

NOTE ON SOURCES

This book is based on original sources, the vast bulk of them unedited manuscripts written in French. Unless indicated otherwise, all translations are my own. The main cache of papers regarding the metric expedition of 1792-9 is located in the E2 series of the archives of the Observatoire de Paris. Important additional Delambre papers are located in the Bibliothèque de l'Institut National, the library of Brigham Young University, Provo, Utah and the Karpeles Museum in Santa Barbara, California, as well as in holdings in Amiens, New York, London and Utrecht. Important additional Méchain papers are located in the Biblioteca Universitaria di Pisa and in the Kongelige Bibliotek, Copenhagen, as well as in holdings in Laon, Milan and Madrid. Other valuable papers on these two savants, on their contemporaries and on the metric system in general can be found in the archives of the Académie des Sciences in Paris, as well as in major and minor archives and libraries in Paris, the French provinces and throughout the world. Below I list those institutions where I found the documents cited in the endnotes and the acronyms and other abbreviations I use when citing them. Following each citation of an archival source, I provide the carton reference number for scholars who wish to locate that document. I want to thank the archivists and librarians who assisted me with my research, and especially the staff of the interlibrary loan office at Northwestern University.

As the notes which follow stick closely to the material presented in the text, I would like to acknowledge several key intellectual debts here. The foremost historian of metrology is the great Polish economic historian Witold Kula, whose book *Measures and Men*, translated by R. Szreter (Princeton: Princeton University Press, 1986) helped me to formulate the argument of this book, although I differ with him in my conclusions. My thinking on political economy

has been shaped by the work of Karl Polyani, whose *The Great Transformation* (New York: Farrar and Rinehart, 1944), a neglected and sometimes baffling classic. In the past decade a new approach to the history of science has transcended the simplistic division between technical histories and contextual studies. The most helpful works on the intersection of the exact sciences and social-cultural values have been the writings of Lorraine Daston, Simon Schaffer, Steven Shapin, M. Norton Wise and especially Theodore Porter, whose *Trust in Numbers: Objectivity in Science and Public Life* (Princeton: Princeton University Press, 1995) has inspired me time and again. For general histories of the metric system, no one has yet surpassed two rather dated works from the beginning of the twentieth century: Guillaume Bigourdan, *Le système métrique des poids et mesures* (Paris: Gauthier-Villars, 1901) and Adrien Favre, *Les origines du système métrique* (Paris: Presses Universitaires de France, 1931). The one strong recent treatment is the wry article by John L. Heilbron, 'The Measure of Enlightenment' in *The Quantifying Spirit in the Eighteenth Century*, edited by Tore Frängsmyr, John L. Heilbron and Robin E. Rider (Berkeley: University of California Press, 1990), pp. 207-42. My own analysis of the political and economic significance of the metric system can be found in Ken Alder, 'A Revolution to Measure: The Political Economy of the Metric System', in *The Values of Precision*, edited by M. Norton Wise (Princeton: Princeton University Press, 1995), pp. 39-71.

Abbreviations of Archives and Libraries

AAS	Archives de l'Académie des Sciences, Paris.
ADAu	Archives Départementales de l'Aude, Carcassonne.
ADC	Archives Départementales du Cher, Bourges.
ADPO	Archives Départementales des Pyrénées-Orientales, Perpignan.
ADSe	Archives Départementales de la Seine, Paris.
ADSM	Archives Départementales de Seine-et-Marne, Melun.
ADSo	Archives Départementales de la Somme, Amiens.
ADT	Archives Départementales du Tarn, Albi.
AHAP	Archives Historiques de l'Archevêché de Paris, Paris.
AMAE	Archives du Ministère des Affaires Étrangères, Paris.
AMSD	Archives Municipales de Saint-Denis, Saint-Denis.
AML	Archives Municipales, Lagny.

