

The contribution of Italian migrant women in the New World to health and safety at work

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SUMMARY

Background: Many Italian migrant women left Italy for the United States of America (USA) in the years 1881-1932. In the USA they could only find poor jobs such as home work or unskilled jobs in the developing American manufacturing industries. **Objectives:** Analysis of the contribution of Italian migrant women to the improvement of working conditions in the USA. **Methods:** Five case-studies have been selected and analyzed by national and international literature. **Results:** Case studies were: 1. Florence Kelley's research on insanitary working conditions among Sicilian home workers in Chicago (1899); 2. Death of forty-two Italian women in the Triangle Shirtwaist Factory fire in New York and the claim of Anna Gullo in the trial against the employers; 3. The report on the condition of Italian migrant women in the USA by Irene de Bonis dei Baroni de Nobili and the Women's Trade Union League (1911); 4. The Maggia sisters Amelia, Quinta and Albina and the trial for compensation of radium related diseases (1928); 5. The contribution of Italian migrant Geraldina "Jennie" Sirchio to the T-room experiment at the Hawthorne Works in Chicago (1928). **Conclusions:** Italian migrant women, among others, played an important role in the USA social and economic development. Women were particularly exposed to infectious disease, fire risk, radium painting, repetitiveness, etc. Important trials, inquiries and legislation together with recognition of occupational diseases were fostered thanks to their often unknown sacrifice. Today as yesterday migrant workers should be valued and prevention improved.

RIASSUNTO

«**Il contributo delle donne italiane immigrate nel "nuovo mondo" nella storia della salute al lavoro**». **Introduzione:** Molte donne italiane emigrarono negli Stati Uniti d'America (USA) negli anni 1881-1932 e furono costrette nei lavori poveri quali il lavoro a domicilio o il lavoro nelle emergenti fabbriche americane. **Obiettivi:** Analizzare il contributo delle donne immigrate italiane per il miglioramento delle condizioni di lavoro negli USA. **Metodi:** Sono stati selezionati e analizzati cinque casi dalla letteratura nazionale e internazionale. **Risultati:** I casi analizzati sono i seguenti: 1. La ricerca di Florence Kelley sulle condizioni del lavoro a domicilio delle immigrate siciliane a Chicago (1899); 2. Le 42 italiane morte nell'incendio della fabbrica di camicette di New York (1911) e la testimonianza al processo di Anna Gullo; 3. Il rapporto sulla condizione delle donne emigranti in USA di Irene de Bonis dei Baroni

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de Nobili e la Lega delle donne lavoratrici (1911); 4. *Le sorelle Amelia, Quinta e Albina Maggio e il processo per il riconoscimento della malattia da radio (1928)*; 5. *Il contributo di Geraldina "Jennie" Sirchio nell'esperimento della Test-Room delle officine Hawthorne di Chicago (1928)*. **Conclusioni:** *Le giovani italiane emigrate, per supportare le numerose famiglie di origine, si esposero ai più diversi rischi come quello infettivo, il rischio di incendio, la pittura con il radio, la ripetitività del lavoro, ecc. Importanti inchieste, processi, leggi e riconoscimento di malattie professionali in USA furono avviate anche grazie al loro sacrificio che non va dimenticato. Il lavoro delle migranti va tutelato oggi come ieri e attuata la prevenzione.*

INTRODUCTION

More than twenty million emigrants left Italy for Brazil, Argentina, the United States of America (USA) and other countries in the fifty years 1881-1932 in order to escape poverty (table 1). More than four million (29%) were women (table 2) (7). Italy was among the largest emigration nations to the USA (4.2 million) after Germany (5.5 million), and Ireland (4.4 million). Italian immigrants came mainly from Sicily, Apulia and Calabria. Approximately 80% entered the country through Ellis Island in New York and many settled in New York State (23%) and New Jersey (13%) (table 3) (41). The majority (97.5%) were illiterate with little or no work qualifications. The working conditions of the jobs of Italian immigrants were poor. Most of them in fact hoped to sail back home to Italy after having

Table 1 - Italian immigrant destinations (1881-1932) (41)

	N.	%
South America	9,950,000	45
North and Central America	7,315,000	33
European Countries	3,894,000	18
Africa	680,000	3
Asia e Oceania	101,000	1
Total	21,940,000	100

Table 2 - Italian immigrants by gender (1871-1950) (7)

	Women	%	Men	%
1871-1900	1,101,350	24	4,789,037	31
1901-1925	2,433,470	53	8,938,498	57
1926-1950	1,030,322	23	1,850,529	12
Total	4,565,142	100	15,578,064	100

