“The patriarch of the Judeo-Italian intellectuals longing for the embrace with Uncle Sam”: Veblen and the Italian refugees

Mathematisches Forschungsinstitut Oberwolfach

Report No. 56/2022

DOI: 10.4171/OWR/2022/56

History of mathematics through collaboration: Toward a composite portrait of Oswald Veblen

Organized by
Sloan Despeaux, Cullowhee
Della Dumbaugh, Richmond
Jemma Lorenat, Claremont

4 December – 10 December 2022

Abstract. Oswald Veblen played a pivotal role in the history of American mathematics in the twentieth century. His life, however, remains largely unstudied. This conference was designed to redress this issue by exploring Oswald Veblen and his contributions to the history of American and international mathematics in an interactive workshop that used the Veblen Papers from the US Library of Congress as a foundational and shared resource. With this frame, the conference raised queries and discussed issues related to Veblen, his mathematical contributions, and his collaborative initiatives, including his critical work aiding refugee mathematicians in WWII that helped establish long standing programs at American institutions that continue to advance mathematics at the highest level. The workshop echoed Veblen's collaborative focus and brought together historians of mathematics and mathematicians to work alongside one another during the conference. This content and collaborative approach combined to advance our understanding of Veblen's collaborations and the history of twentieth-century mathematics more broadly.

Mathematics Subject Classification (2020): 01A60; 01A70; 51-03.

Introduction by the Organizers

Oswald Veblen earned his PhD in mathematics in 1903 from the University of Chicago under the direction of E. H. Moore. He was, then, among the first internationally-recognized American mathematicians educated in his home country. Woodrow Wilson invited Veblen to Princeton as a Preceptor in 1905 and Veblen remained at the institution and advanced through the ranks, ultimately becoming the first H. B. Fine Professor. While at Princeton, he served the broader

American mathematical community in his role as AMS President (1923-1924) and in his work to secure funds for mathematics (most notably in the form of National Research Council Fellowships). In 1932, he left Princeton University, but not the town, to join the newly formed Institute for Advanced Study as its first faculty member. Saunders Mac Lane has described Veblen's contributions to the Institute as "legendary."[1] Veblen helped hire the first faculty members at the Institute, including Albert Einstein, Hermann Weyl, and James Alexander. He served as a fierce advocate for immigrant scholars. He recognized the value of young scholars and helped establish structures at the IAS that allowed these mathematicians a regular and ongoing place there. He remained on the IAS faculty until 1950 when he segued to Professor Emeritus. As with many mathematicians, this title was a shift in name only, as he continued to pursue his interest in the development of mathematics. He died in 1960, having lived a life fully devoted to mathematics, advancing colleagues through various initiatives and mathematical ideas in geometry and topology.

In terms of style, this workshop followed the successful conference strategy employed by "Women in Numbers" to create project-based interactive workshops with measurable outcomes. Drawing on the archives from the Veblen papers at the US Library of Congress, this workshop began with six talks on topics related to Veblen and his contributions to American and international mathematics in the early- to mid-twentieth century. These talks comprise the first six abstracts below. For the remainder of the time participants worked in small groups on themes in the life and professional contributions of Veblen using his papers from the Library of Congress as a shared resource. The five groups were initially focused on Veblen's foundations of geometry, Veblen and Princeton University, Veblen and the American Mathematical Society, Veblen and World War II, and Veblen and the Institute for Advanced Study. As the workshop continued these topics were refined and revised, as can be seen in the abstracts that follow. At the end of each working day, groups reported on their progress, stumbling blocks, and unexpected discoveries. The abstracts from each group point to research conducted during the workshop, as well as how the collaborative projects will continue and what additional archival resources will be incorporated. This large-scale collaboration on the same corpus served as a novel approach to historical scholarship. The final talk reflected on the process of the workshop, notable achievements, and possible next steps.

The amenities and resources of MFO were particularly conducive for this collaborative conference strategy. In particular, conference participants appreciated the ability to access the MFO library's physical and online resources, the space to meet as a whole as well as in subgroups at any time, beautiful blackboards and chalk, and, of course, bountiful coffee. The organizers would like to extend a generous thank you to Petra Lein for her helpful ideas and assistance in making arrangements for excursions for the group to enjoy Black Forest torte in the

[1]Saunders Mac Lane, "Oswald Veblen: 1880-1960," Biographical Memoirs, National Academy of Science, 1964, pp. 323-341, on p. 333.

town of Oberwolfach and the Christmas Market and Living Advent Calendar in Gengenbach.

Workshop: History of mathematics through collaboration: Toward a composite portrait of Oswald Veblen

Table of Contents

"The patriarch of the Judeo-Italian intellectuals longing for the embrace with Uncle Sam": Veblen and the Italian refugees

Erika Luciano

The so-called *Measures for the defense of the race* (5 September-17 November 1938) in Italy led to mass migrations, not only of scholars and intellectuals, but of some 6,000 individuals of Jewish descent from all walks of life, forced to leave because of the impossibility of providing for one's self and family and of tolerating the loss of civil and political rights, along with the reduction to a caste of pariahs (social and professional downgrading, marginalization, the injury to their own dignity as men and citizens, etc.). The exodus involved the academy particularly, which in 1938 counted almost 200 university professors and lecturers of Jewish origin out of 1250. The loss of their human capital in some sectors slowed down, and even halted, Italy's cultural, technological and economic progress, with serious short- and long-term implications.

