## Preface

Before introducing this third book in the *History of Cartography*, I must acknowledge the crucial role of Brian Harley in its origin and development. His perception, knowledge, wisdom, and dynamism were so vital to the History of Cartography Project, and these qualities so influential, that the remaining volumes will become his lasting memorial.<sup>1</sup>

The conception of the History of Cartography Project can be pinpointed to a specific time and place. In 1975 Brian proposed writing a four-volume "Mapping of North America."2 I had come to know him well since his Kenneth Nebenzahl, Jr., Lectures on Mapping the American Revolutionary War, and late in May 1977 I visited him in Devon, where he taught at the University of Exeter. We were walking on a country footpath leading up to Highweek Church, near Brian's home in Newton Abbot, when his American project again came up in conversation. Instead of his four-volume history of North American cartography, I suggested, could we not jointly edit a four-volume worldwide "History of Cartography"? By the next month we were exchanging outlines and general ideas, and that summer we wrote a preliminary letter describing the project to Allen Fitchen, then humanities editor at the University of Chicago Press. The idea was enthusiastically received.

We were interrupted by other activities, and immediate plans for the multivolume *History* were put on hold. It was not until 1980 that the first grant proposal to the National Endowment for the Humanities was written; the project officially began in August 1981. Our original intent was to include the cartography of all non-Western societies in volume 1. That volume was to include not only discussions of the maps of the prehistoric, ancient, and medieval West and the traditional cartographies of Asia, but also those of the indigenous societies of Africa, the Americas, the Arctic, Australia, and the Pacific islands. The utter impracticality of this view was soon apparent as the richness and diversity of the non-Western mapping traditions emerged. By 1982 it became obvious that we should devote a separate volume (volume 2) to the traditional cartographies of Islamic and Asian societies. Even then we assumed that a single "Asian" volume would suffice.<sup>3</sup> As the amount of material coming within our definition of cartography continued to expand, however, it became necessary to divide volume 2 into two books. We were faced with covering a wider spectrum of cultural and historical artifacts, a task that demanded enormously expanded editorial efforts and stretched the patience of our authors, staff, and publisher.

Our definition of "map" proved to be at the same time liberating and overwhelming. In the Preface to volume 1 we had suggested that "maps are graphic representations that facilitate a spatial understanding of things, concepts, conditions, processes, or events in the human world." This definition explicitly focused on both the form and the function of maps, for we believed these twin aspects were intimately linked. Realizing from the outset that these volumes could not embrace the whole history of geographic perception, thought, and writing, we strongly believed that this approach to maps as material culture should be stressed for the light it shed on those broader issues of human spatial and environmental understanding and communication. We did not see "representations" as replications or mirrors, but rather viewed them as

<sup>1.</sup> See also the detailed obituaries, including David Woodward, "John Brian Harley, 1932–1991," Special Libraries Association, Geography and Map Division Bulletin 167 (1992): 50–52; idem, "Brian Harley, 1932–1991," Map Collector 58 (1992): 40; idem, "J. B. Harley: A Tribute," Imago Mundi 44 (1992): 120–25; William Ravenhill, "John Brian Harley," Transactions of the Institute of British Geographers, n.s., 17 (1992): 120–25; Matthew H. Edney, "John Brian Harley (1932–1991): Questioning Maps, Questioning Cartography, Questioning Cartographers," Cartography and Geographic Information Systems 19 (1992): 175–78; Peter J. Taylor, "Politics in Maps, Maps in Politics: A Tribute to Brian Harley," Political Geography 11 (1992): 127–29; "John Brian Harley, 1932–1991," Cartographica 28, no. 4 (1991): 92–93.

<sup>2.</sup> Correspondence, J. B. Harley to David Woodward, 4 February 1975.

<sup>3.</sup> On the appropriateness of this emphasis we were led astray by the standard general histories of cartography. For example, it is revealing to compare the length of the present volume with the number of pages Leo Bagrow devoted to the same areas: six and a half pages to Chinese cartography, half a page each to Central Asia and Korea and three to Japan, and a third of a page to Southeast Asia. See Leo Bagrow, *History of Cartography*, rev. and enl. R. A. Skelton, trans. D. L. Paisey (Cambridge: Harvard University Press; London: C. A. Watts, 1964; reprinted and enlarged, Chicago: Precedent, 1985), 197-208.

<sup>4.</sup> J. B. Harley and David Woodward, eds., The History of Cartography (Chicago: University of Chicago Press, 1987-), 1:xvi.

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highly conventionalized human constructs. By using the term "graphic," it was certainly not our intent to limit our attention to the traditional two-dimensional mapping media or to scaled and "plan-view" representations, realizing that, for example, the recording of a ritual or a dance could be intended to convey spatial information. Our use of the phrase "graphic representations" was thus intended to embrace any visual representation whose spatial structure conformed to that of the referent. The second part of the definition—to "facilitate a spatial understanding"—focused on the function of these representations in human societies.

