

Factory Work and *arrangiarsi alla canesca*. Professional Careers of the Saffat's Steelworkers from 1900 to '29 Crisis

by
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This paper illustrates the outlines of the careers experienced by a group of workmen of a big Italian firm, the Società degli altiforni, fonderie ed acciaierie di Terni (Saffat), from the beginning of the twentieth century to the Thirties crisis. To do that, I used the records of personnel (pay rolls and employee files) kept at the Archivio storico ex-Ilva, the historical archives of the company placed in the neighbourhood of the industrial plants at present. But other documents have been looked up too: the private data from the Archivio anagrafe del comune di Terni (the archives of registry office of the commune of Terni) and the *Catastini dei comuni* (the cadastral registers of the district), these latter kept at the Archivio di stato di Terni (State Archives of Terni). All these sources have been necessary to reconstruct the professional lives of a sample of about 900 Saffat's workers, coming from the country surrounding the town of Terni, representatives of the major part of the employed by the firm during the first fifteen years of the XXth century.

Aim of this script is to describe the nature and the extent of making a career experienced by these employed, that fluctuated between a stable factory work, by which it was possible to develop specific skills and to improve the professional status, and a precarious solution of frequent changes of job to the non-will or the non-power to became a factory worker full time. 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 disposal (the ownership of land, the preservation of the old place of residence), on the other hand by the decisions of the Saffat regarding the organization of production. The technical features of the modern production of steel and the programs

of enlargement and extension of plants' equipment allowed to the firm, turning to the local labour market, both to train internally a stable, faithful, at low-cost semi-skilled and skilled workforce, and to hire and to discharge in short time an unskilled workforce.

1. The Saffat, its manpower and the labour market

The firm was established in 1884 by a group of capitalists and bankers in order to provide Italian state with steel ironclad plates for the Navy ships. The steelworks were located, for strategic and defense reasons, at a small town, Terni, placed in the middle of the peninsula. From 1887 to 1901 the steelworks of Terni produced all the war stuff of special steel bought in Italy by the military administrations, but also the 25.7% of the national raw steel and the 67.2% of the rails. Because the production of military-related steel products depended on the government's fluctuating demand, the Saffat from its beginning was compelled to produce basic and common steel too, in order to sustain the full operation of the plants. This choice, however, clashed with the high costs of transportation, because the factory was located a long way from the most important consumer markets and also from the most important transportation routes. Thus, starting in the 1920s the company diversified its investments into hydroelectric utilities and into electro-chemicals, taking over a company, the Società italiana per il carburo di calcio, l'acetilene ed altri gas, having some hydroelectric power plants in the district of Terni, while the steelworks were principally retained for the production of the war stuff. After the international economic crisis that hit Italy in the early 1930s, the Saffat (that in 1922 had changed its business name in Terni - Società per l'industria e l'elettricità) was taken over by the Istituto per la ricostruzione industriale, a government-owned holding. The workers employed by the firm grew from 3,548 in 1900 to 6,329 in 1932; during the first half of the XXth century the Saffat was one of the most great companies in Italy.

From the date of its birth to 1900, the firm had mostly relied upon workmen coming from the rest of the region (Umbria) and the nation, because of the shortage of skilled labour available on the spot and the scarce disposition to the factory work

showed by country people of the area. In fact the zone of Terni, when the Saffat's plants were built, was distinctly agricultural, poor from the point of view of the income per capita and lacking in entrepreneurial forces. In 1901 the 63.1% of the district of Terni's working population was employed in agriculture, and on 11,923 employed in industry a good 7,150 lived at the town of Terni. Under the push of the agricultural crisis at the end of the XIXth century and because of the lack of real occupational alternative to the work in the fields that characterized the regional territory, beginning from the first years of the twentieth century the families living in the district decided, with greater conviction, for the employment at the steelworks. From 1904 to 1914 the 36.8% of the new hired at the steelworks was born in the district, while just the 33.1% was born in the rest of Umbria and the nation; the remaining 30.1% was born at Terni.