Jewish academic emigration from racist Italy quite largely differed from the flight of scholars from Central and Eastern Europe. Facilitated by networks of solidarity which were grounded on the web of international relations interwoven in the years of the Belle Époque of scientific internationalism, this exodus had to face various specific obstacles.

- Linguistic difficulties, all the more important for people who worked with knowledge and words, and who wanted to express their thoughts with a certain precision and lexical finesse. In a country like Italy where the learning of English had not been promoted at all by the fascist regime, the language handicap was painfully felt.
- Competition with refugees from other totalitarian regimes, and in particular with those fleeing the Third Reich, who in the five years preceding the racial laws had occupied many positions in English-speaking academia.
- The (understandable) perplexities of foreign institutions in welcoming into their staff men who had been notoriously fascist until 1938 and sometimes remained so.
- The embarrassment of the newcomers in interacting with Italians who had left the country before 1938 for political reasons (the so-called *fuoriusciti*).
- The difficulty in entering scientific and institutional contexts characterized by forms, methods and dynamics of organization of research and teaching significantly different from the Italian ones. (Segré called it "the university minuet that one danced at Berkeley, as one did in all universities.")

Globally, it must be frankly said, Italians struggled to adopt new ways of thinking and making culture. They were very able to export their know-how, but rarely re-targeted their profiles to detach from the traditions of study in which they had been trained and in which they had worked until expatriation.

The choice between leaving or staying, and the success or failure of the migration project, were conditioned by many factors: individual financial possibilities, age of the potential exile, gender, breadth and effectiveness of the social and relational

capital which he or she could raise. Adaptability and flexibility of the migration project were central, as were prestige, skills and competencies. In particular, those who had scant or distant connections with the English-speaking intellectual world, saw their opportunities reduced to a minimum.

Veblen is a main actor in the story. For Italian mathematicians who wanted to leave, Veblen was a reference figure, both as a member of the Emergency Committee in Aid of Displaced German Scholars (later renamed Emergency Committee in Aid of Displaced Foreign Scholars) since its foundation in 1933, and as an individual colleague sensitive to their plight. Veblen had been to Italy several times; he had corresponded with Vito Volterra and Tullio Levi-Civita since the late nineteenth century and had consulted them about the organization of mathematical life in Rome before shaping the Institute for Advanced Study. Almost all Italian would-be refugees turned to him: six mathematicians, two astronomers, two engineers, a full professor in Roman Law, a lecturer in embryology, many physicists, sometimes directly, sometimes through Levi-Civita.

Veblen always responded to their appeals, without giving illusions but also without cutting off hope. He collected information on openings all over the world, circulated the requests for help, carefully examined and ranked the applications, before submitting them to universities, research institutions, laboratories, archives, libraries or schools all over the world. Not infrequently, he also acted in mundane and precise matters, typing curricula written with illegible graphs, correcting English, and reviewing the files before proposing a candidate for a position. Often, he and his wife Elizabeth Mary Dixon Richardson hosted the Italian emigrants and helped them to fit into a country like America with a lifestyle and issues very different from Italy. The sons of Volterra, Castelnuovo, Fano and Fubini, who had known Veblen as children, ended up viewing him 'as a sort of father' (quotation from a letter of Gina Castelnuovo to Ugo Fano).

Thanks to Veblen, many persons mobilized in favour of Italians and teamed up with rescue agencies to resettle them in North and South America, Australia, etc. The engagement of these men represents a fundamental lesson in academic rescue and highlights the political role mathematicians can play through scientific diplomacy, even if their action did not always suffice. And even if, as happened on various occasions, Veblen's efforts provoked opposition within the American mathematical community.

Veblen also intervened publicly on at least two occasions: when he resigned from the Zentralblatt editorial board, in protest against Levi-Civita's dismissal and when he refused to participate in the Volta Conference of 1939, in public protest against the Royal Academy of Italy and the Italian Mathematical Union. For these gestures, as well as for his scientific contributions, Veblen would be appointed foreign member of the Lincei academy in 1947, nominated by Guido Castelnuovo.

Based on new archival materials, this paper presents an overview of the phenomenon of Italian mathematical emigration, placing an especial emphasis on Veblen's individual efforts. His correspondence with Italian refugees has offered

constructive suggestions for identifying at least three open questions which deserve attention.

- Did Veblen work merely on account of simple scientific realizations or did emotional involvement and humanitarian feeling play a role?
- How did Veblen's rescue action depend on his previous experiences of mentoring and fundraising?
- In aiding the refugees, did Veblen act as a stateman, as a diplomat, as a good person, or as a grand man?