Based on such reasoning, we thus sought to include "maps" that had previously been ignored or marginalized because they did not fit the Western model of scaled orthogonal representations of the physical world. For Cartography in the Traditional Islamic and South Asian Societies, the most striking effect of this decision was the inclusion of representations of cosmographical worlds no less "real" to those societies than were or are the physical worlds of Western culture. It is our preoccupation with our view of reality that inhibits Westerners' understanding of "Eastern" cartographies on their own terms. More fundamental still, this focus implies that the Western paradigm of mapping-now in universal use in topographic mapping—is appropriate to all other modes of mapping. What our treatment of the history of Asian cartography may reveal, however, is that the very success of this Western cartographic paradigm may have impoverished and dehumanized modern cartography. As Cordell Yee persuasively argues in this volume and elsewhere, pictorial representations on traditional Chinese maps had a more central role:

The mapmaker saw art—poetry, calligraphy, and painting—as essential to the task. To such a practitioner, a map is a fusion of image and text, of the denotative and the expressive, of the useful and the beautiful. In the twentieth century, modern mathematical cartography displaced traditional techniques and put an end to this idea of maps. Whether this was progress remains an open question.<sup>5</sup>

As a consequence of broadening the horizons of the *History* beyond maps of the physical world to include those of the metaphysical world, it became necessary to seek out and enlist authors not previously involved in the traditional history of cartography or even geography, thus establishing an enormously enriching dialogue with scholars in other disciplines such as history, anthropology, philosophy, art history, and literary criticism. Our conceptual, editorial, managerial, and diplomatic tasks were also concomitantly increased.

In this book we have continued to try to create a framework that is coherent both geographically and historically in order to bring out the cultural interplay. As with volume 2.1, the basis of the framework for volume 2.2 is geographical. East Asia (defined by Nathan Sivin and Gari Ledyard in their introduction as China, Japan, Korea, and Vietnam) is treated separately from Southeast Asia. Vietnam, although normally thought of as falling within Southeast Asia, is here grouped with East Asia, with which it was closely associated in cartographic tradition. Another ad hoc category designed for this book is Greater Tibet, which fits in neither East nor Southeast Asia. Such shoehorning of complex and diverse cartographies into apparently arbitrary categories has not always resulted in a comfortable fit. But pragmatic considerations had to prevail as we sought to divide the increasingly voluminous material into books of manageable size.

As with the previous two books in the series, we have been frustrated by the paucity of surviving maps from the early period (pre-1500). Our interpretation of Chinese cartography, for example, has to rest on a handful of artifacts gleaned largely from archaeological investigations. Knowledge of Tang cartography is based almost exclusively on literary allusions. Even our acquaintance with much of the more recent Song cartography is based on Ming and Qing copies. To confuse matters further, Chinese historians often date maps by their content, not by when the artifact was made: thus a map may be described as "Song dynasty" when its content dates from Song, even though the object may have been made in Qing. Moreover, it is often difficult to determine the faithfulness of later copies and to disentangle the influence of the later culture on the copy. On principle, wherever possible, we have sought to select illustrations closest to the date of the original, striving always to illustrate the artifact in such a way as to retain the clues to its age and origin.

For later periods of Chinese history, we were frustrated by the sheer quantity of material. Since the literature tends to focus on individual maps or particular exhibitions, and since systematic surveys of collections worldwide are generally lacking, it is hard to get a clear idea of what is available. Thus we have tended to rely on wellknown institutions and have obviously overlooked many artifacts.

In romanizing East Asian alphabets, we have tried to follow commonly accepted practices. For Chinese, we chose pinyin over Wade-Giles because the former is becoming more widely used, even in scholarly books on pre-1949 China. It is also the romanization system generally recommended by *The Chicago Manual of Style*. For Japanese, we have used Kenkyusha's *New Japanese-English Dictionary*, following *The Chicago Manual of* 

<sup>5.</sup> Cordell D. K. Yee, "A Cartography of Introspection: Chinese Maps as Other Than European," *Asian Art* 5, no. 4 (1992): 29-47, esp. 46.

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Style. For Korean, the standard McCune-Reischauer system has been used. In the footnotes and Bibliographical Index, for works written in Chinese, Japanese, Korean, and Vietnamese the authors are listed with surnames first. In the footnotes, works written by East Asian authors in Western languages follow each author's own common usage (the surname may be first or last).

Although the Wylie system of orthography is widely used among Tibetologists, it provides little guidance to nonspecialists in respect to pronunciation. We have followed the most common spellings employed in the texts we have cited and have sometimes provided the Wylie spellings in parentheses. Our spellings, however, provide at best a rough approximation of the proper Tibetan pronunciation.

