

15 • Maps of Greater Tibet

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INTRODUCTION

Despite its limited population, the area referred to in this chapter as Greater Tibet has given rise to a remarkably rich and varied cartographic tradition. Moreover, this tradition remains vibrant and resistant to the cultural influence of far more populous and powerful neighbors. For this history, Greater Tibet is taken to correspond roughly to the area between India and China proper in which a distinctive form of Buddhism, widely known as Lamaism, is the dominant faith. But since Lamaism is a term that Tibetans themselves avoid, the preferred form, Tibetan Buddhism, will be followed throughout this work. The area of Tibetan Buddhism that I shall consider includes the whole of Tibet and Bhutan as now constituted as well as adjacent territories in India (particularly Ladakh and Sikkim), Nepal, and China (virtually all of Qinghai and parts of Xinjiang, Gansu, Sichuan, and Yunnan) in which Tibetan culture either predominates or is significantly represented.

In areas where Tibetan Buddhism blends with other cultural traditions, the omission of maps from these other traditions in this chapter should not be interpreted to mean that such works do not exist. Some of those maps—for example, several from the culturally eclectic region of Nepal—have already been discussed in volume 2, book 1 of *The History of Cartography*, along with others that fall unquestionably within the Hindu tradition. However, other Nepali maps associated with Hindu patrons are discussed here if they follow a style more consistent with Tibet than with India. Apart from the well-known faiths of Buddhism and Hinduism, over much of Greater Tibet there is continued adherence to a set of beliefs and practices associated with Bön, a pre-Buddhist cult, that has, as we shall see, relevance for the history of cartography. Over the centuries Bön and Buddhist practices became inextricably intertwined, and it will not always be possible to differentiate between the two in discussing the sources of various aspects of Tibetan cartography. Figure 15.1 shows the locations of most of the places to be discussed in this chapter.

I shall first consider the state of knowledge about the indigenous cartography of Greater Tibet, note where

Tibetan maps are known to exist or are likely to be discovered, discuss the sources and general nature of the highly diversified cartographic corpus, point out some of the canons of cartography followed by monks, scholars, and other artists charged with making maps, and consider the nature of what one might call “folk cartography.” I shall then consider cosmographic mapping, which has a long and rich history in the region and remains an important aspect of its culture. This will be followed by a discussion of geographic maps, ranging in coverage from the entire world as known to Tibetans, through maps of regions of widely varying territorial extent, to plans of towns and individual shrines. The conclusion will assess the nature of the entire cartographic corpus of the region and seek to relate it to the traditions of other cultures.

THE STATE OF OUR KNOWLEDGE

As was true of the cartography of India and Southeast Asia, maps from Greater Tibet have not previously been given due recognition in standard histories of the subject. Bagrow, for example, ignores the area completely.¹ Santarém, citing Francis Wilford, calls attention to an eighteenth-century three-dimensional map of the kingdom of Nepal that was presented to Warren Hastings, but that no longer extant work does not appear to have belonged within the Buddhist tradition.² Similarly, Adler, citing Pullé, discusses a Nepalese map that clearly belongs more

1. 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 Publishing, 1985). Bagrow does refer, on 207, to “a Buddhist map showing the world as a floating lotus-blossom,” but what he is describing is actually a Hindu cosmographic conception. See Joseph E. Schwartzberg, “Introduction to South Asian Cartography,” in *The History of Cartography*, ed. J. B. Harley and David Woodward (Chicago: University of Chicago Press, 1987–), vol. 2.1 (1992), 295–331, esp. 300.

2. Manuel Francisco de Barros e Sousa, Viscount of Santarém, *Essai sur l'histoire de la cosmographie et de la cartographie pendant la Moyen-Age et sur les progrès de la géographie après les grandes découvertes du XV^e siècle*, 3 vols. (Paris: Maulde et Renou, 1849–52), 1:364. Wilford's description of the map in question is quoted at length in Schwartzberg, “South Asian Cartography,” 326 (note 1).

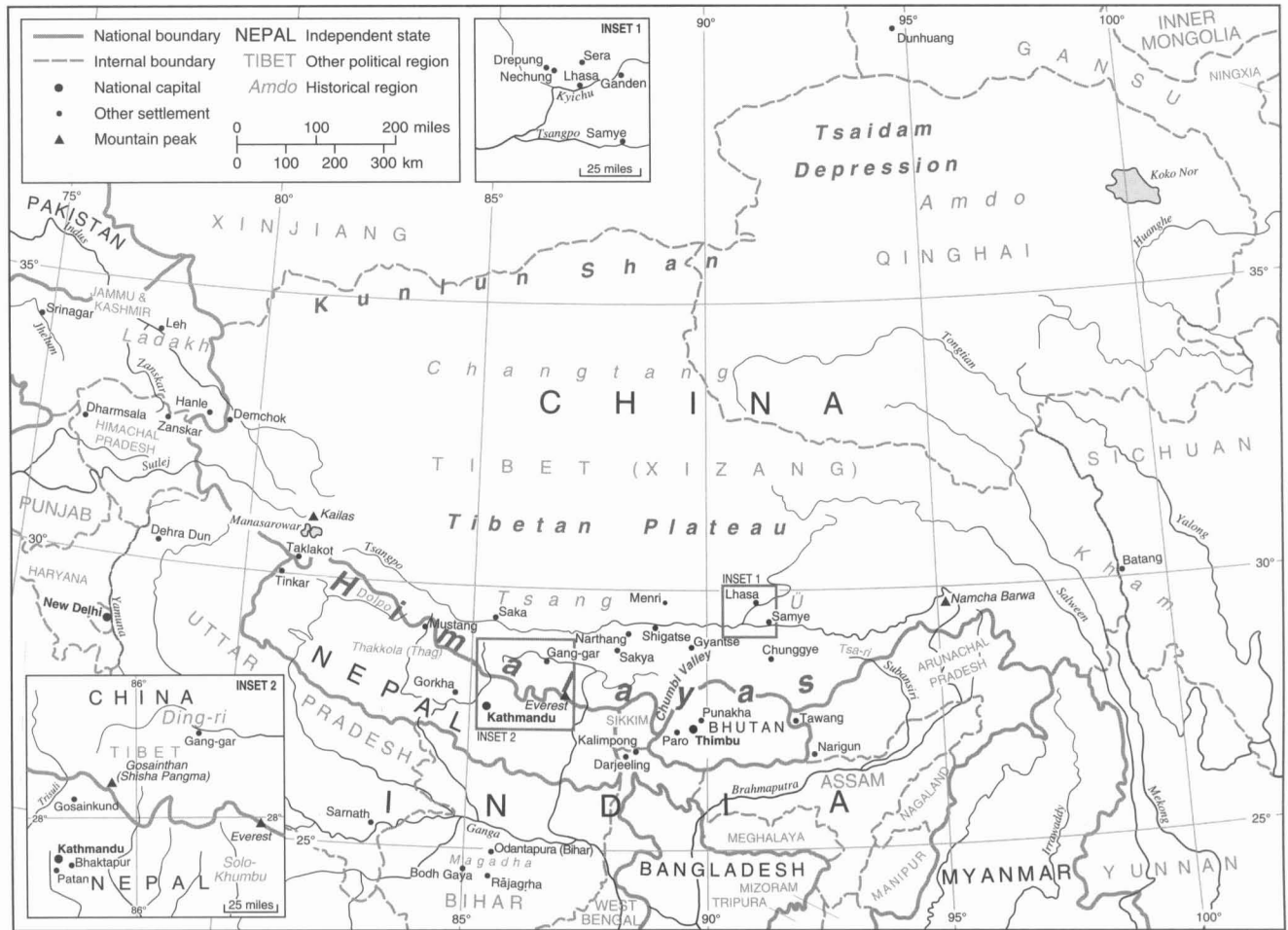


FIG. 15.1. REFERENCE MAP FOR GREATER TIBET.

to the Hindu than to the Buddhist tradition.³ Other well-known histories totally fail to note maps from Greater Tibet, but there is little point in providing a detailed list of them.⁴

Perhaps the earliest outside scholarly reconstruction of any form of indigenous cartography from this region is that of the Augustinian missionary Antonio Agostino Giorgi (1711–97), who in 1762 published an engraved Tibetan cosmography that was almost certainly copied from a local source.⁵ Among relatively modern scholars, the task of explicating and illustrating Tibetan cosmography was resumed by Waddell, whose exposition of Tibetan Buddhism first appeared in 1895.⁶ Many others have since contributed to our understanding of this subject. One lavishly illustrated work, *Ajia no kosumosu + mandara*, is particularly worthy of mention in that it puts the cosmography of Greater Tibet into a sweeping pan-Asian context.⁷ The importance of cosmography in the

3. Bruno F. Adler, “Karty pervobytnykh narodov” (Maps of primitive peoples), *Isvestiya Imperatorskogo Obshchestva Lyubiteley Yestest-*

voznaniya, Antropologii i Etnografii: Trudy Geograficheskogo Otdeleniya 119, no. 2 (1910), esp. 231; Francesco L. Pullè, *La cartografia antica dell’India*, Studi Italiani di Filologia Indo-Iranica, Anno IV, vol. 4 (Florence: Tipografia G. Carnesecchi e Figli, 1901).

4. The notes relative to this point in Schwartzberg, “South Asian Cartography,” 296 and 298 (note 1), are as applicable to Greater Tibet as they are to India.

5. Antonio Agostino Giorgi, *Alphabetum Tibetanum missionum apostolicarum* (Rome: Typis Sacrae Congregationis de Propaganda Fide, 1762). The original manuscript is in the Bibliotheca Apostolica Vaticana, Rome. Giorgi’s detailed illustration, *Cosmografia Buddhista Tibetana*, facing page 472 of the published version, has an explanation keyed to the original on 470–86. His diagram has been copied in several subsequent works including those by Laurence Austine Waddell, *The Buddhism of Tibet, or Lamaism, with Its Mystic Cults, Symbolism, and Mythology, and Its Relation to Indian Buddhism*, 2d ed. (Cambridge: W. Heffer, 1935), 79 (originally published in 1895); Pullè, *La cartografia antica dell’India*, 23 (note 3); and Sugiura Kōhei, ed., *Ajia no kosumosu + mandara* (The Asian cosmos), catalog of exhibition, “Ajia no Uchūkan Ten,” held at Rafōre Myūjiamu in November and December 1982 (Tokyo: Kōdansha, 1982), 18.

6. Waddell, *Buddhism of Tibet*, esp. 77–111 (note 5), which include numerous cosmographic diagrams.

7. Sugiura, *Ajia no kosumosu + mandara* (note 5).

lives of Tibetan Buddhists cannot be overemphasized. Cosmographies form objects of contemplation in daily worship and serve a variety of other, largely didactic purposes.

With respect to geographic mapping, I noted in my discussion of South Asian cartography that a number of early British travelers in the Himalayan region—beginning with Francis Hamilton (formerly Buchanan) who spent fourteen months in Nepal in 1802–3—commented on having received “native maps,” which they subsequently used in preparing maps of their own.⁸ These maps came from diverse ethnic groups—not always identifiable—and probably varied in style accordingly. Some undoubtedly were from Tibetans or closely related peoples. Regrettably, none of the earliest maps Hamilton alluded to survives, and I know of no published account that describes them.⁹ Not until 1863, when the results of the Tibetan expedition of the Schlagintweit brothers were published, do we have any careful reproduction of a Tibetan geographic map (fig. 15.42 below).¹⁰ Two further examples of Tibetan cartography, both relating to Lhasa and its great Potala palace, were included in the work by Waddell, published several decades later.¹¹ Thereafter, a variety of additional maps appeared with increasing frequency in diverse publications; but as a rule the authors emphasized subjects other than cartography. Not until 1975–78, when several works by the anthropologist Barbara Nimri Aziz appeared, did any published work compare Tibetan maps and discuss their intrinsic qualities and the cognitive processes involved in their construction.¹² Shortly thereafter another anthropologist, Mary Shepherd Slusser, published several insightful works on traditional maps from the Vale of Kathmandu in Nepal.¹³ Since then a considerable number of publications treating maps have appeared, mostly by art historians, students of religion, and others with little specialized knowledge of cartography. Nevertheless, some of these studies are very informative and are cited in this chapter. Although there is as yet no comprehensive work on the indigenous mapping of Greater Tibet, such a volume could be rather substantial. A trilogy of well-researched articles by Norwick reviews the geographic mapping of Tibet as a whole and discusses the ways that region has appeared on East Asian, Arabic, and Western maps, as well as on a few Tibetan works, since classical antiquity.¹⁴ For the much more limited area of Nepal, Gurung has brought out a small, well-illustrated volume, *Maps of Nepal*.¹⁵ Almost all the maps treated within that work, however, are either European or essentially modern maps based on surveys conducted since the mid-nineteenth century, and the style of the few maps that might be regarded as essentially indigenous is more Indian than Tibetan. Such works were discussed, therefore, in relation to South Asia.¹⁶ There is also a published bibliography of Nepali maps, but it con-

tains no reference to an indigenous work.¹⁷

In addition to these wide-ranging surveys, there are a few published works by historians of cartography that deal with specific issues relating to Tibetan maps. The oldest is a 1947 study by Nakamura of “Chinese” world maps preserved in Korea, which discusses what was in fact originally a Tibetan map of indeterminate age (fig. 15.30 below), a copy of which was brought from China to Japan during the ninth century.¹⁸ The map was dis-

8. Joseph E. Schwartzberg, “Geographical Mapping,” in *The History of Cartography*, ed. J. B. Harley and David Woodward (Chicago: University of Chicago Press, 1987–), vol. 2.1 (1992), 388–493, esp. 430–31.

9. The extensive journals of Hamilton in the Oriental and India Office Collections, British Library, London, may throw some light on the matter, however, since he had a very keen interest in cartography and discussed at great length maps he had acquired in other areas. See, for example, discussions and reproductions of Burmese maps in chapter 18 and table 18.1 below.

10. Hermann von Schlagintweit-Sakünlünski, Adolphe von Schlagintweit, and Robert von Schlagintweit, *Results of a Scientific Mission to India and High Asia*, vol. 4 (Leipzig: Brockhaus; London: Trübner, 1863), geographical map 3.

11. Waddell, *Buddhism of Tibet*, illustrations on 40 and facing 287 (note 5).

12. Barbara Nimri Aziz, “Tibetan Manuscript Maps of Dingri Valley,” *Canadian Cartographer* 12 (1975): 28–38; idem, *Tibetan Frontier Families: Reflections of Three Generations from D’ing-ri* (Durham, N.C.: Carolina Academic Press, 1978), esp. 10–22; and idem, “Maps and the Mind,” *Human Nature* 1, no. 8 (1978): 50–59.

13. Mary Shepherd Slusser, “Serpents, Sages, and Sorcerers in Cleveland,” *Bulletin of the Cleveland Museum of Art* 66, no. 2 (1979): 67–82; idem, *Nepal Mandala: A Cultural Study of the Kathmandu Valley*, 2 vols. (Princeton: Princeton University Press, 1982); idem, “On a Sixteenth-Century Pictorial Pilgrim’s Guide from Nepal,” *Archives of Asian Art* 38 (1985): 6–36; idem, “The Cultural Aspects of Newar Painting,” in *Heritage of the Kathmandu Valley: Proceedings of an International Conference in Lübeck, June 1985*, ed. Niels Gutschow and Axel Michaels (Saint Augustin: VGH Wissenschaftsverlag, 1987), 13–27.

14. Braham Norwick, “Locating Tibet—The Maps,” in *Tibetan Studies: Proceedings of the 4th Seminar of the International Association for Tibetan Studies, Schloss Hohenkammer, Munich, 1985*, ed. Helga Uebach and Jampa L. Panglung (Munich: Kommission für Zentralasiatische Studien, Bayerische Akademie der Wissenschaften, 1988), 301–20; idem, “Why Tibet Disappeared from ‘Scientific’ 16th–17th Century European Maps,” in *Tibetan Studies: Proceedings of the 5th Seminar of the International Association for Tibetan Studies, Narita, 1989*, ed. Ihara Shōren and Yamaguchi Zuihō (Narita: Naritasan Shinshoji, 1992), 633–44; and idem, “Modern Mapping of Tibet: A Cautionary Tale,” presented at the 6th IATS Seminar, August 1992, forthcoming, read by me in draft form. Norwick’s bibliography in the first of these three papers promises to be particularly useful for future historical research.

15. Harka Gurung, *Maps of Nepal: Inventory and Evaluation* (Bangkok: White Orchid Press, 1983).

16. Schwartzberg, “Geographical Mapping,” 429–35 and 455–57 (note 8).

17. *Bibliographie du Népal*, vol. 3, *Sciences naturelles*, bk. 1, *Cartes du Népal dans les bibliothèques de Paris et de Londres*, by L. Boulnois (Paris: Editions du Centre National de la Recherche Scientifique, 1973).

18. Hiroshi Nakamura, “Old Chinese World Maps Preserved by the



FIG. 15.2. SCROLL ON ANNUAL PUBLIC DISPLAY IN NEPAL. This cotton scroll, dating from the seventeenth or eighteenth century, is shown hanging in the courtyard of the Guita-bahil monastery in Patan, in the Vale of Kathmandu. It is one among a number of sacred relics that the monastery exhibits to the public for several days each year. The many panels of the upper and lower registers of the scroll constitute a series of vignettes depicting successive scenes in a narrative.

cussed in a wider context in other works by Nakamura.¹⁹ In a similar vein, Unno discusses numerous Chinese, Korean, and Japanese maps embodying concepts originating in India and Tibet or transferred from India to Tibet and thence transmitted farther east.²⁰ Finally, a work originally written in Russian and later translated into English deals with a modern recension of what is perhaps the most ancient Tibetan map to survive in any form, allegedly a world map (fig. 15.27 below), said to be of an “Iranian-Tibetan” type, as well as a cosmography of the much better known “Indian-Tibetan” tradition.²¹

In contrast to the environmental conditions in India and Southeast Asia, where humidity, vermin, and other factors contributed to the decay and outright destruction of indigenous maps, the prevailing cold, dry climate of Greater Tibet is conducive to their preservation. Hence, in the numerous palaces, monasteries, temples, and other religious edifices that dot the landscape of the region one finds mural paintings and manuscripts that, even after the passage of centuries, remain quite legible. Moreover, Buddhist monasteries, like Jain monasteries in India, assumed responsibility for preserving documents, and the tasks of copying documents and adorning monasteries were important aspects of monastic life. Not only in monasteries, however, but wherever Tibetan Buddhists assemble and in numerous private homes as well, one finds various types of cosmographies. These include both abstract mandalas and other types on which the various parts of the cosmos are identifiable, as well as maplike depictions of holy places and topographical paintings of places important in the lives of the Buddha, of numerous bodhisattvas, and of other holy personages.

Figures 15.2 and 15.3 show two of the many genres of sacred maps. Figure 15.2 depicts a small part of a long

These are usually separated by clumps of trees or similar conventional devices. Thus one could construe the ensemble as a kind of narrative route map. Scrolls of this type have been recorded in the Vale of Kathmandu since about the mid-fifth century A.D.

Size of the original: unknown. Photograph courtesy of Mary Shepherd Slusser.

painted scroll map hanging in a Nepali monastery courtyard as part of an annual display of sacred relics. Other works are much more ephemeral. Figure 15.3 shows the preparation of a cosmogram in the form of an elaborate mandala (Tibetan *dkyil'khor*) prepared with powdered sand of various colors. Although such works may take a week or more to prepare, they are used only briefly in a religious service at which, following certain offerings, the mandala is swept away, reminding the faithful of the transitory nature of all existence.²²

Although nature has been kind to the cultural legacy of Greater Tibet, non-Tibetans have been less sparing.

Koreans,” *Imago Mundi* 4 (1947): 3–22. See also relevant notes in A. L. Mackay, “Kim Su-hong and the Korean Cartographic Tradition,” *Imago Mundi* 27 (1975): 27–38.

19. See especially Hiroshi Nakamura, *East Asia in Old Maps* (Tokyo: Centre for East Asian Cultural Studies, 1962), 8 and fig. 1.

20. Unno Kazutaka, *Chizu no shiwa* (Map creases; or, Essays on the history of cartography) (Tokyo: Yūshōdō Press, 1985); and idem, “The Asian Lake Chiamay in the Early European Cartography,” in *Imago et mensura mundi: Atti del IX Congresso Internazionale di Storia della Cartografia*, 3 vols., ed. Carla Clivio Marzoli (Rome: Istituto della Enciclopedia Italiana, [1985]), 2:287–96.

21. L. N. Gumilev and B. I. Kuznetsov, “Dve traditsii drevnetibetskoy kartografii (landschaf i etnos, VIII),” *Vestnik Leningradskogo Universiteta* 24 (1969): 88–101, translated as “Two Traditions of Ancient Tibetan Cartography (Landscape and Ethnos, VIII),” *Soviet Geography: Review and Translation* 11 (1970): 565–79.

22. At least two examples of colored sand mandalas that have been preserved, notwithstanding the rules calling for their destruction, are a rather small one, kept under a glass dome in the Jacques Marchais Center of Tibetan Art in Staten Island, New York, and a much larger work constructed by visiting lamas at the Minneapolis Institute of Arts in 1992. The latter work and its preparation are illustrated and described in *Arts: The Magazine for Members of the Minneapolis Institute of Arts*, June 1992, front and back cover and 6–8.



FIG. 15.3. CONSTRUCTING A SAND MANDALA. Monks may work for a week or more to construct an elaborate cosmographic mandala of powdered sand that, when finished, will provide the focal object of a religious ceremony. Once certain prescribed ceremonial offerings have been made, they will sweep

away the sand with no visible regret. The work in progress in this diagram is being made at Ganden (dGa'ldan) monastery, which serves a Tibetan refugee community in southern India. By permission of Hakusuisha Publishing Co., Ltd., Tokyo.

Since the takeover of Tibet proper by the Communist regime of China, literally thousands of monasteries have been razed or badly damaged, with incalculable loss of

their treasures. Fortunately, some of the greatest shrines, in particular the Potala, the traditional residence of the Dalai Lama, have been somewhat less affected, largely

because of their appeal to tourists. Moreover, in surviving Buddhist temples and municipal and provincial museums throughout China, Tibetan objects are held in high regard. China's recent fostering of the tourist industry in the once-forbidden territory of Tibet now provides a significant incentive for cultural preservation. It is also one among many factors—including the mystique Tibet holds for many Westerners and the growing religious appeal of Buddhism—that have sparked widespread interest in Tibetica and a commensurate burgeoning of relevant scholarship, much of it of a very high standard.

Cosmographies and other maps from greater Tibet may now be found in museums, libraries, and private collections throughout the world, including many that do not specialize in Asian art. There are at least several dozen important public collections of Tibetica outside Tibet and other areas of China. Even in relatively small museums, one may find significant specialized collections—for example, in respect to Bhutanese art, at the Musée d'Ethnographie de Neuchâtel in Switzerland. The subject is still very much in its infancy, and this chapter can do no more than offer a sample of what exists in major collections worldwide.

THE DEVELOPMENT AND NATURE OF TIBETAN MAPPING

Maps from Greater Tibet have evolved over many centuries and assume many forms. Innumerable mandalas, objects of Buddhist meditation, may be regarded as cosmographic maps. Many of these are highly abstract microcosmic representations of the entire universe. Others, styled as *bhavacakras* (Tibetan *srid-pa'i-'khor-lo*, wheels of life) are more obviously representational and depict various realms and states of existence in time and space. Still others envisage the universe as a geometrically ordered assembly of its deities. Various views represent the plane of terrestrial existence and the set of continents therein, centered on the sacred Mount Meru, the axis not only of the earth, but of the universe as a whole. Many focus on specific portions of the universe, such as its various heavens or hells. A popular cosmographic game focuses on the paths by which salvation may be reached. Much-used charts, which I shall consider only briefly, are those that relate to astrology and other forms of divination. And finally, paintings incorporating maplike components commonly depict the places associated with the lives of various deities, saints, or epic heroes. Among geographic maps, most relate to relatively small localities, especially towns where important monasteries are located or the monasteries themselves. But maps of larger regions, even including at least two believed to be world maps, have also been produced over

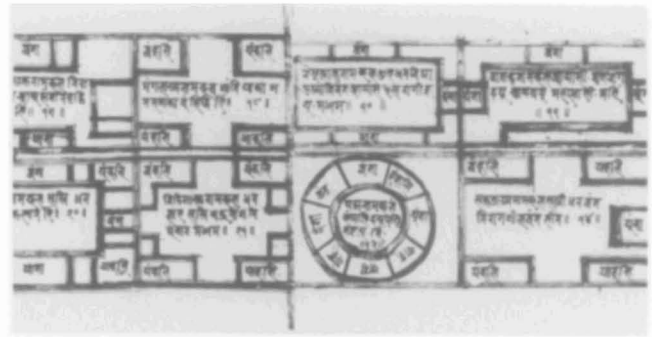


FIG. 15.4. SECTIONS OF A NEWARI TEXT ON ARCHITECTURE. This is part of a series of drawings from an architectural manual still in use among Newaris, the dominant ethnic group of the Vale of Kathmandu and early recipients of cultural influences from India. The drawings stipulate types of floor plans appropriate for a wide range of situations, depending on the orientation of the house and on the situation of the immediate neighborhood and quarter of the town, and they indicate blessings and curses that may be expected from building in certain ways.

