyzed. Mainly through the promotion of the pavilion house model, the living area is distinguished for the first time from the sleeping area and consequently, the separation of the kitchen, distinct and limited, where isolates the woman, with an additional educative role. But not only that, it comes to having enough rooms to separate sons from daughters. Despite women’s emancipation and subsequent entry into the industrial sector, there continue to be distinct divisions between areas designated for men and women in political and social life daily. It suffices to compare the recreational institutions; frequently, one structure is more conducive to men’s activities while the other is more suitable for women. In which the aforementioned leisure pursuits imparted knowledge regarding effective cooking, sewing, and the responsibilities of a virtuous housewife and mother.

Women with children in Company Tow’s kindergarten in Tollegno, by Simone Rossetti, from *Archive Sella Foundation*, early 1900s
Men during their free time playing bowls, in the background the Fialtura di Tollegno, by Giovanni Corona, from *Tollegno Photographic Archive*, 1955

From Company Town to the Total Factory

The previous chapters aimed at considering the historical relevance of Company Towns with a particular focus on the case of Biella, and they showed the motivating factors that influenced the development of Company Towns. A model destined to fail, since it was unable to adapt to the changing needs of society. As technologies and energy sources advance, some of the localizing and conceptual factors that gave rise to Company Towns become obsolete. A model that required very high costs and, becoming unnecessary, drove their respective masters to economic ruin. Nevertheless, they still left an indelible mark on modern society. Indeed, from now on there would be no turning back until the total exaltation of the factory swept over the whole society.

It can be said that Company Towns symbolize an intermediate stage, a temporary transition from a *laissez-faire* political system to the “total factory” elucidated by Mario Tronti in his publication *Workers and Capital*. The former would result in an unfavourable consequence, given that capitalism itself emerges from the clash of two unique and contradictory class identities and the subsequent exploitation of one of them; therefore, it is crucial to implement a check that restricts the revolution. The very disorder of the city is the outcome of a permanent state of war that is necessary for capital to control and force its subordinates to work. The persistent menace of labor force rebelling against its own detrimental position was, on the one hand, an element that needed to be eliminated, and, on the other, a mechanism that capitalist development could exploit to its benefit. Indeed, class clash had always marked the beginning of major urban transformation projects, changing the very nature of the city. The city transitions from a sovereign political entity known as the *civitas* to an economic machine where the city and its territory are intricately intertwined within a totalizing production system. Geometric shapes and straight roads are an exorcization of conflict and an ideological sublimation of the need for extensive control of space. The city centre survives only as a symbol or, at best, as leverage for rent. As early as the sixteenth century, Sebastiano Serlio includes in his treatise on housing, *Book VI, sulle habitationi di tutti li gradi de gli huomini*, where models of houses for rich professionals and for poor peasants and artisans are described. These latter were essential labor forces that had to be wrested from vagrancy and nailed down to domestic routine and private home ownership.¹²⁶ So Company Towns turn out to be too explicit at some point. It is clear that the house here is, as Le Corbusier says, “a machine for inhabiting”. This expression overturns all the values of a pre-capitalist society. The word “machine” is often associated with the factory; here it is juxtaposed with the house. Then it is perhaps the house that becomes a factory not of goods, but a factory of lives, of a “new man” from industrial society as it had been thought of. The house as the very extension of the factory. In a reciprocal sense, one cannot exist without the other. The very architecture of the twentieth century takes on the features of the building innovations and materials of the factory.

The factory is no longer a building or even a place; rather, the factory is a set of machines, a spatial diagram whose function is to adapt physical space to the technical composition that makes productive work and its



126. “Il ritorno della fabbrica / Appunti su territorio, architettura, operai e capitale.” Accessed January 5, 2024, 2016. <https://operavivamagazine.org/il-ritorno-della-fabbrica/>.

Image interior of ex-Cotonificio Poma at today, by Riccardo Poma, “La Fabbrica in AttesaUn Viaggio nel Cotonificio Poma”, in *Vuoti a perdere Un viaggio tra i luoghi abbandonati nel nostro paese*, 2015

exploitation possible. It has no definite form but rather is an evolving process that innervates and organizes the territory. Not surprisingly, even today, many disused factories have become museums or offices. If there is a factory, there is a logistics network that coordinates machines, transportation, flows of people, raw materials, and goods: the scope of the factory is always the territory. A flexible and infinitely extendable territorial organism whose task is to reproduce and organize labor. The factory begins to take over all the spheres of society and invades the entire network of social relations. It is a process of “factorization” of society.

However, at the very moment when capital realizes this increasingly organic and totalizing relationship between things, it also manages to mystify it and render it invisible. Tronti observes that at the moment when the entire society is subsumed by capitalist production, the factory paradoxically disappears. Similarly, the exploitation of reproductive and affective labor that is necessary for the formation of the working class also disappears. In other words, within the factory that becomes society there are not only (male) workers but, as Leopoldina Fortunati has written, also housewives and prostitutes, whose labor has for centuries been hidden and exploited within that formidable bourgeois invention that is the home as a “private refuge”, as a place of non-work. This is the “total factory” that defines today’s society, in which the boundaries and place of the factory itself disappear. It is an invisible system now fragmented by the digital. New ways of living are emerging, in which there is almost a return to factory work at home, through smart working, which disappears altogether and reaches unprecedented levels of exploitation. There is no longer a real master and a real worker, consequently, there is no class struggle, and the mass worker becomes the mass bourgeois. Everything is devious, and silent, a network that encompasses everything. If Company Towns were formerly created distant from society itself, creating clear limits and boundaries stemming from the rejection of urban disorder, today it is the other way around. It is a system that involves society in its entirety.¹²⁷

Always referring to the surroundings of Biella, the most modern reinterpretation of Company Town came about through Adriano Olivetti in Ivrea. He worked tirelessly not only for his own company but above all to completely renew the ways and sense of industrial work in Italy. He saw the factory as a community, as the place that produces goods and not goods, in a perspective that did not limit profit to mere enrichment but understood it as a plus to be reinvested in the territory, the quality of life of workers and the ecosystem. It was a new vision of work in which the responsibility of all actors replaced traditional paternalistic authoritarianism. To adapt work to human needs (and not vice versa) Olivetti brought poets and intellectuals into the factory, entertaining workers with film screenings, libraries, and advanced social services. His was an attempt to create a new human model of solidarity between entrepreneurs and workers, between factory, city and country. He identified the third way between communism and capitalism.¹²⁸

The Company Towns phenomenon is the result of a city that, like Biella and many others, created its identity through industrialization, but over

time becomes a mere reflection of a failing, phantasmagorical, empty and dangerous system. In light of these facts, what then will be the right approach and reuse of these empty spaces in a society that is, as it turns out, totally different and constantly changing?