For the numerous vernacular languages of Southeast Asia, systems of orthography vary widely. Again we have generally followed the usage of the authors cited. For related names and terms that may be rendered in either Sanskrit or Pali, our preference is for the former. Where Pali forms were more appropriate, we have noted their use. For the forms of personal names in Tibet, Southeast Asia, and Mongolia, we have followed the most common spellings employed in the texts cited. Place-names in the volume in general follow Webster's New Geographical Dictionary (with the notable exception that we have rendered Chinese place-names in pinyin).

Ambiguities often arise in the transliteration of Chinese, Japanese, and Korean when using any romanization system, and to clarify these as far as possible we have provided the corresponding characters of these languages in the Bibliographical Index (for names of authors, editors, titles) and in the General Index (for items such as map titles, terminology, and people). For reasons of economy, characters are seldom given in the text or footnotes. In footnotes we include the original form of pagination or other referencing for ancient texts; modern editions of these works are also cited wherever possible. For all languages, titles of works (and their translations) and personal names are usually given in full only on the first use; a shortened form is used thereafter.

The historical framework is rather more complex. The cultures described in this book use various chronological systems, and sometimes we have had to maintain these to preserve each culture's sense of historical time. But since these volumes are primarily designed for the Western reader, and since it is generally helpful to relate the chronologies of the East to the more familiar ones of Europe, particularly in the periods of greatest interaction between them, most dates are given as B.C./A.D.

In thanking the many people who have contributed chapters to this book, I speak also on behalf of Brian Harley and the entire staff of the History of Cartography

Project. We owe our specialist authors an enormous debt for their patience over the past decade (often in spite of extremely difficult personal circumstances) as the scope and focus of the book changed dramatically. It is indeed a privilege to name them here: Catherine Delano Smith, John B. Henderson, Guntram Herb, Gari Ledyard, Kazuhiko Miyajima, Joseph E. Schwartzberg, Nathan Sivin, F. Richard Stephenson, Kazutaka Unno, John K. Whitmore, and Cordell D. K. Yee. They define dedication in scholarship. Only they know the extent of expansion, rewriting, and recasting that resulted from editorial efforts and the demands of the Press's four readers. I hope they now share our pride in the result. Our authors have also generously helped us in our search for additional authors, and they have given many critical readings of several chapters. Of the authors who have been with us from the beginning, Tony Campbell, Catherine Delano Smith, G. Malcolm Lewis, and Joseph E. Schwartzberg have continued to offer sage advice and to be steadfast friends of the project.

Cordell Yee joined the project as assistant editor in 1988. His contribution was pivotal: not only did he write the chapters on Chinese terrestrial cartography in a refreshingly revisionist mode, but he offered support and counsel at every stage of the book's compilation. Without his input, the Chinese section of the book would have been severely impoverished. Another staff member whose contributions are more hidden but are nevertheless crucial is Kevin Kaufman, research specialist, who wrote entire sections, tables, and appendixes. A special debt is owed to the two full-time staff members of the project who have been with us through a bewildering series of personal and professional vicissitudes: Jude Leimer and Susan MacKerer. Jude Leimer has been managing editor since 1982 and has provided the editorial and managerial continuity so crucial to a project of this type. She has controlled the daily operations of this work-in liaison with the University of Chicago Press and with authors, advisers, and editors-with such determination and strength of personality that I can only describe her role as indispensable. Likewise, Susan MacKerer has become essential as administrator of finances and records, ensuring our compliance with complex regulations of both the university and our funding agencies. She has also fulfilled a crucial function in identifying possible sources of funding for the project and keeping in contact with our growing list of donors. Particularly important in shaping this book, however, was her experience in the Department of East Asian Languages and Literature. She knew Cordell Yee and actively recruited him for the Project; she also suggested that we apply to the Henry Luce Foundation, Inc., which provided major funding for East and Southeast Asian research.

Brian Harley's Milwaukee office of the Project and the

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Office for Map History of the American Geographical Society Collection closed the year following his death. Nevertheless, the support of Ellen Hanlon and Mark Warhus needs thankful acknowledgment. They provided much logistical support in the preparation of this book during the years since 1986, when Brian was at the University of Wisconsin—Milwaukee. They and Brian's family—Karen, Claire, and Sarah—were a very close presence during the difficult weeks around Christmas 1991.