Size of the original: unknown. From Gerhard Auer and Niels Gutschow, *Bhaktapur: Gestalt, Funktionen, und religiöse Symbolik einer nepalischen Stadt im vorindustriellen Entwicklungsstadium* (Darmstadt: Technische Hochschule, 1974), 36.

the centuries, as have route maps intended especially for pilgrims.

Copies of Indian Buddhist cosmographies entered Tibet relatively early. The *bhavacakra*, a type of cosmographic diagram found today throughout Greater Tibet (e.g., fig. 15.18 below), is derived from an Indian prototype, arguably from one painted in either the fifth or the sixth century on the wall at the entrance to cave 17 of the great cluster of cave temples at Ajanta; but it seems likely that both that and the Tibetan versions were derived from a still earlier source.²³ Waddell notes that a copy of a *bhavacakra* is alleged, “with reason,” to have been brought to the country by an Indian monk in the eighth century.²⁴ Whether or not this is true, it seems likely that some version of that cosmogram was transmitted to Tibet before the long period of decline of Indian Buddhism, which set in about the ninth century. A more clearly datable transmission, early in the thirteenth century, was that of a true-scale stone model of the renowned Mahābodhi Temple at the Indian town of Bodh Gaya, where the Buddha attained enlightenment. This relic and another construction copied from it were seen at Narthang (sNar thang) monastery in Tibet in 1936, and both may still be extant.²⁵

23. John Huntington, an art historian specializing in Tibet, believes that both the Ajanta and Tibetan representations are based on some unknown pre-Ajanta prototype (personal communication, 12 May 1992).

24. Waddell, *Buddhism of Tibet*, 108 (note 5).

25. For relevant details see Rāhula Sāṅkṛityāyana, “Second Search of

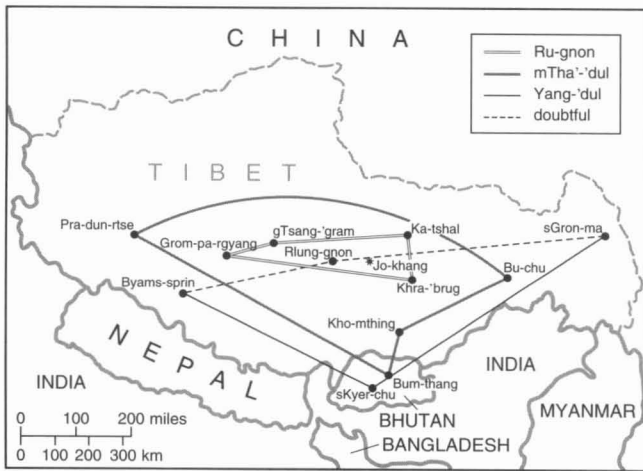


FIG. 15.5. DISPOSITION OF MAJOR TIBETAN TEMPLES. This figure indicates the geographic distribution of twelve important temples in three groups of four each, arranged in a rough approximation of what ideally ought to have been successively larger quadrilaterals, with the Jo-khang Temple at Lhasa at the center. The situation of Rlung-gnon Temple is especially problematic according to this schema. (The spellings here follow Aris.)

After Michael Aris, *Bhutan: The Early History of a Himalayan Kingdom* (Warminster, Eng.: Aris and Phillips, 1979), 16.

Other evidence of cultural transmissions from India relates to architectural and town planning. A number of Nepali and Tibetan manuscripts, for example, include diagrams that set forth rules for laying out houses and whole communities.²⁶ Figure 15.4 provides an example from one such text. Other diagrams suggest that Chinese architectural models were also borrowed.²⁷ Influences in respect to architectural plans were also transmitted widely between Tibet and other Buddhist lands.²⁸

Sanskrit Palm-Leaf MSS. in Tibet," *Journal of the Bihar and Orissa Research Society* 23 (1937): 1-57; and Charles E. A. W. Oldham, "Some Remarks on the Models of the Bodhi Gaya Temple Found at Narthang," *Journal of the Bihar and Orissa Research Society* 23 (1937): 418-28.

26. For similar South Asian examples, see Schwartzberg, "South Asian Cartography," 318-21 (note 1). The period from the eighth to the twelfth century in particular was one in which there was a massive diffusion of artistic techniques and motifs from northeastern India, the last major bastion of Buddhism on the Indian subcontinent, to Nepal, Tibet, and Southeast Asia. This is abundantly documented in Susan L. Huntington and John C. Huntington, *Leaves from the Bodhi Tree: The Art of Pala India (8th-12th Centuries) and Its International Legacy* (Seattle: Dayton Art Institute in Association with the University of Washington Press, 1990).

27. The most comprehensive scholarly discussion of Tibetan architecture is Paola Mortari Vergara and Gilles Béguin, eds., *Dimore umane, santuari divini: Origini, sviluppo e diffusione dell'architettura tibetana/Demeures des hommes, sanctuaires des dieux: Sources, développement et rayonnement de l'architecture tibétaine* (Rome: Università di Roma "La Sapienza," 1987). Apart from its numerous illustrations,

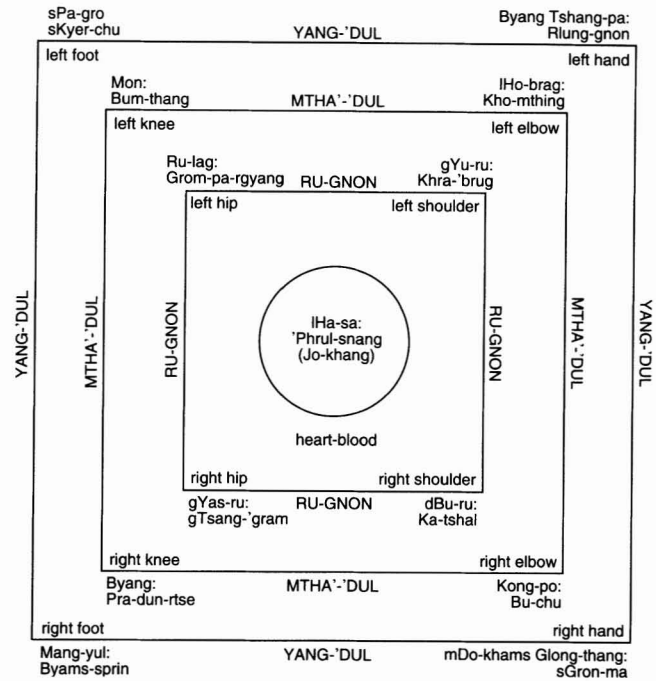


FIG. 15.6. IDEALIZED ARRANGEMENT OF MAJOR TIBETAN TEMPLES. This figure is a closer approximation to the idealized arrangement, according to the Tibetan derivative of an originally Chinese model. The names in capital letters are regional designations in three zones of diminishing civilization outward from Lhasa; those in upper- and lowercase letters are the temple designations; and the text in all lowercase letters tells the parts of the body of the underlying cosmic demoness to which each of the temples corresponds. Although shown here as a square, the Tibetan model actually is intended to be aligned along an east-west axis, in contrast to the Chinese model. (The spellings here follow Aris.)

After Michael Aris, *Bhutan: The Early History of a Himalayan Kingdom* (Warminster, Eng.: Aris and Phillips, 1979), 16.

this volume is noteworthy for its exhaustive bibliography of primary and secondary sources (569-79). Other illustrations from architectural manuals appear in Pratapaditya Pal, *Art of Nepal: A Catalogue of the Los Angeles County Museum of Art Collection* (Berkeley: Los Angeles County Museum of Art in association with University of California Press, 1985), 176-77, diagrams for the construction of stupas, among others; Slusser, *Nepal Mandala*, vol. 2, fig. 89 (note 13), "depicting the optimal city plan as a mandala of eighty-one squares upon which is superimposed a circular plan (*alavau*) 'such as a serpent would make by bringing head and tail together'"; and Gerhard Auer and Niels Gutschow, *Bhaktapur: Gestalt, Funktionen, und religiöse Symbolik einer nepalischen Stadt im vorindustriellen Entwicklungsstadium* (Darmstadt: Technische Hochschule, 1974), 39 and 87 (respectively, a plan for a filter system for an underground well in the shape of a swastika and a set of illustrations for house construction, including those shown in fig. 15.4).

28. See, for example, Anne Chayet, "The Jehol Temples and Their Tibetan Models," in *Soundings in Tibetan Civilization*, ed. Barbara Nimri Aziz and Matthew Kapstein (New Delhi: Manohar, 1985), 65-72. Of particular interest in this article is the way the mixed axonometric and divergent perspectives of Tibetan paintings (see fig. 15.50) were distorted by Chinese architects who used only the former and were unfamiliar with the underlying conventions of the originals.

Not only were the layout and external appearance of temples of concern to the Buddhists of Greater Tibet, but so was placing them in accordance with systems of divination and geomancy. These systems were a “complex amalgam of Indian, Chinese, and Tibetan forms”²⁹ but were essentially Chinese in origin. It is believed that they were introduced by a Chinese princess, Kong-jo, who in about A.D. 640 was sent to marry the great Tibetan monarch Songtsen Gampo (Srong-brtsan-sGam-po) and brought with her, as a gift from her father, “a divination chart in 300 sections executed according to the Chinese divinatory sciences.”³⁰ One important consequence of the belief in geomancy relates to the positioning of important Tibetan (including Bhutanese) temples. Although the origins of these locations are partially shrouded in myth, no fewer than ten texts arrange them (though with less than perfect agreement as to their names and locations) in three sets of four each, illustrated in figure 15.5. Each of these texts presumes the existence in the redactor’s mind of a mental map, which is the Tibetan analogue, shown in figure 15.6, of the prior Chinese scheme conveyed by figure 4.1 above (p. 76) (with five rather than three concentric zones out from the capital).³¹

The origins of geographic maps of Tibetan provenance are obscure. If Gumilev and Kuznetsov’s interpretation of the world map discussed below (pp. 639–42) is to be credited, that work should be regarded as an “Iranian-Tibetan” creation reflecting Persian geographic knowledge from the third and second centuries B.C.³² How old the Sino-Tibetan world map brought to light by Teramoto might be is also open to question, though it cannot be later than the ninth century when, as noted above, a copy of it was transmitted to Japan. Very different from either of the foregoing is the oldest known locality map, which was found on a fragment of a Dunhuang manuscript thought to date from the Tibetan imperial era in the ninth century (fig. 15.7).³³ Although there would probably have been even earlier opportunities for Tibetans to observe and learn from the mapping activities of their Chinese and other neighbors, the earliest I can document relates to an expedition sent by the Mongol emperor Kubilay Khān (r. 1260–94) to explore and map the source region of the Huanghe (Yellow River), which lies in what is now Qinghai, a culturally Tibetan province. The oldest surviving regional map based on that expedition (not counting Mongol maps of the whole of China) is in a text dated 1366.³⁴ Subsequent Chinese mapping ventures in Tibet are well documented and are discussed elsewhere in this volume. Particularly noteworthy is the Jesuits’ training two lamas to be surveyors in Beijing. These surveyors submitted a map of Tibet to those fathers in 1717; it was regarded as the most accurate to



FIG. 15.7. FRAGMENT OF AN OLD MAP OF THE DUNHUANG REGION OF GANSU. This map fragment, painted in black ink on paper, is thought to date from the ninth century and is the oldest known Tibetan locality map as well as the oldest work to show any form of architectural plan, in this case of an unspecified Buddhist monastery. The locality depicted is believed to be Dunhuang in the present province of Gansu. The mixture of perspectives—oblique, frontal, and planimetric—is noteworthy. Though the text is in Tibetan, the style is essentially Chinese.

Size of the original: 30 × 48 cm. By permission of the Bibliothèque Nationale, Paris (Pelliot tibétain 933).

that date.³⁵ Obviously, further transmission of mapmaking skills among Tibetans would have been relatively easy. Some such transmissions will be noted below in the discussion of topographic mapping.

The peoples of Greater Tibet had thus developed a keen sensitivity to place, position, and relative location, both geographical and cosmographic. They were receptive to new ideas on such matters from a diversity of

29. Michael Aris, *Bhutan: The Early History of a Himalayan Kingdom* (Warminster, Eng.: Aris and Phillips, 1979), 12.

30. Quoted from a Tibetan legend in Aris, *Bhutan*, 12 (note 29).

31. Aris, *Bhutan*, 3–33 (note 29).

32. Gumilev and Kuznetsov, “Two Traditions,” 568 (note 21).

33. This work is illustrated and discussed in Vergara and Béguin, *Dimore umane, santuari divini*, 89–91 (note 27), as well as in *Dieux et démons de l’Himalaya: Art du Bouddhisme lamaïque*, catalog of an exhibition at the Grand Palais, 25 March to 27 June 1977 (Paris: Secrétariat d’Etat à la Culture, 1977), 66–67; and in Per Kvaerne, “Tibet: The Rise and Fall of a Monastic Tradition,” in *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture*, ed. Heinz Bechert and Richard Gombrich (London: Thames and Hudson, 1984), 253–70, esp. 258.

34. This map is illustrated and discussed at length in Herbert Franke, “Die Erforschung der Quellgebiete des Gelben Flusses in Nordosttibet unter dem Mongolenkaiser Qubilay,” in *Der Weg zum Dach der Welt*, ed. Claudius C. Müller and Walter Raunig (Innsbruck: Pinguin-Verlag, [1982]), 59–61.

35. This is discussed in Clements R. Markham, ed., *Narratives of the Mission of George Bogle to Tibet and of the Journey of Thomas Manning to Lhasa* (1876; New Delhi: Mañjuśrī Publishing House, 1971), lxi–lxii.

sources, sometimes as a consequence of Tibetan conquest of neighboring lands and often resulting from travels by pilgrims between Tibet and other lands to which Buddhism had been disseminated. They devised numerous ways to express cartographically their view of the universe and its constituent parts. Their appreciation of maps also resulted in their using cartography for a variety of didactic purposes, largely teaching cosmographic ideas, but also, for example, in drawing anatomical and medical diagrams, preparing architectural models, and conceptualizing specific intellectual problems.³⁶ In this chapter I shall examine a small sample of Tibetan maps, but before doing so, it is in order to demonstrate the existence of certain canons by which they were drawn.

CANONS OF CARTOGRAPHY

One is struck by the amount of conventionalization that characterizes so many Tibetan maps, though not to the extent of denying them their originality. Much has been written by art historians about the stylistic and iconographic canons of Tibetan painting, sculpture, and architecture; and it is clear that the rules that have evolved (and continue to evolve) are also largely applicable to maps, both cosmographic and geographic, assuming that those maps are made by monks and others whose training requires learning the conventions.

Starting with the most abstract of cosmographic maps, a mandala, we see in figure 15.8 a monk demonstrating the laying out of the basic structure of what will ultimately become a rather complicated design (compare fig. 15.3). Constructing a mandala is an important exercise in the initiation of many novice monks, and learning the requisite discipline takes much practice. Long poems, comprising a series of rhyming verses, provide mnemonics to assist in this endeavor. Brief excerpts from one such poem, in translation, follow:

Having thus completed these preliminary rites,
one must construct the place for the temple [for
which the mandala is a metonym] . . .
Take light-coloured soil which is viscous, pliable
and soft, . . .
Sprinkle it and make it completely smooth with
pure consecrated water and sweet-smelling
medicinal incense.
Smear cotton threads with white and red colouring
and consecrate them as Method and Wisdom
possessed of no duality.
Cover the sphere of the void (viz. the space for the
maṇḍala) with rays (viz. lines) of white and red,
(the four) bordering lines (of the square),
(the four) crossing lines (two diagonal and two
straight across),
the encircling line (inside the square).³⁷



FIG. 15.8. PREPARATION OF A MANDALA AS A PART OF THE INITIATION RITUAL FOR A TIBETAN MONK. Here a novice monk at Chimre monastery is seen laying out the basic plan of what will probably become an elaborate mandala following well-established conventions for the proportions of the elements. Other conventions will guide him in the use of color, the choice of signs, and so forth. From Manfred Gerner, *Architekturen im Himalaja* (Stuttgart: Deutsche Verlags-Anstalt, 1987), 48.

And so on for several more pages.

Though usually prepared in two dimensions, mandalas are always perceived as three-dimensional in the act of meditation. Among actual three-dimensional structures that may also be seen as mandalas (though their principal use is as reliquaries) are *chortens*, the term by which stupas are known in Greater Tibet. Every structural element of a *chorten* has a specific cosmographic meaning.³⁸

36. Diagrams of various types of systems in the human body and of the method of applying a medical treatment known as moxibustion appear in *Trésors du Tibet: Région autonome du Tibet, Chine* (Paris: Muséum National d'Histoire Naturelle, 1987), fig. 89. Other anatomical tables are illustrated in Liu Lizhong, *Buddhist Art of the Tibetan Plateau*, ed. and trans. Ralph Kiggell (Hong Kong: Joint Publishing, 1988), 314–15; Günter Schüttler, *Die letzten tibetischen Orakelpriester: Psychiatrisch-neurologische Aspekte* (Wiesbaden: Franz Steiner, 1971), facing 65. Architectural models have been discussed above. A well-illustrated discussion of what may be construed as a road map used for didactic purposes appears in Charles Genoud, *Buddhist Wall-Painting of Ladakh*, trans. Tom Tillemans (Geneva: Edition Olizane, 1982), painting no. 1 on unnumbered page in section on Spituk, and 103–6. A smaller photograph of the same map and a briefer explanation appear in Richard Gombrich, "The Buddhist Way," in *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture*, ed. Heinz Bechert and Richard Gombrich (London: Thames and Hudson, 1984), 9–40, esp. 28, pl. 22.

37. David L. Snellgrove, ed. and trans., *The Nine Ways of Bon: Excerpts from "gZi-brjid"* (London: Oxford University Press, 1967), 199.

38. A well-illustrated, though very speculative, study of the subject for South, Southeast, and East Asia is Adrian Snodgrass, *The Symbolism of the Stupa* (Ithaca, N.Y.: Southeast Asia Program, Cornell University,

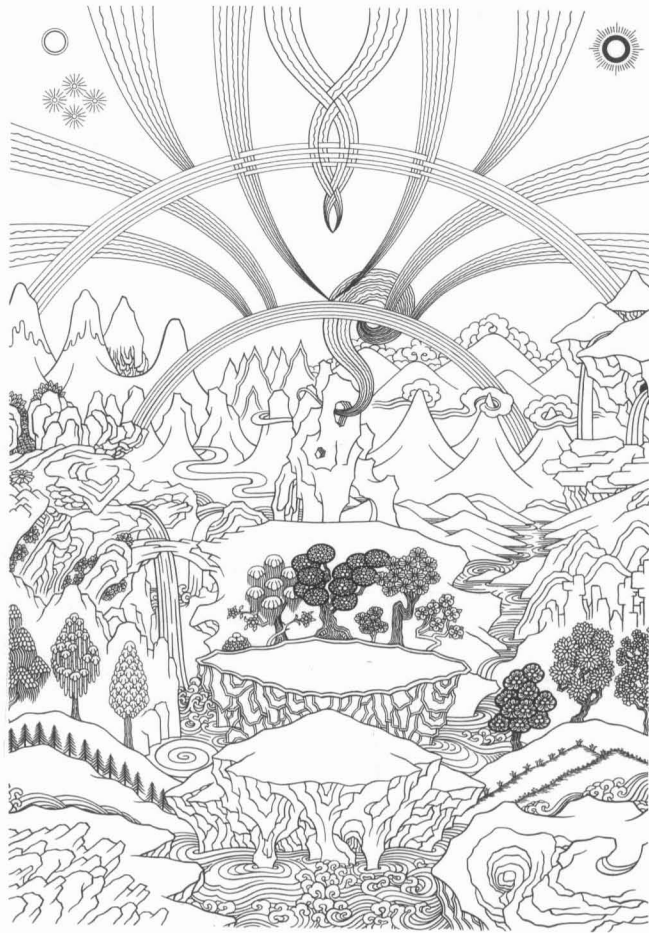


FIG. 15.9. SYNTHETIC LANDSCAPE EMBODYING A DIVERSITY OF CONVENTIONAL ELEMENTS EMPLOYED IN TIBETAN MAPS AND OTHER FORMS OF PAINTING. From David P. Jackson and Janice A. Jackson, *Tibetan Thangka Painting: Methods and Materials* (London: Serindia Publications, 1984), 154, drawn by Robert Beer.

Though *chortens* are architectural features and hence, strictly speaking, outside our purview, plans for constructing them that appear in various manuals may be considered cartographic. Such paradigmatic drawings have been reproduced in a number of published works.³⁹ The rules for construction are set forth by Olschak and Thupten Wangyal, who introduce the subject by noting, “The perfect proportions of the Buddha’s body correspond to the design of religious monuments.”⁴⁰ At a more elaborate level of detail are the rules for drawing *bhava-cakras* (compare fig. 15.18). Although these rules will not be discussed, I note them here simply to demonstrate that well-established conventions apply to drawings of considerable complexity.⁴¹ As with all such rules, however, exceptions developed that in time themselves became conventions.



FIG. 15.10. THE POTALA OF LHASA. This detail from a nineteenth-century native drawing of Lhasa demonstrates the divergent perspective so common on Tibetan paintings and drawings, which permits the viewer to take in much more of the object being presented than would the convergent perspective that characterizes Western art. Of particular note is the depiction of the complete path around the Potala, which, as the residence of the revered Dalai Lama, is a shrine worthy of circumambulation by devout Buddhist pilgrims. In actuality, no more than half of this path would be visible at any one time. Several pilgrims, one prostrate, are shown along the path. Size of the original: unknown. From Laurence Austine Waddell, *The Buddhism of Tibet, or Lamaism, with Its Mystic Cults, Symbolism, and Mythology, and Its Relation to Indian Buddhism*, 2d ed. (Cambridge: W. Heffer, 1935), facing 287.

Finally we come to conventions followed in many geographic maps as well as in various types of hagiographic and narrative painting that commonly embody maplike depictions of landscape. Figure 15.9 is a synthetic diagram incorporating a large number of the conventional landscape signs used in such works. It is taken from a book that discusses the theory and practice of painting various forms of *thangkas* (*thang-kas*, painted cloth hangings), in respect to composition, iconometry, color, shading, outlining, and so forth, specifically from an appendix that deals with motifs and signs. Within that appendix we find numerous (as many as several dozen) acceptable ways to draw trees, rocks, clouds, “cloud thrones,” and other

1985). A more complete and reliable study is *The Stūpa: Its Religious, Historical and Architectural Significance*, ed. Anna Libera Dallapiccola in collaboration with Stephanie Zingel-Avé Lallemand (Wiesbaden: Franz Steiner, 1980).

39. For example, Pal, *Art of Nepal*, 176–77 (note 27); and Blanche Christine Olschak and Geshe Thupten Wangyal, *Mystic Art of Ancient Tibet* (1973; Boston: Shambhala, 1987), 18.

40. Olschak and Thupten Wangyal, *Mystic Art*, 18 (note 39).

41. For further details, see Geshe Sopa, “The Tibetan ‘Wheel of Life’: Iconography and Doxography,” *Journal of the International Association of Buddhist Studies* 7, no. 1 (1984): 125–45.

features that characterize Tibetan maps and other representational paintings.⁴²

Distinctive conventionalized ways of depicting settlements and individual works of architecture have also evolved in Greater Tibet. Some of these relate to colors used for particular kinds of edifices (e.g., red is often selected to represent religious shrines and white for ordinary residences), while others have to do with visual perspective. Figure 15.10, for example, depicting the famous Potala palace in Lhasa, illustrates what has been called “divergent perspective,” which is almost opposite to the optically “correct” Western perspective, with one or more vanishing points. Here we see several sides of the Potala represented simultaneously, which one could not normally see from a single location on the ground. But to Tibetans familiar with the edifice, this approach makes eminent sense, since it conveys more of the information they want than would a Western view.

