

Chapter 14

Factory Work and *arrangiarsi alla canesca*. Professional Careers of the Saffat's Steelworkers from 1900 to the 1929 Crisis

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Introduction

This paper outlines the careers experienced by a group of workmen employed by major Italian firm, the Società degli altiforni, fonderie ed acciaierie di Terni (hereafter, Saffat), from the beginning of the twentieth century to the economic crisis of the 1930s. The study draws on the personnel records of Saffat, which are housed at the Archivio storico ex-Ilva, the historical archives of the company. In addition, records from the Archivio anagrafe del comune di Terni (the archives of the registry office of the commune of Terni) and the *Catastini dei comuni* (the cadastral registers of the district) were consulted. The cadastral records are kept at the Archivio di stato di Terni (State Archives of Terni). All these sources have been required to reconstruct the working lives of a sample of about 900 of Saffat's workers who came from the country surrounding the town of Terni. This group of workers constituted the majority of those employed by the firm during the first 30 years of the twentieth century.

The careers of these Saffat employees followed two distinct paths. Some achieved stable employment at the factory, which made the acquisition of industry-specific skills possible and enhanced their occupational status. Others remained in a precarious situation of frequent changes of job due to unwillingness or inability to become a full time factory worker. In fact, the paths of the careers of these people were determined on one hand by the individual or family choices on the basis of the resources at their disposal (the ownership of land and maintaining ties to the old place of residence), and on the other hand by the decisions of Saffat regarding the organization of production. The technical features of the modern production of steel and the programs of enlargement and extension of the firm's productive plant allowed the firm to draw on the local labour market, both to train internally a stable, faithful, low-cost semi-skilled and skilled workforce, and to hire and to discharge on short notice an unskilled workforce.

The Saffat, its Manpower and the Labour Market

The firm was established in 1884 by a group of capitalists and bankers led by Vincenzo Stefano Breda in order to provide the Italian state with steel armor plates for Navy ships. For strategic and defensive reasons, the steelworks were located in a small town, Terni, in the region of Umbria located in the middle of the Italian peninsula. From 1887 to 1901 the steelworks of Terni produced all the specialty steel bought in Italy by the military administrations (armor plates, bullets, guns, howitzers) as well as 25.7 percent of the raw steel and 64.5 percent of the rail production of Italy. From 1902 to 1914 the share of the raw steel production that was made at Terni fell to five percent and during the First World War another company, the Società Giovanni Ansaldo of Genoa, exceeded Saffat in the production of specialty steel for military purposes that was purchased by the Italian Navy and Army. Still, the Saffat's steelworks remained one of the most important factories for specialty steel production in Italy until the Second World War. Because the production of military-related steel products depended on the government's fluctuating demand, Saffat from its beginning was compelled to produce common steel too (rafters, rails, sheet-steel, structural steel, etc.) in order to sustain the full operation of its plants. This choice, however, clashed with the high costs of transportation, because the factory was located a long distance from the most important consumer markets and also from the most important transportation routes. For this reason, starting in the 1920s the company, which was then controlled by the most important Italian bank, the Banca commerciale italiana, and managed by Arturo Bocciardo, diversified its investments into hydroelectric utilities and into electro-chemicals. It took over the Società italiana per il carburo di calcio, l'acetilene ed altri gas and acquired hydroelectric power plants in the district of Terni. The steelworks were primarily retained for war-related products. After the international economic crisis that hit Italy in the early 1930s, Saffat (that in 1922 had changed its business name to Terni – Società per l'industria e l'elettricità) was taken over by the Istituto per la ricostruzione industriale, a government-owned holding company. The size of the work force employed by the firm grew from 3,548 in 1900 to 6,329 in 1932. Throughout the first half of the twentieth century the Saffat was one of the largest companies in Italy and one of the largest employers in metals. By comparison, the mean number of workers employed by a firm in the Italian metallurgical industry was 38 in 1911 and 58 in 1927 (Bonelli, 1975; Castronovo, 1980; Zamagni, 1990; Covino and Papuli, 1998).