127. Mario Tronti and David Broder, *Workers and Capital*, Published in Italian as *Operai e capitale* by Einaudi in 1966 and 1971, republished by DeriveApprodi in 2006 and 2013, Translation by David Broder 2019

128. “Ivrea sulle tracce di Adriano Olivetti l’imprenditore umanista”. Accessed January 5, 2024, <https://www.booking-piemonte.it/scopri-il-piemonte/personaggi/ivrea-sulle-tracce-di-adriano-olivetti/-di-adriano-olivetti/>.

ANNEXE

Interviews

Interviews made by the author with some testimonies of the case studies in Biella whose names are:

- Demotati Ezio
- Cavicchioli Gigliola
- Simonetta Biagetti
- Luigi Ghiardo
- Franco Macchieraldo

Interview of 9 December 2023 with Detomati Ezio and Cavicchioli Gigliola. They both worked in Pettinatura Italiana, located in Vigliano Biellese, and lived in the adjacent workers' village, until today, where they met and married.

Could you kindly tell me your names, date and place of birth?

DETOMATI EZIO: Detomati Ezio, born in Vigliano Biellese, Biella, on 17th July 1938.
CAVICCHIOLI GIGLIOLA: Cavicchioli Gigliola, born in Ceneselli, Rovigo, on 6 March 1943. [...] We met in 1962, we both worked for Pettinatura Italiana, I worked in the combing process while Ezio was working in the so called calderia process. We often crossed paths in the factory and from there we met. Let's say it was a stroke of fate, as I am not originally from the village but moved from Rovigo.

Why did you move here?

GIGLIOLA CAVICCHIOLI: My parents were tired of working the land and told us there was more work here. Some friends from Rovigo had already moved to Biella to work and they told us they would help us find a house. My sister and brother had moved with me when I was eleven. My sister was the first to work in combing, then unfortunately she was widowed and returned to live in the house with us.

When you were young, where did you work?

GIGLIOLA CAVICCHIOLI: I started working when I was eleven and a half, right after I finished primary school. At first, I worked in a small factory, I didn't live in the village yet. I wanted to work in a bigger factory to open my way in all the factories in the area, so I was hired in Pettinatura Biellese, where I worked for only six months before being hired in the so called Pettinatura Italiana in Vigliano Biellese. At that time my sister went to ask the office manager of the Pettinatura Italiana if they would take me, I was 17 at the time, and they accepted. It was an important opportunity for women, and there were many jobs in that factory, especially if you came from other combing factories and already had experience with similar machinery, as in my case. From there I then started to live in the village. [...] You had to work inside or be married to some combing worker in order to obtain a flat within the village. It was important for those who needed a cheap house. The rent was six hundred lire a month, we are talking about the late 1960s.

And within the village did you have special facilities?

GIGLIOLA CAVICCHIOLI: Yes, there were concessions, they gave us the plaster for free every year and help for all the various work to be done on the houses. It was a community of solidarity. [...] When we applied to live here, they offered us the small rooms that were intended for the elderly. [...] We had a room, a kitchen, and a small private bathroom. [...] The entrance was common for the upper floors only. For the lower floors, we

had separate entrances. The buildings consisted of four flats, two upstairs and two downstairs, in total to accommodate four families. There were common service doors throughout the building for access to the attic, where the wood was brought, or to the cellar. When I later got married I came to live here with my husband. We liked it, it was close to work.

What were the hours at your first job?

GIGLIOLA CAVICCHIOLI: I worked for many hours a day. Initially, I worked an eight-hour shift, but there was also the possibility of four-hour overtime. The older people did the shorter shifts, but I, being young, did all the available hours. That meant working from 6 a.m. to 2 p.m. and from 6 p.m. to 10 p.m., plus all the overtime I tried to do in the shifts where there was availability. Unfortunately, there was a form of hazing, i.e., the people with more seniority in the factory could choose the most convenient times to work the overtime shifts, for example instead of going home they would stay at work from 6 am to 6 pm, while we younger people had to go home in the afternoon and return to the factory finishing late in the evening [...].

What did you do during breaks?

GIGLIOLA CAVICCHIOLI: During breaks, we only had half an hour to eat, so we ate quickly, usually a piece of bread, because we had to be ready for the next shift. However, I am happy with that experience, I needed to work and help my family, and I was always paid contributions even for overtime so I can consider myself lucky. I don't hide that it was hard to work all those hours but it was necessary, my father was sick, my mother also was working and my sister lived with us, so we had to help each other.

And what happened next?

GIGLIOLA CAVICCHIOLI: After a few years, they sold the houses and each of us decided to buy them. We had them valued according to their size and condition. Then we also closed off the wooden balcony that was planned in the original structure of the house, applying for permits first. Yes, we initially followed the advice and rented for two years, but then we decided to buy it back and started paying the mortgage. Every month, we put down some money and gradually did some necessary work, also because they were no longer coming to whitewash. The privileges had loosened up a bit, especially when the last big owner of the factory, Marchese Fracassi, arrived. Little by little we made the house ours. [...] Some modifications were necessary. The structure was maintained over time, but some units were more preserved than others.

Thank you very much Gigliola for telling us about your experiences, now I ask Ezio the same question, at what age did you start working in the combing factory?

EZIO DETOMATI: I started working in the combing for the first time when I was seventeen. Initially, I did manual work with my father, who was a bricklayer. During the winter, the work on the construction sites usually stopped so I went to collect wood. I always wanted to work within the combing factory, but in those days boys were not taken into the factory until they had finished their military service. [...] After my 18 months of military service, I finally went to work in Pettinatura Italiana here in Vigliano, initially brushing the premises in the calderie. I had also done some manual labour in the meantime. I continued working there until I was called to work as an assistant at the Pettinatura Barberis in Candelo. I did my first job as an assistant in '77 and remained in that position until my retirement, despite some injuries during work. I worked very hard and the manager often asked me how things were going at the factory.

