

Gleb Wataghin and the Department of Physics of the University of São Paulo: between Italian and Russian nationalities in times of hostility (1934-1949)

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Abstract: Born in the Russian Empire, the physicist Gleb Wataghin (1899-1986) moved to Italy in 1919 to escape from civil-war. After studying Mathematics and Physics, he became a professor at the University of Turin. In 1934, shortly after the establishment of the University of São Paulo in Brazil, he was invited to be part of a group of professors called the Italian Mission, of which Luigi Fantappiè (Mathematics), Giuseppe Ungaretti (Italian Literacy) and Giuseppe Occhialini (Physics) also participated. This work aims to analyze Wataghin's social trajectory in Brazil in order to observe how the political framework was part of his scientific and educational work at the University. His contributions are discussed under Pierre Bourdieu's theory of the scientific field and Michel Pinault's idea of intellectual scientists. It is observed that before World War II, when Brazil and Italy had a good relationship, Wataghin used to be identified as a legitimate member of the Italian Mission. After 1942 and the break in diplomatic relations between the two countries, the physicist was seen and introduced himself as a Russian citizen, which was important to ensure his permanence in Brazil and to bring him closer to allied scientists, such as Arthur Compton, who used to help the United States diplomatic policies.

Keywords: Gleb Wataghin; FFCL/USP Department of Physics; Second World War.

1. Introduction

This talk is part of my Ph.D. thesis,¹ in which I am investigating the history of the Department of Physics at the University of São Paulo, specifically the role of its first professor, Gleb Wataghin, in the organization of that institution. I want to understand the shaping of that scientific field, in a social historical approach. In his Brazilian trajectory, Wataghin was known for his capacity to build relationships with scientists from different parts of the world, but I focused this work on understanding how his Italian and Russian nationalities were important for him to stay in Brazil and help his colleagues in times of hostility, specifically fascist and Second World War times.

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The history of the physicist Gleb Wataghin meets the Brazilian history of science and higher education in 1934, when the Brazilian engineer Theodoro Ramos, one of the founders of the University of São Paulo (established in January 1934) traveled to Europe to hire professors to the Faculty of Philosophy, Sciences and Letters, where a new scientific field was aimed to be created. Wataghin was born in Russia and moved to Italy in 1919 with his family, to escape from Russian civil-war. Shortly after, he started his mathematics and physics studies in Italy and became a professor at the University of Turin. When Ramos invited him to go to Brazil, he had just received his Italian passport. Wataghin was afraid of being distant from the European scientific field, but the fascist Regime and the good salary offered by the Brazilian university were determinants for him to choose Brazil (Wataghin 2010). In Italy, Wataghin used to work on theoretical physics, quantum theory. However, in Brazil, up to 1937, he was the only professor at the Department of Physics, so he started also an experimental group on cosmic rays, because the Brazilian geographical position was good enough to this kind of research (Videira, Bustamante 1993; Wataghin 2010).

In this paper, we discuss how Gleb Wataghin's Italian and Russian nationalities were important for his stay in Brazil in different political frameworks: the Brazilian-Italian good diplomacy in fascist times (1930s), and the Second World War (1939-1945), when Brazil turned against Italy and the other Axis Powers. The historical sources are composed by Wataghin's correspondence, from the Historical Collection of the Institute of Physics (AHIFUSP) and the Institute of Brazilian Studies Archive (IEB/USP), both at the University of São Paulo, and documents from the State of São Paulo Public Archive.

The methodological approach is Pierre Bourdieu's scientific field notion, in which science, as well as all human action, is part of a universe, with its specific social rules (Bourdieu 2004). Wataghin's trajectory in Brazil is part of the beginning of the constitution of a scientific field at the University of São Paulo, so the study of his trajectory is also the study of that institution. We also analyze his trajectory under Michel Pinault's scientist intellectual idea, which help us pay attention not only to the scientific production of a scientist but also to the social impact of his work and trajectory, by analyzing his network of sociability, itinerary and generation (Pinault 2003).

2. Political framework changes and the circulation of scientists: Italians abroad

In the 1930s, Brazil and Italy had a good diplomatic relationship. After the University of São Paulo's foundation, in January 1934, Italy and France disputed the chairs of the Faculty of Philosophy, Sciences and Letters, where pure science would be stimulated. When Theodoro Ramos traveled to Europe to hire the professors, he met Francesco Severi and Enrico Fermi, who suggested Luigi Fantappiè (mathematics) and Gleb Wataghin (physics) to take part at the Italian Mission, as the Italian group of professors at the University of São Paulo was known. Besides Fantappiè and Wataghin, other Ital-

ian professors² also came to Brazil between 1934 and 1939 (Petitjean 1996, Silva 2015).

When the Fascist Regime published the racist laws in 1938, the Italian scientific field was also affected. In the physics field, for example, Rome's and Arcetri's groups were dismantled, after the social exclusion of their physicists of Jewish origin. At those times, the Italian Jews went to other countries, such as the United States, France, Argentina and Brazil, among others, to continue their personal and professional lives (Caprilo 2010; Orlando 1998).