Initially, the rural character of the district in which Saffat was located forced it to rely primarily upon workmen coming from the rest of Umbria and the nation as a whole. The Terni district was distinctly agricultural, with low income per capita and it lacked commercial activity. In 1901, 63 percent of the district's working population were employed in agriculture. Of the 11,923 employed in industry, a good 7,150 lived in the town of Terni. There was a shortage of skilled labour available locally and the region's rural population was reluctant to work in factories. The push of the agricultural crisis at the end of the nineteenth century and the lack

of any alternative to work in the fields, which was the primary employment in Umbria, prompted a change. By the early twentieth century the families living in the district were increasingly seeking employment at the steelworks. By the period 1904 to 1914, 30.1 percent of new hires at the steelworks were born in the city of Terni proper and another 36.8 percent were born in the surrounding district of Terni. Only 33.1 percent were born elsewhere in Umbria or elsewhere in Italy (Gallo, 1983; Raspadori, 2001).

Saffat could increase its reliance upon the local labour force for two reasons. First, in that specific phase of its development it needed large numbers of labourers for short-term casual work to complete a large program of modernization of existing plants and construction of new ones. Second, the high degree of mechanization of its equipment enabled it to engage and employ a labour force with a high proportion of unskilled, low-wage workers of rural origins.¹ Both factors found a personification in the young males born in Terni and in the district's small villages who were hired by Saffat from 1904 onwards. Reliance upon local labour remained a constant in the history of the company. As late as 1929 to 1933, 3,658 of 6,107 employed at the steelworks were born at Terni and its district. Most of these workers were unskilled (Bellini, 1998/99; Raspadori, 2001).

The economic system of the area did not change substantially over the first third of the twentieth century. In 1911, 67.6 percent of the district of Terni's working population was employed in agriculture. Although that percentage fell to 45.1 by 1936, just 5,923 of the 23,097 employed in industry lived outside of the town of Terni (Istat, 1937). The town and its most important firm, Saffat, remained oases in the desert. The initial establishment of heavy industry in the zone from 1881 to 1911 (iron and steel, chemicals, electric utilities) did not generate widespread industrial development. Nevertheless, the development of industry ensured that emigration from the area remained low, while from the rest of region it was high (Tosi, 1983). This configuration of the local labour market fits the model conceived by Giovanni Federico (1985) to describe the different traits of the labour market in Italy from the last fourth of the nineteenth century to the First World War. In fact, although the Italian labour market was generally characterized by excess supply and by a chronic shortage of skilled manpower, it is possible to identify three distinct kinds of labour market on a geographical basis, which corresponded to three patterns of industrial development. Light industry (especially textiles and food stuffs) was found throughout the plain of the Po in northern Italy. It was integrated with the country and recruited seasonal and not highly qualified workers. The transport and engineering industries were found in the big cities of the North (Milan, Turin, Genoa, Bologna). They relied upon urban and craft workers. Finally, in some areas

¹ Before the First World War the Saffat had two Siemens-Martin plants (with eight furnaces fed by coal and lignite) that had 300 tons a day of productive capacity. It also had five big section and plate rolling mills. During the Twenties it added another steel plant with an electric furnace using the Brown-Boveri technology, which doubled the productive capacity. Two sheet rolling mills for magnetic steel and a plant for tin plate were also in operation.

of central Italy (Terni, Piombino) and southern Italy (Naples), a few great corporations of heavy industry (iron and steel, chemicals, electric utilities) were located in a rural backward environment. These exploited unskilled workers without initiating widespread industrial development in surrounding territory. The First World War resulted in a serious imbalance in this tripartite structure. War-induced demand drew large numbers of unskilled workers of rural origins into the heavy industries of the big cities of the North and the areas of central and southern Italy. The firms did not rationalize the organization of work and production in their factories and private demand was too feeble to sustain the large-scale production of engineering goods during peacetime. After 1918, the demobilization of large numbers of workers at the large companies and an economic crisis of overproduction in 1921 restored the old configuration of the Italian labour market (Caracciolo, 1969).