Can you tell us more about these injuries?

DETOMATI EZIO: Yes, I suffered an injury in 1980 when I injured my arm during work, which also caused me a circulatory problem. I was at home for 13 months because of these injuries, they gave me disability straight away.

It seemed to be a dangerous working environment

DETOMATI EZIO: Yes, there were risks associated with working in the factory, that day I was injured, I had seen some remnants of wool inside a machine, called calda, and I tried to remove them ending up inside it. Luckily the machine stopped, otherwise I would have lost my arm. It was a job that required a lot of attention. It was not the first time I had done that job, so I had some experience. However, sometimes familiarity could lead to a lack of attention, especially when thinking about other things. For example, Monday mornings and Fridays were the times when most accidents occurred at work, as people were distracted and were already thinking about the weekend. [...]

[...] How would you describe the community you lived in at the time? Was there a strong sense of solidarity between people?

DETOMATI EZIO: Yes, at that time there was a strong solidarity between people. People helped each other when there was a need to do something and everyone contributed their own skills. For example, if one didn't know how to do a certain job, he could ask another who did it for help. It was a kind of extended family.

[...] What did you do for fun when you weren't working?

DETOMATI EZIO: There was a historical club, called Erios, where we used to meet, and there was also a place called Aurora, which was not part of the village, where you could socialise. At the club, people played cards, bowls, and there was also a football team. The Aurora, on the other hand, was more suitable for girls and had a different atmosphere, there was table tennis and it had several lounges for chatting, it was a sort of

modern clubhouse with different activities inside. The workers' club, the Erios, was also frequented by women, but they were usually in a little room of their own to do sewing or other activities while we played boules or had a drink. In the village, we had access to every comfort and service. I remember that at that time there were no showers in the house, but there was a building in the village where you had a half-hour to shower during working hours. At the entrance, there was a person who gave you a towel and when you finished washing, he would clean up the shower for the next person.

What kinds of activities were there for women?

GIGLIOLA CAVICCHIOLI: For women, there were generally cooking and sewing courses that were part of local initiatives. Similar courses were often promoted by the federation of the Massaie Rurali, founded during the period of fascism. The idea was promoted that a good mother should know how to sew and do laundry. This concept was widespread in the 1930s and continued to influence women even after the end of fascism. Now, it is less common to see women involved in such activities.

And for mothers and women who married or became mothers, were there special permits or benefits?

GIGLIOLA CAVICCHIOLI: For mothers, there was the possibility of access to a kind of childcare service. There were summer centres where mothers could leave their children while they worked. Then there were the summer camps, where they organised excursions to the sea and the mountains.

Were outings also organised, or activities outside the village?

GIGLIOLA CAVICCHIOLI: Yes, every year the Pettinatura Italiana organised an outing. I remember my first trip to Verona in 1960. Later, we made trips to Turin, Alba and other destinations. These trips were paid for by the company. Meals were included and they were also good, think of the fact that at one time we were 1,500 employees. There were also lotteries where you could win prizes such as electrical appliances or other things. I'll tell you a secret... one year my sister won a Fiat 500.

You mentioned some differences between male and female workers. Can you tell us more about these differences?

GIGLIOLA CAVICCHIOLI: There was a difference in wages between men and women, even though we had the same job. Wage increases were often linked to functions carried out within the factory and technical skills. Heavier machines required more physical strength, which gave men an advantage. In addition, a man usually had superior technical skills and could get a raise that a woman could not. Discrimination was present even though women tried to deal with it. Certainly, the same differences in wages and working hours were not present as in the era of fascism, as we are talking about the 1960s, and 1970s and the so-called

Mountain Pact had already been made.

Thank you for clarifying these differences. Here's another thing I wanted to ask you, did you have a canteen within the Pettinatura?

GIGLIOLA CAVICCHIOLI: Sure, there was a canteen, everyone brought their own container and they gave you a first course usually. There was a packet of tickets you could use every time you stopped to eat at the canteen, I remember it was very cheap. If at the end of the shift, the workers preferred to go home to eat, they could fill their containers and take the food home when they finished work. The office workers had a separate canteen from the factory workers for eating, with two separate entrances. The employees were even entitled to a second course in addition to the first course.

Thank you for clarifying these differences. Were there any special festivals or events held in the villages? Did you notice any differences between the two villages, Trossi and Rivetti?

GIGLIOLA CAVICCHIOLI: I was not very involved in the festivities in the villages, but I know that there were special celebrations, during which everyone went to church. During Epiphany, for example, gifts for the children were distributed by the entrepreneurs. In general, there was a certain rivalry between the two villages, especially when it came to work. The Rivetti village thought it had the most beautiful houses. When we arrived, there was an underlying rivalry between them, but then, over time, things changed.

You mentioned the San Giuseppe's Church. Was that an important part of village life?

GIGLIOLA CAVICCHIOLI: Yes, the church of San Giuseppe Op-eraio, which commemorated Giuseppe Rivetti. In his honour, there was a feast day that was very important for the community. On that day we were paid 35 per cent more than the normal wage. I remember that it was a concession given to us following various syndicate initiatives. During the holiday we would go out to lunch outside the factory all together to celebrate.

Thank you for sharing your experiences in the villages. It was a pleasure to listen to your story.

GIGLIOLA CAVICCHIOLI: Thank you for giving us the opportunity to tell our story and our experiences in the villages. I hope this information was useful.

It was a pleasure listening to you. Thank you again and have a great day!

CAVICCHIOLI GIGLIOLA, DEMOTE EZIO: Thank you, good day to you too!

Interview of 9 December 2023 with Biagetti Simonetta. She has lived in the Rivetti Workers' Village all her life, as the daughter of Pettinatura Italiana workers. Here she recounts her memories as a young girl.

Good morning. Could you kindly tell me your name, date and place of birth?

