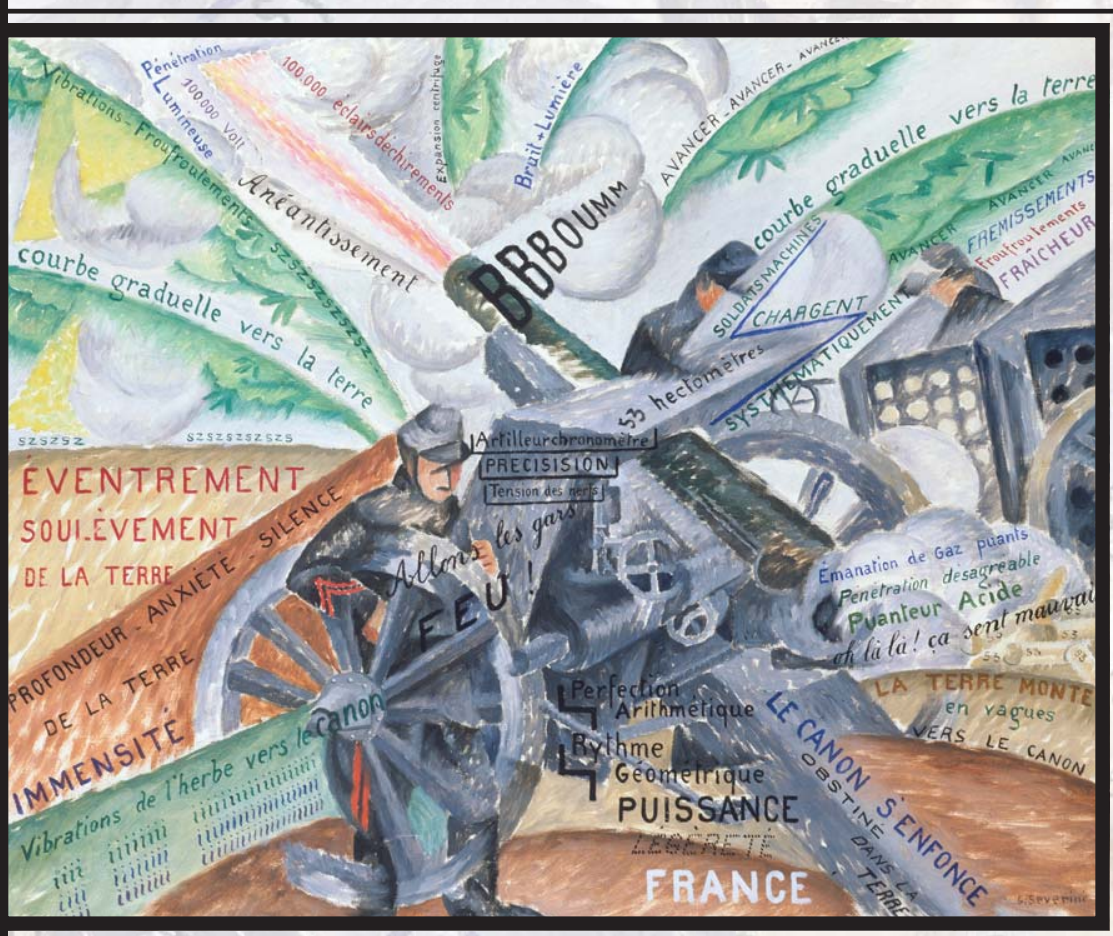
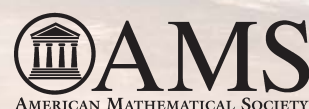


THE WAR OF GUNS AND MATHEMATICS

Mathematical Practices and Communities
in France and Its Western Allies
around World War I



David Aubin
Catherine Goldstein
Editors



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American Mathematical Society
Providence, Rhode Island

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2010 *Mathematics Subject Classification*. Primary 01-02, 01A60, 65-03, 70-03, 97-03.