This was possible also because the Saffat, in that specific phase of its history, on one hand needed huge arrays of labourers for short time, of irregular work relation, to bring a great plane of modernization of the plants and construction of new ones to end, and on the other hand was able to engage and employ lots of unskilled workers of rural origins (with the advantage to pay out very low wages to them) thanks to the high degree of mechanization of its equipment. Both the elements found a personification in the young males born in Terni and in the district's small villages, hired by the Saffat from 1904 onwards. This feature was a constant in the history of the company, as 3,658 on 6,107 employed at the steelworks from 1929 to 1933 were born at Terni and its district and they were mostly unskilled.

The economic system of the area did not change in the long run. In 1911 the 67.6% of the district of Terni's working population was employed in agriculture; and even if in 1936 that percentage was lowered to 45.1, just 5,923 on 23,097 employed in industry lived outside Terni. So the town and its most important firm, the Saffat, were cathedrals in the desert, that is the setting up of heavy industry occurred in the zone from 1881 to 1911 (iron and steel, chemicals, electric utilities) was not able to start a widespread development. Nevertheless the emigration in the area was always low, while in the rest of region was high. This configuration of the local labour market fits the model conceived by Giovanni Federico to describe the different traits of the labour market in Italy from the last fourth of nineteenth century to the first world war. In fact,

although the Italian labour market was generally characterized by a supply excess and by a chronic shortage of skilled manpower, however it is possible to notice, for that period, three distinct kinds of labour market on a geographical basis, corresponding to as many patterns of industrial development. In the plain of the Po there was a light industry (especially textiles and food stuffs) diffused on the territory, integrated with the country, recruiting seasonal and not highly qualified workers. In the big cities of the North (Milan, Turin, Genoa, Bologna) there were transport and engineering industries, hiring urban and of craft stock workers. In some areas of Middle (Terni, Piombino) and Southern (Naples) Italy, finally, there were few great corporations of heavy industry (iron and steel, chemicals, electric utilities), set in a rural backward environment, exploiting unskilled workers without to start a widespread industrial development in surrounding territory.

The strategy of steelworks' manpower management remained the same: research of local unskilled workers to employ both for short and for long time. On 5,506 new hired from 1904 to 1914 born at Terni and its district, 2,608 stayed in factory less than one year (62.5% of all employed for that class of tenure) and 1,024 stayed more than seven years (68.0%). On 1,467 new hired from 1929 to 1933 born in the province of Terni (instituted in 1927), 220 stayed in factory less than one year (67.5% of all employed for that class of tenure) and 749 stayed more than seven years (74.0%). In a such context, how did the company use at best this kind of labour-force? What were their careers inside and outside the factory?

2. Stable and unstable workmen

To answer to these questions I concentrated the attention on a narrow sample of workers, born in four villages around Terni (Cesi, Collescipoli, Collestatte and Papigno), employed at the steelworks from 1904 to 1914. They are 1,055 fellows, after

the re-engagements, whose basic informations (name, surname, date and place of birth, date of engagement and discharge, occupation and nominal wage assigned at the moment of engagement, etc.) are recorded on the first two company's pay rolls. I picked out those who stayed into the factory for twenty - thirty years and those who stayed less than one year or little more. For the former group (170 fellows), I reconstructed their careers inside the firm by processing data contained in the Saffat's employee files (change of occupation, of wage, of department, etc.). Unfortunately the Archivio storico ex-Ilva keeps only the employee files related to the workers employed for a long time; moreover these documents are quite sketchy about the evolution of the wages and the occupations. For the latter group (731 fellows), I used the cards of registry office of the commune of Terni, that recorded on occasion of the census of 1921 the residence and the job of the citizens, to find out the trades of these people after their brief experience into the factory. Both the operations have been made by inserting the informations into a computer and by elaborating them; the databases have been shaped by the software Access 97 for Windows.

The purpose of this subdivision of the sample is to outline the two different kinds of answers given by the peasant families of the area to the solicitations of the Saffat in its research of manpower. On one hand to satisfy the requirement of having a stable and faithful labour-force, to guarantee the continuity of the process of production. On the other hand to satisfy a further requirement, that of having an intermittent labour-force, to use only for specific issues (enlargement of the production capacity, building of new plants, etc.) and then to discharge it without problems.