SIMONETTA BIAGETTI: My name is Simonetta Biagetti and I was born in 1953 in Biella. I never worked in textile production, I worked at the hospital and lived here with my family. My grandparents and my father came to this village when I was 12 years old. When they arrived at the flat, my father was shocked. In their previous place of residence in Salussola, they had an outside toilet, whereas here there was a toilet with running water, which was not at all obvious in those days. Initially, two-family houses were built in the village. Later, they built small houses that housed four families each, as they realised that there were not enough houses for all the employees. We only had two bedrooms, I slept in the same room as my parents, with a small bed. My two sisters slept in another small bedroom. Each flat had its own kitchen and bathroom.

How did you live here in the village?

SIMONETTA BIAGETTI: We were humble, there was not much wealth. We were three sisters and lived in a flat. I only remember my life in the village from the age of six onwards. [...] Back then we used to play a lot as children, we used to go to the Cervo torrent to have some fun. We were a group of boys and girls in primary school. We would go to school, then have our lunch break at home, and afterwards, we would go and play with our friends. My grandmother would make us a snack, a piece of bread with some sugar inside, on lucky days there was also butter, but not always. There were three of us sisters eating, so we had to share. We were quite lucky to have bananas because, in some factories, they were a luxury. My aunt would go to work in a factory that had them and bring them home to eat. [...] When I was young, we ate quite well but there was the main meal at noon, and that was it.

So, no dinners?

SIMONETTA BIAGETTI: No, no dinners. I mean, we were three sisters, and my mother wasn't well, so we had a modest family. My oldest sister was 12 years older than me, we weren't very close. On the other hand, the other sister was somewhere in between us, eight years older than me. We usually had soup for dinner. Occasionally, my grandmother would go to the cooperative shop and buy a few slices of baked ham. My grandfather gave her the money, and she went there to get three or four slices to divide between us.

What were the habits like in those days? where did you wash your clothes for example?

SIMONETTA BIAGETTI: We used to go to the public wash houses in the village. We had a key to get in and we could wash our clothes there. I went often, especially when my mother worked on Saturdays, we washed our clothes and each of us, my sisters and I, took care of our own laundry. [...] We were only women. When we got there to wash, there were often other women there and we would start chatting. We wondered how each other was doing and sometimes small fights broke out if someone didn't use the washing and rinsing tubs properly. We had to agree to avoid the water getting dirty and things getting complicated. Let me explain better, there were tubs. Outside there was a sort of stick that was used to lift clothes after washing, the water was drained to clean the tub. Then, the cap was closed and the same treatment was done for all the tanks.

Do you remember a strong connection between the villagers?

SIMONETTA BIAGETTI: Yes, at that time there was still a strong connection between the villagers. We used to meet often and participate in the Epiphany celebrations organised by the factory owners, such as the Rivetti family. We were all enthusiastic about participating in these celebrations. Today this is no longer the case. Since they sold the houses, many people have died or left. You don't know anyone anymore.

What did the adults do?

SIMONETTA BIAGETTI: Adults used to play cards, when I was out and about with my father or grandfather they sometimes bought me ice cream to make me happy.

Did you ever get the impression that workers were considered part of the family by the factory owners?

SIMONETTA BIAGETTI: Yes, I always had the impression that they treated us well, especially because we were friends and shared a similar type of relationship. Even as a child, I remember the Erios club, where they sometimes did carnival shows and we children played small parts in the show.

How did you move within the village?

SIMONETTA BIAGETTI: Almost everyone had a bicycle in the village. Women often went around with headscarves and skirts, and bicycles were a common means of transport for everyday errands, such as shopping.

Were there shops nearby?

SIMONETTA BIAGETTI: There was a cooperative where we could get bread and a few other things to eat. We had a little book in which they wrote down our expenses, and every 15 days when my grandparents received their salaries, they would pay their bills and remove the expenses from the book. There was also a street vendor who passed by with his cart

selling ice cream, but it was not the same as today’s supermarkets.

The rent was paid every 15 days?

SIMONETTA BIAGETTI: Sure, every 15 days workers got a salary, called quindicina. Later, the houses inside the village became the property of the company and were sold to people who lived there. But at that time, we still paid rent to a young lady, who worked as a secretary. I don’t remember whether she was Rivetti’s secretary or someone else’s, but she had a flat in the village and had a small room above it, where we went to pay rent. An interesting woman she seemed to play an important role in the village.

Do you remember if there were any particular prizes or competitions in the village?

SIMONETTA BIAGETTI: Yes, the most important one I remember was the prizes they gave out to the best kept garden in the village. We grew different seasonal vegetables like carrots and others. There were also fruit trees such as apricot and pomegranate, which I remember were present in our orchard.

What did you receive as prizes for these competitions?

SIMONETTA BIAGETTI: Usually, we received food products as prizes, such as ham or other similar things. It was a way of encouraging the cultivation and care of the orchards. We had family vegetable gardens, but there was also a collective interest in keeping the village tidy. There was a periodic check by a person appointed by the combing to see that the gardens were well maintained. Rewards were given to those who kept the garden in good condition and grew various types of vegetables.

It seems that solidarity and sociability were very important among the families in the village. Did you often get together to spend time together?

SIMONETTA BIAGETTI: Yes, especially during the summer. Both children and our families would gather in the courtyards. They would talk about their lives and the factories, while we children played together. We would play games like ‘circles’, we had to jump and try to get into a circle. If we couldn’t, we were eliminated. I don’t remember the exact name of that game.

So, children often played on the street, because it was considered a safe place. Was there a regular police presence in the village?

SIMONETTA BIAGETTI: Yes, the police were there, I remember their constant presence. We played in the street without fear, because there were no criminals. The community was so small that everyone knew each other, and this provided a certain security. This shows how social control was a strong component of community life in those times. It was an effective filter against bad deeds, as everyone knew each other

and watched over each other. Today, with the closure of factories and fewer interactions, there seems to be less solidarity and sociability between neighbors. At the time I remember that there was a school, run by nuns, which hosted young women who came from abroad to work in the factories. The conditions were severe, there were rules to follow. It is interesting to note that work in factories was open to women for two reasons: they were skilled in working with thread and they were more “malleable” than men. There was some social control in the community and women were seen as more disciplined workers.

Can you tell us how the boarding school worked? How did the girls live there?