FOLK CARTOGRAPHY

Although most maps from Greater Tibet that have come to light were made by specially trained individuals who learned to follow the cartographic canons just noted, others are “naive” productions that nevertheless demonstrate impressive cartographic skills. Many, perhaps most, such maps were made at the request of foreign travelers and scholars. I have already noted that a number of European travelers in the Himalayas benefited from maps made by local informants; but I can recall no statement by a Himalayan traveler who had tried to obtain a map locally and failed. The map obtained by the Schlagintweit brothers during their expedition of 1854–58 (fig. 15.42 below) is a good example of what may be regarded as folk cartography. Made by a Bhotia chief who had evidently traveled much and seen many other works employing the conventions discussed above, this map does embody some of them in simplified form; but overall it has a spontaneous, untutored appearance. The same may be said of a map painted by a Sherpa a century or so later.⁴³ This charming work depicts the artist’s home village at the foot of a mountain bearing rock formations and surmounted by clouds strikingly like some of those in figure 15.9. Within and around the village are men and women, represented as taller than their houses, going about their day-to-day activities (one of which is praying together with a lama), as well as animals drawn in a similarly exaggerated size.

A third example of the partial absorption of Tibetan cartographic conventions by folk artists appears in a painting of a townscape brought to light by Aziz.⁴⁴ This remarkably detailed map, painted in 1970 by an elderly artist of Ding-ri Gang-gar, the sole town of the Ding-ri region, north of Mount Everest, also adheres to some

widespread Tibetan conventions. Among these are the use of a divergent (rather than a convergent) perspective, the inclusion of more features than the eye could possibly take in at a single viewing, the essentially pyramidal arrangement of the composition (compare fig. 15.48), and the use of off-white throughout for residences and of red for temples.

But not all Tibetan folk cartography reflects the seeming familiarity with more schooled cartographic creations found in the three examples previously discussed. A more naive, but nevertheless very informative, map of Ding-ri by a trader from that region has also been reproduced and discussed by Aziz.⁴⁵ This work (fig. 15.11) is more idiosyncratic than the others. It was drawn spontaneously at Aziz’s request, and the artist, then about forty years old, had no familiarity with modern mapping. He had, however, traveled widely in Tibet and had probably seen various traditional maps from that region. Although his map does incorporate certain common premodern conventions, such as placing the artist in the center of the area portrayed and arranging various features and text as if seen from that vantage point, the sorts of specifically Tibetan iconographic conventions displayed in figure 15.9 are nowhere evident. Compared with maps of individual settlements, generally drawn from an oblique perspective, essentially planimetric maps of regions are relatively rare in Tibet. Nevertheless, if one compares figure 15.11 with figure 15.12, one can readily discern many features on the trader’s map that reflect the topography shown on a modern map. It would probably be difficult to obtain a comparably detailed and topographically reliable rendering of the home region by an untrained layperson in most parts of the world.

Whether living in an environment of high mountains or largely barren plateau such as characterizes most of Greater Tibet somehow enhances cartographic ability or conduces to a particular approach to mapmaking is a question worthy of scholarly investigation. Some relevant experiments, admittedly on a very modest scale, have in

42. See David P. Jackson and Janice A. Jackson, *Tibetan Thangka Painting: Methods and Materials* (London: Serindia Publications, 1984), 150–72. The conventions illustrated are even in contexts that have nothing to do with the landscape of Greater Tibet. On a visit to the Institut für Tibetologie und Buddhismuskunde in Vienna in 1983, I was given a rather detailed map of that city prepared for a conference on Tibet by a visiting Tibetan scholar in a style that was immediately and unmistakably identifiable as Tibetan.

43. Herbert Tichy, *Himalaya* (Vienna: Anton Schroll, 1968), frontispiece and relevant text.

44. Aziz, “Tibetan Manuscript Maps,” 35, with explanatory text on 34 and 36–37 (note 12); also reproduced in Aziz, *Tibetan Frontier Families*, among unnumbered plates between 96 and 97 (note 12).

45. Aziz, “Tibetan Manuscript Maps,” 32, text on 34 and 36–37 (note 12). Some of the details relating to this map were conveyed to me by Aziz on 12 November 1992.



FIG. 15.11. INDIGENOUS MAP OF DING-RI VALLEY, TIBET. This is a map of the region of Ding-ri drawn from memory in 1970 by Dinggang Nima Woser, a local Tibetan trader, who had never seen a modern surveyed map. Drawn in ink and various pencils on paper. The orientation of map features and text is outward from the center, where the town of Ding-ri Gang-gar is situated. The meanings of the signs employed by the artist are, by and large, self-evident. The map is oriented here with north at the top. Mount Everest is in the lower right corner, and Rongphun is the circle directly above it. Langkor is shown as the central circle in the range that runs north-south on the left side of the map. Yoldon is the circle southeast of the northernmost circle and is connected to it by a dashed line.

Size of the original: ca. 48 × 30 cm. Photograph courtesy of Barbara Nimri Aziz.

fact been carried out. In Nepal the cognitive skills of schoolchildren from various ethnic groups have been evaluated by testing their ability to draw a map of the route between home and school. Similar tests have been conducted among American students. Tests of Sherpa children among others were carried out and analyzed by an American anthropologist, James F. Fisher, who has had much experience working in the Himalayas. They yielded a total sample of twenty-eight maps from pupils in grades four through seven from a single school in the Solo-Khumbu region of Nepal, virtually in the shadow of Mount Everest. Of this sample Fisher reports:

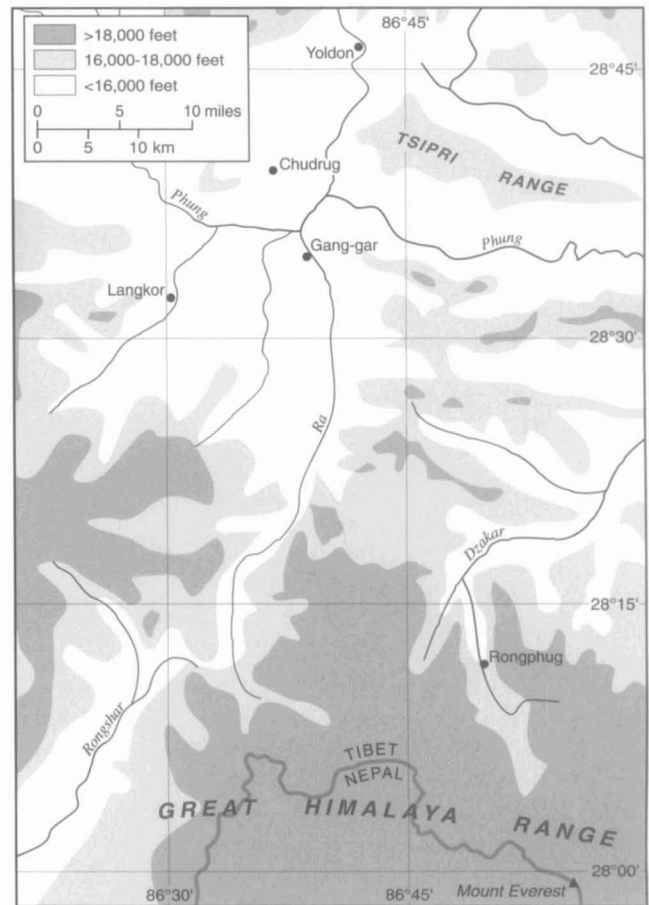


FIG. 15.12. MODERN MAP OF DING-RI VALLEY, TIBET. This map covers the same area as figure 15.11 and is provided for comparison.

After Barbara Nimri Aziz, "Tibetan Manuscript Map of Dingri Valley," *Canadian Cartographer* 12 (1975): 28–38, esp. fig. 4.

The maps of all but the youngest Sherpa children . . . are generally more sophisticated than similar maps drawn by Newar, Limbu, Chhetri, and Gurung children. . . .

The maps of seventh-grade children [three out of four of which Fisher illustrates] attempt to symbolize spatial relationships abstractly and clearly. All three maps not only show the house and school as recognizable buildings but keep them relatively small, much more nearly proportional to the distances involved. The number of landmarks increases, and everything is labeled so that a stranger looking at the map will understand its symbols. Where trail intersections

might cause confusion, these older students are careful to put in the other trail. That correct choices must be made to arrive at the school, not somewhere else, is understood.⁴⁶

Noting that the maps of American children may seem to be more accurate (Fisher again uses the term “sophisticated”) in that they are closer to the model Western planimetric ideal, Fisher observes that the differences

can be explained by cultural and environmental differences between the two groups. Sherpas are used to an environment of steep slopes with relatively few flat places and must therefore handle spatial relations in three, rather than only two, dimensions. . . . To represent height on a two-dimensional surface is a challenging topographic problem. In a bird’s-eye view of a steep slope . . . , two points may look close together although they are actually far apart—but on a vertical, not a horizontal, plane. The problem that Sherpa and most Nepalese children (and adults, for that matter) face is that faced by any mountain people explaining how far away a place is. A destination may be only half a mile away but up a steep and difficult slope. Therefore, as any trekker in Nepal knows, distance is measured in time, not linear units.

The Sherpa children thus tend to construct their maps to show the relation of higher and lower, sacrificing that of depth and width, so that the map represents a vertical cross section rather than a bird’s-eye view.⁴⁷

The probable validity of the foregoing insights will, I believe, be demonstrated repeatedly in the analysis of a variety of maps from Greater Tibet in the rest of this chapter.

COSMOGRAPHIC MAPS

In chapters 8 and 17 of this book, as well as in the chapter on cosmographic mapping in South Asia in volume 2, book 1 of *The History of Cartography*, cosmographic ideas associated with various forms of Buddhism practiced outside Greater Tibet have been illustrated and discussed. Space limitations preclude comparably detailed coverage of the exceedingly elaborate cosmography of Greater Tibet, but in brief we may note that the region shares with other Buddhist areas the following general characteristics (most of them also applicable to Hinduism and Jainism).

1. Our universe is but one among many millions existing in infinite space and in time measured in many millions of years.

2. Each universe is vertically ordered and centered on an *axis mundi*, Mount Meru (Sumeru or Ri-rab).

3. The essential structure of the universe is tripartite,

consisting of a lowermost realm, the Kāmadhātu, or Realm of Desire; a middle realm, the Rūpadhātu, or Realm of Form; and an uppermost realm, the Ārupyadhātu, or Realm of Nonform.⁴⁸

4. The horizontal terrestrial plane, within the Kāmadhātu, constitutes only an insignificant part of the cosmos as a whole.

5. Around Mount Meru on earth are symmetrically arranged continents and seas, differently shaped in each of the four cardinal directions.

6. Each continent is of stupendous extent and is characterized by a unique set of denizens, some divine and others not.

7. Neither the cosmos nor the terrestrial plane is anthropocentric, since the southern continent, Jambūdvīpa, is the only one where human beings live.

8. Above and below the terrestrial plane within the Kāmadhātu are other planes of heavens and hells, where still other beings live.

9. The universe, like all animate creatures within it, goes through cycles of emergence, decline, dissolution, and rebirth.

10. The most exalted cosmic state is nirvana, and attaining it frees souls from the painful process of rebirth; but this state lies beyond the three levels of existence and is theoretically without form and therefore dimensionless.

Much of the reality just described is represented graphically, and also in three dimensions, in a great variety of ways, some of them quite abstract and others rather obviously representational. In this section I shall consider several of those ways, beginning with relatively abstract mandalas and proceeding to genres, also largely construed as mandalas, in which the component elements are increasingly discernible to laymen and even to uninitiated non-Buddhists. I shall also briefly illustrate how maplike cosmographic images are incorporated into paintings of deities, saints, and epic heroes.

ABSTRACT MANDALAS

Although there are many varieties of mandalas, all have in common the idea that they are a means of recognizing, through meditation, a divine palace, the abode of oneself conceived as a Buddha. Abstractly a mandala may denote

46. James F. Fisher, *Sherpas: Reflections on Change in Himalayan Nepal* (Berkeley and Los Angeles: University of California Press, 1990), 82–89, quotations from 83–84.

47. Fisher, *Sherpas*, 84–85 (note 46).

48. See table 17.1, p. 718, relating to the vertical ordering of the Hinayana Buddhist cosmos and the placement therein of the major realms and subrealms. Although there are differences between this schema and that of Tibetan Buddhism, there is an overall similarity of structure.

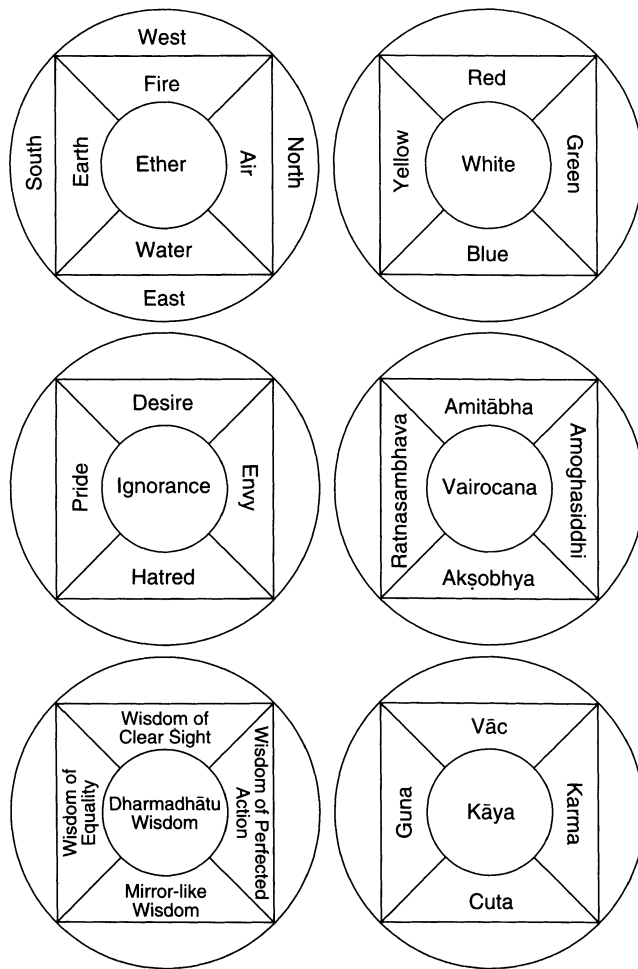


FIG. 15.13. BASIC SCHEMA OF THE *TATHĀGATAMAṆḌALA*. Six essential and inherently inseparable aspects of this particular mandala, associated with the process of rebirth and the attainment of nirvana, are shown in this diagram. It illustrates the essential plan of numerous other mandalas that are also used as objects of meditation by Tibetan Buddhists, though there are numerous differences of detail.

After Detlef Ingo Lauf, *Secret Doctrines of the Tibetan Books of the Dead*, trans. Graham Parkes (Boulder, Colo.: Shambhala, 1977), 111.

the divinization of our environment. This is true irrespective of the scale or form in which the mandala is perceived. Tucci defines a mandala as “a psychocosmogram.”⁴⁹ Figure 15.13 shows a form of mandala associated with the Tibetan *Bar-do thos-grol* (Book of the dead), the so-called *tathāgatamaṇḍala*, that of five “transcendent Buddhas . . . , who, together with their female counterparts, the Buddha-Dākinis, open up a realm of symbolism rich in interrelationships.”⁵⁰ The sets of related meanings assigned to the various components of the mandala are elucidated by the six variations of the basic diagram. It is noteworthy that at the elemental level (view 1), showing water, earth, fire, and air, there is a

remarkable accord between the Tibetan schema and the alchemical diagrams of the elements found in Western medieval and Renaissance astrological texts. The principal difference is that the latter assigns a central position to the human world, whereas the ineffable element “ether” occupies that position in the Tibetan view. In fact, the “human” world is not even an element in the type of Tibetan view presented here. The connections between the two call for additional research.⁵¹ Only in respect to the basic elemental structure are the spatial and directional aspects of the mandala obvious; but it would be a mistake to adopt a purely materialist perspective and suppose that the remaining views are aspatial. Rather, one should see each view as suffusing all the others in a complex, multivalent cosmic whole. But even at the elemental level the parts are regarded as being related in the ways they are successively subsumed into one another until only the psychic center representing awareness remains. Lauf illustrates this point in a sequence of diagrams that begins with the “Unity of All Elements” and then proceeds successively with the dissolution of earth as it sinks into water, the dissolution of water as it sinks into fire, the dissolution of fire as it sinks into air, and at the very end, the dissolution of air as it sinks into awareness, the ultimate reality. This is what is said to occur in the “process of death,” which initiates each stage of transmigration toward or away from the ultimate goal of attaining nirvana.⁵²

The earliest surviving Nepali mandala, dating from the thirteenth century, is one of only three known examples of Nepali paintings predating the fourteenth century (plate 33). The structure of this work is fundamentally the same as that of the model presented in figure 15.13 (or the one being created in fig. 15.3).

Although most of the hundreds of mandalas that one

49. Giuseppe Tucci, *The Theory and Practice of the Maṇḍala, with Special Reference to the Modern Psychology of the Subconscious*, trans. Alan Houghton Brodrick (New York: Samuel Weiser, 1970; first published by Rider, 1961), 25. This work provides an extensive, though often controversial, discussion of the many forms and meanings of Tibetan mandalas and both supplements and complements the better known, but also controversial, work by Carl Gustav Jung, *Mandala Symbolism*, trans. R. F. C. Hull (Princeton: Princeton University Press, 1972). Many individual mandalas are discussed by Tucci in his magnum opus, *Tibetan Painted Scrolls*, 3 vols. (Rome: Libreria dello Stato, 1949). Also noteworthy is José Argüelles and Miriam Argüelles, *Mandala* (Berkeley, Calif.: Shambhala, 1972), which examines figures that may be construed as mandalas from a cross-cultural perspective. For the general interpretation of mandalas provided in this text I am largely indebted to Roger Jackson, Carleton College, Northfield, Minnesota.

50. Detlef Ingo Lauf, *Secret Doctrines of the Tibetan Books of the Dead*, trans. Graham Parkes (Boulder, Colo.: Shambhala, 1977), 64.

51. For a discussion of similar and even earlier ideas from medieval Europe, see John E. Murdoch, *Antiquity and the Middle Ages*, *Album of Science* (New York: Charles Scribner's Sons, 1984), 360–68.

52. Lauf, *Secret Doctrines*, 90–91, esp. fig. 15 (note 50).

can see in published works on Tibetan art are paintings, they also exist in other forms. Many are produced as relatively simple black-and-white block prints. I have already noted that elaborate mandalas are made out of colored sand for use—and destruction—in religious ceremonies. Others, comparably ephemeral, are sculpted by lamas out of butter mixed with various colored powders and worshiped by ordinary people in nightlong ceremonies.⁵³ Though most, as previously noted, are essentially two-dimensional, many forms of three-dimensional mandalas may also be found in monasteries, museums, and elsewhere. Among these are certain stupas, each part of which embodies multiple meanings. For example, the five vertically arrayed components of a Tibetan stupa correspond, in ascending order, to earth, water, fire, air, and ether, and each of those elements has corresponding properties such as color, *tathāgata* (form of a transcendent Buddha), and so forth, analogous to those indicated in figure 15.13.⁵⁴

VIEWS FOCUSING ON THE TERRESTRIAL PLANE

As I noted in the brief introductory outline of Tibetan cosmography, within the terrestrial plane of the Kāmadhātu a set of primary and satellite continents are symmetrically arranged around Mount Meru. So too are a number of additional features, including the sun and the moon, which may be seen in figure 15.14, representing the so-called Meru mandala.⁵⁵ The work depicted appears to have been prepared as part of an academic undertaking in Beijing rather than as an object for worship. Although some of its components are more obviously geographic than others, each has its properly assigned place within the cosmos as a whole. Whether examples exist that show every such feature is not known, though some include a variety of features not indicated there.

Depictions of the Meru system are very numerous and assume a multitude of forms. Many appear as block prints, some quite simple and others relatively complex.⁵⁶ Still others are on painted, embroidered, and appliquéd *thankas*.⁵⁷ A particularly powerful and expressive assemblage of at least five large cosmographic mandalas, all focusing on the terrestrial plain, is to be found in central Bhutan. All are well preserved, but undated, fresco paintings on the walls of Bhutanese *dzongs* (castles), three in Paro and two in Punakha. Another considerably more abstract, but nevertheless striking, cosmographic mural is at a nearby *dzong* in Simtokha.⁵⁸

53. Antoinette K. Gordon, *Tibetan Religious Art* (New York: Columbia University Press, 1952), 92–93.

54. Detlef Ingo Lauf, *Tibetan Sacred Art: The Heritage of Tantra*, trans. Ewald Osers (Berkeley, Calif.: Shambhala, 1976), 139.



1. Sumeru; 2. Pūrvavideha; 3. Jambūdvīpa; 4. Aparagodāniya; 5. Uttarakuru; 6. Deha; 7. Videha; 8. Cāmara; 9. Aparacāmara; 10. Sāthā; 11. Uttaramantriya; 12. Kurava; 13. Kaurava; 14. Sun; 15. Moon.

FIG. 15.14. THE GENERAL SCHEME OF THE MERU MANDALA. This representation of the mandala, with text in both Tibetan and Chinese, was produced, presumably for academic purposes, at the Peking Buddhist Institute, probably in the late 1930s. The size and media of the original are not known. A description of the diagram appears in a compilation of minor Tibetan works in a Western format (but bearing no entry regarding the date or place of publication) that was acquired by Alex Wayman at the Tibetan Press in Dharmasala, Himachal Pradesh, India, in 1970. An analogous diagram appears in figure 15.15. Some of the more obvious geographical and astronomical features have been identified by the numbers 1–15. After Alex Wayman, *The Buddhist Tantras: Light on Indo-Tibetan Esotericism* (New York: Samuel Weiser, 1973), pl. 8 (which contains a more complete translation than I have provided).

55. See Alex Wayman, *The Buddhist Tantras: Light on Indo-Tibetan Esotericism* (New York: Samuel Weiser, 1973), 101–3.

56. Examples of such prints may be found in Nik Douglas, *Tantric Charms and Amulets* (New York: Dover, 1978), figs. 70–74, with accompanying text; Peter Gold, *Tibetan Reflections: Life in a Tibetan Refugee Community* (London: Wisdom Publications, 1984), 28; and Jackson and Jackson, *Tibetan Thangka Painting*, 38 (note 42).

57. A very clear example appears in Louis P. Van der Wee, “Rirab Lhunpo and a Tibetan Narrative of Creation,” *Ethnologische Zeitschrift*, 1976, no. 2, 67–80, illustration on 77. The original work is in the Teo Sørensen Collection of the Ethnographical Museum of the University of Oslo. The cosmography drawn by Giorgi, *Alphabetum Tibetanum* (note 5), is also of this type.