2.1 Gleb Wataghin's trajectory in Brazil: between Italian and Russian nationalities

During his first years in São Paulo, Brazil, Wataghin started to build a network of scientists between Brazil, Italy and other European countries, and the United States of America. In 1937, the Italian physicist Augusto Occhialini sought Wataghin to find a place of work in Brazil to his son, the physicist Giuseppe Occhialini (Gariboldi 2007). The good diplomatic relations between Brazil and Italy were fundamental for the success of Occhialini's hiring at the University of São Paulo in 1937 (Silva, Siqueira 2018). After the 1938 Italian racial laws, other Italian scientists sought Wataghin to find a position in Brazil, such as the physicist Giorgio Todesco and the young mathematician Sergio Sonino. In Todesco's case, the network of sociability that Wataghin was building in Brazil was fundamental, because he asked the Brazilian Academy of Sciences to help Todesco (Silva, Bontempi Junior 2018).

In the 1930s and in the 1940s, the United States of America applied in Latin America a Good Neighborhood Policy to win support from those countries, which would be useful in Second World War times. In 1941, as part of this policy, the physicist Arthur Compton, who was already in contact with Wataghin, came to Brazil to do researches on cosmic rays and to give lectures in São Paulo and Rio de Janeiro, supported by US cultural diplomacy. When Brazil entered the war against the Axis, in 1942, Wataghin wrote to Compton to show support in the fight against the Nazis (Freire Jr., Silva 2014). From this moment on, we have to discuss Wataghin's Russian identity.

In January 1942, after strong pressure from the US government, Brazil broke diplomatic relations with Italy. As a result, the professors of the Italian Mission had their employment contract interrupted, with the exception of Wataghin for being Russian. If we look at his 1943 employment contract, we can see the following information: "Gleb Wataghin, natural from Russia and of Italian nationality because of naturalization" (São Paulo 1943, p. 51).³ In a letter sent by Wataghin to the Dean of the Faculty of Philosophy in August 1942, when Brazil had just entered the war alongside the United States, he

² Ettore Onorato (geology), Francesco Piccolo (Italian literacy), Giacomo Albanese (mathematics), Luigi Galvani (statistics), Ottorino de Fiori di Cropani (geology), Giuseppe Ungaretti (Italian literacy), Attilio Venturi (Greek literacy), Giuseppe Occhialini (physics), Vittorio de Falco (Greek literacy) (Wataghin 1992, Silva 2015).

³ Original in Portuguese: "Natural da Rússia e de nacionalidade italiana em virtude de naturalização" (São Paulo 1943, p. 51).

said: “In this difficult time [...] I have the honor to send you by this letter the declaration of my unrestricted solidarity for Brazil and for the common cause of the United Nations”. And more: “Despite being for twenty-three years far from my homeland, my dedication and my love for Russia were always dominant elements of my feelings” (São Paulo 1942).⁴

As we can see, Wataghin’s support to the Allied cause was important to show to his bosses he did not pose a threat to the university and to Brazil. However, Wataghin’s devotion to Russia was not restricted to formal declarations at the university. From 1944 to 1947, Wataghin took part in the Russian Relief Subcommittee for the Victims of the War (São Paulo 1947a, São Paulo 1947b), an institution linked to the Red Cross, which sent donations from Brazil to the Union of Soviet Socialist Republics (Zen 2010).

If Wataghin could stay at the University of São Paulo for being Russian, he also could keep helping his Italian colleagues who had problems with the fascism and the racist laws. That was Giuseppe Occhialini’s case, who was helped by Wataghin a second time in 1944. Just like his colleagues from the Italian Mission, Occhialini’s employment contract was interrupted in 1942. In 1944, Wataghin helped him return to the Department of Physics, to be the professor of an extension course on X-rays. In the same year, the mathematician Carlo Tagliacozzo, who was persecuted by the racial laws, also sought Wataghin for a position in Brazil. He taught an extension course on Mathematical Theory of Elasticity at the Department of Mathematics at the University of São Paulo (Silva, Bontempi Junior 2018).

3. Wataghin’s Italian and Russian nationalities in his Brazilian period: final remarks

Wataghin stayed in Brazil until 1949 when he was invited to be the Dean of the Institute of Physics at the University of Turin (Wataghin 1992). The time he spent in Italy before going to Brazil was important for his network of sociability, to help his colleagues and to help himself return to Italy after the war. The Brazilian approach to the United States in Second World War times was determinant to interrupt the Italian Mission work at the University of São Paulo. Wataghin’s Russian nationality was fundamental for his permanence in Brazil, and more, for his distancing from Fascist Italy. His itinerary in Brazil and the network of sociability he built among Italians, Brazilians and US scientists were part of his work as a professor and as a physicist, since he had to negotiate and to discuss his own nationality to keep working at the Brazilian university in times of hostility. As we take as a premise that Wataghin’s personal and professional trajectory was part of the constitution of the first years of the University of São Paulo scientific field, we can consider that the Department of Physics was not autonomous in

⁴ Original in Portuguese: “Nesta hora grave [...] tenho a honra de enviar a V. Excia por meio d’esta a declaração de minha irrestrita solidariedade com a Brasil e com a causa comum das Nações Unidas”. “[...] apesar de permanencia durante 23 anos fora de minha Patria, a minha dedicação e o meu amor para Russia ficaram sempre elementos dominantes de meus sentimentos”.

relation to other social fields, such as the diplomatic and the political field. This means that Wataghin had to adapt his practices in Brazil according to the social context.

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