As show the data, even if fragmentary, of the table 1, the steelworks were not a static environment about the job mobility. The chance to climb the professional ladder was in inverse relation to the grade of skill possessed at the start of work. A fitter or a master of furnace had the expectation to be that along his entire career. On the contrary, a simple labourer could expect to get a turner or even a foreman. In fact, as shows the table 2, an unskilled worker sometimes could jump the rungs of the professional ladder, even if it was more probable he got a semi-skilled worker. All this does not mean the structure of the opportunities, regarding mobility patterns, was limited; it means the company favoured an internal training of its manpower, turning to the external labour

market only to catch those skilled occupations that it was not possible to train by the work on the shopfloors. Some clues bring us to such conclusion.

First of all, the Saffat mostly engaged unskilled workers. From 1904 to 1914 the 74% of the new hired was made up of labourers; from 1929 to 1932 that proportion was lowered to 64.3%, but it was anyhow significant of the trend of the hirings. Just the 2-3% of the new hired was skilled, the rest was made up of a multitude of semi-skilled occupations. Secondly, the major part of the new hired was assigned, at the beginning, to a specific department: the Servizi Vari. But after a while they were displaced in other departments. In a long span of time the Saffat's employed knew numerous departments where to work. On our 170 workers 102 entered into the factory through the Servizi Vari, while twenty years later in that department worked just the 3.52% of the sample and thirty years later the percentage was lowered to 0.58. Of the other departments, about twenty, just one, the Magli e Presse, arrived to the threshold of 10% twenty years later. In this way, probably, the company wanted to test the capabilities of the new hired, to decide later how to train them and how to use them at best inside the shopfloors. Furthermore, the data of "no change" in the table 1 hide a range of changes of occupations within the status of semiskilled. Still not raising of status, a semiskilled like a machine operator could get a trimmer or vice versa. The passages through the jobs were quite fluid. Finally, the careers and the changes of status or occupation were not related to the levels of education of the labour-force. According to the employee files, just the 1.2% of the sample had the diploma of primary school, while the 70.6% did not get it and the 11.2% was illiterate.

Thus, the careers of long term employed at the Saffat do not seem so much determined by the skill or by the education or by the age (our sample is made up of young people, from 13 to 32 years old) at start of work, as by the time spent on the shopfloors and by the capability to adjust to several changes of job and place of work. As the studies of Doeringer and Piore and Sabel too pointed out, in reference to the organization of work and the technical specificity of the plants in the steel industry, the practice of work, the knowledge, acquired through the years, of the secrets and the caprices of the machinery, also for the unskilled, counted more than the formal status to shape the professional patterns inside the steelworks. A confirmation comes to us from

the few informations about the wages. Only for 66 workers there are data on the pays along a lapse of time of 30 years: the mean weighted increase (at constant prices 1932) of their nominal hourly wages, at twenty years from the entry is 0.66 Italian lire, while at thirty years is 1.05 Italian lire, notwithstanding the strong cut undergone by the nominal and real wages, at national level, carried out from 1929 to 1932 by the Mussolini's government. Therefore, the more the workers continued to serve the company, the more they had the chance to get wage rises.

A relatively bureaucratic administration of the production and a modern process of manufacture (thanks to the use of Martin-Siemens and electric furnaces, great rolling-mills, presses and electric bridge cranes), but with some remains of empiricism in the practice of shopfloor yet (thanks to the spread of the training on the job), let Saffat to draw off from the country around Terni manpower of rural origins at low cost, training it internally to avoid the research, on the labour market, of skilled workers more expensive. On the other hand, a lot of peasant households of the district took advantage of this structure of the company labour demand to get a stable job that avoided the emigration or, as we are going to see in the third paragraph, the abandonment of their small plot of cultivated land.