Table 3 - Italian immigration to the USA States (41)

USA State	Italian Immigrants	%
New York	2,790,408	23
New Jersey	1,547,470	13
California	1,533,599	13
Pennsylvania	1,528,225	13
Florida	1,147,946	9
Massachusetts	918,838	8
Illinois	739,284	6
Ohio	720,847	6
Connecticut	652,016	5
Michigan	484,486	4
Total	12,063,119	100

earned enough money for a decent life. A quarter of Italian immigrants actually returned to their homeland between 1908 and 1914. Those who remained initially worked as artisans, or were employed in mines or factories, especially in the textile industry. In 1924 the USA started restricting the number of immigrants admitted. Italian immigrants lived in areas called "Little Italy" in New York City, Chicago. Few of them could speak English, just as their co-workers, friends and family members.

Immigrant women often left Italy with their children to join their husbands and many were young and even minors. Nearly half of them were forced to work in order to help support their family. They could only find unskilled and low skilled jobs, such as: collecting rags, producing artificial flowers, sewing, washing and ironing, employed in the textile industry and other emerging American industries (25). Some of these women entered American history as protagonists in inquiries, investigations, and claims against unhealthy, dangerous and inhuman working conditions. The American photographer-

sociologist Lewis W. Hine (1874-1940) immortalized them in portraits.

METHODS

Case studies presenting occupational health conditions in the USA were selected considering the involvement of Italian women immigrants. Five outstanding cases have been selected and discussed chronologically: Unsanitary conditions in sweatshops in Chicago (1899); the Triangle Shirtwaist fire in New York (1911); Italian immigrant women study in the USA (1911); Italian radium girls claim for recognition of occupational disease due to radium (1928); Italian immigrant girl contribution to the Hawthorne Electric experiment (1928). These studies were selected because of their importance in changing policies and improving working conditions in the USA and in Italy.

RESULTS

1. Sicilian women home workers in Chicago (1899)

In 1899 Florence Kelley (1859-1932) presented the paper *"Insanitary conditions amongst home workers"* at the third International Congress of Women (ICW) in London denouncing unhealthy home work conditions within the Hull House district called "little Italy" in Chicago (13). Those were the years of the first wave of Italian immigration to the US. Images of those Italian women and children were captured in the photographs of Lewis Wickes Hine. *"An Italian family sits for its portrait in Chicago tenement near Hull-House (1910)"* is an example in which two Sicilian women are sitting with six children all around them. Jane Addams (1) described how *"Hull-House once stood in the suburbs, but the city has steadily grown up around it and its site now has corners on three or four foreign colonies. Between Halsted Street and the river live about ten thousand Italians-Neapolitans, Sicilians, and Calabrians, with an occasional Lombard or Venetian. To the south on Twelfth Street are many Germans, and side streets are given over almost entirely to Polish and Russian Jews"*. After different waves of immigration, the substitu-

tion of *"...the older inhabitants is accomplished industrially also, in the south and east quarters of the ward. The Jews and Italians do the finishing for the great clothing manufacturers, formerly done by Americans, Irish, and Germans, who refused to submit to the extremely low prices to which the sweating system has reduced their successors. As the design of the sweating system is the elimination of rent from the manufacture of clothing, the "outside work" is begun after the clothing leaves the cutter"* (1). Alessandro Mastro-Valerio also devoted a chapter to the Italian colony of Chicago in his Hull-House papers (21). He described it as follows: *"The greed of gain which has developed among the Italians causes most of the women to employ all their spare time in sewing clothing, in order to add their little share to the earnings of the husband and sons. This is a serious detriment to them and is one cause of their filthy homes, which they have no time to care for. ...They (unskilled Italian labourers) are hard workers and not inclined to be vicious. Their women are notably virtuous..."*. He also recalled the shameful fact that Italian boys and girls worked as rag pickers in the streets as reported by the leading Italian newspaper of Chicago (*L'Italia*) (21).

Kelley's paper was presented by Mrs Maud Nathan (1862-1946), president of the New York Consumer's League at that time. The paper describes the unhealthy working conditions among immigrants, particularly Italians, such as: *"A Sicilian peasant woman was found doing the hand finishing upon a very good cloak, made of light-coloured light weight cloak, lined with silk. On her lap lay a baby convalescent from scarlet fever, with a large swelling still on its neck and the scales clearly visible on its head and arms. The light soft cape made a pleasant covering for the baby as the mother sewed. A second cape lay nearby. The scarlet fever card was posted on the door. The cloaks belonged to the leading retail merchant of Chicago. It is however, by no means only in the case of ready-made cloaks and knee pants that such exposure occur. ...danger existed that the infection might be carried among the purchasers by the cloaks and among neighbouring tenement houses by the employees"* (13).