At the early stages of the book's planning, several people helped us define our approach and lay the groundwork. In particular, we would like to acknowledge the contribution of Mei-ling Hsu, who introduced us to many Chinese colleagues and laid out for us the extent of the research material for the early period. Cao Wanru, Shannon McCune (whose death saddened us), Niu Zhongxun, Kazutaka Unno, and Yi Chan (Chan Lee) all made valuable contributions to initial planning. Simon Potter acted as an invaluable liaison for our Japanese authors, editing large sections, arranging translations, tracking down illustrations, and providing general on-site support for what were to become extremely complex chapters. For checking bibliographical references and quotations at various stages of the book, we are indebted to Chiu-chang Chou, Pin-chia Feng, Jooyoun Hahn, Ingrid Hsieh-Yee, Bangbo Hu, and Chu-ming Luk, as well as many translators: Yuki Ishiguro, Kiyo Sakamoto, Daniel Samos, Atsushi Taira, Agatha Tang, Qingling Wang, and Kenneth White. Tsai-fa Cheng helped with Chinese philological matters relating to the six cartographic principles of Pei Xiu.

Our illustrations editors were first Guntram Herb and then Christina Dando. Both have doggedly pursued libraries and archives in the remotest corners of the world through mail, courier (both commercial and personal), fax, and telephone. Owing to their efforts, we have been able to select the highest-quality illustrations in often difficult circumstances. For special help with finding or obtaining illustrations, in addition to our authors, we thank Cao Wanru, the Harvard Yenching Library, and Simon Potter. Line drawings and reference maps were skillfully prepared by the University of Wisconsin Cartographic Laboratory in the Department of Geography at Madison led by Associate Director Onno Brouwer and his manager Daniel H. Maher.

In addition to its role in helping to define the scope and methods of the history of cartography, the *History* is intended as a basic work of reference. This entails continued and close attention to bibliographical accuracy. Paula Rebert and her successor Barbara Whalen have exactingly tracked down and checked arcane references and identified quotations in sometimes obscure publications in many languages. They have been helped by the excellent library facilities on our campus and the

efficient Inter-Library Loan department at Memorial Library headed by Judith Tuohy. Other essential library and office help has been provided by Karen Beidel and Charles Dean.

Home institutions play a major, if sometimes unacknowledged, role in the stability of long-term projects such as ours. It is indeed a pleasure to acknowledge the Departments of Geography at the University of Wisconsin—Madison and Milwaukee and their respective graduate schools for their support of the Project.

None of our work would be possible without the financial support of the many funding agencies, foundations, and individuals listed on the financial support page (pp. v and vi). We continue to be especially grateful to the National Endowment for the Humanities and the National Science Foundation for their faith in, as well as their generosity to, the *History*. From the private sector, we acknowledge the initial support of the Andrew W. Mellon Foundation, the National Geographic Society, the Gaylord and Dorothy Donnelley Foundation, the Hermon Dunlap Smith Center for the History of Cartography at the Newberry Library, and the Luther I. Replogle Foundation.

Special mention must be made of several foundations whose support was particularly associated with the research on East and Southeast Asia. The Johnson Foundation sponsored a conference at the Wingspread Conference Center, Racine, Wisconsin, in November 1982 that laid the groundwork for the decision to create a separate volume for Asian cartography. The Henry Luce Foundation, Inc., provided two generous grants to the project, and the Japan Foundation helped fund our chapters on the traditional cartography of Japan.

As the project grows, we are depending more and more on identifying private sources of funding. Richard Arkway, Art Kelly, Jack Monckton, and Kenneth Nebenzahl have been particularly helpful in advising us in this regard. Several antiquarian map dealers printed a call for funding in their catalogs, which expanded our funding base considerably: Richard B. Arkway, James E. Hess (The Antiquarian Map & Book Room), John T. Monckton, Jonathan Potter, Thomas and Ahngsana Suarez, Michael Sweet (Antiques of the Orient Pte., Ltd.), Martin Torodash (Overlee Farm Books), and the firm of Martayan Lan and Augustyn.

As in volume 2, book 1, we are delighted to have the opportunity to thank several people at the University of Chicago Press. Penelope Kaiserlian, associate director, has continued to be one of our staunchest supporters and has appeared miraculously and almost ubiquitously at historical and geographical conventions to promote the book. Alice Bennett, our copyeditor par excellence since volume 1, has improved the consistency and accuracy of the text. Robert Williams, designer, has proved again that

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his initial design for the books in the series meets the challenge of innumerable plates, illustrations, tables, and appendixes.

To the foregoing corporate acknowledgments a personal note must be added. I am only too painfully aware that the editorial "we" must now change to "I." I cannot begin to say what Brian might have said, but I know he would have wanted to acknowledge the help of very many friends. They know who they are and what their role in this book has been. For my part also, personal debts are growing too rapidly to specify. Some, however,

are exceptional. I thank my parents Max and Kathleen in England for all their love and support; they have continued to follow our progress with great anticipation as each volume has appeared. My wife Ros and son Justin in Madison and my daughter Jenny in New York have now learned to live with and enjoy the challenges provided by "the Project."

To these people and everyone else—named or unnamed—who had a hand in this book, I extend my warmest thanks.

David Woodward