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For additional information and updates on this book, visit
www.ams.org/bookpages/hmath-42

Library of Congress Cataloging-in-Publication Data

The war of guns and mathematics : mathematical practices and communities in France and its western allies around World War I / David Aubin, Catherine Goldstein, editors.

pages cm. — (History of mathematics ; 42)

Includes bibliographical references and index.

ISBN 978-1-4704-1469-6 (alk. paper)

1. War and mathematics. 2. World War, 1914–1918—Science. I. Aubin, David, 1967–
II. Goldstein, Catherine (Mathematician)

QA10.8.W37 2014

510.944'09041—dc23

2014012563

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Contributors

Thomas Archibald is a professor in the Department of Mathematics, Simon Fraser University, Burnaby, Canada. His research interests revolve around mathematical analysis and its applications, mostly in the period 1850–1930. He also has ongoing interests in the relationship between mathematics, mathematicians, and the state.

David Aubin is a professor of the history of science at the Université Pierre et Marie Curie (UPMC) in Paris and a member of the Institut de mathématiques de Jussieu-Paris Rive Gauche. His work concerns interactions of mathematics with science and culture in the nineteenth and twentieth centuries. He is the co-editor with Patrice Bret of *Le Sabre et l'éprouvette: l'invention d'une science de guerre, 1914–1939* (14–18 Aujourd'hui, 2003) and with Charlotte Bigg and Otto Sibum of *The Heavens on Earth: Observatories and Astronomy in Nineteenth-Century Science and Culture* (Duke, 2010).

June Barrow-Green is a senior lecturer in the history of mathematics department at the Open University. She is editor of *Historia Mathematica* and a former president of the British Society for the History of Mathematics. She works on the history of nineteenth- and twentieth-century mathematics with a special interest in dynamical systems. Author of *Poincaré and the Three-Body Problem* (AMS/LMS, 1997), history editor of *The Princeton Companion to Mathematics* (Princeton, 2008), she is currently working on a book on G. D. Birkhoff.

Jean-Luc Chabert is a professor of mathematics at the Université de Picardie, Amiens, France. He has been associate editor of the *Revue d'histoire des mathématiques* from 1995 to 1997. He has co-authored *Integer-valued Polynomials*, Mathematical Surveys and Monographs (AMS, 1996) and edited *A History of Algorithms* (Springer, 1999).

Della Dumbaugh is a professor of mathematics at the University of Richmond in Richmond, Virginia, U.S.A. Her research focuses on the history of mathematics in the late nineteenth and early twentieth centuries, particularly as it relates to algebra and number theory. She has recently collaborated on *Emil Artin (1898–1962): Beiträge zu Leben, Werk und Persönlichkeit* edited by Karin Reich and Alexander Kreuzer (Dr. Erwin Rauner Verlag, 2007) and on the *History of Algebra in the 19th and 20th Centuries*, edited by Jeremy J. Gray and Karen Hunger Parshall (AMS-LMS, 2007).

Christian Gilain is a professor emeritus of mathematics at the Université Pierre et Marie Curie and a member of the Institut de mathématiques de Jussieu-Paris Rive Gauche. Gilain's work principally deals with the history of mathematical analysis in the eighteenth and nineteenth centuries. He has published studies about the theory of differential equations and its applications in the work of Poincaré, Cauchy, Condorcet, and D'Alembert. He is also interested in the debates on the place of mathematics in science and knowledge, especially through the lenses of the history of two major French institutions: the Academy of Sciences and the École polytechnique.

Hélène Gispert is a professor of the history of science at the University Paris-Sud (Orsay, France) and a member of the Groupe d'histoire et de diffusion des sciences d'Orsay (GHDSO, EA 1610). Her work deals with mathematics and mathematicians in France in the first half of the twentieth century. She has in particular studied the activity of the French mathematicians Émile Borel and Henri Lebesgue during WWI. She has published with Juliette Leloup a study of the features of the French mathematical activity during the interwar period with reference to the effects of WWI. She is also interested in the societal, structural, and conceptual changes that occurred in mathematics education over the twentieth century.