Previously, in 1892, the Illinois Bureau of Labour Statistics hired Kelley to investigate the "sweating" system in the garment industry and the Federal Commissioner of Labour Carroll Wright asked

her to survey Chicago's 19th ward. At the time, Illinois was the third-largest manufacturing state in the USA. The Illinois factory inspection law (1893 Factory Act) contained provisions concerning health protection in the manufacture of garments, cigars, artificial flowers and purses. Kelley was soon appointed Chief State Inspector by Illinois Governor John Peter Altgeld. Deputy inspectors were assigned to investigate all cases of suspected danger of illness in workshops or in houses with a workshop. An example was that of garment making that might take place in a house where persons infected with scarlet fever, croup, diphtheria, smallpox and consumption (tuberculosis) were present. The "*Illinois Sweatshop Law*" was promulgated in 1893 but it was considered anti-constitutional within two years. In 1899 Kelley became head of the National Consumers League (NCL), a position she held for over 30 years, and moved to New York City. Working for the NCL, Kelley organized local leagues and lobbied for better working conditions, a minimum wage, and shorter working hours for women, immigrants, and working-class labourers (15). Women worked all night or "lost their job". She described how, since 1895, Chicago had independent trade unions of women together with men among cigar-makers, boot and shoe workers, cotton spinners and weavers and garment workers and "*...even the Sicilian peasant women who do sewing at home under the sweating system, have had a union, embracing at one time over one thousand members pledged to a scale of hours and wages. ...In Illinois a girl is a child under the statute until her sixteenth birthday. After that she is, from the industrial-legal point of view, a woman. Lady Cracker Packer's Union in New York City revealed equally youthful Russian and Italian workers as the audience composed of little girls in Hull House mass-meeting.*"(14)

2. Emigration disaster in New York (1911): forty-two Italian girls died

The Garment and clothing industry also dominated the economy of New York. Florence Kelley again, Secretary of the NCL, was advocating the improvement of the working conditions for women in trade unions: limitation of the working hours by law, prohibition of night work for women in manu-

facture, increase of women's wages, labeling of the fair trades (14). By 1910 most garment workers were young immigrant girls and 70% of them were Italians or Russian Jews.

The Triangle Shirtwaist Factory (TSF), owned by the Russian Jewish immigrants Max Blanck and Isaac Harris, was one of the biggest garment sweatshops in New York. The factory was located on the top three floors of the Asch Building in Manhattan, near the neighbourhoods of immigrants. Nearly all workers were teenage immigrant girls who did not speak English, and worked 12 hours a day in a crowded environment full of sewing machines and garments. In 1909 the International Ladies Garment Workers Union (ILGWU) of New York organized a strike for better wages and safer working conditions in the sweatshops, known as "the Uprising of 20,000". Women strikers won a 52-hour week and a 12-15% wage increase, but worker's safety demands and recognition of the union as the workers' representatives were rejected.

The danger of fire in garment factories like the TSF was well-known, but no useful precautions were taken to prevent fires. On March 25th 1911, a Saturday afternoon, 500 workers were at the factory when a fire began in a rag bin. Forty-nine workers were burned to death or suffocated by smoke, 36 died in the elevator shaft and 58 died from jumping to the sidewalks. With two more dying later from their injuries, a total of 146 people were killed (123 women and 23 men).

Michael Hirsh, an American independent labour journalist, looked for the victims and searched their names in graves, newspapers, etc. (2). Among them 42 Italian women victims were given a name, age, birth certificate (table 4) and more recently a memorial plaque was placed in their home towns in Italy (28). They came mainly from Sicily (55%) and had been in the USA on average for 6 years, and only four were born in the USA. Their mean age was 22 years. The oldest was Provvidenza Panno, 43 years old, the youngest Kate Leone and Rosaria Maltese, 14 years old. Rosaria died in the fire together with her sister Lucia and her mother Caterina, leaving only the men of the family alive. In 1906 her father Serafino Maltese landed at Ellis Island from Palermo. Several months after his arrival, he was

Table 4 - Italian women dead in the Triangle Shirtwaist Factory in New York, 25th March 1911