Table 14.1 The Distribution of New Hires at Saffat by Length of Tenure and Place of Birth for Two Periods

Place of Birth	Length of Tenure (in years)					Total
	< 1	1-3	4-10	11-20	> 20	
1904-1914						
Terni and its district	2,608 (62.5)	1,443 (71.9)	597 (75.3)	498 (65.9)	360 (70.1)	5,506
Remainder of Umbria and Italy	1,556 (37.3)	561 (27.9)	195 (24.6)	257 (34.0)	153 (29.8)	2,722
No information	5 (0.1)	1 (0.0)				6
Total	4,169	2,005	792	755	513	8,234
1929-1933						
Terni and its district	218 (59.0)	336 (81.5)	245 (82.2)	451 (69.3)	166 (61.4)	1,416
Remainder of Umbria and Italy	147 (39.8)	71 (17.2)	51 (17.1)	195 (30.0)	103 (38.1)	567
No information	4 (1.0)	5 (1.2)	2 (0.6)	4 (0.6)	1 (0.3)	16
Total	369	412	298	650	270	1,999

Source: Elaborations by Bellini (1998/99) and Raspadori (2001).

Notes: The percentage distribution by birthplace (in parentheses) is according to the length of tenure. The percentage figures of the total of the tables are often rounded up.

As Table 14.1 shows, the strategy of Saffat steelworks' manpower management remained the same: find local unskilled workers to employ for both a short and a long time. Of 5,506 new hires from 1904 to 1914 born in Terni or in its district, 2,608 stayed at the factory less than one year (62.5 percent of all employed for that length of tenure) and 858 stayed more than ten years (68.2 percent of all those with that length of tenure). Of 1,416 new hires from 1929 to 1933 born in Terni and in its

district, 218 were employed less than one year (59.0 percent of all employed for that length of tenure) and 617 remained in employment for more than ten years (67.0 percent of those with that length of tenure). In such a context, how could the company most effectively use this kind of labour-force? What were their careers inside and outside the factory?

Stable and Unstable Workmen

A focused sample of workers who were born in four villages around Terni (Cesi, Collescipoli, Collestatte and Papigno) and who were employed at the steelworks sometime over the period 1904 to 1914 was developed to answer these questions. These workers had been hired over the period 1886 to 1912. There are 1,055 workers in the sample and they were computed only once in the data processing; some had been discharged and then rehired, indeed, after their initial employment. Basic details of employment for the worker (name, surname, date and place of birth, dates of hiring and of discharge, occupation and nominal wage assigned at the time of hiring, etc.) are recorded on the first two payrolls of the company. The sample is subdivided into two groups: those employed for between twenty and thirty years and those remaining in employment only about a year or less. The group of long-term workers included 170 workers, or 16 percent of the sample. The Archivio storico ex-Ilva keeps the Saffat employee files related to the workers employed for a long time, although these documents are quite sketchy about the evolution of wages and occupations. The files include data (change of occupation, of wage, of department, etc.) that permitted the reconstruction of the careers inside the firm of the long-term workers. For the group of short-term workers (731 workers, corresponding to 69 percent of the sample), it was possible to identify the subsequent occupation and residence in 1921.

Table 14.2 Job Mobility of Saffat Workers with Long Tenure (in percent)

Initial Level of Skill [N]	Up	No Change	Down	No Information
Occupational Status after 20 Years of Tenure				
Unskilled [119]	49.6	12.6	0	37.8
Semi-skilled [32]	9.4	43.7	0	46.9
Skilled [8]	0	37.5	12.5	50.0
White Collar [1]	0	100.0	0	0
Occupational Status after 30 Years of Tenure				
Unskilled [119]	42.0	5.0	0	52.9
Semi-skilled [32]	15.6	40.6	3.1	40.6
Skilled [8]	0	25.0	12.5	62.5
White Collar [1]	0	100.0	0	0

Source: Elaborations by Archivio storico ex-Ilva, *Fascicoli del personale*.

Notes: The row totals add up to 100 percent. The full sample size is 160 workers.

The cards of the registry office of the commune of Terni included this information, which was recorded during the census of that year.

This subdivision of the sample features the two different kinds of motives for Saffat to turn to the peasant families of the area as a source of manpower. One motive was to satisfy the requirement of having a stable and faithful labour force, which was required to guarantee continuity of the process of production. The other motive was to satisfy the requirement of having an intermittent labour force available, to use only for temporary tasks (enlargement of the production capacity, building of new plants, etc.) and then to discharge it without problems.