Catherine Goldstein is a director of research at the CNRS and a member of the Institut de mathématiques de Jussieu-Paris Rive Gauche. Her work aims at developing a social history of mathematical practices and results, with a special, but not exclusive, focus on the history of number theory. Among her recent publications are “La théorie des nombres en France dans l'entre-deux-guerres : de quelques effets de la première guerre mondiale,” *Revue d'histoire des sciences* **62** (2009), pp. 143–176; and with D. Aubin and H. Gispert, “Les mathématiciens français dans la Grande Guerre,” in *1914-1918. Identités troublées : les appartenances sociales et nationales à l'épreuve de la guerre*, ed. F. Bouloc, R. Cazals, A. Loez (Privat, 2011), pp. 183–197.

Deborah Kent is an assistant professor in the Department of Mathematics at Hillsdale College in Michigan, U.S.A. Her research activity in the history of mathematics focuses primarily on mathematics in the scientific, institutional, and social context of the nineteenth and twentieth centuries. Her current work addresses questions about the communication and circulation of mathematical knowledge and practices, especially related to the American mathematical research community in the early twentieth century.

Philippe Nabonnand is a professor of the history of mathematics at the University of Lorraine, in Nancy. Among his recent works are *Les uns et les autres... Biographies et prosopographies en histoire des sciences*, ed. with L. Rollet (Presses universitaires de Nancy, 2011) and *Justifier en mathématiques*, ed. with Dominique Flament (Éditions de la Maison des Sciences de l'Homme, 2011).

Pietro Nastasi, now retired, was a professor of the history of mathematics at the University of Palermo. He works on the history of Italian mathematics in the modern and contemporary periods. Among his recent publications are “Towards

a Scientific and Personal Biography of Tullio Levi-Civita (1873–1941),” *Historia Mathematica* **32** (2005), pp. 203–236 (with R. Tazzioli); *Italian Mathematics Between the Two World Wars* (Birkhäuser, 2005) (with A. Guerraggio); “Problems of Method in Levi-Civita’s Contributions to Hydrodynamics,” *Revue d’histoire des mathématiques* **12** (2006), pp. 81–118 (with R. Tazzioli); *Roma 1908: il Congresso internazionale dei matematici* (Boringhieri, 2008) (with A. Guerraggio); and *L’Italia degli scienziati* (Bruno Mondadori, 2010) (with A. Guerraggio).

Laurent Rollet is an associate professor at the Institut National Polytechnique de Lorraine and a researcher at the Laboratoire d’histoire des sciences et de philosophie–Archives Henri Poincaré. He is the editor of Henri Poincaré’s private and administrative correspondence and of a forthcoming biographical dictionary of lecturers at the Nancy Faculty of Sciences (1854–1918). He is currently in charge, at the Maison des sciences de l’homme de Lorraine, of a research program devoted to the history of the University of Nancy. He has edited *Henri Poincaré : Scientific Opportunism, An Anthology Compiled by Louis Rougier* (Birkhäuser, 2002) and co-edited with M.-J. Choffel-Mailfert at the Presses universitaires de Nancy, *Aux origines d’un pôle scientifique : faculté des sciences et écoles d’ingénieurs à Nancy du Second Empire aux années 1960*, as well as *Mémoire et culture matérielle de l’université : valorisation, sauvegarde, recherche*.

Rossana Tazzioli is a professor of the history of mathematics at the University of Lille 1 since 2008. She is interested in the history of geometry and mathematical physics between 1850 and 1950 and in the institutional history in Italy from Unification (1861) to the Second World War. Among her recent publications are “I matematici tra scienza, politica e istituzioni,” in *Storia d’Italia: Annale 26, Scienza e cultura dell’Italia unita* (Einaudi, 2011); *Riemann: le géomètre de la nature* (Belin, 2010); “Göttingen et Berlin au XIX^e siècle,” in *La mathématique. I: Les lieux et les temps* (CNRS Editions, 2009), pp. 501–524; and *Mathematicians at War: Volterra and his French Colleagues in World War I* (Springer, 2009) (with L. Mazliak).

