

FLASHBACK

PAGINE DI STORIA



Paola Vita Finzi, Angelo Albini
Dipartimento di Chimica
Università di Pavia
angelo.albini@unipv.it

FASCIST RACIAL LAWS AND CHEMISTRY: THE CHEMISTRY COURSE AT THE JEW SCHOOL IN MILAN, 1941

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Chronicle of a small but significant episode where an Israelite community reacted to persecution by investing in instruction, and particularly in chemistry.

As it is well known, in 1938 the Fascist government abruptly introduced a racial policy in Italy, where it had had very little precedent [1]. This affected all of the social activities, as an example the school. A law 'for the defense of the race' came into effect in autumn and gave a final form to decisions taken earlier that year [2]. In the first three articles, the new law established that effective on October 16, 1938: 1) people 'of Jewish race' could not teach or take any office in any teaching institution, whether state-owned or private, that were attended by Italian pupils (in article no. 4 it was further stated that no

textbook by a Jewish author, or where one of a Authors was a Jew, or indeed had been revised or corrected by a Jew could be adopted). This included University professors and assistants; 2) people 'of Jewish race' could not be members of Academies, institutes or associations for the promotion of science, humanities or art; 3) schools attended by Italians could not enroll youths 'of Jewish race', except for those of catholic faith and then only in schools administered by a religious authority. The dramatic effects resulting from the introduction of this law are

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easily figured out. Students and teachers alike found themselves thrown out from their customary life, expelled from school and from social life. In the universities, ninety nine scholars had to leave their chair (of these, five were chemistry professors) severely hindering the operation of academic life [3].

The law was strictly applied in all its aspects. As an example, a renowned institution such as the Lombard Institute, Academy of Science and Arts, founded in Milan in 1797 and a lively center of culture and freedom ever since, promptly expelled the Jewish members. These were 20 Italians (over 170 members) and 5 foreign associates - including R. Willstätter,

H. Bergson and A. Einstein [4]. The president of the Institute who signed the banishment was a very well known chemist, Giuseppe Bruni, professor at the Polytechnic School [5].

The Israelite community reacted by rapidly developing and adapting their own schools that had been established in many cities in the first decades of the 19th century and generally were limited to nursery and primary school. As an example, in the town of Milan, the community succeeded in having eight high school classes in function by the end 1938 and there the students that had been forced to leave their classes could resume their studies. The very success of this initiative caused a further trouble some years later, however. Thus, in summer 1941 a group of students from that school completed the final year of attendance and passed the state-administered final test. These people would have normally applied at a university course.

However, the 1938 law mentioned above stated (art. 10) that students already enrolled could go on with the study and complete the curriculum (although under persecutory conditions, e.g. at examinations Jews candidates were listed separately and were admitted to the examination only after that non-Jewish), but freshmen were not accepted. The future of these young people was discussed in several meetings between the families and the heads of the community. The charge of developing an alternative was given to Bruno Schreiber, a biologist himself excluded from the university (of Milan). As he stated in a letter: "Two or three projects were initially considered, one of which referred to a practical course for laboratory technicians in the field of chemistry and biology. Later, however the choice turned to a regular course of chemistry, or at least of the first year of such a course, according to the official schedule approved by the Italian Department of Education"^a.



Fig. 1 - (left) Notes for the building in the cuisine of the school and (right) a bench in the "laboratory"

Why chemistry? According to one of the students, this was because previous experience had shown that this choice made easier to the acceptance of credits obtained in Italy by Swiss universities. It is possible, however, that the good moment this science was experiencing at the time had a role in inducing this choice.