Even the somewhat fragmentary data in Table 14.2 show that the steelworks was not a static environment with respect to job mobility. The chance to climb the professional ladder was in inverse relation to the grade of skill possessed at the start of employment. A fitter or a master of furnace had the expectation of remaining in that occupation for his entire career. In contrast, a simple labourer could expect to become a turner or even a foreman. In fact, as Table 14.3 shows, an unskilled worker sometimes could jump the rungs of the professional ladder, even if it was more likely that advancement would include a move up to a semi-skilled worker. All this does not mean the structure of the opportunities regarding mobility patterns was limited. Instead, it means the company favoured internal training of its manpower and turned to the external labour market only to catch those skilled occupations that it was not possible to train on the shop floor. Some clues bring us to such a conclusion.

Table 14.3 Patterns of Job Mobility for Upwardly-Mobile Workers (percent)

Years of Tenure [N]	From Semi- skilled to		From Unskilled to	
	Skilled	Semi-skilled	Skilled	White Collar
20 [62]	4.8	67.7	24.2	3.2
30 [55]	9.1	10.9	20.0	10.9

Source: elaborations by Archivio storico ex-Ilva, *Fascicoli del personale*.

Notes: The row totals add up to 100 percent.

First of all, Saffat hired primarily unskilled workers. From 1904 to 1914 74 percent of new hires consisted of labourers; from 1929 to 1932 that proportion fell to 64.3 percent, but it still reflected the general tendency of hiring. Just two to three percent of the newly hired were skilled. The remainder entered a multitude of semi-skilled occupations. Secondly, a large share the newly hired were initially assigned to one department: the *Servizi Vari* (Various Services). After a while they were dispersed to other departments. Saffat employees with long tenure at the firm generally gained experience in a variety of departments. Of the 170 workers with long tenures, 102 were first employed in the *Servizi Vari*. Twenty years later just 3.5 percent of the sample worked in that department and thirty years later the percentage had fallen to 0.6 percent. Of the other twenty or so departments, just

one, the *Magli e Presse* (Hammers and Presses), retained a significant share of workers who began their careers there. As much as 10 percent of those who had initially entered the department were still there after twenty years. Assigning newly hired workers to the *Servizi Vari* most likely allowed the company to test the capabilities of the newly hired, to decide later how to train them and how to best use them on the shop floor. Furthermore, the share of semi-skilled workers with 'no change' in Table 14.2 masks a range of changes of occupations. Without rising above semi-skilled status, a machine operator could become a trimmer or vice versa. The movements among such semi-skilled occupations were quite fluid. Finally, the careers and the changes of status or occupation were not related to the workers' educational attainment. Of 143 employees for which the files report information on educational attainment, just 1.3 percent of the workers had a primary school diploma and 85.3 percent did not reach this level. About 13 percent were illiterate.

Thus, the careers of the long-term employed at Saffat do not seem to be determined by skill, education, or age (our sample is made up of young people, from 13 to 32 years old) at the start of employment. Instead, the time spent on the shop floor and the capability to adjust to several changes of job and place of work appear to be most important. This pattern of careers is consistent with the results of studies by Doeringer and Piore (1971) and Sabel (1982). They argue that even for unskilled workers, key influences on the patterns of occupations and occupational attainment in the steel industry include the organization of work and the technical specificity of individual plants, the practice of work and first-hand knowledge of the secrets and the caprices of the machinery. Some confirmation of this perspective also comes from the limited data available on wages. Data on wages are available for only 66 workers over a period of 30 years. After 20 years of employment, the mean weighted increase at constant prices of 1932 of the hourly real wages was 0.66 Italian lire. After 30 years, it was 1.05 Italian lire. These increases occurred despite the strong reduction in nominal and real wages between 1929 and 1932 brought about by Mussolini's government. The mean increase at constant 1932 prices of hourly real wages for Italian industrial workers from 1911 to 1921 was 1.07 Italian lire; the mean increase from 1922 to 1932 was 0.09 Italian lire (Zamagni, 1976; Istat, 2000). Therefore, the longer the tenure of workers with Saffat, the better their prospects of wage increases approached those on offer elsewhere in Italian industry.

