Contents

Foreword vii Deborah G. Douglas

Preface to the Anniversary Edition xi
Acknowledgments (preface from original edition) xxxv
General Introduction (from original edition) xxxix

I Common Themes in Sociological and Historical Studies of Technology 1

Introduction 3

The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other 11 Trevor J. Pinch and Wiebe E. Bijker

The Evolution of Large Technological Systems 45
Thomas P. Hughes

Society in the Making: The Study of Technology as a Tool for Sociological Analysis 77 Michel Callon

II Simplifying the Complexity 99

Introduction 101

Technology and Heterogeneous Engineering: The Case of Portuguese Expansion 105

John Law

The Nelson-Winter-Dosi Model and Synthetic Dye Chemistry 129 Henk van den Belt and Arie Rip vi Contents

The Social Construction of Bakelite: Toward a Theory of Invention 155 Wiebe E. Bijker

III Strategic Research Sites 183

Introduction 185

Missile Accuracy: A Case Study in the Social Processes of Technological Change 189

Donald MacKenzie

The Social Locus of Technological Practice: Community, System, or Organization? 217
Edward W. Constant II

Regulatory Science and the Social Management of Trust in Medicine 237
Henk J. H. W. Bodewitz, Henk Buurma, and Gerard H. de Vries

The Consumption Junction: A Proposal for Research Strategies in the Sociology of Technology 253

Ruth Schwartz Cowan

Seeing with Sound: A Study of the Development of Medical Images 273 Edward Yoxen

IV Technology and Beyond 297

Introduction 299

Reconstructing Man and Machine: A Note on Sociological Critiques of Cognitivism 303
Steve Woolgar

Expert Systems and the Science of Knowledge 321 H. M. Collins

References 341 Contributors 371 Name Index 375 Subject Index 385