And all those who did not manage to get a stable job at the steelworks, but only at short term one to enlarge the plants or to built new departments (like from 1905 to 1912, or from 1925 to 1931)? Did they manage to get it later? The answer is no. The data of the table 3 show as just little more than one third of the Saffat's workers of the short tenure got a factory job in 1921 (and it is probable this proportion is remained steady in the following years), according to the informations of the cards of registry office of the commune of Terni. The 37.2% of them was come back to be a peasant or a farm-labourer, while the rest was scattered among the trades of the building industry and the services sector. Figures like these were workmen "dai cento mestieri" (of one hundred jobs), very widespread in the Italian economic and social environment during the first half of the XXth century, that is all the array of farm-labourers and small farmers that got by among the depths of a poor and overcrowded peasant economy, that considered the factory only as a passage, a bridge in the middle of agriculture, industry

and marginal services in the urban framework, to cross whenever the incitations of the subsistence rendered it necessary.

In periods of crisis of the demand or exhaustion of the activities of plant's renewal, these workers were the first to be expelled from the company; but they could also resign if they knew another firm, a building yard, a farm where the pay, even just for short time, was a little higher than one into the factory, or if they had to take care of their small field. A lot of workers' oral testimonies defined this kind of life "arrangiarsi alla canesca", an idiomatic expression that can be translated as to manage somehow.

So the professional routes of the two groups of the Saffat's workers that have been checked were much different and involved ways of life radically distinct. But the rural background from which they came and the desire to be not uprooted from it were the same. And even if the strategies and the paths put into effect to realize that desire were quite different, however could be complementary. Let us see how.

3. Land, factory and family

The major part both of the workers of long tenure and of short tenure ones exercised the commuting to go to work at the steelworks. The table 4 shows as less than one fourth of the employed lived at the town of Terni, not too far from the factory, while more than the 50% lived in the hamlets of Terni (scattered in the countryside) and in the villages surrounding the town, a long way off the plants. It is necessary to stress that up to the Thirties to be a commuter, at Terni, meant to go to work mostly by walking or by cycling for kilometres, with imaginable consequences in terms of effort, of lost hours of sleep, etc. Why so many sacrifices? The choice was dictated partly by the high rents existing at Terni before the world war first and after 1921, and by the overcrowding of the old town centre (because of high rates of immigration from 1881 to 1901 and the modest building initiatives carried out by the Saffat for its manpower), but above all by the desire of the workers to not leave the network of kinship relations and the resource of the land, even if scarce, useful on one hand to supplement the low wages and on the other hand to hold their social status within the local community.

Comparing the data of all 1,055 workers employed from 1904 to 1914 with the informations obtainable by the *Catastini di Cesi, Collescipoli, Collestatte e Papigno* (lists of owners of cultivated land's plots, by which is possible to go back to the extension of every plot at the years 1914 and 1925, written up for these communes of the district), we find out that 248 of them in 1914 and 276 in 1925 owned one or more small plots. The table 5 shows as, for both the years, more than 60% of the fellows, included 17 ones that do not appear in the table, had plots that did not exceed one hectare; and even if in the lapse of eleven years it is perceivable an increase of the owners of plots greater than two hectares at the expense of smaller ones, however they did not get to one fifth of the total. Very small properties, therefore, and characterized by the joint ownership too. In fact the 66.9% of the plots in 1914 and the 59.4% in 1925 belonged to more than one person, often to more than three and in certain cases to 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. In the *Catastini* are also recorded the incomes liable to tax obtainable by the properties at the first of January 1914; at that date about the 70% of the plots did not return more than 100 Italian lire, while almost none of them exceeded the 400 Italian lire. To understand well, 100 Italian lire at 1914 are equivalent to 568,605.52 Italian lire at 1999 (293.66 euro).

These small fields were not sufficient alone to support the workers' families, but were an important source of integration of the low industrial wages; the average pays of the employed from 1904 to 1914 born at Terni and its district were the lowest of all employed at the Saffat. The choice to not divide the properties among the relatives but to hold them united by the joint ownership (maybe under the same roof), was necessary to enjoy of the land's resources, even if poor, and also to start forms of division of labour inside the household. As some family members became stable workmen at the firm, others managed the farm, sharing then its fruits with the former. The flexibility of such solution was very wide, 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 practice just occasionally the factory work and come back to take care of the field, while his brother, his father or his uncle, co-owners or not, spent the major part of

their life into 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 the workers of long tenure and of short tenure ones, it leads to regard that the stable and unstable occupations often overlapped within the households of the district.