58. Four such works from Bhutan are well illustrated, in color, in Sugiura, *Ajia no kosumosu + mandara*, 39–41 (note 5). The same source also illustrates a painting from nineteenth-century Tibet in a very different style (21). Other sources depicting these and other Bhutanese paintings include Manfred Gerner, *Architekturen im Himalaja* (Stutt-

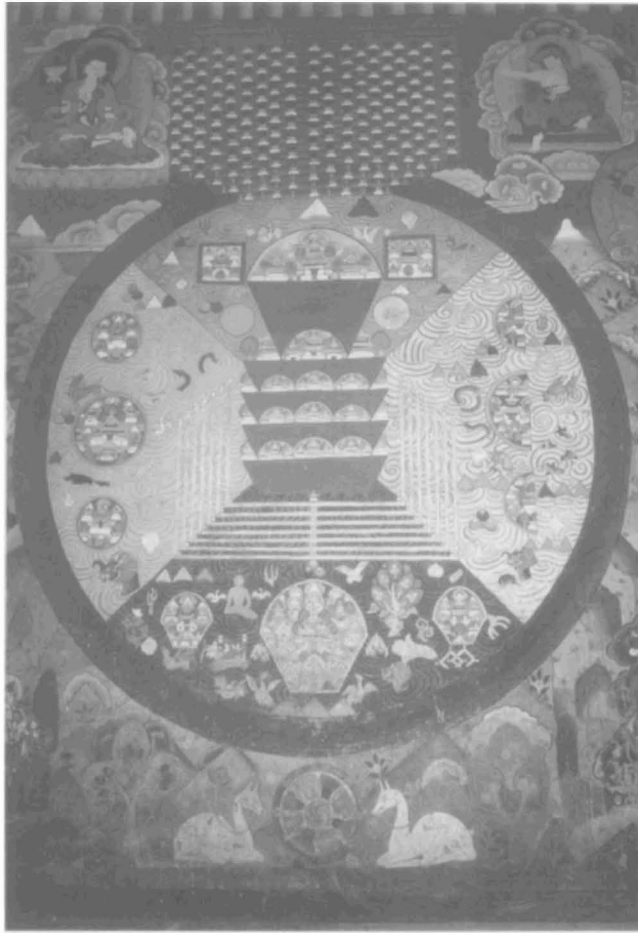


FIG. 15.15. MERU MANDALA, PAINTED ON A WALL OF THE PARO DZONG, BHUTAN. This view, of unknown date, is probably based on Vasubandhu's *Abhidharmakośa*. Like figure 15.14, it indicates the terrestrial continents situated in the four cardinal compass directions from Mount Meru, each with its distinctive shape and flanked by two smaller tributary continents. Meru, the home of the gods, rises from the center of the painting and is surrounded by seven ranges of golden mountains (depicted as a set of nested squares). It obscures the northern continent, Uttarakuru, whose presence is implied by the two square tributary continents that are visible. Unlike figure 15.14, which is oriented with east at the top, this view is oriented toward the north, thus giving greater prominence to the southern continent, Jambūdvīpa, where humans live. Numerous icons appear within the various continents, in the intervening oceans, and on Meru itself. Although these have not been individually identified, one may assume they correspond in the main to individual elements indicated in figure 15.14.

Size of the original: unknown. From Sugiura Kōhei, ed., *Ajia no kosumosu + mandara* (The Asian cosmos), catalog of exhibition, "Ajia no Uchūkan Ten," held at Rafōre Myūjiamu in November and December 1982 (Tokyo: Kōdansha, 1982), 41. ©Kōdansha Ltd. 1982.

Although the works at Paro and Punakha are based on two different texts, the *Abhidharmakośa* (a fourth- or fifth-century work by Vasubandhu, an Indian Buddhist

scholar) and a tenth-century Tibetan recension of the originally Sanskrit *Kālacakra Tantra* (text of the wheel of time), Olschak and Thupten Wangyal discuss them collectively as a sequentially ordered graphic testament to the earth's evolution.⁵⁹ The earliest phase of the cosmogony, depicted on one of the Paro murals, is based on the second of these texts. The painting gives much prominence to the elements out of which our world is aggregated. On it the cosmos is seen from above in the form of four concentric rings, whose varying colors symbolize the four elements, beginning with the outermost band, representing air (yellow) and progressing inward through fire (red), water (light blue), and earth (dark blue). On this last ring the main and satellite continents are ranged about Meru in the four cardinal directions, while inside the ring are eighteen narrow, concentric, brightly colored rings representing six successive triads of continent-mountain-ocean, a set of features reminiscent of an Indian Puranic view.⁶⁰ The most central part of the painting is Meru itself, but a Meru not yet fully formed, marked by a spiral wind out of which the elements are condensed. Additionally, the painting includes twelve narrow intersecting circles, all of the same size but with centers spaced at thirty-degree intervals with reference to Meru, that stand for the months of the year and a brick red ellipse intersecting all the monthly circles that represents the trajectory of the sun. All of these features, in turn, overlap the two wide bands symbolizing water and earth.⁶¹

gart: Deutsche Verlags-Anstalt, 1987), 46; Chantal Massonau, "Le Bhoutan," in *Les royaumes de l'Himalaya: Histoire et civilisation* (Paris: Imprimerie Nationale, 1982), 67–116, esp. 113; Blanche Christine Olschak, *Ancient Bhutan: A Study on Early Buddhism in the Himalayas* (Zurich: Swiss Foundation for Alpine Research, 1979), 42; idem, *The Dragon Kingdom: Images of Bhutan* (Boston: Shambhala, 1988), front and back inside covers; Olschak and Thupten Wangyal, *Mystic Art*, 108–9 (note 39); and Françoise Pommaret-Imaeda and Yoshiro Imaeda, *Bhutan: A Kingdom of the Eastern Himalayas*, trans. Ian Noble (Boston: Shambhala, 1985), pls. 23 and 26.

59. Olschak and Thupten Wangyal, *Mystic Art*, 108–9 (note 39).

60. Joseph E. Schwartzberg, "Cosmographical Mapping," in *The History of Cartography*, ed. J. B. Harley and David Woodward (Chicago: University of Chicago Press, 1987–), vol. 2.1 (1992), 332–87, esp. fig. 16.2 (text on 336–37) and fig. 16.9 (text on 345).

61. The foregoing description is based mainly on Pommaret-Imaeda and Imaeda, *Bhutan*, 112 (note 58), and in part on Olschak and Thupten Wangyal, *Mystic Art*, 108–9 (note 39). For a somewhat different interpretation of the same works, see Massonau, "Le Bhoutan," 112–14 (note 58), which also differs from the quoted description in stating that, rather than representing the months of the year, the intersecting circles actually stand for "douze vents qui sont autant de chemins" (twelve winds that are, at the same time, roads) (112); but she does not provide the basis or significance of this interpretation. A very large *thangka* in the Potala palace in Lhasa that appears to incorporate much of the same content as the Paro mural painting, and probably additional astro-nomic information as well, is illustrated, though with minimal explanatory text, in *Trésors du Tibet*, fig. 84 (note 36).

The second and third paintings in the sequence, from Punakha and Paro, respectively, also appear to be based on the *Kālacakra Tantra*. The second shows the primordial world system just described as it begins to assume a more differentiated form, with Meru rising out of the earth and into the clouds and with the abodes of the gods depicted on its various levels. On the third painting plants and flowers begin to appear around the sacred mountain. Both views depict Meru in frontal perspective in the upper half of the painting and half the earth, in planimetric perspective, on the lower half. The fourth and fifth paintings, again from Punakha and from Paro, are based on the *Abhidharmakośa*. On the fourth the world continents are shown in greater detail than previously, and on the fifth (fig. 15.15), the fully formed world system, they are even more prominently depicted. Both paintings combine several perspectives: frontal for Meru itself (thereby obscuring Uttarakuru, the northern continent, which lies to its rear), oblique for the platform out of which Meru rises, and planimetric for the rest of the system.⁶²

Apart from representations of the terrestrial plane of the type just discussed, there are others on which the surrounding continents are either reduced to insignificant size or omitted altogether, as in figure 15.16.⁶³ Other representations vary widely in appearance and are presented in a number of published works.⁶⁴ There are also some striking three-dimensional representations of Meru that appear to conform to the Tibetan Buddhist conception. A particularly large example, in the Yonghegong Temple in Beijing, provides a remarkably good match to the view presented in figure 15.16, though without the surrounding continents.⁶⁵ Another, also from northern China, is in the form of an elaborate gilt brass mandala with a diameter of 35.1 centimeters and a height of 37.5 centimeters. In this model the surrounding primary and satellite continents are presented as four sets of three



FIG. 15.16. MOUNT MERU AND ASSOCIATED FEATURES ON A TIBETAN TEMPLE BANNER. Painted on a cloth *thanka*. Date and provenance within Tibet not known. At the base of this painting are what appear to be eight horizontal rows of mountains (though only seven should properly be shown) with intervening ocean. Above these are the four stages of Meru itself. Within the uppermost stage are the sun and moon, below which appear the Big Dipper and the Pleiades, respectively. On Meru's summit stands the palace of the gods. Ranged about Meru are signs for the primary and secondary continents, Jambūdvīpa in the south (bottom center, said to be in the shape of the "shoulder blade of a sheep"), Pūrvavideha in the east, Aparagodāniya in the west, and Uttarakuru, recognizable only by the two square satellites flanking the mountain (the primary continent being hidden behind it), in the north. Also shown are the "Seven Jewels of a Universal Monarch," "Eight Buddhist Symbols" (identified with specific ladies), and wish-fulfilling trees. Size of the original: unknown. Courtesy of the Department of Library Services, American Museum of Natural History, New York (neg. no. 319427).

62. In this paragraph I have followed Olschak and Thupten Wangyal, *Mystic Art* (note 39).

63. This work is illustrated in Wayman, *Buddhist Tantras*, 104–5, with explanation on 106–9 (note 55); Gordon, *Tibetan Religious Art*, 47, with explanation on 44 and 49 (note 53); and Sugiura, *Ajia no kosumosu + mandara*, 19 (note 5).

64. Two undated views of painted *thankas* are presented in Van der Wee, "Rirab Lhunpo" (note 57) (apart from the planimetric view already indicated therein), one of unknown provenance in Van der Wee's personal collection (fig. 1) and the other, from Ladakh, held by the Völkerkundemuseum der Universität Zürich (fig. 6). The first is also depicted in Armand Neven, *Etudes d'art lamaïque et de l'Himalaya* (Brussels: Oyez, 1978), 28 (fig. 12); and the latter in Sugiura, *Ajia no kosumosu + mandara*, 20 (note 5), and Unno, *Chizu no shiwa*, 192 (fig. 89) (note 20). A very clear oblique Sikkimese version, with an accompanying key, appears in Mark Tatz and Jody Kent, *Rebirth: The Tibetan Game of Liberation* (Garden City, N.Y.: Anchor Books, 1977), 38–39. Van der Wee, "Rirab Lhunpo" (note 57), also reproduces a number of paintings

in which Meru figures only as a subsidiary element (e.g., as being held in the hand of the bodhisattva Vajrapāṇi), on which I will make no further comment. A very large fresco painting of Meru is reproduced in Müller and Raunig, *Der Weg zum Dach der Welt*, 293 (note 34).

65. Illustrated in Gerner, *Architekturen im Himalaja*, 46 (note 58).

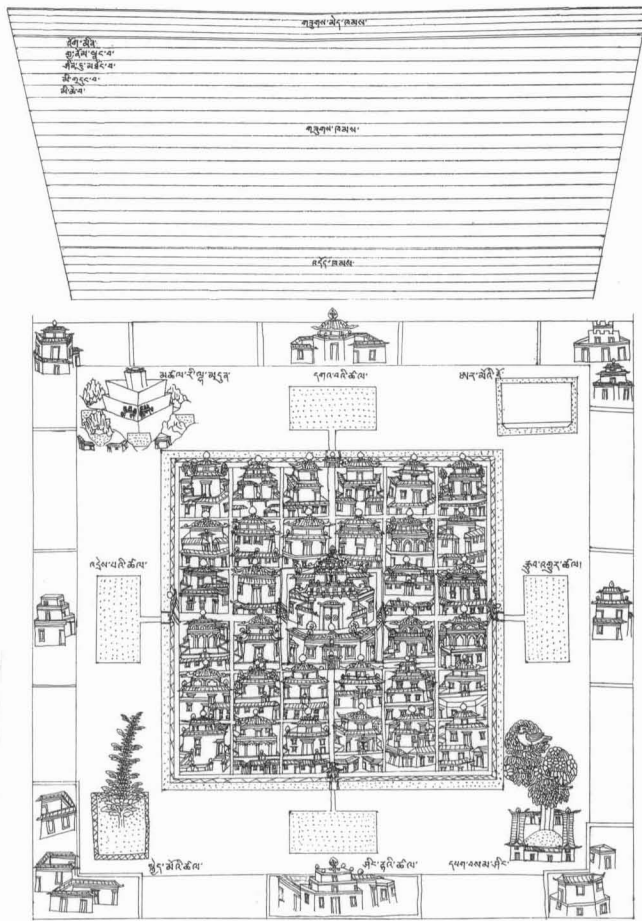


FIG. 15.17. BÖN DRAWING OF THE *LHA SUM-CU-SAGSUM GYI GZAL-YAS-KHAÑ* (THE PALACES OF THE THIRTY-THREE GODS). This pen-and-ink drawing was probably made in England by a Tibetan refugee, Tenzin Namdak (bsTan-'dzin rnam-dag), a learned lama of the Bön cult. It illustrates a portion of the text outlining the major doctrines of his faith, specifically some verses from "The Way of the Shen of the Visual World." In addition to the palaces, the map depicts a sacred bird known as Khyung (the Garuda of Indian mythology) in a Tree of Paradise at the lower right, a number of parks, and, it appears, at least four lakes (the stippled rectangular areas), presumably in the four cardinal directions from the central Palace of Victory. At the top of the diagram Mount Meru, becoming ever broader from base to summit, is unmistakable. Size of the original: unknown. From David L. Snellgrove, ed. and trans., *The Nine Ways of Bon: Excerpts from "gZi-brjid"* (London: Oxford University Press, 1967), pl. 21. By permission of Oxford University Press.

pavilions each.⁶⁶ Commenting on these differences, Van der Wee cites a cosmogonic narrative related by Thubten Jigme Norbu, who stated:

If I think of Rirab Lhunpo [one of the many names for Meru], it doesn't matter whether it be round or square. . . . What is important is what my faith signifies for me. Perhaps it is square; but if I believe it to be

round, for me it is round. Even if it doesn't exist at all, for me it will always remain round.⁶⁷

Meru is sacred not only to Tibetan Buddhists, but also to Bön-pos, as the followers of the pre-Buddhist Bön cult are called. Over the centuries the two faiths have borrowed so much from one another that it is no longer possible to untangle the lineage of particular practices and concepts, including those relating to cosmography. But it is clear that Bön cosmography, while incorporating much that is unquestionably within the Buddhist tradition, also contains much that is idiosyncratic. Until recently Bön had received little intensive study outside Tibet itself; but in a pioneering work, mainly of translation, Snellgrove has set forth the more important portions of Bön doctrine as given in a twelve-volume work, whose short title is *gZi-brjid* (The glorious).⁶⁸ Within that work, a section titled "The Way of the Shen [a religious official] of the Visual World" relates largely to cosmology. The *gZi-brjid* seems to have attained its present form in the late fourteenth or early fifteenth century, and the specific text Snellgrove worked from is believed to be about four hundred years old. Several maps drawn by a refugee Bön lama, Tenzin Namdak (bsTan-'dzin rnam-dag), who collaborated with Snellgrove in preparing the translation, are included in an appendix. One of these is the Bön version of the Meru mandala, which in most important respects conforms to that depicted in figure 15.14.⁶⁹ Another diagram from the same work, also relating to Meru, but more to its immediate precincts, is reproduced here as figure 15.17.⁷⁰ What is left to conjecture is the period during which maps of this type began to be drawn in Tibet. My surmise, based on the known antecedents of other works noted in this and the preceding section and on the likelihood (to be discussed below) that Bön cartography predates the arrival of Buddhism in Tibet, would be that cosmological portions of the Bön

66. Illustrated in Marilyn M. Rhie and Robert A. F. Thurman, *Wisdom and Compassion: The Sacred Art of Tibet* (San Francisco: Asian Art Museum, 1991), 382.

67. Van der Wee, "Rirab Lhunpo," 72 (note 57), my translation from the French original.

68. Snellgrove, *Nine Ways of Bon* (note 37).

69. Snellgrove, *Nine Ways of Bon*, fig. XX (note 37). This and all the other drawings accompanying Snellgrove's translation relate to items "which bonpos take for granted as the normal possessions of their high dignitaries and scholars" (264).

70. For more on this map, see Snellgrove, *Nine Ways of Bon*, 91 (Tibetan text on 90), from "The Way of the Shen of the Visual World," in relation to fig. XXI (note 37). Since Bön is a little-studied minority cult (though Bön practices permeate Tibetan Buddhism, and vice versa) and since Bön lamas are not numerous outside Tibet, in which country, were it more accessible, older Bön maps could surely be found, it has been necessary to use a modern drawing here. Given the source, however, I believe it may be considered as adhering rather closely to traditional models.

texts, like those of Tibetan Buddhists, would quickly have given rise to various forms of cartographic expression.

COSMOGRAPHIES FOCUSING LARGELY ON THE TEMPORAL DIMENSION

In contrast to the present-oriented and materialistic secular worldview of most inhabitants of industrialized states, that of Tibetan Buddhists is largely concerned with the hereafter and the rewards or punishments that one will reap for the cumulative merit earned in past and present lives. This attitude regarding *samsāra* (Tibetan *'khor ba*, the cycle of transmigration/rebirth) is reflected in numerous cosmographic diagrams in which the temporal dimension figures prominently, either implicitly or explicitly or both. Such diagrams form the subject of the following section.

Bhavacakras (wheels of life/existence/becoming) are important cosmographic means for conveying to the masses the essentially soteriological belief central to Tibetan Buddhism. Such works, often painted at the entrances to temples and monasteries, remind viewers of the realms of existence souls pass through in successive incarnations and warn them of the awful fate awaiting those who cling to worldly desires. In keeping with their largely didactic purpose, such diagrams are conventionally simplified depictions of a portion of a complex cosmography relating to the *Kāmadhātu*, or Realm of Desire. The *bhavacakra* is discussed in considerable detail by Waddell.⁷¹ It typically illustrates six subrealms within the *Kāmadhātu*, each as a segment of a wheel, and by implication includes the *Rūpadhātu* and *Ārupyadhātu* as well, since the wheel is believed to contain all of *samsāra*. The lowermost segment generally includes a multiplicity of hells. Waddell designates it “the Great Judgment” and shows it as compounded of images of eight hot hells and eight cold hells, as well as representations of the sinner, the weigher (of good and evil past deeds), the judge, and angels of good and evil. The segments to the left and right of the Great Judgment represent respectively the world of tantalized spirits (*pretas*) and the animal world. The uppermost segment, predictably, represents heaven(s), while the segments to its left and right signify the human world and the world of titans (*asuras*). Like the Great Judgment, each of the other five segments can be subdivided into a number of subrealms.⁷² Figure 15.18, showing the upper portion of a *bhavacakra*, is not identical in its arrangement to the work described by Waddell, though it is close in spirit.⁷³ Alternative views show a five-segment *bhavacakra*, with hell at the bottom, animal and *preta* realms to its left and right, respectively, and, at the top, a realm of both gods and titans to the left and of humans to the right.⁷⁴

Detailed analysis of this and many other Tibetan paintings reveals what are in effect maps within maps, since some of the scenes depicted in the several portions of the work would individually qualify as maplike views of townscapes, landscapes, or combinations of the two, usually drawn in a characteristically Tibetan oblique perspective. This tendency in Tibetan cosmographic art to create a collage of diverse elements compounded of views of mythic and nonmythic places is even more evident in figure 15.25 below.

A type of Tibetan cosmography, little known or understood by non-Tibetans, is the *tshogs-zhing*, or field of assembly (fig. 15.19). Like *bhavacakras*, such works are largely concerned with cosmic time as well as with cosmic space. Their principal function is to help worshipers visualize “the objects to which one goes for refuge,” here conceived as a virtually numberless host of Buddhas and other spiritually advanced beings (*aryas*) whose existence may be apprehended in both time and space.⁷⁵ The image presented appears largely in the form of a tree atop which sits a guru (teacher), depicted as either Śākyamuni Buddha or another major religious figure, in this case Tsong-kha-pa (1357–1419), the founder of the Gelukpa (bGe-lugs-pa, Yellow Hat) monastic order. The literal meaning of *tshogs-zhing*, however, is “merit sphere or object,” and it may be interpreted unambiguously as referring to a field, not a tree as some commentators have suggested. Further, although the field is presented on the two-dimensional surface of a *thangka*,

just as in the visualization of a *mandala*—what is two-dimensional becomes three dimensional when visualized. Therefore, although . . . all the deities below the guru appear to be on the front of the tree, they are actually arrayed around the tree. For example, . . . the four world protectors . . . all appear along the lower front of the tree, while in a visualization each would be found in his appropriate direction. . . . The guru who is the focus of the *tshogs-zhing* sits, both

71. Waddell, *Buddhism of Tibet*, 77–122 (note 5).

72. Waddell, *Buddhism of Tibet*, illustrations on 102 and 109 (note 5).

73. See Eleanor Olson, “The Wheel of Existence,” *Oriental Art*, n.s., 9 (1963): 204–9. Olson also provides an illustration of the work as a whole.

74. See, for example, the work illustrated by Sopa, “Tibetan ‘Wheel of Life,’” 131 (note 41). Other examples of *bhavacakras* may be seen in numerous museums and in illustrations in many publications, including several cited in this chapter.

75. Roger Jackson, “The Tibetan Tshogs Zhing (Field of Assembly): General Notes on Its Function, Structure and Contents,” *Asian Philosophy* 2, no. 2 (1992): 157–72; quotation on 159. Jackson provides a list of fourteen published representations of fields of assembly (170 n. 3), in addition to the one his own account relates to (157, pl. 1). The similarities from one view to another in the examples I have seen are striking.



FIG. 15.18. A TIBETAN *BHAVACAKRA*. This picture from an eighteenth-century (?) *thangka*, painted on cotton cloth, is representative of many such works depicting the various realms, or domains of existence, within the *Kāmadhātu*, the lowermost major component of the vertically structured tripartite universe. Within the wheel, the three favorable upper domains are, from left to right, those of *asuras* (titans or demigods), gods, and humans, while the unfavorable domains below, again from left to right, are those of *pretas* (hungry ghosts), hells, and animals. Within the circular area at the center of the *bhavacakra* is a representation of the principal factors responsible for reincar-

nation in particular realms, each symbolized by an animal: a pig for ignorance, a snake for anger, and a cock for desire. On the periphery of the wheel there are symbols denoting each link on a twelfold chain of causation. The entire wheel is in the grip of Shinje, a powerful monster, believed to be the wrathful counterpart of the compassionate Avalokiteśvara, the bodhisattva regarded as the protector of Tibet. Shinje's spiritual insight is indicated by his third eye.

Size of the original: ca. 109 × 86 cm. By permission of the Newark Museum, Newark, N.J. (acc. no. 36.535).