	Surname	Name	Age	Trade Union	Years in USA	Civil status	Italy Region
1	Ardito	Anna	25		10	Married	Apulia
2	Bassino	Rosa	31		9	Married	Sicily
3	Benanti	Vincenza	22		9	Single	Sicily
4	Billota	Vincenza	16		3	Single	Sicily
5	Brunetti	Laura	17		16	Single	
6	Cammarata	Josephine	17		2	Single	Sicily
7	Caputo	Francesca	17		4	Single	
8	Carlisi	Josephine	31	Yes	10	Married	Sicily
9	Caruso	Albina	20		born	Single	
10	Ciminello	Annie	36	Yes	16	Married	
11	Cirrito	Rosa	18		6	Single	Sicily
12	Colletti	Annie	30	Yes	7	Single	Sicily
13	Cordiano	Michelina	25	Yes	6	Married	Campania
14	Del Castillo	Josie	21		8	Single	Sicily
15	Floresta	Gullo Mary	26		10	Married	Sicily
16	Franco	Jennie	16		born	Single	
17	Giannattasio	Catherine	22		8	Married	Sicily
18	Grasso	Rosie	16		5	Single	Sicily
19	L'abbate	Annie	16		6	Single	Apulia
20	Lauletta	M. Giuseppa	33		12	Married	Lucania
21	Leone	Kate	14		born	Single	
22	Maiale	Bettina	18		9	Single	Sicily
23	Maiale	Frances	21		5	Single	Sicily
24	Maltese	Catherine	39		4	Married	Sicily
25	Maltese	Lucia	20		4	Single	Sicily
26	Maltese	Rosaria	14		4	Single	Sicily
27	Manaria	Maria	27		6	Married	
28	Midolo	Gaetana	16		2	Single	Sicily
29	Nicolosi	Michelina	21		4	Single	Sicily
30	Panno	Provvidenza	43		6	Married	Sicily
31	Pasqualicchio	Antonietta	16		1	Single	Apulia
32	Pinelli	Vincenza	30		5	Single	Sicily
33	Prato	Emilia	21		born	Single	Liguria
34	Prestifilippo	Concetta	22		2	Single	Sicily
35	Salemi	Santina	24		9	Single	Sicily
36	Saracino	Sarafina	25		2	Single	Apulia
37	Saracino	Teresa	20		2	Single	Apulia
38	Stellino	Jennie	16		4	Single	
39	Terranova	Clotilde	22		3	Single	Sicily
40	Tortorelli	Isabella	17		10	Single	Lucania
41	Uzzo	Catherine	22		2	Married	Sicily
42	Viviano	Bessie	15		14	Single	

joined by the rest of the Maltese family: Caterina Canino, age 36, and their 5 children Lucia (age 16), Vito (age 14), Rosaria (age 11), Maria (age 4) and Paolo (age 2). Little Maria died at the hospital on Ellis Island (42).

The sisters Mary and Anna Gullo were also Sicilian. Mary, married to Girolamo Floresta, was 26 years old and died in the fire. Her sister Anna, 20 years old, was an important witness on “behalf of the People” at the trial against the owners of the TSF in December 1911 (38). Her testimony was thirty pages long in the 1588 pages of the full trial transcription. Anna had arrived in the USA twelve years earlier and had worked at the TSF for three years. She was working on the ninth floor at the first sewing machine in the Greene Street side of the building with her back to the windows. She was sitting near the bookkeeper Mary Luventhal who died in the fire at age 22. Anna heard the cry of fire and saw Biddie Deer, Bessie Bernstein’s friend, who cried *“Anna, what shall I do?”* while falling suffocated. Anna ran to the Washington Place door, where she was usually obliged to open her pocketbook for the routine control by the watchman, but the door was locked. She passed the machinist Willie Greenspan. During the trial, Greenspan testified in defence of the employers by saying that he opened the door to Washington Place and that he didn’t know Anna. Afterwards Anna broke a window and threw a pail of water but the flames grew higher. She thought she could jump out of the window but she did not find the courage to do it. She put her skirt around her hair and a handkerchief on her mouth because of the terrible smoke and proceeded through the Green street stairway door. After the fire Anna asked legal assistance at the Italian Consulate and made the claim against Harris and Blanck for two cases: for herself, and for the death of her sister Mary (38).

On December 27, 1911 Isaac Harris and Max Blanck were acquitted. The workers union organized a march on April 5th 1911 in New York’s Fifth Avenue against the working conditions that had led to the fire. It was attended by 80,000 people. The “Sullivan-Hoey Fire Prevention Law” was approved in October the same year. In 1914, Harris and Blanck were caught again sewing fraudulent labels into the shirtwaists produced by a new company.

They claimed that the clothes were made under “fair conditions” according to Kelley’s initiative to improve working conditions. In 1918, after agreeing to pay \$75 for each deceased employee to families that had brought civil suits against them, they disbanded their company.