Foreword

This book is the outcome of an international research project launched by the team “Histoire des sciences mathématiques” of the Institut de mathématiques de Jussieu-Paris Rive Gauche (CNRS, Sorbonne universities, Université Pierre et Marie Curie, Université Paris, Diderot, Sorbonne Paris Cité) (UMR 7586) in 2005. In several workshops organized in Paris, contributors to this volume as well as many other historians, mathematicians, and military engineers explored various aspects of the life of mathematics and mathematicians around the time of World War I. An international workshop was held in the Centre international de rencontres mathématiques (CIRM), in Marseille–Luminy, in January 2007. The volume that we present now therefore is the result of extensive exchanges among participants of these workshops.

In the following, we have made a few editorial choices that should be explained. For wider understanding, quotations as well as institutional names have almost always been translated into English. We include original texts only when sources are taken from unpublished material that is not readily accessible to scholars. The names of most institutions have been translated, but original acronyms have usually been kept.

This project was continuously supported by our home institutions: the Centre national de la recherche scientifique (CNRS) and the Université Pierre et Marie Curie (UPMC), in particular via the Institut de mathématiques de Jussieu–Paris Rive Gauche and the Atelier Science – Histoire – Cité (ASHiC). The work that led to this book has been supported by a British Academy–CNRS PICS program between the team “Histoire des sciences mathématiques” at the Institut de mathématiques de Jussieu–Paris Rive Gauche and the Center for the History of Mathematical Sciences of the Open University (Milton Keynes), “Constructing modernities: mathematical sciences, mathematicians and the First World War” (2005–2006), and by the young researchers’ program “De Humboldt à Gaïa,” of the Agence nationale de la Recherche (France).

Many people have helped us along the way. We express special thanks to our colleagues Liliane Beaulieu, Charlotte Bigg, Patrice Bret, Alain Carrière, Moritz Epple, Claudine Fontanon, Sébastien Gauthier, Jean-Marc Ginoux, Jeremy Gray, Pierre Lamandé, Juliette Leloup, Pierre Mounier-Kuhn, Jim Ritter, Norbert Schappacher, Martina Schiavon, Arne Schirrmacher, Florian Schmalz, Reinhard Siegmund-Schultze, Pavel Šišma, Suman Seth, Dominique Tournès, and Annette Vogt.

This book is based on extensive archival research. We are happy to acknowledge the help of several institutions that let us use archival material, manuscripts, and illustrations: we cite in France, the archives of the Académie des Sciences in Paris and especially Florence Greffe, the French National Archives, the Service historique de la défense nationale, the archives of the French Foreign Ministry,

the Bibliothèque de la Sorbonne, the Bibliothèque de l'Institut, the Bibliothèque Mathématiques–Informatique–Recherche (CNRS–UPMC–Paris–Diderot) and especially Cédric Dameron, the archives of the École polytechnique, the archives of the University of Nancy and the city of Nancy, the archives of the University of Strasbourg, the archives départementales of Pas–de–Calais, of Meurthe–et–Moselle, and of Bas–Rhin; in the U.K., the Cambridge University Archives and Saint John's College, the archives of Oxford University, the National Archives, the Royal Society Archives, and the archives of the London Mathematical Society; in Italy, the archives of the Istituto per le Applicazioni del Calcolo and the archives of the Accademia nazionale dei Lincei; in the U.S., the archives of Harvard University, of the Carnegie Institution, of the Massachusetts Historical Society, of Rice University, and the Library of Congress; and in Sweden, the archives of the Institute Mittag–Leffler.

The cover of this book contains a painting by the Futurist painter Gino Severini, titled *Canon en action*, from 1915. In this painting modern art intermingles mathematical symbolism with military themes. This painting comes from the Museums of Cologne Collections, whom we would like to thank for giving us permission to use this work of art.

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ISBN 978-1-4704-1469-6



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