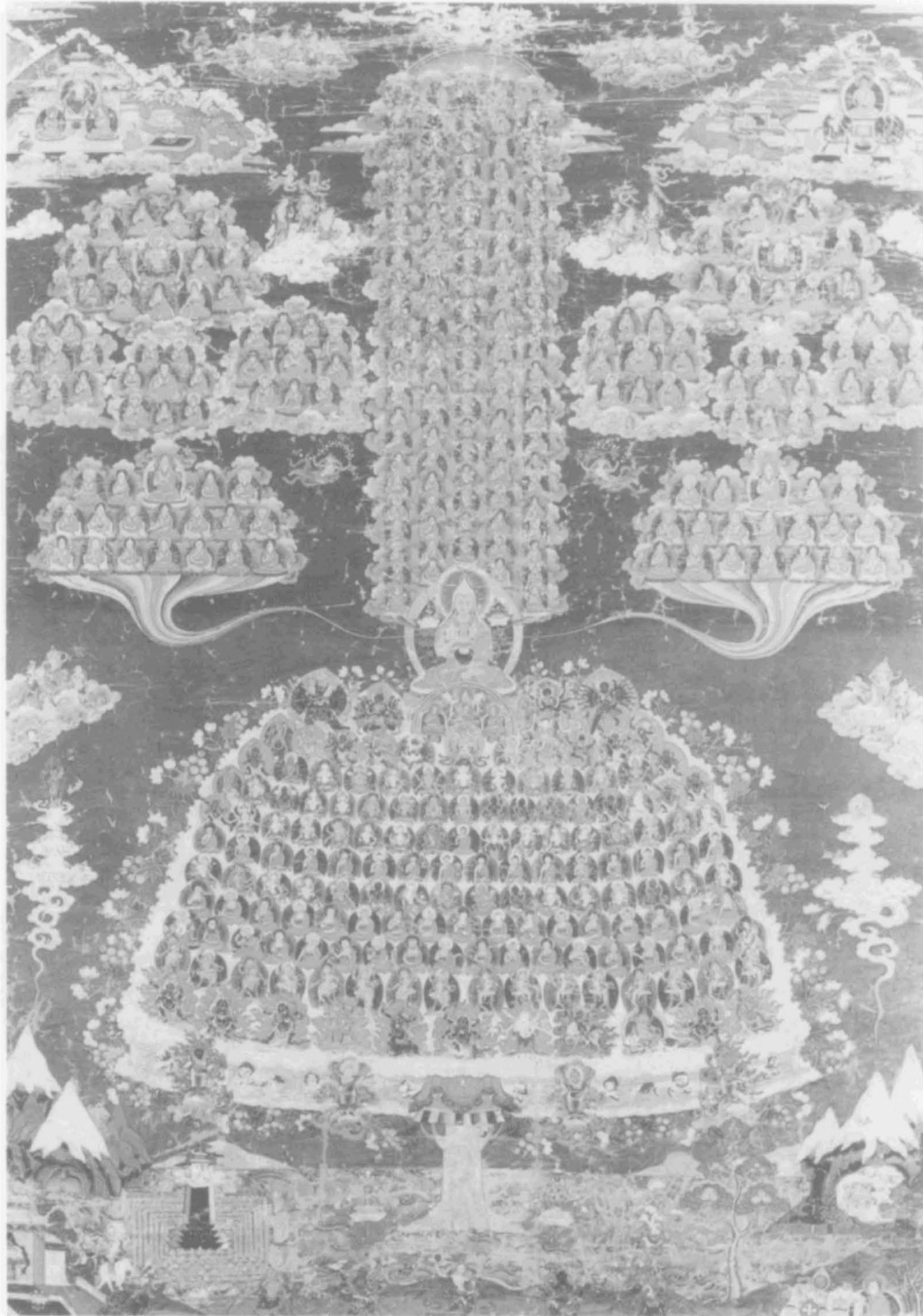


FIG. 15.19. THE TIBETAN *TSHOGS-ZHING*, OR FIELD OF ASSEMBLY. The assemblage of divinities in this diagram represents to Tibetan worshipers a field of merit and a place of spiritual refuge defined in both temporal and spatial terms. The bottom half of the diagram, occupied by a hierarchy of eleven discrete lineages of gurus arrayed on a tree, is conceived synchronically and seen as representing, in effect, a sphere within which their power is manifested. The three lineages of deities in the upper half are conceived as representing a temporal sphere

in which power is manifested diachronically. The two spheres converge at the center in the body of a major guru, seen here as the focus of the two spheres. Maitreya, the future Buddha, in his palace in the Tuṣita heaven, at the upper left, and Amītabha, the heavenly Buddha, in his palace in Sukhāvātī, the western paradise, at the upper right, seemingly preside over the entire assembly.

Size of the original: unknown. By permission of the Gerd-Wolfgang Essen Tibetica Collection, Hamburg.

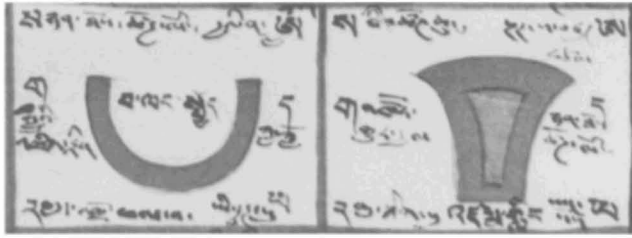


FIG. 15.20. TWO SPACES FROM THE TIBETAN GAME OF REBIRTH. These two spaces, 17 (right) and 18 (left), represent Jambūdvīpa and Aparagodāniya, the continents lying to the south and west of Mount Meru. The former is an easily recognizable shape, said to resemble the shoulder blade of a sheep. The same shape may be seen for Jambūdvīpa in figure 15.15, for example. The shape of Aparagodāniya, however, departs slightly from its customary circular form. The board as a whole may be construed as an aggregation of maps composing, in effect, a larger cosmic constellation by which the sacred geography of Buddhism may be learned through play. From Mark Tatz and Jody Kent, *Rebirth: The Tibetan Game of Liberation* (Garden City, N.Y.: Anchor Books, 1977).

literally and figuratively, at the intersection of the diachronic spiritual power of the guru-lineage [in the sky above] and the synchronic spiritual power of the pantheon [arranged on the tree below]. It is into spheres corresponding to these two types of power that the *tshogs-zhing* basically is organized.⁷⁶

The place referents in the diagram are numerous. For example, the bodhisattvas Maitreya and Amitābha are seated in their palaces in the Tuṣita heaven and the western paradise, Sukhāvātī (depicted in the upper-left and upper-right corners), and the world protectors stand guard over the four cardinal directions at the base of the guru lineage.⁷⁷

Concern with the cosmography relating to rebirth is not merely associated with worship among Tibetans, but also finds expression in play. One vehicle by which such concern is channeled is the game of “Rebirth” (full correct title, “Determination of the Ascension of Stages”), allegedly invented in the thirteenth century by Kunga Gyaltzen (Kun-dga’-rgyal-mtshan), a scholar of the Sakya (Sa-skya) sect.⁷⁸ This game, played by Tibetans of all ages, is an important educational device, “inculcating in children the Buddhist map of the world and an understanding of the workings of karma.”⁷⁹ Since then, many regional variants of the game have spread throughout the world of northern (Mahayana) Buddhism as well as in India, from whence it was adapted by the English in its present popular form as “Snakes and Ladders.”⁸⁰ In a remarkably thorough and abundantly illustrated study of the game, Tatz and Kent discuss its origins, development, subsequent diffusion, and philosophic basis in respect to the Buddhist belief in karma and rebirth; the nature of the

game board, which may be construed as a map; and the rules of play.

The current Tibetan version of the game board consists of a gridded field of 104 rectangular spaces, in thirteen rows and eight columns, each of which represents a specific place in the Buddhist cosmos, whether it be an actual realm in space (e.g., Jambūdvīpa, Meru, Shambhala, or “The Black Rope and Crushing Hells”) or a state of mind or being (e.g., “Wisdom Holder among the Gods of Sense Desire”).⁸¹ To Westerners the distinctions may seem obvious, but to Buddhists they are not. The players’ object is to advance through the field, according to throws of a die, with the goal of reaching nirvana. These places and states are distributed on the board in an ordered manner, with hells occupying much of the bottom two rows and increasingly exalted realms or states occurring as one moves upward. Each space contains a symbol indicating its general and more specific nature (e.g., all hells are indicated by circles, while individual hells are differentiated by color or other added graphic devices), as well as statements specifying the consequences of particular throws of the die that cause one to be reborn in a higher or lower state. Figure 15.20 illustrates two adjacent spaces, those relating to the southern and western continents of the terrestrial realm. Overall, the scheme constitutes a complex “combination of several overlapping systems,” which are not apparent from mere visual inspection of the game board, including, for example, a path through the realm of sense desire within the Mount Meru world system and a path and system relating to the various Buddhist heavens.⁸² “The

76. Jackson, “Tibetan Tshogs Zhing,” 162 (note 75).

77. Jackson, “Tibetan Tshogs Zhing,” 164 (note 75).

78. Tatz and Kent, *Rebirth*, 1 and 19 (note 64).

79. Tatz and Kent, *Rebirth*, 1 (note 64).

80. F. E. Pargiter, “An Indian Game: Heaven or Hell,” *Journal of the Royal Asiatic Society of Great Britain and Ireland*, 1916, 539–42. Pargiter ascribes the game to the Vaishnavite form of Hinduism but offers no probable date for its origin. Despite the alleged Tibetan invention, one cannot rule out the diffusion of some prototype of the game from India to Tibet.

81. Tatz and Kent, *Rebirth*, 62–63 (note 64). A complete folding game board, drawn by a Tibetan artist, is provided in the end-cover pocket of the book. Photographs of other versions of the game, with different numbers and arrangements of spaces, are also provided, including a Tibetan block print of the original nine-by-nine-square field, a modern Bhutanese version, and a nineteenth-century version; a Korean version is also described, but not illustrated (11–15). Waddell, *Buddhism of Tibet*, 471–73 (note 5), illustrates and discusses a version of the game that he acquired, probably in the late nineteenth century, with a small playing field of only eight by seven squares. Slusser, *Nepal Mandala*, vol. 2, pl. 331 (note 13), illustrates a Hindu version of the game from the Vale of Kathmandu. Loden Sherap Daggyab notes that Tibetan game boards he has seen may be as large as two meters high and one and a half meters wide (*Tibetan Religious Art*, 2 vols. [Wiesbaden: Otto Harrassowitz, 1977], 1:41).

82. Tatz and Kent, *Rebirth*, 32–47 (note 64).

various paths may be taken to represent the cultural diversity of humankind. . . . These may also be interpreted as differing attitudes toward religion.”⁸³ Though most squares, paths, and systems relate to the world of Tibetan Buddhism, there are also several paths by which non-Buddhists—Hindus and Muslims—can rise to the level of “wisdom holder,” and another by which followers of the indigenous Bön cult of Tibet can attain that same happy state, yet far short of nirvana.⁸⁴

MAPS OF SPECIFIC PORTIONS OF THE COSMOS

Apart from features associated with the Mount Meru system, many other parts of the Tibetan spiritual universe—heavens, paradises presided over by particular deities, other sacred places, and hells—all find places in the cosmographic art of the region. Here I note only a few examples, beginning with an especially popular subject for religious paintings, the western paradise, Sukhāvati (literally, the Happy Land), chiefly identified with the Buddha in the form of Amitābha (Immeasurable Glory). In figure 15.21 Sukhāvati is shown on a *thangka* that forms the focal object of worship at a Buddhist altar. Detailed descriptions of this peaceful realm appear in numerous ancient Buddhist texts, going back perhaps as far as the third century A.D. It is said to loom from a dark sea as a mountain of gleaming copper. From the summit a bejeweled palace rises into a heaven populated by a host of cloud-mounted gods and goddesses. Those fortunate enough to be reborn in Sukhāvati enjoy continuous festivity, marked by music, dancing, bright banners, and other delights. Surrounding the palace is a zone of silence marked off by a high embankment built of skulls. Nevertheless a winding, narrow road, suggestive of a navel cord, does cross the sea and ascends from the earthly domain to a golden gate in the wall, thus providing access to the palace. Through appropriate meditation, the worshiper aspires to traverse this difficult spiritual path. The sea that must be crossed represents the state of *bardo*, the period between lives, when the soul, in purgatory, is judged in terms of past good and bad deeds to determine the state to which it will be consigned in its next birth.⁸⁵

Paintings of the northern paradise of Shambhala (fig. 15.22), in contrast to those of Sukhāvati, generally employ an essentially planimetric perspective, thereby emphasizing its wheel-like appearance. Because Shambhala is identified with the deity Kālacakra, a name signifying “wheel of time,” the depiction of his domain as a mandala (literally, circle) is especially appropriate. Within the wheel, however, details are shown in an oblique perspective. Curiously, despite the prominence of Shambhala in the popular religion of Tibet and the existence of several Tibetan and Sanskrit guidebooks describing the way by which it can be reached (in increas-

ingly vague terms as the journey progresses), it is not commonly depicted in paintings, perhaps because it is regarded as attainable only by accomplished yogis.⁸⁶ Nevertheless,

storytellers used to wander Tibet with paintings they would unroll before audiences in order to illustrate subjects such as the journey to Shambhala. In one such performance, witnessed . . . in Lhasa, the storyteller indicated on his painting how the traveler to Shambhala must climb a stairway to the top of a mountain, where his body will become light as an insect, enabling him to walk to the kingdom on clouds.⁸⁷

The Tibetan version of the earlier mentioned *Kālacakra Tantra* derives from one brought from India, probably in the tenth or eleventh century, though a still earlier version is traditionally believed to have been brought to India from Shambhala itself. The text describes in great detail that utopian realm, founded by an Indian king, Sucandra, in a blessed, mountain-girt land in a location revealed to him by the Buddha during his lifetime on earth (800 B.C. in the Tibetan tradition). Thereafter Shambhala was ruled by a long line of monarchs, each reigning for a hundred years and each an incarnation of a particular bodhisattva. Tibetans continue to believe in the earthly existence of Shambhala and in the prophecy of the *Kālacakra Tantra* that when the world reaches a certain state of moral decay, a savior-king will emerge from Shambhala, defeat the forces of evil, and bring about a new order of world peace.

The Tibetan recension of the *Kālacakra Tantra*

83. Tatz and Kent, *Rebirth*, 41 (note 64).

84. Tatz and Kent, *Rebirth*, 33 (note 64), present a “Map of the Game Board” that is in fact a deconstruction of the five systems and several subsystems incorporated within it.

85. This description was abstracted from a much fuller discussion in Gerd-Wolfgang Essen and Tsering Tashi Thingo, *Die Götter des Himalaya: Buddhistische Kunst Tibets*, 2 vols. (Munich: Prestel-Verlag, 1989), 1:201–2, including a full-page view of the *thangka*. The authors refer to Sukhāvati as the southwestern paradise rather than the western paradise, but most texts use the latter designation. Other representations, quite different from the one illustrated here, appear in various publications: one that appears to be a woodblock print, with an accompanying detailed Tibetan text, is presented by Waddell, *Buddhism of Tibet*, 140 (note 5); a painted essentially planimetric view in Detlef Ingo Lauf, *Verborgene Botschaft tibetische Thangkas/Secret Revelation of Tibetan Thangkas* (Freiburg im Breisgau: Aurum, 1976), 49, with text on 48; and a fresco painting three and a half stories high on the *chorten* of Dumtse lhakang at Paro in Bhutan, of what I take to be Sukhāvati, in Massonau, “Le Bhoutan,” 110 (fig. 39) (note 58).

86. An exhaustive and well-illustrated treatment is provided by Edwin Bernbaum, *The Way to Shambhala* (Garden City, N.Y.: Anchor Press, 1980). Also useful, though without indigenous maps, is Peter Bishop, *The Myth of Shangri-La: Tibet, Travel Writing and the Western Creation of Sacred Landscape* (London: Athlone Press, 1989).

87. Edwin Bernbaum, “The Hidden Kingdom of Shambhala,” *Natural History* 92, no. 4 (1983): 54–63, esp. 59.

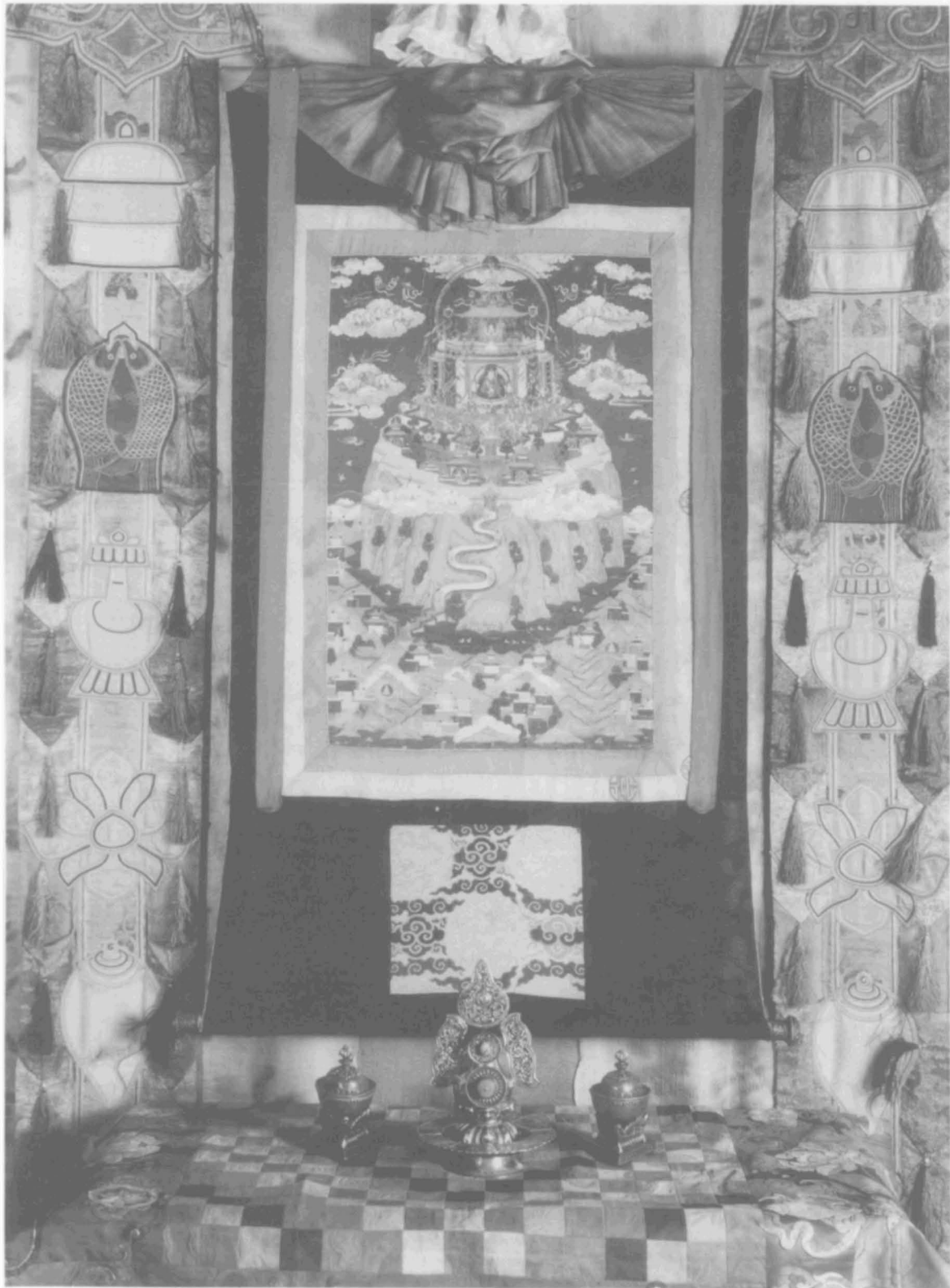


FIG. 15.21. ALTAR WITH *THANKA* (SCROLL HANGING) SHOWING SUKHĀVATĪ, THE WESTERN PARADISE IN THE COSMOGRAPHY OF TIBETAN BUDDHISM. From Tibet, nineteenth century. This painted scroll occupies a central place in the altar and is one among many sacred images that

may form focal points in the meditation that is characteristic of the worship of Tibetan Buddhists. Size of the original: 58 × 39 cm. By permission of the Gerd-Wolfgang Essen Tibetica Collection, Hamburg.

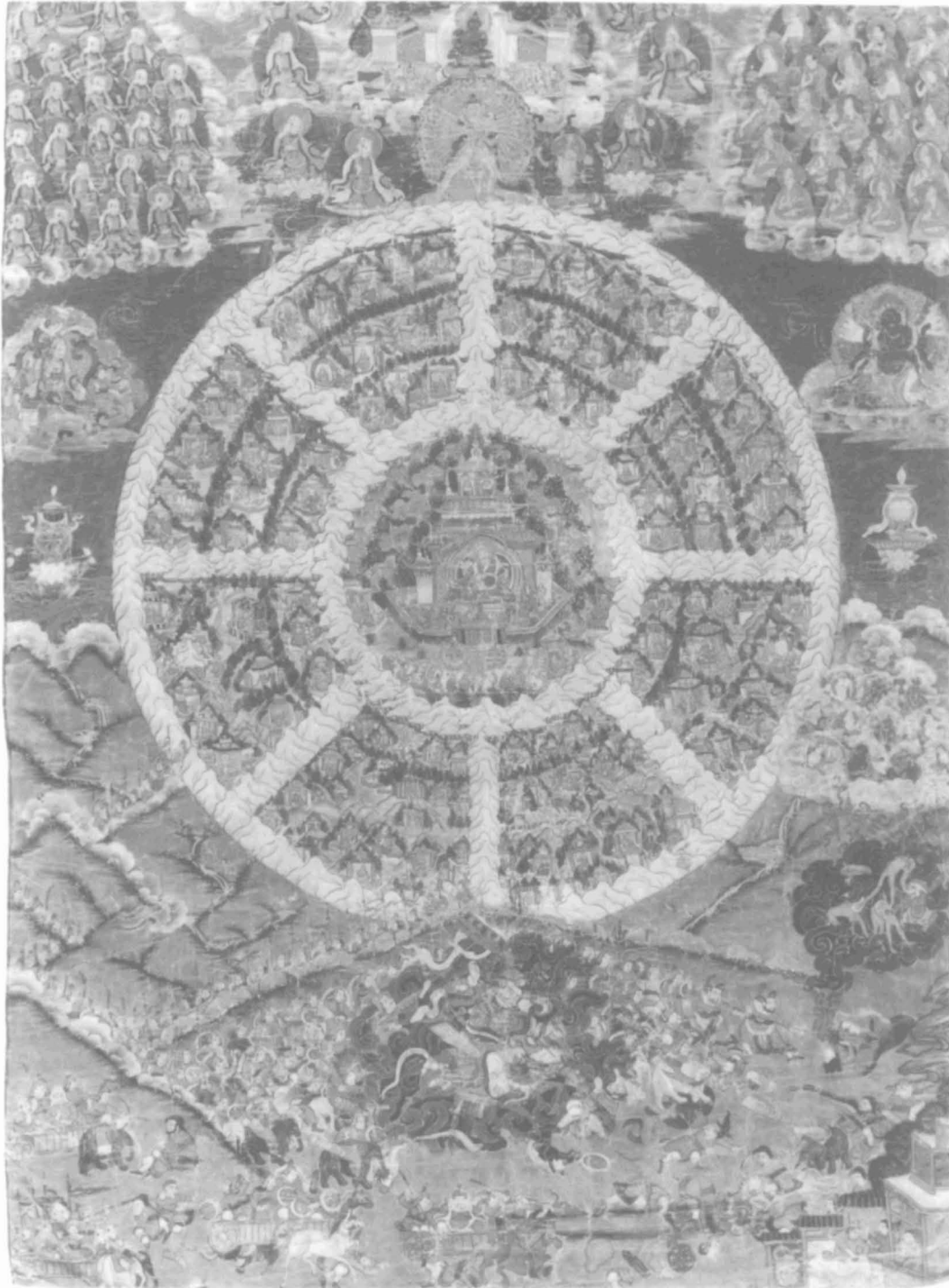


FIG. 15.22. SHAMBHALA, THE NORTHERN PARADISE OF TIBETAN BUDDHISM. From Tibet, late eighteenth century, a painted cloth *thangka*. To reach the hidden idyllic kingdom of Shambhala, travelers must undertake an epic journey across deserts and mountains and overcome all manner of intervening natural obstacles. Those who achieve their goal will encounter a country of beautiful cities and parks divided into the shape of a lotus blossom with eight petals; in the center, in a magnificent palace, lives the king, an incarnate bodhisattva. The lotus here represents the emergence of purity and enlight-

enment amid the depravity and delusion of the surrounding world. In this picture mountain ranges not only set off Shambhala from the outside world, but also separate the capital from the eight outer portions of the realm and divide those regions from one another. Other paintings show streams, rather than mountains, between neighboring outer regions and depict their shapes with less rigid regularity than in this view. Size of the original: 65 × 46 cm. By permission of the Gerd-Wolfgang Essen Tibetica Collection, Hamburg.

“reflects the influence of various non-Buddhist religions that were found in Central Asia . . . most notably Nestorian Christianity, Manichaeism, and Islam,” suggesting to some Western scholars that there once really was a kingdom of Shambhala somewhere within that general region.⁸⁸ Helmut Hoffmann actually sought to find it, using the guidebooks in much the same way as Heinrich Schliemann drew on the *Iliad* and the *Odyssey* to locate Troy, and he concluded that it lay in the Pamir Mountains to the east of Samarkand. Others have suggested the Tarim basin or the Turfan Depression as likely regions.⁸⁹ Based on the ring of mountains shown on the available cosmographic maps, a case can be made for any of those areas, especially if one recognizes that they were once much better watered and therefore more felicitous environments than they are at present.