A number of features of Saffat's operation allowed it to rely on low-wage workers recruited from rural areas around Terni and train them internally as an alternative to recruiting more expensive skilled workers. As in some big industrial enterprises of England and United States during the first half of the twentieth century, Saffat developed an internal labour market (Littler, 1982; Sundstrom, 1988). Saffat had a relatively bureaucratic administration of production and a modern process of manufacture, which included the use of Siemens-Martin and

electric furnaces, great rolling mills, presses and electric bridge cranes.² The use of these processes in turn made the workers more operators or readers of numerical values than ‘autonomous steelmakers’, along with some elements of empiricism in shopfloor practice made possible by on-the-job training.³ For many peasant households of the district, the presence of Saffat as an employer offered the prospect of a stable job that enabled them to remain in the district and avoid emigration or the abandonment of their small plot of cultivated land (Raspadori, 2001). This feature is examined in more detail below.

What of those who did not manage to get a stable job at the steelworks, but were only employed short term in order to enlarge the plants or to build new departments, as occurred from 1905 to 1912 and from 1925 to 1931? Did they manage to obtain stable employment with Saffat later on? The answer is no.

Table 14.4 Trades of 731 Ex-Workers of the Saffat in 1921

Trade	Percent
Peasant or farm labourer	37.2
Factory worker	33.8
Bricklayer or hodman	10.7
Craftsman or shopkeeper	3.7
Guardian	2.6
Retired	0.8
Other	5.9
No information	4.4

Source: Elaborations by Archivio anagrafe del comune di Terni.

Notes: The sample is 731 workers who were employed at some point during the period 1904-1914.

According to information collected from the cards of registry office of the commune of Terni, just over a third of the Saffat’s short-term workers were employed in a factory job in 1921 (see Table 14.4). It is probable that this proportion remained steady in the following years. About 37.2 percent resumed employment as peasants or farm-labourers, while the rest were scattered among the trades of the building industry and the service sector. These workers with only short-term experience at Saffat were thus workmen ‘*dai cento mestieri*’ (of one

² The Saffat hired its workers directly without intermediaries. The foremen and the chief foremen could not freely hire or fire personnel. The official channels were clear-cut: the *capisezione* (chiefs of departments), usually engineers, had the organizational and executive responsibility over all that occurred into their shops and, regularly, had to send in the Board of directors circumstantial reports about the state of the work.

³ For example, the training of the semi-skilled workers was primarily empirical and it did not develop by a craft apprenticeship with a skilled worker. After some instruction on the spot, the worker relied upon further experience to acquire the little secrets and the skills of his job. This kind of training was especially true in the departments with non-stop furnaces such as the Siemens-Martin furnaces or the foundry.

hundred jobs), which was apparently very widespread in the Italian economic and social environment during the first half of the twentieth century. They included many farm-labourers and small farmers who struggled for survival in a poor and overcrowded peasant economy, and who considered the factory only as a passage, a bridge in the middle of agriculture, industry and marginal services in the urban framework, to be crossed whenever the pressures of subsistence rendered it necessary (Piva, 1986).

In periods of slack demand or of no investment or maintenance in the physical plant of the factory, these workers were the first to be dismissed from the company. But they could also resign if they knew of another firm, building yard, or farm where the pay, even temporarily, was a little higher than that offered by the factory, or if they had to take care of their small field. A lot of workers' oral testimonies defined this kind of life as '*arrangiarsi alla canesca*', an idiomatic expression that can be translated as 'to manage somehow' (Portelli, 1985).

So the professional routes of the two groups of the Saffat's workers that have been examined here were quite different and involved ways of life radically distinct. But the rural background from which they came and the desire not to be uprooted from it were shared by the two groups. And even if the strategies used to realize that desire were quite different, they could be complementary.

Land, Factory and Family

The majority of both long tenure and short-term workers commuted from rural areas to work at the steelworks. Table 14.5 indicates that less than one fourth of those employed at Saffat lived in the town of Terni in the proximity of the factory. More than one-half lived a substantial distance from the factory in the hamlets of Terni scattered in the countryside or in the villages surrounding it. Of course, up to the 1930s commuting meant either walking or cycling for several kilometres, with predictable consequences for fatigue and lost hours of sleep.

Table 14.5 Residences of Saffat Workers of Short and Long Tenure (percent)

	Residence of workers of short tenure in 1921	Residence of workers of long tenure when hired	Residence of workers of long tenure after 20 years
Town of Terni	16.5	11.8	21.2
Hamlets	57.0	45.9	47.0
Villages of district	24.1	23.5	18.8
Other places	1.6	0.6	0
No information	0.7	18.2	12.9
N	731	170	170

Source: elaborations by Archivio storico ex-Ilva, *Fascicoli del personale* and Archivio anagrafe del comune di Terni.