SIMONETTA BIAGETTI: In the boarding school, the girls were hosted and had a place to sleep and eat. The nuns ran the boarding school and the girls had to follow certain rules, such as sleeping while making sure to keep their arms outside the covers, clearly visible, for obvious reasons. My mother had been hosted there when she was young. Therefore, the boarding school was mainly used to offer accommodation and meals to young women who came from outside to work in the factories. My mother worked in the combing factory. [...] Subsequently, my sisters also worked there. They started working at 14, while I was born in ‘53 and therefore continued to study.

Your parents were happy to live here, they were proud, weren’t they, in a way?

SIMONETTA BIAGETTI: Yes exactly, also because the owners were present, if there was a need for help or support they were always available. When my mother was unwell, the owner helped her by immediately granting her disability and making sure she was better in the following months.

Thank you very much Simonetta for your hospitality and for sharing these precious experiences and testimonies. Have a nice day!

SIMONETTA BIAGETTI: Thanks to you, I hope I have been useful, have a nice day!

Interview of 5 January 2024 with Luigi Ghiardo. He lived in the combing workers village of Tollegno, as the son of wool spinning factory workers. Here he recounts his memories as a child.

Good morning. Could you kindly tell me your name, date and place of birth?

LUIGI GHIARDO: Of course, I am Luigi Ghiardo, born on 20 January 1953 in Biella, and I lived in Tollegno in the workers' village. Actually, I spent the first nine months in Pralungo, but then my family moved to Tollegno due to work. My father was a mechanic repairing machines in the spinning factory and my mother was a textile worker.

And what can you tell me about your work and life in the workers' villages?

LUIGI GHIARDO: I spent most of my life inside the workers' village, and it was a significant experience for me. [...] I was called to work in the combing factory as a night operator in the data processing center. I was also offered a role as a department assistant, but I turned it down because I didn't like the idea of bossing people around. Eventually, I left that job and became EDP manager in the Filatura di Tollegno, remaining linked to the same Tollegno company group for several years. Subsequently, I worked for the Zegna group before retiring. [...] We lived within the workers' village, but it is important to note that the village was divided into two parts. There was the textile company and then a road leading to the company. Along this road, there were houses owned by Filatura, considered the real "village". We lived along this street, a short distance from the factory.

Could you describe to us what the house you lived in was like and how the rooms were divided?

LUIGI GHIARDO: The building we lived in was designed for four families, two on the lower floor and two on the upper floor. On the ground floor there was a corridor and a staircase leading to the upper floor, where the two separate families lived. Each family had their own bathroom, one on the left and one on the right of the corridor. Inside the house, there was a kitchen with a wood stove that kept us warm during the winter and heated the entire house. We also had a bedroom for us three brothers, a bedroom for my sister and one for my parents. The kitchen was the heart of the house, the bedrooms faced here, there were no corridors.

What was daily life like in the workers' village?

LUIGI GHIARDO: Life in the workers' village was rather simple but comfortable. Each family had a small piece of land behind the house, where they kept vegetable gardens and gardens. My father used to take care of the garden, while we kids helped him. This space allowed us to grow vegetables such as potatoes and various vegetables, there was no shortage of cabbage, I remember there was also a corner with flowers.

Do you remember your experience in the spinning factory?

LUIGI GHIARDO: Yes, I remember my experience in the spinning factory well. My father was from 1900, he had started working there many years before me. The hours were quite demanding. My father worked the night shift, while my mother worked during the day. It was common for people to be taken to work by bus, resulting in a constant flow of people at the company entrance. I remember when I was young, I would sit outside and watch the workers and buses go by. It was a rather crowded and chaotic scene. Things that no longer exist today.

How was life in the village organized for the children?

LUIGI GHIARDO: For children, life in the workers' village was care-free and adventurous. We went to school in the morning, with a sandwich in our pockets, walking to the school in Tollegno. In the afternoon, we had a lot of free time. Often, we played in the woods, exploring and having adventures. We just had to make sure we got home by 6 p.m. It was a very different life for kids today, without phones or parents constantly calling. Life was free, without danger.

Who lived in the village?

LUIGI GHIARDO: The workers' families lived in the workers' village. Many of the workers were not originally from Tollegno but came from other places. It was a mixed community, but most people had a connection, direct or indirect, with the textile company. I don't know exactly how houses within the workers' village were allocated, but I assume it was based largely on necessity. We, for example, were quite poor, there were many of us and only our parents were working.

What services were available in the workers' village during your period of residence?

LUIGI GHIARDO: In the workers' village, there was a nursery, but there wasn't yet a church when I lived there, the church was opened several years later, and there was only a room used for religious functions. In addition, there was a company canteen where workers could eat during their lunch breaks and a shoemaker. It was common for workers' families to entrust the preparation of meals to the canteen due to demanding working hours. [...] In those times, there were public showers where once a week you could go to wash, male and female. Access to showers was limited to once a week, usually on Saturdays. There was also a room where we went to watch television. I remember that usually in the summer we bought ice lollies to watch TV, they cost 25 lire. In the village, there were also various recreational activities. The bowling green was very popular, and there was also a club where people met and spent their free time. It was an important gathering place for the community. Public facilities and communal services, such as public washrooms and football pitches, were essential to life in the village. The wash houses were the real "court" of the village for women. However, I recall that there was also some criti-

cism towards the maintenance of these facilities. For example, there was only one football pitch for the community, despite its importance for the inhabitants' leisure time.

Were there any differences between the workers and the employees or managers within the village?

LUIGI GHIARDO: I remember that there were some larger and more beautiful houses for the Filatura managers, but in general the houses were similar for everyone. There was also a doctor in the village, called Doctor Ferrero. I remember him coming to visit our house when we needed him. Additionally, a coffee bar and grocery store were serving the village. I also remember that I often went to pick cherries with my family in an area near the village.

What were the relations like between workers and factory owners in workers' villages?

LUIGI GHIARDO: The relationships were not always idyllic. The factory owners were present, but they were not always well received by the workers. The relationship between the owners and the villagers was complex, and much depended on the leaders. Some were well regarded, but others were not well regarded. [...] The perceptions of managers also varied. Some were esteemed and respected, while others were viewed with suspicion. I remember that Mr Schneider was one of the managers who had a good reputation. He visited the village regularly, especially during the Christmas holidays. It was a special moment when he came to say hello door to door personally, at every office, to say good wishes. He also gave gifts to employees, demonstrating a certain interest and attention towards the workers.