Within Shambhala, according to followers of the Bön cult, there exists a “Nine-Stage Swastika Mountain.” A very elaborate drawing of this mountain, together with a lengthy caption in Tibetan, accompanies Snellgrove’s translation of Bön doctrines. The much briefer English caption simply states that the mountain “representing the Nine Ways of *Bon* . . . [is] surrounded by its eight royal palaces in the country known variously as *sTag-gzigs*, *’Ol-mo-luñ-rin*, *Śambhala*, etc.,” but it fails to identify the other features shown in that intriguing diagram, which in some respects resembles Jain renditions of Jam-būdvipa and surrounding islands.⁹⁰

Apart from the examples noted above, there are numerous additional maps of heavens, hells, and other portions of the Buddhist cosmos. Many form parts of detailed hagiographic compositions (to be examined below), while others focus on a single place or a group of closely related places.⁹¹

ASTROLOGICAL AND DIVINATORY DIAGRAMS

As previously noted, astrology and other forms of divination play an important role in the culture of Greater Tibet.⁹² Manuals devoted to the subject abound in graphic devices that may be consulted to determine outcomes preordained by one’s time of birth or by the apparition of various signs believed to be diagnostic guides to the future. Although much could be written on the subject of divination, it lies at the margin of the concerns of this volume. Hence I shall do no more than direct attention to a few works in which relevant diagrams appear and comment briefly on them, taking note of several genres that relate to Indian cosmography.

The Tibetan system of astrology, an amalgam of Indian, Chinese, and indigenous concepts, is discussed and illustrated in a number of nineteenth-century scholarly publications.⁹³ The diagrams included in almanacs consulted by practitioners of astrology can be quite com-

plex and esoteric. A particularly rich assemblage of astrological drawings from a nineteenth-century Tibetan almanac appears in *Die Götter des Himalaya*, together with a detailed key to its contents. The almanac is of special interest because charts based on the different original systems appear alongside one another on the same large page.⁹⁴

A genre of astrological divination that can be found in related forms in China (its apparent place of origin), in Tibet, and with considerable modification, in India is of the type illustrated in figure 15.23.⁹⁵ This artifact happens to be in bronze; but more commonly works of this type, the making of which was traditionally an important source of income for astrologers, would be painted on cloth or paper, especially those kept on family altars. The principal component of diagrams of this type is the body of a tortoise (rather abstractly depicted in this instance) or a frog. In the Chinese and Tibetan versions, the body of whichever creature is used is divided into nine parts in a magic square containing nine smaller squares, in three rows and three columns, each with a number from 1 to

88. Bernbaum, “Hidden Kingdom,” 56 (note 87).

89. Bernbaum, “Hidden Kingdom,” 56 (note 87). Among the extant maps of Shambhala is a striking nineteenth-century Mongolian *thanka*, remarkable in that it shows Shambhala only on the right side of the painting. This work is held by the Musée Guimet, Paris, and illustrated in Rhié and Thurman, *Wisdom and Compassion*, 378–79 (note 66).

90. Snellgrove, *Nine Ways of Bon*, fig. XXII (note 37); see Schwartzberg, “Cosmographical Mapping,” 367–72 (note 60), for Jain examples.

91. For example, a frighteningly vivid Tibetan depiction of a series of hells arranged in eight concentric rings below Mount Meru (presumably the “Eight Hot Hells” sometimes shown in the lowermost segment of the *bhavacakra*), painted on a *thanka* is depicted in Sugiura, *Ajia no kosumosu + mandara*, 22–23 (note 5). An exquisitely painted *thanka* in the Potala palace in Lhasa shows not only the same set of concentrically ordered hells, but also a heavenly field above into which rises a many-layered Meru. This remarkable composition is illustrated in *Trésors du Tibet*, 83 (note 36). A comprehensive view of the hot and cold hells is provided in a woodblock print reproduced in Lauf, *Secret Doctrines*, 132, with a key diagram on 133 and explanatory text on 130–31 and 134–37 (note 50). Though it is similar in subject to the previously noted work, the two are completely different in appearance, a fact only partly accounted for by the different media employed.

92. René de Nebesky-Wojkowitz, *Oracles and Demons of Tibet: The Cult and Iconography of the Tibetan Protective Deities* (The Hague: Mouton, 1956), 291–98 and 455–66, discusses more than a dozen methods of divination used in Tibet in addition to resort to oracles. Few of these, however, appear to rely heavily, if at all, on graphic aids.

93. Especially useful are Emil Schlagintweit, *Buddhism in Tibet, Illustrated by Literary Documents and Objects of Religious Worship, with an Account of the Buddhist Systems Preceding It in India* (1863; London: Susil Gupta, 1968), 290–328; and Waddell, *Buddhism of Tibet*, 450–74 (note 5).

94. Essen and Thingo, *Die Götter des Himalaya*, 2:229–30 and 1:256–57 (note 85).

95. Along with one other bronze example (in a private collection), it is illustrated and discussed in Siegbert Hummel, “Kosmische Strukturpläne der Tibeter,” *Geographica Helvetica* 9 (1964): 34–42.

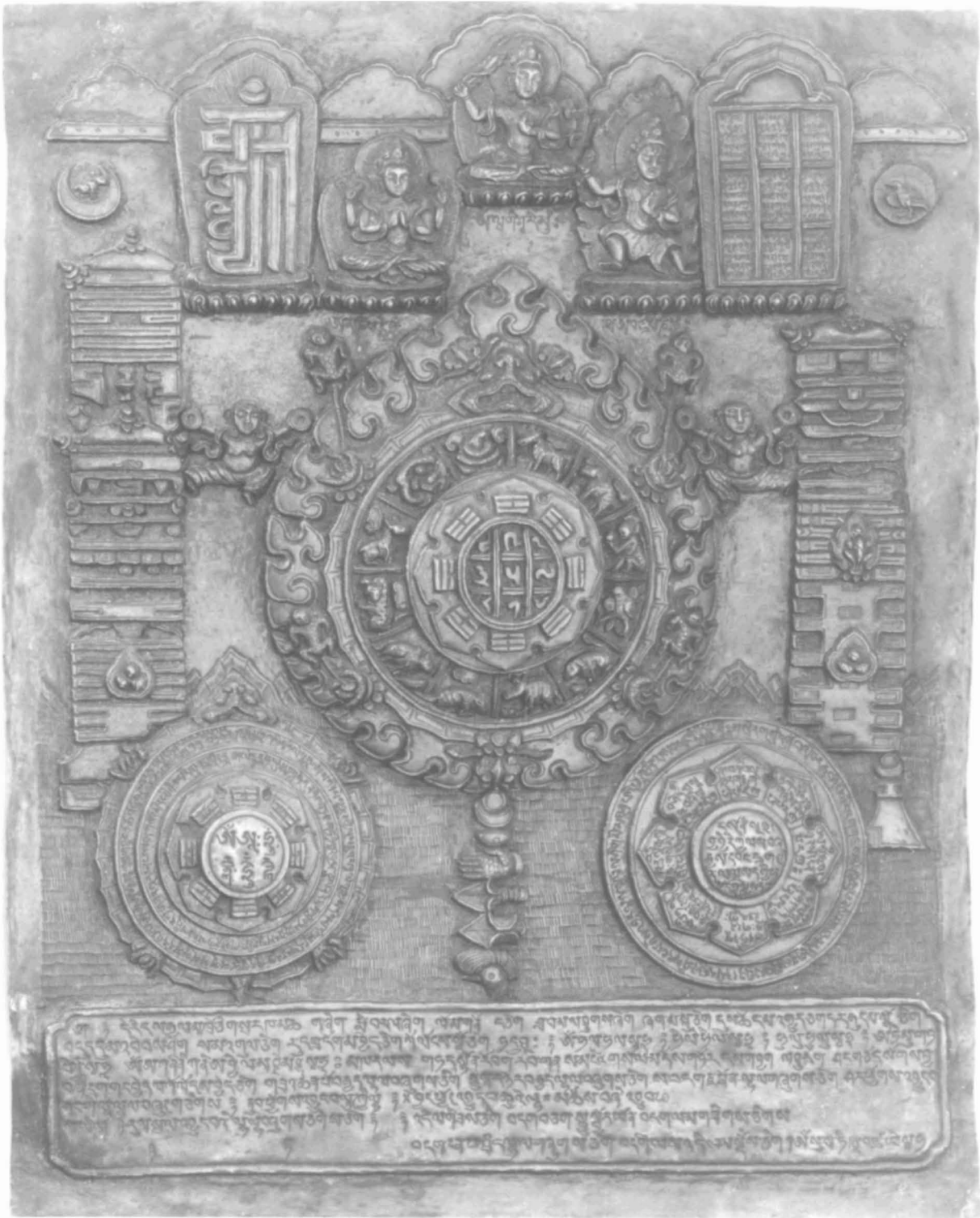


FIG. 15.23. TIBETAN BRONZE ASTROLOGICAL TABLE. The central component in this assemblage (age not known) is the rather abstract shape of a tortoise, whose head, legs, tail, and flanks represent the four cardinal and intermediate directions. On the carapace is a magic square. Other parts of the diagram, primarily with calendrical associations, are also consulted, together with its central portion, so that—based on one's

date of birth and the current arrangement of zodiacal constellations—one's future can be foretold. At the top of the diagram appear three particularly revered manifestations of the Buddha: Avalokiteśvara, Mañjuśrī, and Vajrapāṇi. Size of the original: 35.4 × 28.7 cm. By permission of the Völkerkundemuseum der Universität Zürich (cat. no. 12664).

9 so arranged that the sum of the numbers in each column and row adds up to 15. The circular band surrounding the magic square contains eight segments, here shown as the petals of a lotus, representing the eight quarters and their respective elements. In sequence, north signifies fire, northeast earth, east iron, southeast heaven, south water, southwest mountain, west tree, and northwest air. The center (the carapace of the tortoise) stands for the nadir of a vertical cosmic axis. On painted versions of such diagrams, each direction would have its corresponding color. It is likely that this system is related to the Indian *kūrmavibhāga*.⁹⁶

A variant of the type of divination diagram just discussed, also with apparent Indian analogues, takes the form of a wheel, normally with eight radii dividing it into eight segments, with the same directional associations with elements as noted above, and with eight concentric rings.⁹⁷ Thus there is a total of sixty-four compartments, each representing a combination of two elements. But the order of elements, while regular in regard to the sequence of segments, varies within each segment, no two being identical. Obviously this leads to a more complicated set of divinatory formulas. Some Tibetan divination diagrams of this type appear to be even more complicated than the basic sixty-four-compartment type just noted, containing sixteen or more spokes and more than eight concentric rings. What I take to be one such diagram is painted on the wall of Nechung (gNas-chung) monastery near Lhasa, the former seat of the Tibetan state oracle.⁹⁸

What appear to be Indian analogues of the types of divinatory diagrams just discussed are for the most part square rather than circular, but they are also composed of a set of directionally identified spokes and, usually, of nested squares rather than concentric rings. Moreover, the two genres differ in that a particular city of reference takes the place of the cosmic nadir at the center of the map, and individual cities (seemingly randomly ordered rather than arranged according to their actual azimuths or distances from the center) take the place of the two-element combinations of each map segment in the Tibetan case. Yet the structure and functions of both genres seem to be similar and tied to a set of astrological determinants. The cultural transmission of the underlying organizational principles from India to Tibet, or in the opposite direction (not excluding the possibility of a Chinese link), warrants investigation.⁹⁹

CARTOGRAPHIC ELEMENTS IN HAGIOGRAPHY AND MYTHOLOGY

Exceedingly common types of Tibetan painting are those relating to past, present, and even future lives of the Buddha, of bodhisattvas, and of lamas and other saintly mortals, as well as of mythic heroes, especially those of the

national Gesar epic. Such paintings, which have been produced at least since the fourteenth century, abound in maplike scenes of places important in the lives of the personages they honor. Some such scenes are painted with a great sense of verisimilitude, others are rendered fancifully. The paintings are constructed in many ways, often with great ingenuity, and reflect schools associated with particular monastic sects. Most place the protagonist in the central or most visually prominent portion of the composition. Others relegate that individual to a marginal position, giving greater prominence to a particular place or set of places within the Buddhist cosmos or to historically identifiable sacred places. Here I can do no more than illustrate a few such paintings and direct attention to useful sources in which others can be studied.

Figure 15.24 illustrates one panel of a rather large late eighteenth-century triptych dedicated to the deity Kālacakra. The two side panels of this work display most prominently the realm of Shambhala, the left one as it had been conceived in a bygone era and the right one (our illustration) as it was believed to be when the painting was made. Above and below Shambhala on both panels are tutelary figures and other locales associated with it. The central panel reverses this pattern. There Kālacakra, a giant and fearsome deity, occupies the central position while associated places, largely unidentified, are consigned to marginal positions. Places and personages depicted in the upper portions of the painting are celestial, while those at lower levels appear to be terres-

96. The account of the Tibetan diagrams is based on Gordon, *Tibetan Religious Art*, 24, 27, and 29–30 (note 53); and Schlagintweit, *Buddhism in Tibet*, 304–11 (note 93). The figure that Gordon presents is a cloth *thangka* and is much more complex than the one illustrated in figure 15.23. On page 26 she also presents photographs of illustrations, mainly astrological, from two Tibetan divination manuals. For the Indian *kūrmavibhāga*, see Schwartzberg, “Cosmographical Mapping,” 337–39 (note 60).

97. Discussed in Schlagintweit, *Buddhism in Tibet*, 311–13 (note 93).

98. Letter from Toni Huber of the Department of Philosophy and Religious Studies, University of Canterbury, 10 December 1989. Huber, who enclosed a picture of this painting, was unable to determine the system for using the diagram, but there is little doubt that it serves an astrological purpose. An accompanying diagram of another such wall painting, seen in the inner courtyard of Zhwa-lu monastery to the south of Shigatse city, shows a circle with sixteen spokes and nine rings. Huber writes that his map was designed by the famous fourteenth-century Tibetan scholar Buton Rinchen Drub (Bu-ston Rin-chen-grub) and that “it is intended to correlate the transit of various heavenly bodies with the Tibetan calendrical cycle (which is a lunar sexagenary one). If you read the inscriptions its sophistication becomes apparent.” Photographs of both paintings were taken by Huber in 1987.

99. Two such maps, one square and one circular, are illustrated and discussed in Schwartzberg, “Cosmographical Mapping,” 348–51 (note 60). One of those and three others (all square) are illustrated and briefly discussed in Susan Gole, *Indian Maps and Plans: From Earliest Times to the Advent of European Surveys* (New Delhi: Manohar, 1989), 23–24 and 50–53.

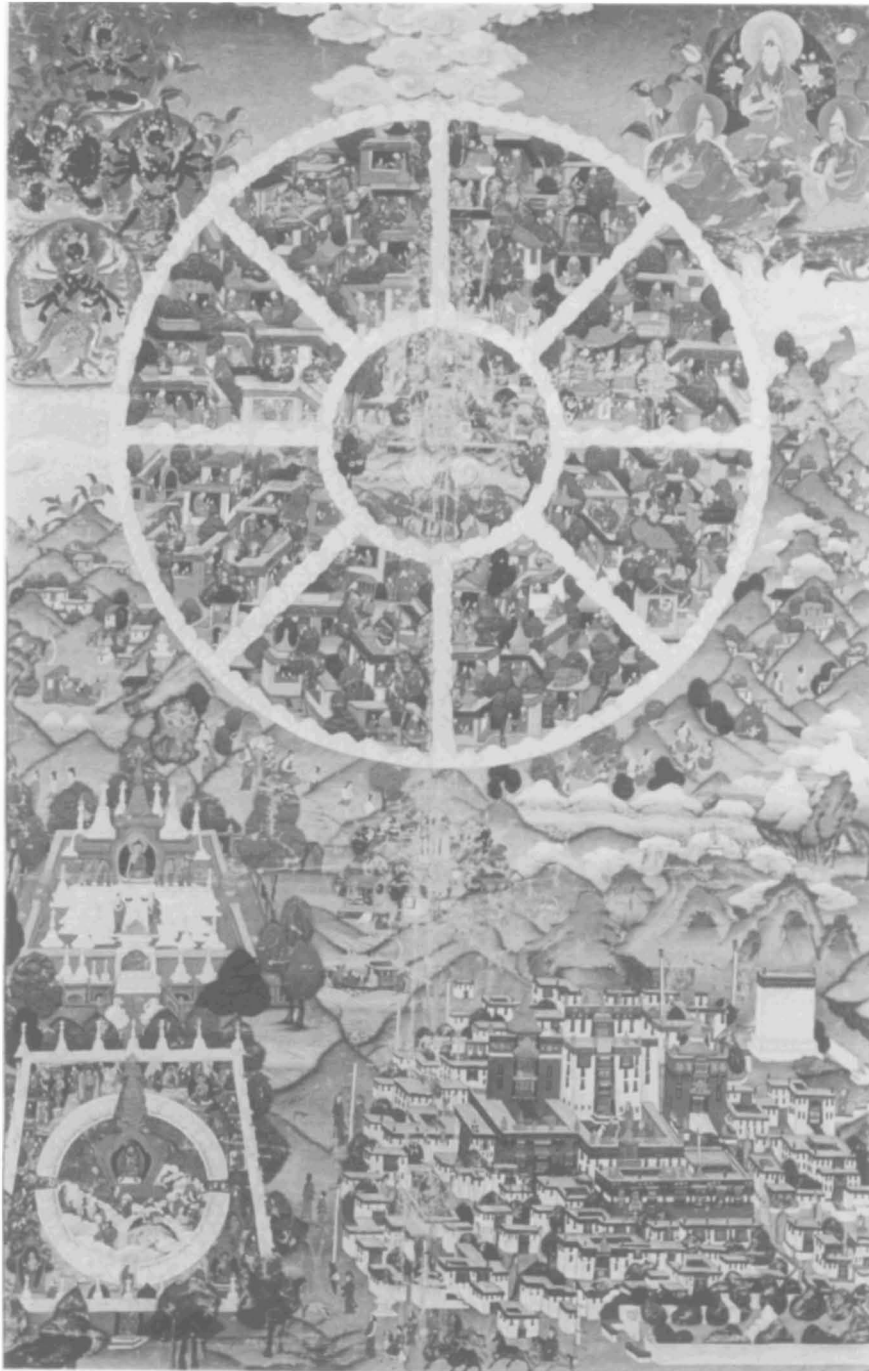


FIG. 15.24. PANEL FROM A TIBETAN TRIPTYCH DEDICATED TO THE DEITY KĀLACAKRA. This right panel is the largest of an exceptionally large and remarkably well preserved work dated about 1780. Dominating the work is the realm of Shambhala, described in the sacred *Kālacakra Tantra*, with Kalapa, the royal capital, at its center. In the heavens above are, at left, identifiable representations of the four great tutelary deities of the Gelukpa monastic order, one of whom is Kālacakra, while in the corner to the right are Tsong-kha-pa, the fifteenth-century founder of the order, and two other abbots. In the lower left are the tombs of the Gelukpa abbots, including that of the Panchen Lama (upper quadrangle), author of a myst-

ical work on Shambhala. To their right appears the great monastery of Tashilunpo, a chief Gelukpa monastic center, where this painting was probably made, and the surrounding town. Many individual structures therein can be identified. Especially prominent is the tall, windowless "Tower of Silk Paintings" from which giant *thangkas* were unrolled for public exhibition on major festive occasions. One wonders if any of these were maps similar to those displayed in Patan, as shown in figure 15.2.

Size of this panel: 136 × 86.5 cm. From Armand Neven, *Etudes d'art lamaïque et de l'Himalaya* (Brussels: Oyez, 1978).

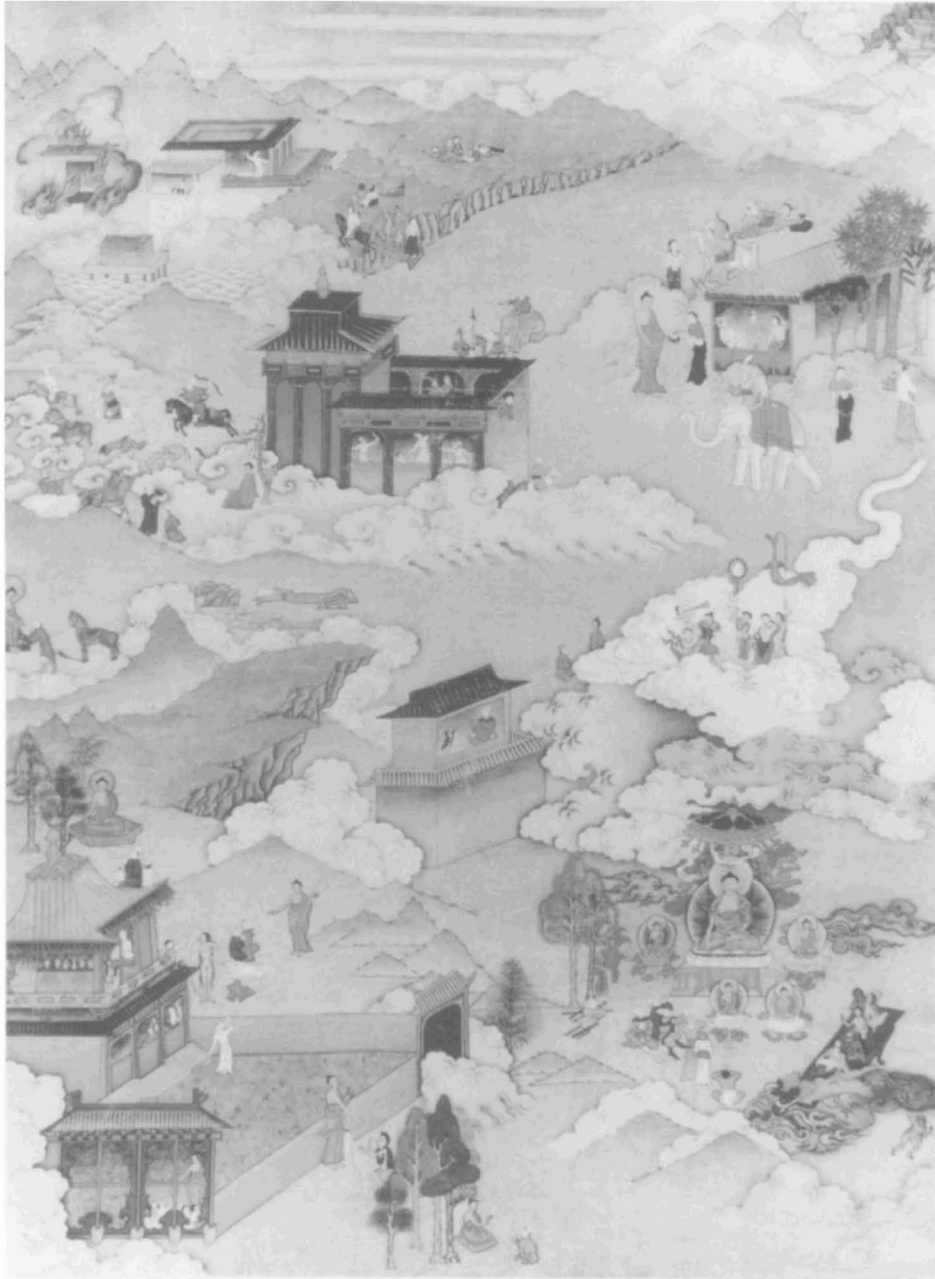


FIG. 15.25. MORAL LANDSCAPE OF THREE JATAKA TALES. This nineteenth-century painting from eastern Tibet provides a visual backdrop for the narration of three Jatakas (12, 13, and 14), all primarily set in what is now the Indian state of Bihar and the adjacent region of Nepal. Jataka 12 occupies roughly the upper half of the map. The action begins in the upper left corner and proceeds downward in a zigzag line, but this progression is not rigidly followed. For example, below the battle scene involving the Śākya tribe (into which the Buddha was born), we see a warrior laying his sword down before the Buddha and rendering homage to him, both depicted near the left margin; yet the next event relates to a stupa that warrior built to honor the Buddha, as shown near the upper-right corner. Jataka 13 occupies the lower-left quarter of the painting and relates to events involving the historical personage of Bimbisāra, king of Magadha, in southern Bihar, whose palace is the

most prominent feature depicted. The lower-right quarter of the painting relates to Jataka 14, which takes place around Rājagrha, a locality in Magadha, which in the previous story is indicated simply as a grove (here rendered as a small clump of trees) under which the Buddha sits. Except for the possibility that the line of mountains, conventionally placed near the top of the painting, might be intended as the Himalayas, there is no particular geographic logic to this composite moral landscape, but the flow of action generally suggests a temporal logic, implying a kind of a route map through time. The ingenious way of combining conventionally painted landscape elements in this painting, both as sites for the action depicted and as temporal dividers separating one story or domain from the next, is a common device in Tibetan religious art. Size of the original: 75 × 56 cm. By permission of the Gerd-Wolfgang Essen Tibetica Collection, Hamburg.