Why accept such long commutes? The choice was dictated partly by high rents in Terni before the First World War and after 1921, and by the overcrowding of the old town centre. High rates of in-migration from 1881 to 1901 and the absence of significant building initiatives by Saffat for its manpower exacerbated the situation (Ciuffetti, 1996). The primary factor was the desire of workers to remain close to the network of kinship relations and maintain access to land, which helped to supplement low wages in the factory and helped to maintain their social status within the local community.

The cadastres for the communes near Terni (*Catastini di Cesi, Collescipoli, Collestatte e Papigno*) provide information on land ownership.⁴ Of the 1,055 workers employed from 1904 to 1914, 248 owned one or more small plots in 1914 and 276 owned land in 1925.⁵ Table 14.6 shows that for both years, land holdings were small. Of the 231 plots of land owned by workers, more than 60 did not exceed one hectare. Over the 11 years covered by Table 14.6, the percentage of plots greater than two hectares did increase; however this group did not exceed one fifth of the total even in 1925. Landholding was thus characterised by very small properties and by joint ownership as well. In fact 66.9 percent of the plots in 1914 and 59.4 percent in 1925 belonged to more than one person. Often, there were three co-owners and in some cases more than eight. The co-owners were always relatives of the owners (brothers or parents, sometimes uncles and cousins). In these conditions, it is not surprising that such plots returned very little. The *Catastini* also record the income generated by each plot of land that is liable to taxation as of 1 January, 1914. On that date, only about 30 percent of the plots returned more than 100 Italian lire and almost none of them exceeded returns of 400 Italian lire. As a reference standard, 100 Italian lire of 1914 were equivalent to about 294 euro in 1999 (Istat, 2000).

Table 14.6 Size Distribution of the Plots of Land Owned by Saffat Workers in 1914 and 1925 (percent)

Size of the Plot	1914	1925
< 10 ares	2.6	1.1
10 ares – 1 hectare	65.4	60.2
1.01 – 2 hectares	20.8	20.5
2.01 – 3 hectares	3.9	7.3
> 3 hectares	7.3	10.8
N	231	259

Source: Elaborations by Archivio di stato di Terni, the cadastres of Cesi, Collescipoli, Collestatte and Papigno.

⁴The cadastres list the owners of plots of cultivated land. It is possible to use this source to trace back ownership to 1925 and 1914.

⁵Of these, 17 were co-owners of plots registered in the names of brothers who were also employed by Saffat.

Notes: The basis of the sample of workers is all those working for Saffat during the period 1904 through 1914. The total of the plots does not correspond with the total number of workers who owned plots of land, since 17 workers were brothers who were co-owners. One hectare is 2.47 acres.

These small fields were not sufficient to support the workers' families, but they were an important means of coping with low industrial wages. The average starting wage of those employed from 1904 to 1914 who were born in the district of Terni was the lowest of all those employed at the Saffat.⁶ Holding the property in joint ownership (and live with relatives under the same roof) rather than subdividing it among family members was necessary to enjoy the income provided by the land, even if meagre, and also to support forms of division of labour within the (extended) household. As one member of the wider family would become a stable employee of the firm, another would manage the farm. Both would share the proceeds of the farm. Such a strategy that combined land ownership and factory work offered substantial flexibility, since there was not a strict separation of the roles among brothers or among parents and sons within the household. For example, the owner of the land could occasionally work at the factory and come back to take care of the field, while his brother, his father or his uncle spent the major part of their life in the steelworks. The existence of many family groups among the Saffat's employed (1,397 from 1904 to 1914, 737 from 1929 to 1933) and the frequent appearance of the same family name among workers of both long tenure and of short tenure suggests that stable and unstable employment relationships with the factory often overlapped within the households of the district (Bellini, 1998/99; Raspadori, 2001).