A New York State “Factory Investigating Commission” was created after the TSF fire to respond to *“the demand of the people of the State for a careful and scientific investigation of the conditions under which men, women and children are employed in the different industries. The Legislature authorized the Commission to inquire into the conditions under which manufacturing is carried on in cities of the first and second class of the State, to the end that remedial legislation might be enacted for the protection of the life and health of all factory workers and for the best interests of the public generally”* (40). Laws were enacted as a result of the Commission’s first year’s work (1912) requiring: 1. Registration of factories. 2. Physical examination of children before issuing a certificate allowing them to work. 3. Fire drills. 4. Automatic sprinklers. 5. Fire prevention by removal of rubbish; fire-proof receptacles for waste material; protection of gas jets; prohibition of smoking in factories. 6. Prohibition of eating lunch in rooms where poisonous substances were prepared or generated in the process of manufacture; adequate hot and cold washing facilities in such establishments. 7. Prohibition of employment of women for four weeks after childbirth. 8. Summary of the powers of the Commissioner of Labour in sanctioning unsafe and unsanitary factories.

3. Irene de Bonis dei Baroni de Nobili’s journey among unknown Italian women migrants to the USA, August 1911

Irene de Bonis dei Baroni de Nobili (1869-?) was a member of the National Council of Women (CNDI) founded in Italy in 1903 as a branch of the International Council of Women (ICW), which held its first meeting in Washington D.C. in 1888. She was asked by Maria Luisa Camozzi Danieli, leader of the “Women’s Permanent Secretary for Protection of Women and Children Immigrants” (ICW 1909-1919), to study working and living conditions of women immigrants to the USA (36).

Previously, in 1908, the General Immigration Commission of the Italian Ministry of Foreign Affairs had recruited the Irish-Italian Amy A. Bernardy (1879-1959) to make an inquiry into the moral and material conditions of women and children in the eastern part of USA, known as "Little Italies" (3).

De Bonis left Naples on August 30th 1911 on board the *Duca di Genova* for New York and returned seventy-three days later on board the *Oceania*. During her journey to New York she met 235 third class immigrant women and helped them through Ellis Island. Afterwards she visited New York, Newark, Brooklyn, Corona. Her arrival in New York was announced by the Sun (12nd September): "*TO STUDY WOMAN'S SUFFRAGE HERE. The Italian steamship Duca di Genova which arrived from Naples yesterday morning and was held in Quarantine, has on board the Baroness Irene de Bonis de Nobili, one of the most active workers for women suffrage in Italy who has come to America to make an investigation of the condition of Italian immigrant women here. The Duca di Genova may come on to her pier to-day*" (37). The newspaper *El Paso Herald* (15th September) also announced: "*BARONESS IS TO AID COUNTRY WOMEN - Baroness De Nobili, one of the leading spirits of the woman's suffrage movement in Italy, has left Home for New York on the steamer Duca d'Aosta, to make a study of conditions of Italian women in the United States. The baroness, whose full title is baroness Irene de Bonis de Nobili intends to ascertain the way in which the women organisations of Italy can be of assistance to their emigrated sisters*" (10).

In New York De Bonis met the President of the Women's Trade Union League (WTUL) Margaret Dreier Robins (1868-1945). As president of the League, Margaret Robins helped organize women into unions, educate women workers and advocate for progressive legislation. She actively supported many strikes, most notably the International Ladies Garment Workers' strike in New York (1910) known as "the Great revolt" of 60,000 cloak makers. She pushed for protective legislation limiting the hours of women's work, and she presided over the League during its most influential period (26). De Bonis also met her executive Secretary Helen Marot (1865-1940), who had published *Handbook of Labor History* (1899) and other relevant contributions. In

1903 Robins joined the WTUL and investigated child labour in New York City together with Florence Kelley and Josephine Goldmark (1877-1952) (26). De Bonis also met Elizabeth Dutcher, President of the Little Italy Neighborhood Association. This Association was founded in Brooklyn in 1905 and one of the sisters of Margaret Dreier, Katherine Sophie Dreier (1877-1952), was a co-founder (26).