trial and are, in part, geographically recognizable. This indicates a tendency to have the organizational structure of such paintings reflect that of the universe itself. The most prominent terrestrial component of figure 15.24 is the monastery of Tashilunpo (bKra-shis lhun-po), founded by the first Dalai Lama and subsequently the residence of the Panchen Lama and a major center of the Gelukpa monastic order. Adjoining it is the town of Shigatse (gZhis-ka-rtse). Because the third Panchen Lama (1737–80) was the author of a mystical doctrinal work, *The Way of Shambhala*, Tashilunpo is closely associated with that sacred realm. This monastery is painted in great detail and with fidelity to its former appearance. Within it many individual structures, some no longer surviving, can be recognized from late eighteenth-century descriptions by the British ambassador George Bogle (1746–81) and lieutenant (later captain) Samuel Turner (1749?–1802). Nearby, as in reality, flows the river Tsangpo, while to the left are the enclosures of the tombs of the Panchen Lama and other great abbots.¹⁰⁰

In marked contrast to figure 15.24 is the composite moral landscape shown in figure 15.25, providing the field for a pictorial accompaniment to the narration of three successive Jatakas (stories of the past lives of the Buddha). The stories in question all took place in or near what is now the Indian state of Bihar and, like the painting itself, combine mythical and historical events in both mythical and identifiable geographic settings. Though it is impossible to sort out one from the other by visual inspection of the painting, to the devout believer all are equally real. Unlike much of figure 15.24, the manner of depicting the features shown in figure 15.25 depends primarily on the artist's imagination, constrained only by adherence to established iconographic conventions. There is, for example, no way of knowing what the palace of the Magadhan king Bimbisāra (d. ca. 490 B.C.) looked like, yet it is depicted in some detail in the lower-left corner of the painting. On the whole, the spatial logic of the painting is narrative, with places shown in proximity according to the sequence of events transpiring there. This generally applies both to the sequence of stories and to the action within a particular Jataka. But this formula is not rigidly followed; at least one historical place, Rājagṛha, appears twice, being first symbolized by a grove of trees under which the Buddha sits near the left margin of the painting and forming the general locale for the whole of Jataka 14.¹⁰¹

A final illustration (fig. 15.26) relates to the Gesar epic, known throughout Tibet and Mongolia. Put into its present form in the late fourteenth or early fifteenth century, probably in the Kham region in eastern Tibet, but incorporating portions of older stories, the epic recounts the career of Gesar (a cognate of Caesar), a warrior-king sometimes associated with Shambhala and sometimes

thought to be an incarnation of the third Panchen Lama. In brief, after an early life lacking in virtue and a long period of banishment and wandering, Gesar returns purified to his native land, leads an army against the evil forces of the world, and ultimately becomes a Buddha. The number of known paintings relating to the Gesar epic is not great, but those I have seen are rich in place detail that, as with many hagiographic works, combines cosmographic and geographic images.¹⁰² The images seem to lack the spatiotemporal order noted for figure 15.25, and it therefore is not easy to follow the narrative they depict.¹⁰³ Nevertheless, the scenes are arranged in vivid maplike assemblages that make the epic come alive to viewers familiar with its content. Bards often convey the story:

Paintings of these types are used in conjunction with a sung or chanted narrative, the storyteller using a stick to point out the scenes on the painting as he goes along. Before circulating in Tibet, this technique of illustrated recitation had been employed by monks in India, China and Japan. As in those countries, the illustrations could be painted in fresco or on portable scrolls. . . . The “literary” or narrative character of these paintings is [often] emphasized by the presence of captions, sometimes quite long, written under each scene, which serve to identify the figures and episodes and often reproduce the text of a corresponding manual, with a reference number.¹⁰⁴

100. This description is based on Neven, *Etudes d'art lamaïque*, 45 (note 64). The entire triptych is illustrated and discussed on 40–45, while a larger-scale view of Tashilunpo appears on 11. Another, less detailed view of the monastery appears on a quite different hagiographic painting on which the first Dalai Lama occupies the central position. This undated work is one of many such paintings illustrated in Hiroki Fujita, *Tibetan Buddhist Art* (Tokyo: Hakusuisha, 1984), text on 189–90.

For the descriptions of Bogle and Turner, see Markham, *Mission of George Bogle to Tibet* (note 35), and Samuel Turner, *An Account of an Embassy to the Court of the Teshoo Lama in Tibet* (London, 1800; reprinted New Delhi: Mañjuśrī Publishing House, 1971).

101. The painting is one among numerous hagiographic works depicted and discussed in Essen and Thingo, *Die Götter des Himalaya*, 1:39–40 (note 85).

102. Figure 15.25 is analyzed in Alexander W. Macdonald and Pema Tsering, “A Note on Five Tibetan Than-kas of the Ge-sar Epic,” in *Die Mongolischen Epen: Bezüge, Sinndeutung und Überlieferung (Ein Symposium)*, ed. Walther Heissig, Asiatische Forschungen, vol. 68 (Wiesbaden: Otto Harrassowitz, 1979), 150–57. For a brief account of the origin and nature of the epic, see Rolf A. Stein, *Tibetan Civilization*, trans. J. E. Stapleton Driver (London: Faber and Faber, 1972), 278–80.

103. Rolf A. Stein, “Peintures tibétaines de la vie de Gesar,” *Arts Asiatiques* 5 (1958): 243–71, esp. 244. Stein notes that the customary order of presenting scenes on other biographical paintings, for example, those relating to the Bön saint Milarepa (Mi-la-ras-pa), is from the bottom up, usually beginning in the lower-left corner. Conceivably this provides an intentional means of distinguishing Bön from Tibetan Buddhist hagiography.

104. Stein, *Tibetan Civilization*, 285 (note 102).



FIG. 15.26. TIBETAN *THANKA* FROM A SERIES ON THE GESAR EPIC. This undated, but apparently recent (late nineteenth or early twentieth century), painting is one of a set of five, not necessarily complete, relating to the Gesar epic. The set was acquired by a Swiss citizen in Kalimpong, Sikkim, in 1949. The painting depicts numerous events described in the epic, occurring in recognizable places of both heaven and earth. For example, in the upper-right corner six divine personages are shown in Lha-ling, the land of the gods, while the bottom of the painting represents the (mythic?) land of Ma. The logic by which the assemblage of scenes is organized, however, is not obvious. The four undulating striated bands leading into the heavens either may be paths by which earthly and celestial characters in the epic can reach one another's domains or may refer to the attainment by great adepts of a "rainbow body" at the time of death.

Size of the original: ca. 71 × 53 cm. By permission of Alexander W. Macdonald.

I am not aware of any attempt to study the rich corpus of biographical/hagiographical paintings from Greater Tibet with a view to determining its underlying canons for representing and ordering geographic and cosmographic places. Such an undertaking would present a frontier for research and promises to offer important insights into the cartographic thinking of a highly distinctive culture.¹⁰⁵

GEOGRAPHICAL MAPS

Although the number of known traditional geographic maps from Greater Tibet is substantial, it appears small in comparison with the vast body of cosmographic materials from the same region. This contrast may be attributed in part to the lesser interest that geographic maps hold for art historians, students of religion, and other scholars specializing on the region and in part to the lesser value Tibetans attach to nonreligious works. Accordingly, relatively little effort has been expended by outsiders to obtain geographic maps, and relatively little care seems to have been taken, by either Tibetans or outsiders, to preserve whatever maps may once have existed. Hence, while one need not doubt that the disparity between the number of surviving cosmographic and geographic maps is real, one cannot draw firm conclusions about the relative size of the two groups of maps in the past.

Here I shall examine the only two known Tibetan maps that are believed to be attempts to represent the world, a not very large number of regional maps, a variety of pilgrimage guides and other route maps, and, the most common of all Tibetan geographic maps, those that depict towns, monasteries, and other specific localities.

WORLD MAPS

Figures 15.27, 15.28, and 15.29 present a modern recension, a key, and a reference map for what appears to be the oldest known map of Tibetan provenance. In its original form, the map was undoubtedly associated with the Bön faith, which predated Tibet's acceptance of Buddhism by many centuries. This map, in Tibetan, was published in *Sgra yi don sdeb snañ gsal sgron me bžugs so* (Tibetan Zhang-zhung dictionary), a 1965 edition of a seventeenth-century collection of Bön texts with Tibetan translations and commentary.¹⁰⁶ Zhang-zhung (Shangshung) is the early language, possibly Indo-European, of western Tibet, to which area the Bön faith seems to have been disseminated from an original source area in Iran.¹⁰⁷

105. The following include an abundance of hagiographical paintings incorporating substantial maplike components: Gordon, *Tibetan Religious Art* (note 53); Per Kvaerne, "Peintures tibétaines de la vie de sTon-pa-gčen-rab," *Arts Asiatiques* 41 (1986): 36–81, for an important Bön figure with particularly detailed analyses; Lauf, *Verborgene Botschaft* (note 85); Liu, *Buddhist Art* (note 36); Olschak and Thupten Wangyal, *Mystic Art* (note 39); Julien L. Tondriau, *20 rouleaux peints tibétains et népalais* (Brussels: Musées Royaux d'Art et d'Histoire, [1964–65?]); Chögyam Trungpa, *Visual Dharma: The Buddhist Art of Tibet* (Berkeley, Calif.: Shambhala, 1975); and Waddell, *Buddhism of Tibet* (note 5).

106. Ñi-ma-grags-pa (1616–70), *Sgra yi don sdeb snañ gsal sgron me bžugs so* (reprinted Delhi, 1965).

107. For succinct discussions of the origins of Bön and Zhang-zhung, see Stein, *Tibetan Civilization*, 35–37 and 230–35 (note 102).

I am not aware of any premodern version of the map or of any copy held by a museum, library, or other public agency outside Tibet. It is likely, however, that manuscript maps, copied from older sources, are held in Tibetan monasteries or by refugee Tibetans in India or elsewhere. The published Delhi version of the Zhangzhung map was studied by two Russian scholars, L. N. Gumilev, a historical geographer, and B. I. Kuznetsov, a Tibetan philologist. The following remarks are based largely on the translated account of their thorough analysis.¹⁰⁸

Gumilev and Kuznetsov's assumption—with which I concur—is that the extent of interaction between Tibet and lands to its west, especially Persia, was considerably more extensive in the early historical period than most historians recognize and that considerable information about distant lands reached Tibetan geographers, at either first or second hand, and was incorporated into the original precursor of the Zhangzhung map. A key to their analysis is their interpretation of what lies at the center of the map, a locale named Bar-po-so-brgyad, which they identify as Parsogard (Greek Pasargadae), capital of the Persian Empire from 550 to 522 B.C., under the emperors Cyrus the Great and Cambyses. Within that central rectangle is a crudely drawn ten-story edifice that, it is said, represents the tomb of Cyrus. Although various Greek historians left contradictory accounts of that tomb, Aristobulus said that it had the form of a small tower, and Onesicritus, who accompanied Alexander on his Persian campaign, stated that it was ten stories high. A Tibetan inscription on the map itself, “swastika hill, nine stories high,” apparently refers to the central figure and also notes “crystal columns with inscriptions,” “the garden of the swastika,” “the garden of the wheel,” “the lotus garden,” and “the precious garden,” almost all of which can be reconciled with Greek descriptions.¹⁰⁹ Gumilev and Kuznetsov explain the disparity between the references to a nine- and a ten-story structure by saying that in one instance “the top story was treated separately.”¹¹⁰ For all but seven of the sixty-two other places named or annotated on the map (one other is outlined but not named), Gumilev and Kuznetsov are able to offer a translation or commentary or both; and in more than forty cases they suggest, with varying degrees of persuasiveness, a specific place or broad region with which the original map feature can be identified. The identifications sometimes overlap and are sometimes repetitious, however. Some are exceedingly terse and vague while other comments, comparably terse, are quite precise, for example: “Ne-khri'-bum-thang—the 'Nekribum' plateau”; “Grong-khyer-lang-ling—Jerusalem”; “Ne-seng-dra-ba'i-gromg-khyer—'City of Nesendra,' i.e., Alexandria.”¹¹¹ (Of course there were many ancient Alexandrias; but the proximity of this item to a locality identified as Egypt

indicates that that still-surviving city was intended.) Other arguments run into lengthy paragraphs. The conclusion is that the map, which obviously postdates Alexander's conquest of most of the area covered, also predates the Roman campaigns against Parthia and, based on numerous pieces of internal evidence, can best be ascribed to the second century B.C.

Although Gumilev and Kuznetsov's arguments are informed, carefully reasoned, and (in the absence of contrary evidence) plausible, some are less than convincing, such as the following:

Ma-thang-bsgral-gling—the transcription of a local place name. Judging from its location in the southern part of the world ocean, south of the Nicobars [the Nicobar and Andaman Islands are earlier described as places where (human) flesh is eaten], and from its sound, this may be Madagascar. The name Madagascar, which is not used by its residents, was first reported by Marco Polo, and the first description of the island in European geography was given in *Periplus of the Erythrean Sea*, i.e., later than the time of our map and without a name. Consequently, this old Malagasy word must have reached Tibet through India. The Malagasy settled Madagascar about the 3rd century B.C. from Indonesia and thus came to the attention of the Indians who were navigating in the Indian Ocean. In other words, the Tibetan cartographer, in addition to Iranian sources, also relied on Indian sources, so that our map is not the product of plagiarism, but an original work reflecting the level of geographic knowledge in Tibet in the 2d century B.C.¹¹²

Apart from the identifications in the Indian Ocean basin and eastern Africa, most relate to the Near and Middle East and to Central Asia as far north as the general region of Lake Balkhash. The westernmost place named is Ionia. Curiously, however, there is no place that falls clearly within what is now Tibet. This raises the prospect (not suggested by Gumilev and Kuznetsov) that the prototype map was brought to Tibet from Iran and then “naturalized” in that area, with considerable fidelity, and transmitted by frequent copying over the subsequent centuries. Though some alterations in the original may have occurred, the arguments of Gumilev and Kuznetsov suggest that they were not great. This leads to the sup-

108. Gumilev and Kuznetsov, “Two Traditions” (note 21). The two traditions referred to in the title are called “the Irano-Tibetan tradition,” which is the one that concerns us here, and “the Indian-Tibetan tradition,” which refers to the Buddhist cosmographic tradition. Nothing is said in the article about the latter that will add to what has already been stated in this volume.

109. Gumilev and Kuznetsov, “Two Traditions,” 570–71 (note 21).

110. Gumilev and Kuznetsov, “Two Traditions,” 571 (note 21).

111. Gumilev and Kuznetsov, “Two Traditions,” 575 (note 21).

112. Gumilev and Kuznetsov, “Two Traditions,” 574 (note 21).

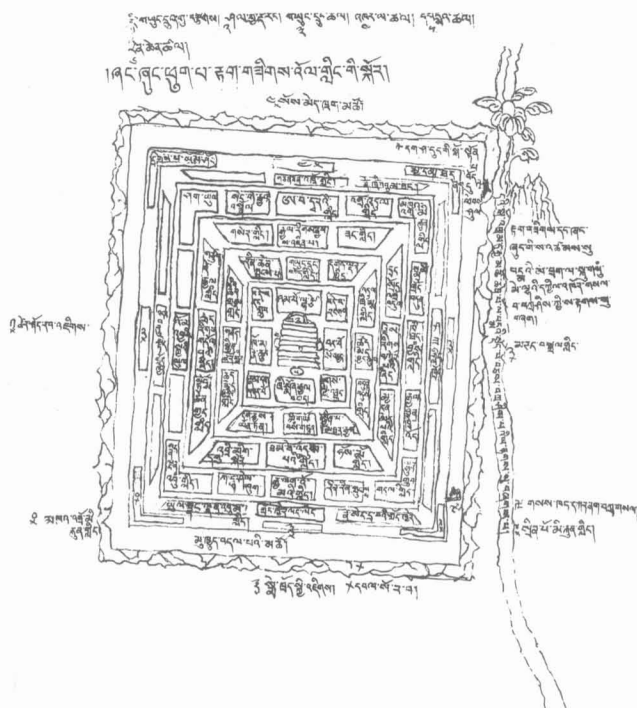


FIG. 15.27. MODERN RECENSION OF AN ANCIENT TIBETAN VIEW OF THE WORLD. The information on this map appears to represent a Tibetan view of the world as of the second century B.C. It was made to fit into the form of a mandala centering on the old Persian capital of Parsogard (Pasargadae), within which the tomb of Cyrus the Great (d. 529 B.C.), said to be ten stories high, provides the focus of the map. No old version of this map is known to survive. From *Ñi-ma-grags-pa* (1616–70), *Sgra yi don sdeb snañ gsal sgron me bzugs so* (reprinted Delhi, 1965).

position that the map was accorded a sacred status and thus its integrity had to be maintained.

The Zhang-zhung map bears a remarkable resemblance to another Bön work, which has already been briefly noted under the heading of cosmographic maps. That map, identified by Snellgrove as “The Nine-Stage Swastika Mountain (representing the Nine Ways of *Bon*) . . . in the country known . . . as . . . *Šambhala*,” was drawn (probably in London, and quite possibly from memory) by a refugee Bön lama about 1967.¹¹³ Gumilev and Kuznetsov recognized the unmistakable affinity between the Zhang-zhung map, also said to represent the land of Shambhala, and the work brought to light by Snellgrove, but they observe that the latter omits several of the names on the Zhang-zhung map and was “compiled somewhat later and independently of the first version,” incorporating evidence of the expansion in the region of the Kušāṇa dynasty in the first century A.D.¹¹⁴ The map of the Nine-Stage Swastika Mountain, unfortunately, has yet to be translated, and the legends on the published version are too small to permit an independent translation. Whether

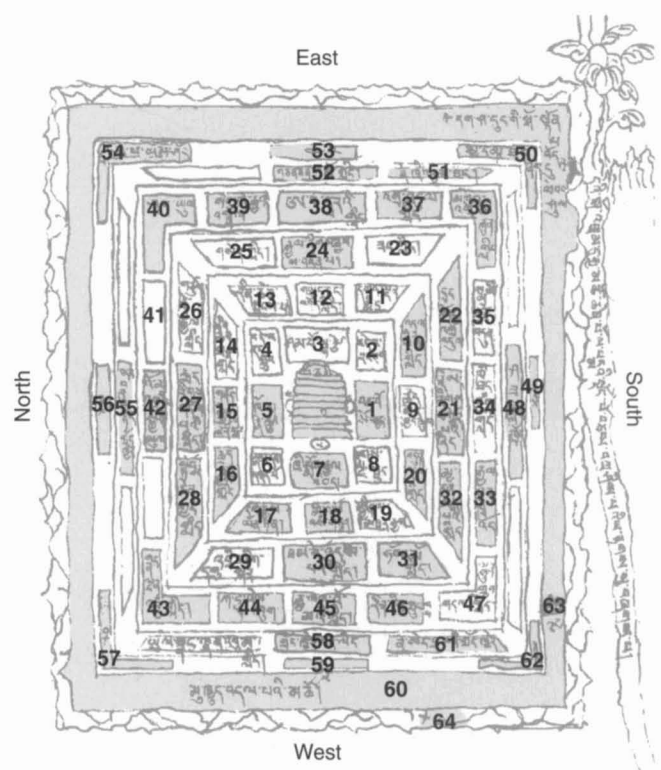


FIG. 15.28. PARTIAL KEY TO THE CONTENTS OF FIGURE 15.27. The key numbers are those assigned by Gumilev and Kuznetsov for their analysis of the map text. Numbers within shaded fields are keyed to figure 15.29, showing on a modern map the ancient regions, cities, and other geographical features indicated on the Zhang-zhung map. The analyses of the text for unshaded numbered areas are insufficient to establish any equivalent features or do not go beyond the transliteration of an unidentifiable name.

After L. N. Gumilev and B. I. Kuznetsov, “Two Traditions of Ancient Tibetan Cartography (Landscape and Ethos, VIII),” *Soviet Geography: Review and Translation* 11 (1970): 565–79, esp. fig. 3 (which contains a more complete translation than I have provided).

it should best be regarded as a cosmographic work, as Snellgrove’s title suggests, or a geographic map is moot. The place of the Kušāṇas on the later map, however, is noteworthy in two respects that might relate to the myth of Shambhala. First, the Kušāṇa Empire, a major trading state, was known for its prosperity, which could have given rise to the notion of Shambhala as an idyllic realm. Additionally, the original regional hearth of the Kušāṇas in Central Asia was considerably farther north than the original core area of Persia, and some of the areas under their early control lay in the Tarim basin due north of western Tibet. Hence the current Tibetan notion that Shambhala is the northern paradise, although finding no

113. Snellgrove, *Nine Ways of Bon*, v and fig. XXII (note 37).

114. Gumilev and Kuznetsov, “Two Traditions,” 576 (note 21).

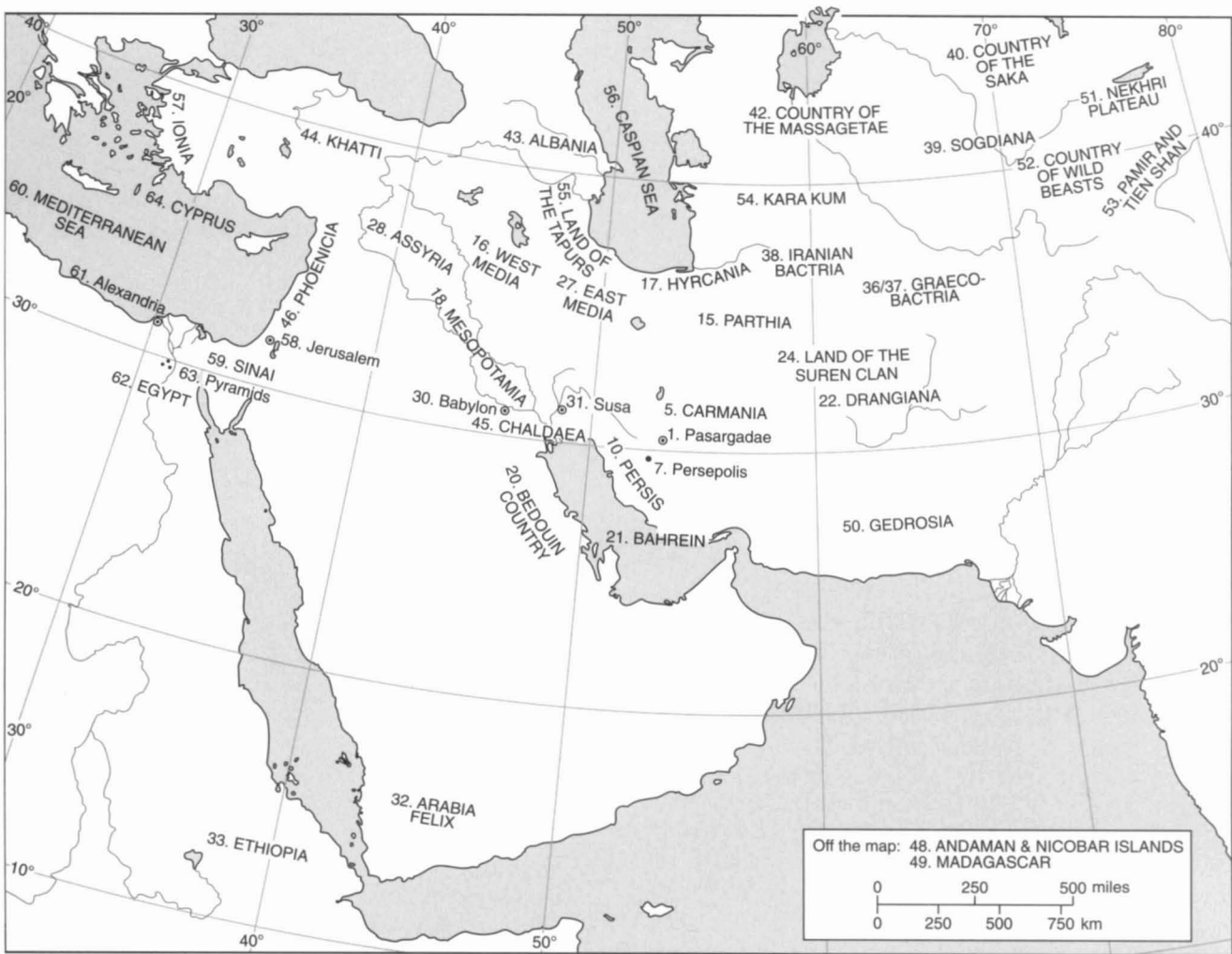


FIG. 15.29. IDENTIFIABLE ANCIENT GEOGRAPHICAL FEATURES OF THE ZHANG-ZHUNG MAP. The numbers indicated on this map are keyed to those of figure 15.28. In addition to the locales in Southwest and Central Asia and in

northeastern Africa that are shown on this map, there are two others at more remote locations, the Andaman and Nicobar Islands and Madagascar, whose inclusion on the Zhang-zhung map is suggested by Gumilev and Kuznetsov.

support in the Zhang-zhung map, might be more or less appropriate for the one illustrated by Snellgrove, especially if the Kuṣāṇa domains came to occupy in the minds of ancient Tibetans the place of Persia as the archetype of Shambhala and if some great and benevolent monarch, such as the Kuṣāṇa emperor Kaniṣka, supplanted Cyrus as the archetypal divine monarch.¹¹⁵ A question that remains in comparing the two maps is why the layout remained virtually identical while the content shifted. Very likely, that particular form of mandala acquired—even earlier than the time of the Zhang-zhung map—a procrustean sanctity that required fitting the content to the form and not the opposite.