The factory, not the land, would appear to have been the heart of the working life and the main source of income, once it is recognised that the nominal average daily wage of a labourer from 1908 to 1914 was 2.20 Italian lire, equivalent to about 550-580 Italian lire in one year of work, while a small plot of land in co-ownership in 1914 seldom returned 200 Italian lire. Further evidence for this is that 44.9 percent of the 248 workers who owned land in 1914 stayed at Saffat more than seven years while only 34.6 percent stayed less than one year.⁷ Households continued to keep a small field, they limited the subdivision of the estate and they often brought together several related family units under the same roof. This behaviour can be explained by the opportunities to get some free food or some more

⁶ The nominal average daily wage of the new hires who were born at the district of Terni was 1.90 lire from 1904 to 1907 and 2.23 lire for the period 1908 to 1914. The starting wages of those born in the remainder of Umbria (outside of the Terni district) were 1.93 lire and 3.72 lire for these two periods. Those born in the rest of Italy earned 2.3 lire in the first period and 2.75 lire in the second period.

⁷ There was variation in the behaviour of rural households, however, as suggested by variation in the size of the plot they managed. The workers born at Papigno, for example, had properties on average smaller than those of Collescipoli's workers, and they had longer tenures in the factory than the workers born at Collescipoli. 55 percent of the workers from Papigno remained at the Saffat over seven years, compared with 40 percent from Collescipoli.

income, to resort to another job (even if precarious) in times of economic crisis after discharge from the company, to insure against the uncertainty of work in the factory and to preserve a way of life and a place of residence that had been handed down over the generations. These links between rural and industrial environments in the lives of the factory workers are in evidence not only at Terni, but also in other Italian industrial areas during the first half of the twentieth century. Examples include Porto Marghera, located near Venice, and Sesto San Giovanni, located near Milan. Other European zones during the late nineteenth century with a similar pattern include the Oberlausitz of Saxony (Quataert, 1985; Piva, 1991; Sudati, 1999). These links were all quite different from the relationship between the factory and the surrounding rural area typical of the Italian putting out systems (especially in the countryside of the North) during the first half of nineteenth century. For the workers of that system the connection with the industrial firms was peripheral with respect to the work on the farms, while for the workers of Terni or Porto Marghera, the connection was essential for their livelihood (Cafagna, 1989; Corner, 1993).

Conclusions

The careers of those employed by the Saffat steel mill and born in the district of Terni followed two discernible paths: stable factory employment and an unstable '*arrangiarsi alla canesca*'. In spite of appearances, the motives for entering the factory and continuing there were the same for both groups: a lack of professional qualification and a fear of being uprooted from the ancestral home. The opportunity to start a job with prospects of advancement or wage increases depended on the presence or absence of a set of resources at the disposal of the rural families, above all ownership of land and the ancestral home. In addition, the firm's strategies about the process of production and the organization of work on the shop floor were crucial to shaping the patterns of careers within the steelworks. The high rate of mechanization and sophistication of the equipment, the quality control over the production (implicit in a firm producing steel for military uses) and, at the same time, the relatively empirical character of many tasks (as in any steel plant), and recurring programs of modernization and enlargement of the factory, all had important consequences for the factory's labour force. These production characteristics enabled the Saffat, according to its requirements, to recruit a share of the local labour force for training internally to become stable, low-cost semi-skilled and skilled workers, while another portion could be used for unskilled, short-term jobs and discharged without cost to the company. As in other industrial areas of the West (Lequin, 1977; Hareven, 1982), the working lot of the people of the Terni district was determined by the interaction of these two realities: the firm and the social and economic characteristics of the territory in which it was located.

References

Archival Sources

- Archivio anagrafe del comune di Terni (Archives of Registry Office of the Commune of Terni), Terni.
 Archivio di stato di Terni (State Archives of Terni), *Catastrini dei comuni* (Cadastral Registers of the Communes), Terni.
 Archivio storico ex-Ilva (Saffat Company Archivi), *Fascicoli del personale* (Employee Files), Terni.