Were there benefits or advantages for the workers in the village?

LUIGI GHIARDO: Yes, for example, there was a fund that was managed for the good of the workers. I don't remember all the details exactly, but I remember that the owners paid money into this fund. Every year, if the fund had guaranteed a profit, it was divided among employees with a certain level of seniority. The prizes were quite modest. I remember that my mother and father received 2500 lire, a rather limited sum. However, it was a gesture that demonstrated a certain commitment on the part of the owners towards their workers.

Is there any other information or details you would like to share about life in workers' villages?

LUIGI GHIARDO: Yes, I would like to underline the atmosphere of carefreeness that characterized life in the workers' villages. People could walk freely in the streets with children, and there was a feeling of community and togetherness. Today it seems that has changed, with less space for spontaneous solidarity. However, even with financial challenges, many families sought to secure a better future for their children. Life

could be complicated, but people adapted to their circumstances and tried to improve their situation.

Very good Mr. Luigi, thank you so much for sharing your experiences with me, they are very precious. I wish you a good day!

LUIGI GHIARDO: Have a good day Serena!

Interview of 5 January 2024 with Franco Macchieraldo. A historian who wrote a book on the Pettinatura Italiana and the Trossi and Rivetti workers' village entitled "La Pettina, la storia, le genti". His entire family, including his uncle, worked inside the Pettinatura and in the interview he will tell us about some memories of the factory of those years, a unique power for the country's economy in those years, while he was waiting for his father to leave work.

FRANCO MACHIERALDO: Thanks Serena for the introduction, my father was called Giulio and was born in 1931. He was a farmer, as was quite common in those years when people still worked the land to live. Certainly, the industry in the area of Biella had already been rooted for some time, but the great explosion occurred after the Second World War, with a very strong growth. My father, Giulio, also had a brother and sister who were farmers, just like him. It was common, however, for farmers to decide to abandon the land at a certain point, due to uncertainties related to climatic conditions and parasites that could damage the crops, to dedicate themselves to a work that guaranteed a fixed salary, such as work in the combing factories. So, following a practice consolidated for decades, my father and my uncle decided to start working in a factory at the age of 26. This system was called "part-time farming", the worker left after eight hours spent in the factory and could continue to cultivate the land, above all to guarantee himself some food. My father maintained his connection to the land, even though he was no longer a farmer in the traditional sense. He began to grow mainly flowers in nurseries. He worked in the factory until he retired, a long journey that his brother unfortunately could not complete, having died before he could retire.

What work did your dad do in combing?

FRANCO MACHIERALDO: My father worked in the washing department inside the famous Pettinatura Italiana in Vigliano Biellese. It was one of the most "unhappy" departments within the combing, it was the first phase of the process of processing raw wool (called lana sucida) coming from the fleece of sheep, therefore sometimes contaminated with dung. This wool arrived in huge bales transported on trucks through the narrow streets of Lignano. This image, that is, the endless rows of trucks transporting these enormous bales towards the factory, is very linked to my childhood, so much so that I chose it as the cover of my book. I have vivid memories of the smell of these endless expanses of bales.

It's a significant choice. Speaking of women in the textile industry, you mentioned to me in a previous meeting that women had been involved in factories since the early years of the twentieth century...

FRANCO MACHIERALDO: Yes, the entry of women into the textile industry already occurred in the early years of the twentieth century, even if Italy was somewhat behind other industrialized countries such as France, England and Germany. At the beginning of the twentieth century, in Italy, a certain involvement of women in factories could be noted only in particularly industrialized cities such as Turin, Genoa or Milan.

From how you previously described the image of this huge line of trucks bringing wool to be combed, it seemed that the factory where his father worked was very large and important.

Do you have any memories about it?

FRANCO MACHIERALDO: Yes, the factory where my father worked was one of the largest, I would say almost the largest in Europe. I have many memories of waiting for my father to leave the factory when I was a child. I will always remember my father's leather bag that he carried to work, inside he always put a quarter of wine, a piece of bread and some gorgonzola or salami. Well, that bag remained imprinted in my memory because it had all the smells of the washing department, where raw wool was processed with the use of acids and soda.

It seems like a very hard and difficult working environment...

FRANCO MACHIERALDO: Exactly, during those years there wasn't much attention to safety in the workplace. The conditions were very different from today, and the air they breathed was certainly not healthy, inside the washing department there was a very strong smell, high humidity and often a sort of fog was created that made it almost difficult to see from from one part of the department to another, the workers communicated with each other, often shouting a little, banging on the pipes, etc. It was no coincidence that my father fell ill with lung cancer.

It is important to remember that factory work had its risks. You told me that his uncle sadly died at work.

FRANCO MACHIERALDO: Yes, my uncle died at work due to a heart attack, but my father worked until he retired, even though he eventually died of lung cancer.

Franco, could you tell us a little about your memories or direct experiences regarding the Pettinatura?

FRANCO MACHIERALDO: Certainly, one of the things that struck me most was the fact that the workers went out in the morning and headed towards the fields. It was an image integrated into my mind, when my dad didn't have a car, we would drive him to work and wait for him outside to take him home once he finished work. I especially liked seeing the workers out in the rain. It was a striking image with hundreds of umbrellas stretching towards the horizon. I can't even explain it in words, I'm almost moved to think about it. There were lines of workers coming out of that door. I have never seen so many people again. The workers also worked night shifts and left at 10 am, which was different from employees who worked during the day. When the workers left, a long queue formed that crossed the square leading from the wool processing departments to the exit door of the factory. The doorman, who lived there, stood at the door and checked that no one had stolen anything, the workers passed in line in front of him with their bags open. It was an everyday scene, there was a traffic light to regulate the flow of workers and check for possible thefts.

It was left to chance, when red the checks were carried out and if green they continued. So you didn't know when it would be your turn for the checks. It was a way to prevent theft from workers' bags. [...] I remember that in the '80s and '90s, all the workers left the factory at the end of their shifts, fleet of people was poured into the streets for anyone who wanted to get into the streets, even just one person who wanted to go shopping from 5 pm to 7 pm, the streets were clogged with workers coming out of the factory. But buses and public transport were also strongly influenced by factory opening hours. Even the meal times were the same for all the workers' families, I remember that all of us children of those who worked in the combing factory ate at the same times, we had lunch at midday and dinner at 7 pm, and this every day.

