

Contents

List of Figures *vii*

Unexpected Connections, Powerful Precedents, and
Big Questions: The Work of Michael Sean Mahoney
on the History of Computing 1

Thomas Haigh

PART ONE Shaping the History of Computing

- 1 The History of Computing in the History
of Technology 21
- 2 What Makes History? 38
- 3 Issues in the History of Computing 42
- 4 The Histories of Computing(s) 55

PART TWO Constructing a History for Software

- 5 Software: The Self-Programming Machine 77
- 6 Extracts from *The Roots of Software Engineering* 86
- 7 Finding a History for Software Engineering 90

- 8 Boys' Toys and Women's Work: Feminism Engages Software 106

PART THREE The Structures of Computation

- 9 Computing and Mathematics at Princeton in the 1950s 121
- 10 Computer Science: The Search for a Mathematical Theory 128
- 11 Extracts from *Computers and Mathematics: The Search for a Discipline of Computer Science* 147
- 12 The Structures of Computation and the Mathematical Structure of Nature 158
- 13 Extracts from *Software as Science—Science as Software* 183
- Éloge: Michael Sean Mahoney, 1939–2008 197
Jed Z. Buchwald and D. Graham Burnett
- Notes 205
- Acknowledgments 241
- Index 243