Veblen's correspondence with Italian aspiring refugees and displaced scholars constitutes an intensely human iconography of personal and professional lives, of individual and institutional choices, of presences and absences (who succeeded in fleeing, who failed, who did not have the chance to leave), of scientific and ethical responsibilities in evaluating and recruiting colleagues. A portrait of a gentleman and of a gentle man emerges, of a man of science who combined a concern for the welfare of mathematics itself with a sympathetic concern for individuals.

References

[1] Luciano, Erika, *Looking for a space of intellectual survival. The Jewish mathematical diaspora from fascist Italy. 1938-1948*, Basel: Springer (2023 f.c.).

[2] Reingold, Nathan, *Refugee Mathematicians in the United States of America, 1933-1941: Reception and Reaction*, Annals of Science **38** (1981), 313–338.

[3] Siegmund-Schultze, Reinhard, *Mathematicians Fleeing from Nazi Germany. Individual Fates and Global Impact*, Princeton: University Press (2009).

The Oslo International Congress of Mathematicians 1936

Christopher Hollings

The International Congresses of Mathematicians (ICMs) have been held at (reasonably) regular intervals since 1897, and — despite what many mathematicians have chosen to believe — have certainly not been isolated from the wider political circumstances within which they have taken place. This is particularly true of the 1936 ICM, held in Oslo against the backdrop of German rearmament, forced emigrations from Germany, the Italian invasion of Abyssinia, and the strengthening of ideological control in the USSR, to mention just a few points from the European politics of the mid-1930s. In this talk, I give a brief account of the congress, in both its mathematical and political aspects, as described in the book [2]. In line with the aims of the wider workshop, I try to bring out Veblen's contributions both to the ICMs (he was a plenary speaker in Oslo) and to the wider international mathematical community.

A study of the Oslo ICM reveals that there were five national groups in particular (though not all of them were present in Oslo) whose actions shaped the meeting:

- the Norwegian organisers;
- the politically selected German delegation;

Participants

Prof. Dr. David Aubin
Institut de Mathématiques de Jussieu
Histoire des Sciences Mathématiques
Case Postale 247
4, place Jussieu
75252 Paris Cedex 05
FRANCE

Prof. Dr. Benjamin Braun
Department of Mathematics
University of Kentucky
715 Patterson Office Tower
Lexington, KY 40506-0027
UNITED STATES

Dr. Juan Carvajalino
Université Paris 8
Laboratoire d'Economie Dionysien
2 rue de la Liberté
93200 Saint-Denis
FRANCE

Prof. Dr. Sloan Despeaux
Western Carolina University
Department of Mathematics and
Computer Science
426 Stillwell Building
Cullowhee NC 28723
UNITED STATES

Prof. Dr. Della Dumbaugh
221 Richmond Way
Dept. of Mathematics
University of Richmond
212 Jepson Hall
Richmond VA 23173
UNITED STATES

Dr. Samson Duran
EST-GHDSO,
UNIVERSITÉ PARIS SACLAY,
Bâtiment 407,
Rue du Doyen Georges Poitou,
91405 Orsay Cedex
FRANCE

Dr. Helena Durnova
Department of Mathematics
Faculty of Education
Masaryk University
Porici 31
603 00 Brno
CZECH REPUBLIC

Prof. Dr. Caroline Ehrhardt
Département de Mathématiques et
Histoire de Sciences
Université de Paris 8
2 rue de la liberté
93526 Saint-Denis Cedex
FRANCE

Dr. Emmylou Haffner
ITEM (CNRS/ENS)
45, rue d'Ulm
75005 Paris
FRANCE

Dr. Christopher Hollings
Mathematical Institute
University of Oxford
Andrew Wiles Building
Woodstock Road
Oxford OX2 6GG
UNITED KINGDOM

Prof. Dr. Stephen Kennedy
MAA/AMS Publications
1000 Greenleaf Ct
Northfield MN 55057
UNITED STATES

Dr. Deborah A. Kent
The Mathematical Institute
University of St Andrews
North Haugh
St. Andrews Fife KY16 9SS
UNITED KINGDOM

Prof. Dr. Jemma Lorenat
Pitzer College
1050 North Mills Avenue
Claremont, CA 91711
UNITED STATES

Prof. Dr. Erika Luciano
Dipartimento di Matematica
Universita degli Studi di Torino
Via Carlo Alberto, 10
10123 Torino
ITALY

Dr. Nicolas Michel
Bergische Universität Wuppertal
Fakultät 04 Mathematik und
Naturwissenschaften
Raum F.12.02
Gaußstr. 20
42119 Wuppertal
GERMANY

Dr. Deniz Sarikaya
Vrije Universiteit Brussel
Centre for Logic and Philosophy of
Science
Pleinlaan 2
1050 Brussels
BELGIUM

Dr. Laura Turner
Department of Mathematics
Monmouth University
400 Cedar Avenue
West Long Branch 07764
UNITED STATES