Would you like to tell me based on your experiences what bonds were created within the factories and villages? Was there a strong sense of belonging and social cohesion within the villages?

FRANCO MACHIERALDO: The Pettinatura Italiana was a unique community. The families knew each other and shared the experience. I remember when I was a child that at school it was a strong pride to be the son of a worker who worked in the Pettinatura Italiana and this sense of pride and belonging could be felt within the villages. The other combing factories in the Biella area were second class, but the Pettinatura Italiana, where my father worked, was a completely different story. The workers' villages, since they were born in the 1920s, were initially reserved for the specialized workers that the factory tried to recruit, often coming from Piedmont, Veneto and Friuli, these were mainly women, particularly in demand for jobs such as sorting and the tailoring. The workers' villages generated a special community, the workers helped each other even outside working hours. There were strong friendships, and everyone had their own professionalism outside of the factory, who made herself available to help others. I remember my father on his days off at the weekend going to help those who needed a hand with some work around the house or maintenance. Furthermore, I remember parties organized by the workers and important social moments. The workers were more than colleagues, they were friends ready to help each other. This community was generated by the factory, creating a real town within the town. This romantic aspect has been lost with the passing of the years and changes in society. I realized that today we are surrounded by "non-places", places without history where sociality is limited. Smartphones distract us and we no longer talk to each other like we used to.

[...] You must know that the opening of the workers' villages was a choice made by the cooperatives during the fascist era, to exercise a sort of social control. Despite this, in the end, they were not slavers, to put it simply, there was a good relationship between workers and factory owners. This is because people were happy at the factory, in addition to their work there was an ecosystem of relationships and friendships that made the village a family, the workers themselves said they belonged to the factory. It was a bit like saying: "I belong to a certain working-class aristocracy", I say "aristocracy" in quotation marks. But Pettinatura Italiana had her beautiful image in the society of those years, in short.

Do you remember any anecdotes from those years related to life in the villages?

FRANCO MACHIERALDO: I remember that until the 1980s women went to work by bicycle, perhaps at -7°C at 5am, pedalling with their skirts up to their knees, tucked away so that the skirt did not fall into the spokes of the bike. There was a kind of net that protected the wheels, with one hand they held the umbrella and with the other they drove the bike. They also carried a bag with a sandwich or something to eat. I remember one year I was in my dad's field, in '70 or so, there was this level crossing and at a certain point there was a strike and these women left the factory. I remember that the level crossing bars lowered and these women had to stop. I remember that this group struck me a lot when I was 4 years old. This vast group of women stopped with these scarves and bicycle skirts waiting to be able to pass, an outfit that I have never seen again to this day.

We can hear from your stories that you are very emotionally attached to Combing and to the life linked to it, how much did the experiences of those years influence your life?

FRANCO MACHIERALDO: Exactly, I feel like thanking the Pettinatura Italiana for feeding us all. I consider myself a son of it. Every time I pass in front of that industry, it hurts my heart to see it closed, I always turn with affection towards the square where I saw hundreds of workers leaving... and now it is irremediably empty, with no possibility of recovery. This hurts me a lot. It hurts the children of the Pettinatura workers and it hurts the whole country because all of us are leaving to seek our fortune elsewhere. Unfortunately, this situation is now irreversible, our combing sector is a giant that will never rise again. I didn't work on it, but as a sign of gratitude, I decided to give my contribution to the Pettinatura as a historian.

Thank you Franco for telling me so many experiences from your past and for making my perception of the Pettinatura and the Company Town in those years clearer, thanks also to your father's memories. I have no further questions, thank you and wish you a good day!

FRANCO MACHIERALDO: Have a good day, thanks for the invitation!

BIBLIOGRAPHY

Abriani, Alberto. *Patrimonio Edilizio Esistente : Un Passato e Un Futuro : Rassegna Di Studi, Progetti e Realizzazioni Nel Campo Del Recupero Edilizio in Piemonte e in Alcune Regioni Italiane Ed Estere.* (Designers Riuniti), 1980.

Barnwell, P. S., Marilyn Palmer, and Malcolm Airs. *The Vernacular Workshop: From Craft to Industry, 1400-1900. V:The Vernacular Workshop from Craft to Industry 1400-1900,* (York: Council for British Archaeology, 2004).

Thesis by Vittoria Bazzan, Clara Crosa Galant, Sandra Preacco. *I villaggi operai : la questione delle abitazioni in Europa e in Italia tra 800 e 900,* 1996.

Ciuffetti, Augusto. *Casa e lavoro : dal paternalismo aziendale alle comunità globali : villaggi e quartieri operai in Italia tra Otto e Novecento.* (Strumenti & documenti), 2004.

Paola Corti, Ottaviano Chiara. *Fumne : storie di donne, storie di Biella.* (Torino: Cliomedia), 1999.

De Fusco, Renato. *Company Town in Europa Dal XVI al XX Secolo.* Nuova Serie Di Architettura. (Milano: Fr. Angeli), 2017.

Gabetti, Roberto. *Villaggi operai in Italia: la Val Padana e Crespi d'Adda.* Saggi 628. (Torino: Einaudi), 1981.

Giovanazzi, Theodora. “Poverty and Architecture The Fuggerei as an Early Example of Affordable Housing”, in *Burning Farm*, October 10, 2023.

Gregotti, Vittorio. “Company Town To Provide and To Separate An Open Letter to Giorgio Agamben”, Rassegna 70, in *Burning Farm*, 21 November 20231997.

Hayden, Dolores. *The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities.* (Cambridge, Mass: MIT Press), 1981.

Macchieraldo, Franco. *La Pettina, la storia, le genti : la vicenda industriale della Pettinatura Italiana di Vigliano.* (Gaglianico, Biella: Bottalla), 2018.

Mariani, Riccardo. *Abitazione e Città Nella Rivoluzione Industriale.* (Firenze: Sanosni), 1975.

Merli, Stefano. *Proletariato di fabbrica e capitalismo industriale : il caso italiano, 1880-1900.* (Strumenti. Anastatic reprints. Firenze), 1976.