In the meetings with WTUL Irene discussed the "*sweating work and the hard factories work*" together with the importance of creating a mutual agreement between WTUL and the Italian Committee in order to help immigrant women to improve their social condition. One of the major health problem was tuberculosis (so-called "consumption"), endemic among immigrants, particularly Italian women, because of undernourishment, low wages, 12-15 working hours per day and overcrowded housing. The prevalence of tuberculosis, particularly among women, was denounced by Italian physician Antonio Stella (1868-1927), also an immigrant from Muro Lucano, in Southern Italy (27). He started his profession in New York (1893) studying tuberculosis among immigrants. He wrote: "*six months in those buildings are sufficient to transform a youth from Calabria, a muscular Sicilian fisherman and vigorous women from Abruzzo or Lucania towards pale, weak and pasty creatures that we see dragging along New York streets*" (34). He also wrote a booklet on "*Tuberculosis among Italians in North America*" whose data on "*tuberculosis among women and children USA immigrants*" were partially reported by Irene De Bonis in her accurate thirty-page report of her journey published in 1912 with the title "*Italian women and children immigration to North America*" (8) and later in the journal "*Il Lavoro*" founded by Luigi Devoto (35)

The Report emphasized the success in creating new relationships among immigrants and women workers' organizations in common intent with the Women's Trade Union League. This is well testified by the letter of Helen Marot dated 31th October 1911 and written on behalf of the President: "*For many years the Women's Trade Union League has been trying to work out ways and means of insuring to the Italian women, who are among the poorest paid working women in our country, an opportunity by which they might increase their earnings and improve the condi-*

tions under which they labor....Your coming to America and the opportunity you are offering us to work in connection with your Bureau gives us more assurance than we have ever had before....We promise you our hearty co-operation” (8).

The De Bonis Report (1912) did not mention the Triangle Shirtwaist Factory fire where many Italian girls had died only five months before her visit. It is improbable that De Bonis had not heard about the tragedy. Mary Dreier (1875-1963), sister of Margaret Dreier of WTUL, in fact was serving in the New York State Factory Investigating Commission in 1911-1915 (38). De Bonis probably decided not to mention it in order not to increase the anxiety among Italian women forced to emigrate or to keep working in these factories.

Nevertheless, De Bonis and the National Council of Women engagement on women's working conditions produced important results. The most important one was her participation in the Fourth Congress on work-related diseases in Rome in 1913 organized by the occupational physician Aristide Ranelletti. Irene de Bonis was the first woman to present a paper at an occupational health Congress. Previous Congresses had been held in Milan in 1906, where Ersilia Majno Bronzini presented a petition against night shift for women, in Palermo (1907), Florence (1909) and Turin in 1911 (30). The presentation of Irene de Bonis on working conditions of USA immigrant women at the Rome Congress was part of her outstanding eight-page paper *“On some women's occupational diseases”* (9). She also presented the following proposal to be voted: *“The National Congress on Work related diseases invite researchers and authorities and all people interested in workers' social wellbeing to find appropriate means to fight united against the above mentioned diseases and towards a popular health campaign because we believe that some common jobs of women such as laundry, ironing, embroidery, etc. lead to diseases for their unsanitary conditions”* (4).

4. Italian radium girls: Amelia, Quinta, Albina Maggia

Nine women working at the *United States Radium Corporation*, in New Jersey, contracted diseases

and died between 1922 and 1924 of jaw necrosis, bone fractures, dental infections and anaemia. They were part of the eighty girls who worked for five and a half days per week in one large factory room (17). They were called the “radium girls” (24). Some physicians attributed their diseases to poor hygiene, hysteria, and even syphilis (6). The US Radium Company commissioned a study to the industrial hygiene program of Harvard University conducted by physician Cecil Drinker (1887-1956). Drinker studied all possible evident hypothesis of causation, such as brush germs, zinc, copper and other contaminants. At a certain point he decided to concentrate on the study of radium. The scientific literature on radium showed its negative health effects on the reproductive apparatus, on the skin and blood and the necrosis of the jaw, but only among patients treated with radium (5). He concluded that radium exposure was responsible for the girls' diseases. The Company however refused to publish Drinker report and a new study was commissioned to the toxicologist F.B Flinn, of the industrial hygiene program of Columbia University. His conclusions were opposite to those of Drinker and the girls were reassured! In 1924 Florence Kelley and her executive secretary Katherine Wiley, of the New York Consumer's League, asked Alice Hamilton to help them investigate the case. Hamilton, after studying the case, was determinant in publishing Drinker's results (31, 32). The same year Dr. Harrison Stanford Martland, a New Jersey physician and forensic pathologist, measured the radioactivity in the bodies of Sarah Carlough (1889-1925), a dial painter, and Edwin D. Lemman (1888-1925), a chemist. In 1925 Martland published his data showing the connection between bone disease and aplastic anaemia and exposure to radium (20).