The factory, not the land, was seen as the heart of the working life and the main source of income. The 44.9% of the 248 workers owners of land at 1914 stayed at the Saffat more than seven years, while the 34.6% stayed less than one year. If the households continued to keep a small field, generating strategies of restraint of the estates' distributions and, probably, of assembly of family units under the same roof, this is explainable with the opportunities to get some free food or some more income, to resort to another job (even if precarious) in times of economic crisis after the discharge from the company, to soften the impact of the work into the factory with the preservation of a way of life and of a place of residence that were handed down by generations. These links between rural and industrial environment in the lives of the factory workers are detectable not only at Terni, but also in other Italian industrial areas during the first half of the twentieth century like Porto Marghera (near Venice) or Sesto San Giovanni (near Milan), and in other European zones during the late nineteenth century like the Saxon Oberlausitz.

To sum up, the careers of the Saffat's employed born in the district of Terni fluctuated between a stable factory work and an unstable "arrangiarsi alla canesca". In spite of the appearances, the situation of start and the aim to pursue were the same for both the groups: lack of professional qualification and removal of the threat of uprooting from the own territory. The opportunity to start a job with chances of professional advance or wage rise depended on the presence or the absence of a set of resources at disposal of the rural families, above all ownership of the land and the old house. But also the firm's strategies about the process of production and the situation of the organization of the work on the shopfloors were important to shape the patterns of the careers inside the steelworks. The high rate of mechanization and sophistication of the equipment, the quality control over the production (implicit in a firm producing war steel stuff) and, at the same time, the relatively empirical trait of a lot of tasks (like in

every steel plant), the recurring programs of modernization and enlargement of the factory, all this enabled the Saffat, according to its needs, to exploit a share of the local manpower to train internally a stable, at low-cost semi-skilled and skilled workforce; another share could be used for unskilled short-time jobs and discharged without burdens for the company. The working lot of the people of Terni's district was determined by the interaction of these two realities: the firm and the social background of the territory that had it.

Tables *

Tab. 1 - Job mobility, at 20 and 30 years from the entry, of Saffat's workers of long tenure (percentages)

	<i>Status at start of work</i>				
	Unskilled	Semi-skilled	Skilled	White collar	No info.
<i>Status at 20 years from the entry</i>					
Up	49.6	9.4	-	-	-
Down	-	-	12.5	-	-
No change	12.6	43.7	37.5	100.0	-
No information	37.8	46.9	50.0	-	100.0

* The percentage figure of the total is often rounded up.

Total	100.0	100.0	100.0	100.0	100.0
(N)	(119)	(32)	(8)	(1)	(10)
<i>Status at 30 years from the entry</i>					
Up	42.0	15.6	-	-	-
Down	-	3.1	12.5	-	-
No change	5.0	40.6	25.0	100.0	-
No information	52.9	40.6	62.5	-	100.0
Total	100.0	100.0	100.0	100.0	100.0
(N)	(119)	(32)	(8)	(1)	(10)

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

Tab. 2 - Upward job mobility, at 20 and 30 years from the entry, of Saffat's workers of long tenure (percentages)

	<i>At 20 years from the entry</i>	<i>At 30 years from the entry</i>
<i>From semi-skilled to:</i>		
white collar	-	-
skilled	4.8	9.1
<i>From unskilled to:</i>		
white collar	3.2	10.9
skilled	24.2	20.0
Semi-skilled	67.7	60.0
Total	100.0	100.0
(N)	(62)	(55)

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

Tab. 3 - Trades of 731 ex-workers of the Saffat in 1921

Trade	%
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
Total	100.0
(N)	(731)

Source: elaborations by Archivio anagrafe del comune di Terni.