- AMNM Archivos del Museo Naval de Madrid, Madrid.
 AN Archives Nationales, Paris.
 AOAB Archivio dell'Osservatorio Astronomico di Brera, Milan.
 AOP Archives de l'Observatoire de Paris, Paris.
 APS American Philosophical Society Library, Philadelphia.
 BA Bibliothèque de l'Arsenal, Paris.
 BEP Bibliothèque de l'Ecole Polytechnique, Palaiseau.
 BI Bibliothèque de l'Institut de France, Paris.
 BL Bureau des Longitudes, Paris.
 BLL British Library, London.
 BLUC Bancroft Library, University of California, Berkeley.
 BMA Bibliothèque Municipale d'Amiens, Amiens.
 BMC Bibliothèque Municipale de Carcassonne, Carcassonne.
 BMCF Bibliothèque Municipale de Clermont-Ferrand, Clermont-Ferrand.
 BML Bibliothèque Municipale de Laon, Laon.
 BMR Bibliothèque Municipale de Reims, Reims.
 BMSD Bibliothèque Municipale de Saint-Denis, Saint-Denis.
 BN Bibliothèque Nationale, Tolbiac, Paris.
 BNR Bibliothèque Nationale, Richelieu, Manuscripts, Paris.
 BNRC Bibliothèque Nationale, Richelieu, Cartes, Paris.
 BUP Biblioteca Universitaria di Pisa, Pisa.
 BVCS Bibliothèque Victor-Cousin, Sorbonne, Paris.
 BYU Brigham Young University, Provo, Utah.
 CNAM Conservatoire Nationale des Arts et Métiers, Paris.
 CUL Lavoisier Collection, Cornell University, Ithaca, New York.
 CUS David Eugene Smith Collection, Columbia University, New York.
 DLSI Dibner Library, Smithsonian Institution, Washington, DC.
 ENPC Ecole Nationale des Ponts et Chaussées, Paris.
 KBD Kongelige Bibliotek of Denmark, Copenhagen.
 KM Karpeles Museum, Santa Barbara, California.
 NL Newberry Library, Chicago.
 NYPL New York Public Library, Rare Books and Manuscripts, New York.
 SBB Staatsbibliothek Berlin, Berlin.
 SHAT Service Historique des Armées de Terre, Vincennes.
 UBL Universiteitsbibliotheek Utrecht, Utrecht.
 WL Wellcome Library, London.

Abbreviations of Serial Works

- AP *Archives parlementaires de 1787 à 1860; recueil complet des débats législatifs et politiques des chambres françaises*. First series, 1789 to 1799. Paris: Dupont, 1875-.
- AP2 *Archives parlementaires de 1787 à 1860; recueil complet des débats législatifs et politiques des chambres françaises*. Second series, 1800 to 1860. Paris: Dupont, 1862-1913.
- ASPV Académie des Sciences, *Procès-verbaux des séances de l'Académie tenues depuis la fondation de l'Institut jusqu'au mois d'août 1835*. Hendaye, Basse-Pyrénées: Imprimerie de l'Observatoire d'Abbadia, 1910-1922.
- CT *Connaissance des temps ou des mouvements célestes, pour le méridien de Paris, à l'usage des astronomes et des navigateurs*. Paris, 1766-. Exact title and publisher varies. After 1795, edited by the Bureau des Longitudes.
- CR *Comptes rendus hebdomadaires des séances de l'Académie des sciences*. Sessions since 1835. Paris: Gauthier-Villars, 1835-1965.
- HAS Académie des Sciences, *Histoire de l'Académie des Sciences*. Paris: 1666-1792.
- MAS Académie des Sciences, *Mémoires de l'Académie des Sciences*. Paris: 1666-1792.
- MC *Monatliche Correspondenz zur Beförderung der Erd- und Himmelskunde*. Ed. F.-X. von Zach. Gotha: Beckersche, 1800-1813.
- MI Académie des Sciences, *Mémoires de l'Institut*. Paris: 1795-1815.
- Moniteur *Moniteur universel* [also known as *Gazette nationale*]. Paris: Agasse, 1789-1810.
- PVCIP James Guillaume, ed., *Procès-verbaux du Comité d'Instruction Publique de la Convention Nationale*. Paris: Imprimerie Nationale, 1891-1907.
- RACSP François-Alphonse Aulard, ed., *Recueil des actes du Comité de Salut Public*. Paris: Imprimerie Nationale, 1889-1951.

Abbreviation of Institutions

- ATPM Agence Temporaire des Poids et Mesures.
 CIP Comité d'Instruction Publique de la Convention Nationale.
 CPM Commission des Poids et Mesures.
 Dépt. Département.
 Min. Aff. Etr. Ministère des Affaires Etrangères.
 Min. Int. Ministère de l'Intérieur.