Radium was still a not confirmed risk when two Italian sisters Quinta Maggia Mc Donald (1900-1929) and Albina Maggia Larice (1896-1946) together with Katherine R. Schaub (1902-1933) and Edna Hussman (1901-1939) joined Grace Fryer (1899-1933) in order to start a lawsuit to claim compensation. In July 1927 the lawyer Raymond H. Berry (1897-1971) underlined the reasons of the claim against the US Radium Corporation: poisoning of women with an unknown element, no safety

protocols to protect women, withholding of the results of Dr Drinker's Report. The plaintiffs claimed more than one million US dollars (19). Lawyer Berry asked to exhume the body of radium girl Amelia Maggia (1896-1922) to determine the cause of death and testified that cause of death was radium poisoning and not syphilis as the defendants had claimed.

Amelia "Mollie" Maggia was the sister of the two plaintiffs radium girls Albina Maggia and Quinta Maggia. They were part of the family of seven daughters belonging to Italian immigrants Antonietta Manzoni (Italy 1865-?) and Valerio Maggia (Italy 1860-1936) both emigrated to the USA probably from the Piedmont region. Amelia, Quinta and Albina together with their three sisters Louise (1892-1957), Clara (1894-1956) and Irma were all employed at the *United States Radium Corporation*. They all suffered various degrees of diseases due to radium painter effect. Irma's body was exhumed in the mid-20th century, she too had died of cancer (33).

In June 1929 a unique out of court settlement was reached. The US Radium Corporation did not accept any legal responsibility but offered to pay each woman \$10,000 dollars and an insurance of \$600 dollars per year as long as she lived (19). Previously in 1925 another out of court lawsuit was settled without legal responsibility for \$13,000. This was the case for Margaret Carlough (1901-1925) and her sister Sarah Carlough Meillefer (1889-1925). The same happened with Irene La Porte (1900-1931) when in 1931 descendants asked for compensation for her exposure to radium from 1917 to 1920. The Court concluded that "*The responsibility in this case can only be laid to the tremendous progress made in science in the last four decades, for radium was unknown prior to 1898. The development of the law to meet such contingencies must of necessity lag behind their discovery. Only forward looking, intelligent legislation can protect future situations such as the one here presented*" (17).

Court settlement helped to go further with the compensation and in 1934 the International Labour Office (ILO) added radium and other radioactive substances and X rays to the list of causes of occupational diseases. Albina, one of the Maggia girls, was the only plaintiff still alive. She would die later,

in 1946, of femur sarcoma. All the others, Quinta, Grace, Edna and Katherine had already died. Their role in making radium use safe is recognized as historical contribution to occupational health (24, 31).

5. An Italian girl in the Hawthorne Test Room: Geraldina Sirchio (1907-1992)

The Hawthorne Works was a large factory complex of the Western Electric Company in Cicero, Illinois. Western Electric established a telephone equipment manufacturing plant in Cicero in 1904 employing more than 20,000 people, the majority of them newcomers from Europe, especially Russian Jews, Slavs and Italians. At its peak Hawthorne employed 45,000 workers, producing large quantities of telephone equipment, but also a wide variety of consumer products. The facility is well-known for the industrial health studies conducted there in the 1920s, where the "*Hawthorne effect*" was described for the first time (22).

Jennie (Geraldina) (1907-1992) was the daughter of Lucia (1873-1928) and Michele Sirchio (1874-1956), a family of Italian immigrants with seven children, three boys and four girls. She joined the Hawthorne Workshop experiment in January 1928 with Mary Volango, a friend of the main shop, to replace two Polish girls considered unfit for the Test Room for their poor performance (29, 39). Jennie was 20 years old and was chosen with Mary when she was facing a difficult time for the death of Anna, her little twelve years old sister. She started working as "operator 2" in the group of six immigrant girls in the T-room (18). The operators' task was to assemble relays (electromagnetic switches) for telephones. A relay consisted of numerous parts (between 26 and 52). The girls assembled over 150 different types of relays between 1927 and 1932. Typical cycle time was within one minute and an operator assembled approximately 500 relays each day (16). Jennie had an extraordinary capacity for cooperation and adaptation and was expressly motivated by the need to increase family wages. In the month of March her mother Lucia suddenly died and soon after his father and brothers lost their jobs. Jennie became the "*principal wage earner*" of the family. The importance of "pay factors" was common