Mosca, Ugo. *Biella nel '900 dall'Associazione dell'Industria Laniera alla Città degli Studi dalle associazioni di commercianti ed artigiani alle iniziative promozionali : una grande famiglia di industriali : i Rivetti.* (Gaglianico, Biella: Botalla editore), 2016.

Mosca, Ugo. *Biella nel '900 : Storia di alcuni dei principali imprenditori del Biellese e delle loro realizzazioni.* (Gaglianico, Biella: Botalla editore), 2021.

Mosca, Ugo. *Lavoro, economia e finanza nel Biellese dalla metà dell'800 ai giorni nostri.* (Gaglianico, Biella: Botalla editore), 2012.

Thesis by Musso, Alice. *Le opere sociali delle imprese biellesi tra Otto e Novecento,* Master’s degree program in Architecture and Design, Polytechnic University of Turin, 2014.

Antonio Piva, Paolo Caputo, Claudio Fazzini. *L'architettura Del Lavoro: Archeologia Industriale e Progetto.* (Marsilio Editori), 1980.

Piva, Cesare. *I villaggi operai Trossi e Rivetti : un’analisi storico-architettonica.* (Chioma di Berenice), 2000.

Poma, Fratelli. *Manufacture de Coton Fratelli Poma Fu Pietro. Établissements & Institutions Ouvrières.* Torino, 1900.

Riccardo Poma, “La Fabbrica in Attesa-Un Viaggio nel Cotonificio Poma”, in *Vuoti a perdere-Un viaggio tra i luoghi abbandonati nel nostro paese,* 2015

Sraffa, Piero. Isituto Tecnico Commerciale. *Dalla famiglia alla fabbrica : aspetti dell’industrializzazione nel Biellese.* (Program Socrates; Comenius Azione 1), 1997.

Thesis by Stivala, Alessia. *Una Casa a Ognuno I Villaggi Operai: Dal Socialismo Utopico al Paternalismo Industriale. Il Villaggio Operaio Poma a Miagliano.* Master’s degree program in Architecture for Heritage Restoration and Enhancement, Polytechnic University of Turin, College of Architecture DAD, Department of Architecture and Design, 2013.

Mario Tronti and David Broder, *Workers and Capital,* Published in Italian as *Operai e capitale* by Einaudi in 1966 and 1971, republished by DeriveApprodi in 2006 and 2013, Translation by David Broder 2019

SITOGRAPHY

“Rivoluzione Industriale: L’industria Tessile”. Accessed December 30, 2023. https://www.google.com/search?q=video+storia+industrializzazione+tessile&sca_esv=576600514&sxsrf=AM9HkKmbgz3WGX1IL-toPn4KnMMnhYm6y_g%3A1698267502706&ei=boE5ZZrZKqCB9u-8PqPqH8Ag&ved=0ahUKEwiayO25i5KCAxWggP0HHSj9AY4Q4dUD-CBA&uact=5&oq=video+storia+industrializzazione+tessile&gs_lp=Egxnd3Mtd2l6LXNlcnAiKHZpZGVvIHN0b3JpYSBpbmR-1c3RyaWFsaXp6YXppb25lIHRlc3NpbGUyBRAhGKABSIsLUPcB-WMoJcAF4AZABAJgBcKABywWqAQM2LjK4AQPIAQD4AQH-CAGcQIxiwAxgnwgIKEAAYRxjWBBiwA8ICBBAjGCfCAgQQIRg-V4gMEGAAGQYgGAZAGBg&sclient=gws-wiz-serp#fpstate=ive&vld=cid:cde60e8f,vid:FHoFh-QJvxg,st:0.

“I Villaggi Operai In Italia:Dalla Filosofia Alle Realizzazioni”. Accessed November 14, 2023. <https://www.youtube.com/watch?v=IpRaRNlitXY>.

“Il Movimento Operaio”. Accessed November 14, 2023. <https://www.youtube.com/watch?v=OofMEkEimIk>.

“Ivrea sulle tracce di Adriano Olivetti l’imprenditore umanista”. Accessed January 5, 2024, <https://www.bookingpiemonte.it/scopri-il-piemonte/personaggi/ivrea-sulle-tracce-di-adriano-olivetti/>.

“Il ritorno della fabbrica / Appunti su territorio, architettura, operai e capitale.” Accessed January 5, 2024, 2016. <https://operavivamagazine.org/il-ritorno-della-fabbrica/>.

HISTORICAL ARCHIVES CONSULTED AND INTERVIERS

Archives of the Civica Library of Biella, Biella Territory Section

CGIL Archives of Biella

DocBI Archives

Archive of the Sella Foundation

Archive of the Pettinatura Italiana of Vigliano

Archive Photographic of Tollegno

Archive of Rete Archivi Biellesi

Archive of the State of Biella

Biagetti Simonetta, who lived in the Company Town of Vigliano for her entire life, 10th December 2023

Cavicchioli Gigliola, who lived in the Company Town of Vigliano and worked in the Pettina, 10th December 2023

Detomati Ezio, who lived in the Company Town of Vigliano and worked in the Pettina, 10th December 2023

Ghiardo Luigi, who lived in the Filatura di Tollegno Company Town, January 5, 2024.

Macchieraldo Franco, whose father worked at the Pettina of Vigliano, 5th January 2024.

Thompson Nigel, founder of the Biella the Woolf Company Consortium, November 15, 2023.

Vinetti Mauro, son of the mayor of Miagliano, November 20, 2023.

Varesano Davide, resident of Poma Miagliano Company Town, December 9, 2023.

This paper is part of a research project on *Domesticity* within the TPOD laboratory
consisting of the following Theoretical Statements:

Beyond the Closet, Klea Ott

Destination Home, Vanesa Santillan Messina

Factory of Lives, Serena Mazzetti

First Struggle Then Housing, Antoine Ricard-Gauthier

From Hard to Soft, Julie-Anna Barès

Housewifization, Meryl Louise Barthe

Persistent Community, Melchior Dechancé

Pretending to Take the Country's Side, Karl-August Valfells

Room for Women, Camyl Vigneault

Round Table, Jian Lin Wong

Staging Movement, Ada Massarente