Published Sources

- Bellini L. (a.y. 1998-99), *Struttura dell'occupazione alla 'Terni - Società per l'industria e l'elettricità'. Un'indagine sul libro matricola delle acciaierie (1929-1933)*, graduation thesis defended at the Faculty of Arts and Philosophy at the University of Perugia.
 Bonelli F. (1975), *Lo sviluppo di una grande impresa in Italia. La Terni dal 1884 al 1962*, Einaudi, Turin.
 Cafagna L. (1989), *Dualismo e sviluppo nella storia d'Italia*, Marsilio, Venice.
 Caracciolo A. (1969), *La crescita e la trasformazione della grande industria durante la prima guerra mondiale*, in Fuà G. (ed.), *Lo sviluppo economico in Italia*, 3, Franco Angeli, Milan, pp. 187-240.
 Castronovo V. (1980), *L'industria italiana dall'Ottocento a oggi*, Mondadori, Milan.
 Ciuffetti A. (1996), *Condizioni materiali di vita, sanità e malattie in un centro industriale: Terni 1880-1940*, Esi, Naples.
 Corner P.R. (1993), *Contadini e industrializzazione. Società rurale e impresa in Italia dal 1840 al 1940*, Laterza, Rome-Bari.
 Covino R. and Papuli G. eds. (1998), *Le Acciaierie di Terni*, Electa, Milan-Perugia.
 Doeringer P.B. and Piore M.J. (1971), *Internal Labor Markets and Manpower Analysis*, Heath, Lexington.
 Federico G. (1985), 'Sviluppo industriale, mobilità della popolazione e mercato della forza-lavoro in Italia: una analisi macroeconomica', in Società italiana di demografia storica, *La popolazione italiana nell'Ottocento*, Clueb, Bologna, pp. 447-495.
 Gallo, G. (1983), *Ill.mo Signor Direttore...Grande industria e società a Terni fra Otto e Novecento*, Editoriale Umbra, Foligno.
 Hareven T. K. (1982), *Family Time and Industrial Time. The Relationship between the Family and Work in a New England Industrial Community*, Cambridge University Press, Cambridge.
 Istat (1937), *VIII Censimento generale della popolazione - 21 aprile 1936*, 2, Province fasc. 58, *Provincia di Terni*, Istat, Rome.
 Idem (2000), *Il valore della lira dal 1861 al 1999*, Edizioni Istat, Rome.
 Lequin, Y. (1977), *Les ouvriers de la région lyonnaise (1848-1914)*, 2 voll., Presses universitaires de Lyon, Lyon.
 Littler C.L. (1982), *The Development of the Labour Process in Capitalist Societies. A Comparative Study of the Transformation of Work Organization in Britain, Japan and the Usa*, Gower, Aldershot.

- Piva F. (1986), 'Classe operaia e mobilità del lavoro di fabbrica', *Studi Storici*, 27, pp. 245-263.
- Idem (1991), *Contadini in fabbrica. Marghera 1920-1945*, Edizioni Lavoro, Rome.
- Portelli A. (1985), *Biografia di una città. Storia e racconto: Terni 1830-1985*, Einaudi Turin.
- Quataert J.A. (1985), 'Combining Agrarian and Industrial Livelihood: Rural Households in the Saxon Oberlausitz in the Nineteenth Century', *Journal of Family History*, 10, pp. 145-162.
- Raspadori P. (2001), *Lavoro e relazioni industriali alla Terni, 1900-1914. Gli uomini dell'acciaio*, Quaderni monografici di *Proposte e Ricerche*, Ancona.
- Sabel C.F. (1982), *Work and Politics: the Division of Labor in Industry*, Cambridge University Press, Cambridge.
- Sudati L.F. (1999), 'Terra, fabbrica e famiglia: mobilità e percorsi sociali intorno alle ferriere di Sesto San Giovanni nella prima metà del Novecento', in Musso S. ed. *Tra fabbrica e società. Mondi operai nell'Italia del Novecento*, Annali della Fondazione G. Feltrinelli, Milan, pp. 485-547.
- Sundstrom, W.A. (1988), 'Internal Labor Markets Before World War I: on-the-job Training and Employee Promotion', *Explorations in Economic History*, 25, pp. 424-445.
- Tosi L. (1983), *L'emigrazione italiana all'estero in età giolittiana: il caso umbro*, Olschki, Florence.
- Zamagni V. (1976), 'La dinamica dei salari nel settore industriale', in Ciocca P. and Toniolo G. eds. *L'economia italiana nel periodo fascista*, Il Mulino, Bologna, pp. 329-378.
- Idem (1990), *Dalla periferia al centro. La seconda rinascita economica dell'Italia 1861-1981*, Il Mulino, Bologna.