in all personnel employed. In fact, it was the first item in a list of the 15 chosen as “most important” in interviews conducted with the workers in 1929 (6800 men and 3500 women) (16). Jennie “*jumped immediately into the lead and maintained it throughout the experiment*” and also “*held all records in speed tests and in hourly, daily weekly and period output and she received the highest scores in the various dexterity and intelligence tests*”. Jennie became the informal leader of the group and pressed her colleagues to increase their output (29). Six girls sitting at a single bench knew that any increase in daily production meant an increase in daily wages. The management introduced rest periods, morning refreshments, reduction in the variety of the relay types, less pressure from supervisors and made the environment of T-room more friendly. Jennie and her group increased their productive capacity on average by more than 40% (11). She was able to deal with the company and its researchers and controllers defending the friendly working conditions for the T-room, also by creating a group piece work system that allowed to keep the weekly productivity high. The girls were making 2900 relays per week instead of 2400, rising to 3000 when the most successful innovations (time for lunch, rest pauses, wage incentive, pay system) were subsequently reintroduced (11). Together with Mary Volango, she tried to control the group communications recordings initiated by the research team. The repetitiveness of the work was tolerated thanks to the increase in pay, the pauses, the reduction of the variety of relays to be assembled and the reduction of hierarchical control.

In the meantime, the economic crisis led to layoffs and to the termination of the experiment in February 1933. The “leadership” “motivation” “performance” theories that explained the results of the experiment remain uncertain and controversial even today (16, 18). The so-called “Hawthorne effect” consisted of the observation that: “*Regardless of the conditions, whether there were more or fewer rest periods, longer or shorter workdays...the women worked harder and more efficiently. Although this effect was probably due to several reasons, the most important was that the women felt they were something special...*”. The effect persisted even after the termination of the experiment. However when the girls started receiv-

ing notice of dismissal, the performance and output dropped down. For Jennie this was due to the loss of their pride (11). Jennie was the only girl to go on working at Hawthorne for a few months after the closure of the test room and the layoffs. She became an office employee before being dismissed. In 1935 she was working as shop assistant.

Jennie, operator 2, was in a nursing home often visited by friends of the Hawthorne “gang” when, in 1981, Greenwood interviewed two of the original girls participating in the experiment: Theresa Layman and Wanda Blazejack. Greenwood was told that Jennie could not be interviewed although she was only 74 years old (12). Her friend Mary Volango also refused to be interviewed. In 1932, Emily Osborne, the nurse of Elton Mayo, who had undertaken his study on blood pressure among the test room girls, asked to meet the girls, already laid off. She could only find Jennie Sirchio who agreed at that time to help to contact the others. She ended the letter to Emily Osborne with the signature “*Your blood pressure subject*” showing already distance from the Hawthorne experience (18). The Hawthorne effect, in terms of non material influences is a myth. In short, the story of Jennie Sirchio and the other immigrant girls shows that their real need was to improve their working conditions and the income of their poor immigrant families.

CONCLUSION

The stories of Sicilian homeworkers, the deaths of many Italian girls in the Triangle Shirtwaist Factory fire, the Italian women immigrants met by Irene de Bonis in her journey to the USA, the Maggia sisters and the other victims of the US Radium Corporation, Jennie Sirchio as the leader of the T room study at Hawthorne, all document the relevance of the contribution of the immigrant girls and women to the improvement of the working conditions in the USA, and not only there. Jane Addams, Florence Kelley, Katherine Wiley, Margaret, Mary and Katherine Dreier and Irene de Bonis are some of the prominent women who made visible the plight of immigrant women and entered their stories in written history. Women migrant workers yesterday as today (23) contributed to the development of so-

cieties at their own risk, living in unfair working and living conditions. Knowing their stories may promote the solution of many problems of the migrant women of the present.

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Diagnosi precoce del cancro del polmone in lavoratori esposti a cancerogeni

6 novembre 2018, ore 14-17
Aula Magna - Clinica del Lavoro - Via San Barnaba 8, Milano
E-mail: cdldevoto@unimi.it

14.00-14.15 **Presentazione** - *Angela C. Pesatori*, DISCCO, Università degli Studi di Milano

14.15-15.00 **LDCT screening for lung cancer in high-risk nuclear weapons workers, USA** - *Steven Markowitz*, Barry Commoner Center for Health and the Environment, City University of New York e Mount Sinai School of Medicine, New York

15.00-15.45 **Screening del cancro del polmone tra gli ex-esposti ad amianto in Friùli Venezia Giulia** - *Fabio Barbone*, IRCCS Burlo Garofolo, Trieste e Università degli Studi di Udine

15.45-17.00 **Discussione** - *Dario Consonni*, IRCCS Policlinico Milano, *Eugenio Paci*, ISPO, Firenze e *Piero Maestrelli*, Università degli Studi di Padova

Seminario in lingua italiana, intervento del Prof. Markowitz in inglese