At this point, Schreiber set out to find a good professor of chemistry and the sensible choice was one of the professors forced to leave the chair in 1938. Thus he asked first one of these that lived in Milan, that is Mario Giacomo Levi, formerly of the Polytechnic School, who could not accept because of his many commitments as consultant^b. He then asked Emilio Viterbi, a pioneer of photographic chemistry in Padova, who did not felt himself equal to a course of general and inorganic chemistry as was demanded by the national scheme^b [6]. Finally, another one of the five former full professors was contacted. This was Ciro Ravenna, who had been an assistant of Ciamician during the last part of his research work and had introduced and developed agricultural chemistry in Italy. After some hesitancy because he felt an organic rather than an inorganic chemist, and thus unsuitable for a course of general and inorganic chemistry, Ravenna accepted. The assistance of a technician was ensured and a teaching laboratory was built in the cuisine of the school (see Fig. 1). Two excellent professors, Guido Ascoli (formerly of the University of Milan) for mathematics and Aurelio Levi (formerly in Padova) for physics likewise accepted and the course actually started in November 1941. This was referred to as "Course of scientific and practical culture" by the organizers. This was a marked understatement, because this actually fully satisfied the requirements for a university first year course in chemistry, the textbooks were those then used at universi-

^aIn a letter to Ciro Ferrara (see below), courtesy by Prof. Fabio Schreiber.

^bM.G. Levi was the director of the Institute of Industrial Chemistry, certainly not an opponent of the Fascist regime, in the sense that he felt himself committed to the State and was involved in a research on the treatment of oil of strategic significance as well as a member of important governmental committees. Indeed the Government attempted to maintain in part his role. Likewise, Viterbi was an expert of photographic chemistry, again a topic of strategic importance, and in fact the government attempted to obtain some help from him without relenting the racial law, but did not succeed.



Fig. 2 - (right) A group of students showing Mendeleev Table and (left) Professor Ciriaco De Santis during a lecture

ties and the teachers were experienced university professors. The offer was largely successful (the number of 15 students had been fixed as the minimum for carrying out the course, but the actual applications, some of which from other part of Italy, came out to ca. two times that number) (see Fig. 2). As a consequence the course was offered also in the academic year 1942-43, with both a second year where Ravenna now taught his favorite organic chemistry and a new edition of the first year course. However, the thing could not proceed after summer 1943 due to the heavy bombing of Milan, the splitting of the country in two states and the more and more harsh control by the German army, threatening the life itself of the Jew citizens. At this juncture, many of the students expatriated and some of them pursued the study at foreign universities, in particular at the Polytechnic School in Lausanne. They came back after that the war ended in 1945 and in many cases concluded their curriculum in an Italian university that, just as Lausanne, fully recognized the credits acquired in the Israelite School. Many of them worked as chemists in industry or as teachers in schools. The decision to establish a university-level school, and in particular in chemistry, thus showed to be considerate and a demonstration of courage and trust in the state by strictly adhering to the state-approved curriculum. It also turned out to be far sighted in the choice of the discipline. Indeed, Italian chemistry was living its best period. This science was highly considered by the fascist government. As reported by Cerruti, in spring 1938, a few months before the introduction of the racist law the IUPAC president, Columbia professor M.T. Bogert expressed his satisfaction with the Italian Government that 'recognized the unfinished possibility of science' and helped research in universities [7]. After the war, Italian chemistry was to enter the most brilliant phase of its history. Giulio

Natta had been called to the chair of industrial chemistry at the Milan Polytechnic in 1938, replacing M.G. Levi, forced to leave as mentioned above [8, 9]. In 1945 Levi came back, but Natta remained, thus there were two chairs. The high scientific level that had been reached at the Polytechnic School and in the universities through the contribution of such excellent scientists and the development of large industries such as Montecatini, Lepetit, Pirelli and Eni established the conditions for major advancements. This was actually what happened and culminated in Natta being awarded the Nobel Prize in 1964. Sadly, the school also shared the tragic events of that time. At least two of the students (Silvia Luzzatto e Elvira Ottolenghi) were killed in 1943 in Italy. Likewise, two of teachers, professors Ciriaco Ravenna and Aurelio Levi did not survive the war. Arrested in 1944, they were deported to the concentration camp of Auschwitz and were killed there.

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