Tab. 4 - Residences of Saffat's workers of short and long tenure (percentages)

	<i>Residence of workers of short tenure (1921)</i>	<i>Residence of workers of long tenure (at the moment of entry)</i>	<i>Residence of workers of long tenure (at 20 years from entry)</i>
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	-
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.

Tab. 5 - Distribution of the Saffat's workers for the sizes of their landed properties in 1914 and 1925 (percentages)

	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
Total	100.0	100.0
(N) ^a	(231)	(259)

Source: elaborations by Archivio di stato di Terni, *Catastini di Cesi, Collescipoli, Collestatte e Papigno*.

^a The total of the cases does not correspond with the total of the checked fellows, because 17 workers were co-owners of plots registered in their brothers' names, they themselves Saffat's workers too.

Bibliography

- Bellini Lara [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 Franco [1975], *Lo sviluppo di una grande impresa in Italia. La Terni dal 1884 al 1962*, Turin.

- Ciuffetti Augusto [1996], *Condizioni materiali di vita, sanità e malattie in un centro industriale: Terni 1880-1940*, Naples.
- Covino Renato and Gallo Giampaolo (eds) [1989], *Storia d'Italia. Le regioni dall'Unità a oggi. L'Umbria*, Turin.
- Covino Renato and Papuli Gino (eds) [1998], *Le Acciaierie di Terni*, Milan-Perugia.
- Doeringer Peter B. and Piore Michael J. [1971], *Internal Labor Markets and Manpower Analysis*, Lexington.
- Federico Giovanni [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*, Bologna, pp. 447-495.
- Gasperini Aurora [1980], *Le miniere di lignite di Spoleto (1880-1960). L'organizzazione del lavoro, i rapporti economico-sociali, la tecnologia*, Spoleto.
- Hareven Tamara K. [1982], *Family Time and Industrial Time. The Relationship between the Family and Work in a New England Industrial Community*, Cambridge.
- Ilardi Massimo [1973], *Ristrutturazione aziendale e classe operaia sotto il fascismo: la Società Terni - 1928-1932*, in «Il movimento di liberazione in Italia», n. 112, fasc. 3, pp. 31-53.
- Istat [1937], *VIII Censimento generale della popolazione - 21 aprile 1936*, vol. II, *Province*, fasc. 58, *Provincia di Terni*, Rome.
- Littler Craig 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*, Aldershot.

- Piva Francesco [1986], *Classe operaia e mobilità del lavoro di fabbrica*, in «Studi Storici», XXVII, n. 1, pp. 245-263.

- Idem [1991], *Contadini in fabbrica. Marghera 1920-1945*, Rome.

- Portelli Alessandro [1985], *Biografia di una città. Storia e racconto: Terni 1830-1985*, Turin.

- Quataert Jean A. [1985], *Combining Agrarian and Industrial Livelihood: Rural Households in the Saxon Oberlausitz in the Nineteenth Century*, in «Journal of Family History», X, n. 2, pp. 145-162.

- Raspadori Paolo [2001], *Lavoro e relazioni industriali alla Terni, 1900-1914. Gli uomini dell'acciaio*, Ancona.

- Sabel Charles F. [1982], *Work and Politics: the Division of Labor in Industry*, Cambridge.

- Sapelli Giulio (ed.) [1981], *La classe operaia durante il fascismo*, «Annali della Fondazione G. Feltrinelli», XX, Milan.

- Sudati Laura F. [1999], *Terra, fabbrica e famiglia: mobilità e percorsi sociali intorno alle ferriere di Sesto San Giovanni nella prima metà del Novecento*, in Musso Stefano (ed.), *Tra fabbrica e società. Mondi operai nell'Italia del Novecento*, «Annali della Fondazione G. Feltrinelli», XXXIII, Milan, pp. 485-547.

- Tosi Luciano [1983], *L'emigrazione italiana all'estero in età giolittiana: il caso umbro*, Florence.

- Zamagni Vera [1990], *Dalla periferia al centro. La seconda rinascita economica dell'Italia 1861-1981*, Bologna.