A. L. Mackay dismisses Gumilev and Kuznetsov's dating of the Zhang-zhung map in a single brief paragraph. He observes that the map's

topographic information . . . was pressed . . . into a mandala type of framework without much regard for actual geography. The map itself . . . can hardly be of the epoch represented by the place-names on it since the earliest Tibetan inscription dates only from A.D. 767. The religious cosmological view is comparable with the T-O maps of European culture exemplified by that of Cosmas Indicopleustes (*fl.* A.D. 540).¹¹⁶

But this criticism misses the point. The authenticity of the original map in no way depends on the date when Tibetan inscriptions first became known. The ancient

115. Numerous problems exist in respect to the extent and chronology of the Kuṣāṇa Empire. These are dealt with in Joseph E. Schwartzberg, ed., *A Historical Atlas of South Asia* (Chicago: University of Chicago Press, 1978), xxix–xxx, xxxiii–xxxiv, 21, and 174–76.

116. Mackay, “Kim Su-hong,” 27–38; quotation on 31–32 (note 18).

Zhang-zhung language and later Tibetan were not the same. But no matter what language the original map may have been in, there is no reason its script might not have been transliterated many centuries later into Tibetan, while retaining some approximation of the original phonetic attributes of the original toponyms.

The second and only other known Tibetan world map was brought to light in 1931 by Teramoto.¹¹⁷ This enigmatic map (fig. 15.30), with script in Tibetan and Chinese, composed only a small part of a long scroll document relating to Buddhist iconography and was not deciphered before the 1931 study. The original map must have been drawn by the ninth century at latest, since a copy of it was brought from the Blue Dragon (T'sing-loung-tseu) Temple at Chang'an (modern Xi'an), then the capital of China, to Japan by a priest named En-tin who died in A.D. 891. Where the map was originally made is not known. The Japanese copy of the map was kept in the Onzyōzi Temple, and over the following few centuries several additional copies were made, including one in 1194 by a priest named Zenkaku, attached to Onzyōzi Temple. Some modern copies were also made, the most recent in 1890. Zenkaku's copy was lost in the great fire in Tokyo following the earthquake of 1923, but an album of photographs previously made of the entire scroll was preserved. From 1194 to 1220 there were at least seven unsuccessful attempts to decipher the map. One apparent reason for the failures was that the map's Tibetan text was mistaken for Sanskrit. In 1893 a copy of the map was presented for study to the Japanese Bureau for Enquiry into the National Treasures; but the committee that examined it was "lukewarm about its historical and geographical value."¹¹⁸ Not until the studies of Teramoto, begun in 1921, could anyone claim to have deciphered the map.

The content of the map is sparse, with only twenty-one names identified. As with the Zhang-zhung map, the identifications vary in plausibility. The territory covered appears to be vast, even greater than in the Zhang-zhung map, extending from the Byzantine Empire in the west to Korea in the east and from Turkic Central Asia in the northwest to Cambodia (Chen-la) in the southeast. Tibet itself is designated once as "Bo" and, implicitly, a second time as "Pa-man" (Eight Barbarian Lands, which were generally understood in China to comprise Korea, Chen-la, Persia, Tibet, Chien-pi, the land of the Turks, Khitan, and Mo-ho).¹¹⁹ Nakamura does not suggest a principle by which the names are arranged; and in my own examination of his abstract of the map I could discern none. The map certainly does not have the symmetry of a mandala. Neither distance nor direction of places from one another is indicated consistently, and it is therefore impossible to specify the direction toward which the map is oriented. Nor does importance appear to be a criterion

for decisions on what places to include and how much space to assign them. Thus, three of Teramoto's identifications are of Indian cities and the rest are of regions or even vast empires. Tibet occupies a more or less central position in the middle panel of the map; see figure 15.31 for the identification of other parts of the map.¹²⁰

It is also difficult to put forward a plausible rationale for making the map. Paraphrasing Teramoto, Nakamura states:

The names on this map, giving a general view of the communications between India, Persia, Tibet and Central Asia, seem to be based on Chinese and translated [into Tibetan] merely to make more easy their understanding by the Tibetans . . . [at a time when] Tibet's national prestige was at its height. . . . It was therefore most probable during this period that the map was made for political and administrative purposes.¹²¹

Although I find this most unconvincing, I can offer no more likely *raison d'être* for the work. The map does not, for example, have any apparent religious purpose. Although two of the cities named in India are important in the early history of Buddhism, the most obvious candidate for inclusion, Bodh Gaya, seems not to be noted.

The significance of the work, however, seems clearer—assuming that most of Teramoto's identifications of the far-flung regions depicted are valid—in that it proves, as previous maps do not, that Chinese knowledge of the rest of the Asia was more extensive than what could be gleaned from the travel accounts of a number of Buddhist pilgrims, among whom Xuanzhuang (602–64) was the

117. Teramoto Enga, "Waga kokushi to Toban to no Kankei" (The relation between our [Japanese] history and Tibet), *Ōtani Gakuhō* 12, no. 4 (1931): 44–83. It was also briefly discussed in Nakamura, "Old Chinese World Maps," 19–22 (note 18). Including this map (known copies of which exist only in Japan) in an article on Chinese maps preserved in Korea relates to its relevance for ascertaining the geographic knowledge of the Chinese during the Tang dynasty.

118. Nakamura, "Old Chinese World Maps," 20 (note 18). Nakamura's study of the map is based on the photographs in the album mentioned above.

119. Nakamura, "Old Chinese World Maps," 20 n. 49 (note 18). I do not know what Chien-pi refers to.

120. Nakamura, "Old Chinese World Maps," 20 n.49 and fig. 8 (note 18). The identification of Mangalore, which had little importance as far back as the ninth century, strikes me as particularly problematic. The Tibetan "Mon," which according to Stein "covers all sorts of aboriginal tribes of the wooded Himalayan Hills . . . and is possibly related to the word 'Man' used in literary Chinese for all southern 'barbarians'" (*Tibetan Civilization*, 34–35 [note 102]), suggests a more plausible association with the original "Mom."

121. Nakamura, "Old Chinese World Maps," 22 n. 51 (note 18). Nakamura does not say how proficient Teramoto was in Tibetan. If Teramoto was much more proficient in Chinese than in Tibetan, it would hardly be surprising for him to see more associations on the map with essentially Chinese toponyms than with Tibetan ones.

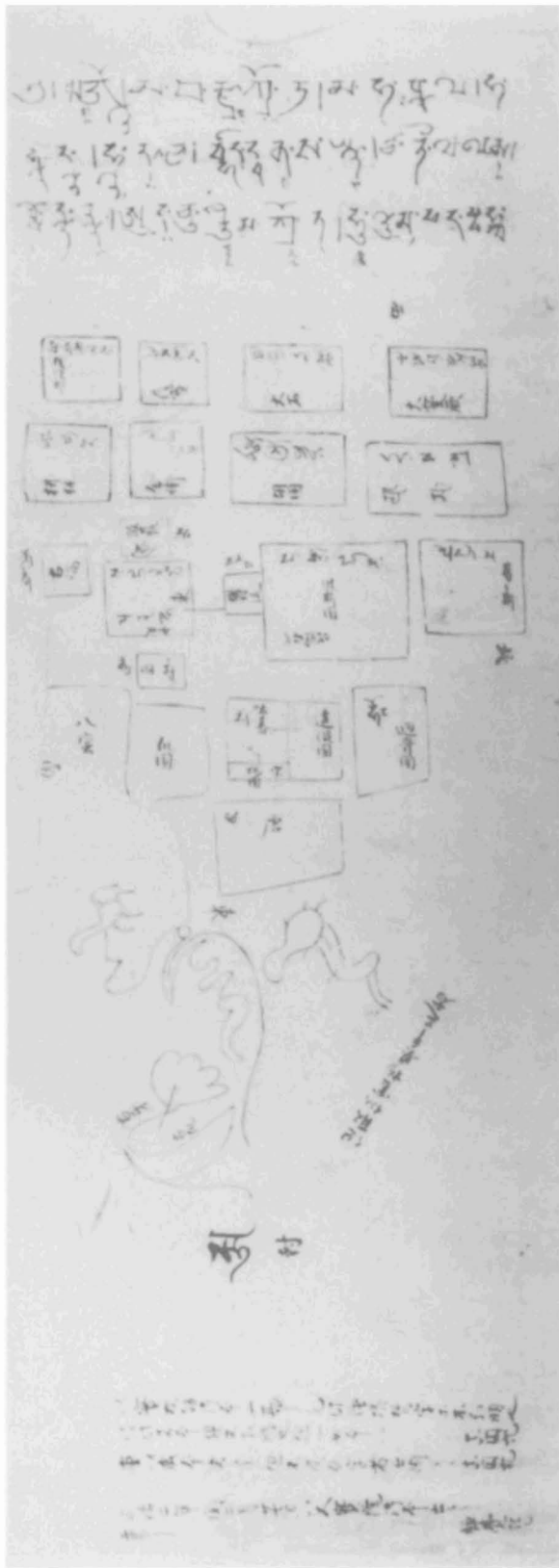
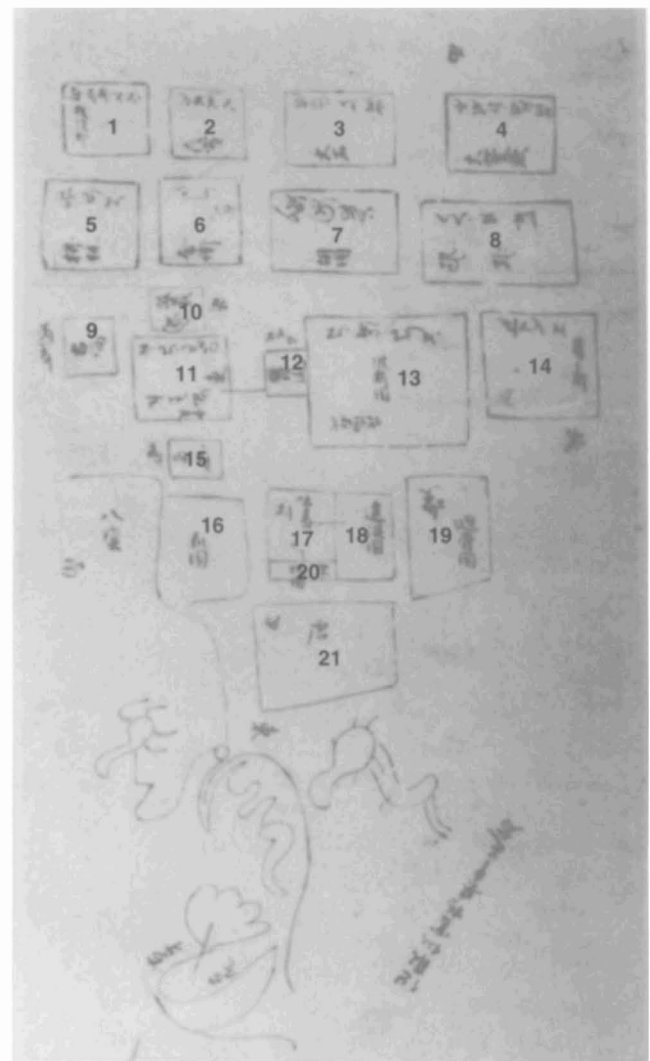


FIG. 15.30. FACSIMILE OF SINO-TIBETAN WORLD MAP. This is one of several facsimiles of the Sino-Tibetan world map. Photograph courtesy of Kazutaka Unno.



1. Pahyanan, Pahan-na? (Fergana); 2. Kin-hin (Kashmir); 3. Tha-ku-sha-si (Takṣaśilā/Taxila); 4. Taha Thor-kus (Turkestan); 5. Pu-lin (Byzantine Empire); 6. Sha-he (Śrāvastī/Set Mahet); 7. Kuo-kuo (Tokhara); 8. Ya-mah, ? Ghah (Tokhara); 9. Koron (Kurana); 10. Pran (Polan); 11. Pa-la-lor (Bolor, in Gilgit region of modern Kashmir); 12. Thahan (Tashkent); 13. Pa-sin-go (Persia); 14. Ped-she-la, ? Pitasela (Pītaśilaic/Khuzdar in Baluchistan); 15. Mom, Mangali, ? Mangale (Mangalore); 16. Koua-kouo (Touen-houang, ? Dunhuang in modern Gansu); 17. Po (Bed/Tibet); 18. Kin-ku-ko (Kyrghiz); 19. Hor (Uighur); 20. Than (China); 21. Pa-man (Eight Barbarian Lands, generally understood to comprise Korea, Chen-la [Cambodia], Persia, Tibet, Chien-pi [unknown], Kitan, and Mo-ho (Manchuria). Where two names are given within parentheses, the modern one comes second.

FIG. 15.31. KEY TO FIGURE 15.30. The key to the map indicates the spellings of various toponyms, as provided in a 1931 publication by Teramoto. The organization appears rather anarchic, and no obvious purpose for the map emerges from study of it. Although this may be due in part to geographic shortcomings in the original, it is also likely that errors introduced through repeated copying, together with errors of interpretation, account for the confusing picture the map presents. After Hiroshi Nakamura, "Old Chinese World Maps Preserved by the Koreans," *Imago Mundi* 4 (1947): 3-22, esp. 21.

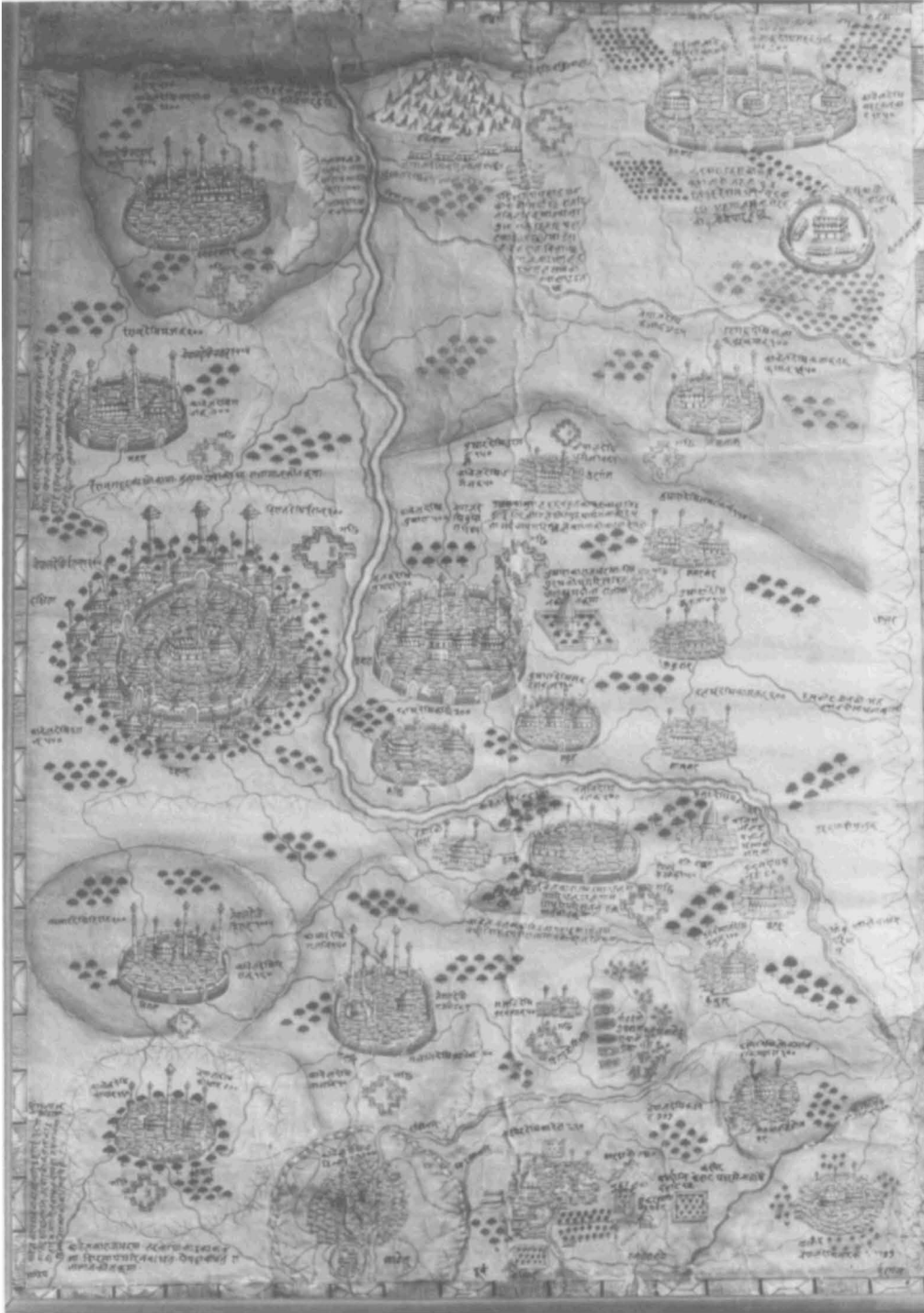


FIG. 15.32. NEPALI MAP OF CENTRAL ASIA. In Nepali, written in Devanagari script, probably latter half of the nineteenth century, painted paper mounted on cloth. Most of the details on this map are easily identified with known geographic features, while a few are mythological. Overall, the level of accuracy is not high. The large body of water at the top of the map, which is oriented toward the west, is a conflation of the Aral Sea—into which the largest river on the map, the Amu Darya, actually flows—and the Caspian Sea. The adjacent burning mountain, which should signify the vicinity of Baku, is incor-

rectly shown on the eastern, not the western, shore of that sea. Near the left margin the positions of Mashhad, second city from the top, and “Iran” (Teheran), the city below it, are inverted. European influences appear in the ruled, graduated border, in the naturalistic manner of depicting mountains, and in the use of color in a not particularly successful attempt to signify political jurisdictions.

Size of the original: 76 × 54 cm. Private collection, New Delhi. Photograph courtesy of Susan Gole, London.

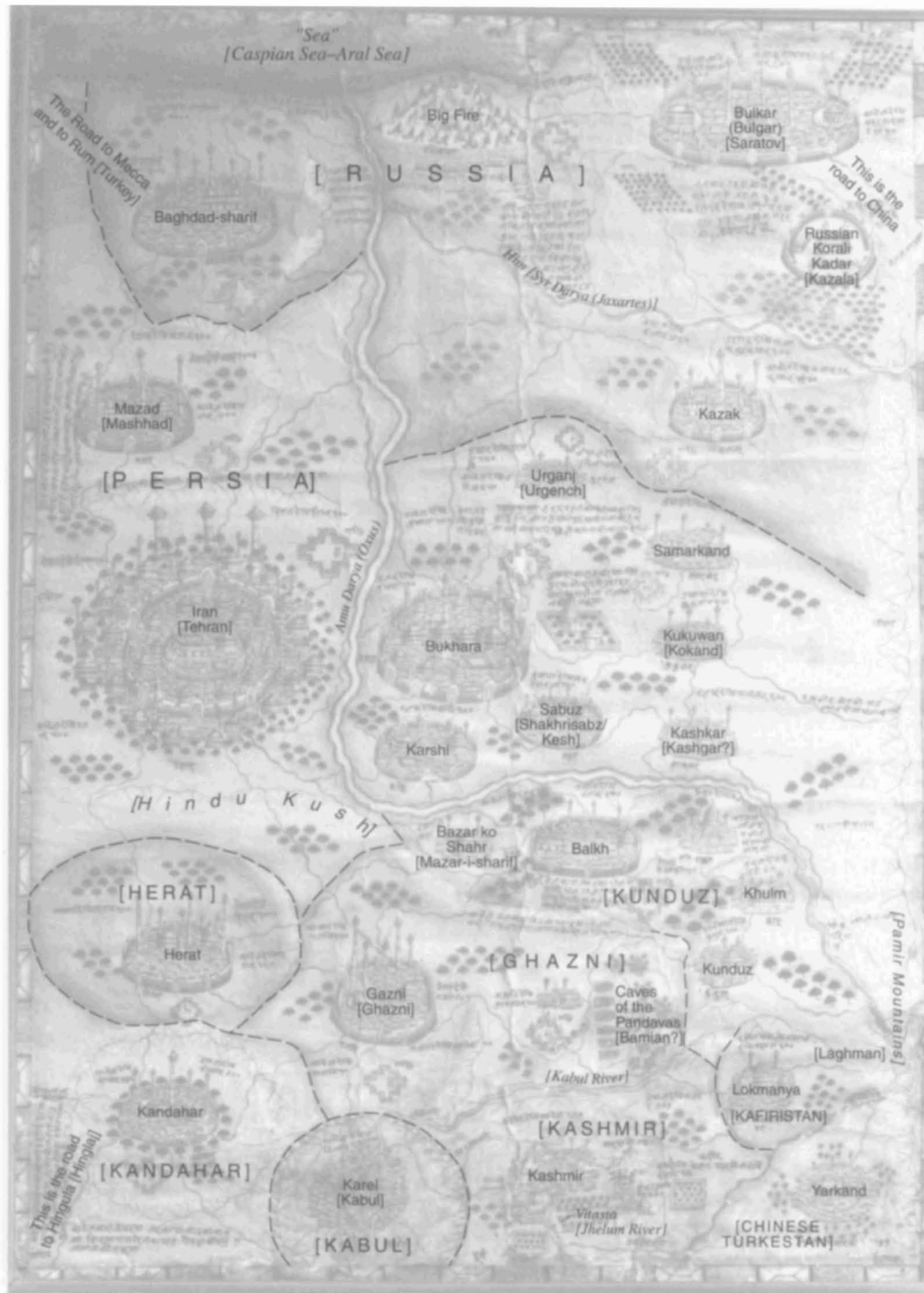


FIG. 15.33. KEY TO NEPALI MAP OF CENTRAL ASIA (FIG. 15.32). Names appearing in neither parentheses nor brackets are transliterations from the original text. Names in parentheses are modern equivalents. Names in brackets are my inferred iden-

tifications. Names in uppercase letters are inferred political jurisdictions. Dashed lines are presumed boundaries between political jurisdictions shown by color on the original.

most prominent. Conceivably a part of this knowledge, especially that relating to western Asia, was relayed eastward via the Bön Zhang-zhung tradition.

REGIONAL MAPS

A Nepali Map of Central Asia

Of the known regional maps from Greater Tibet, the one covering by far the greatest area is that illustrated in figure 15.32. Although the map is in Nepali and undoubtedly was drawn by a Hindu, it is discussed here rather than (as in the case of other works of Nepali provenance) with maps of South Asia because its style is so much more akin to Tibetan than to Indian cartography.¹²²

The area covered by the map, including most of Central Asia and even extending into southern Russia, is indicated by a map key (fig. 15.33) and by its modern counterpart (fig. 15.34) and may be defined by the cities shown nearest the four corners of the map: Baghdad in the upper left, Bulgar (modern Saratov) in the upper right, Yarkand (in Chinese Turkestan) in the lower right, and Kandahar (in southern Afghanistan) in the lower left. Curiously, no part of either Nepal or Tibet is included. The orientation is toward the west, but the accuracy of the map tends to decrease in that direction. Several prominent physical features appear. The large body of water in the upper-left corner appears to be a conflation of the Aral and Caspian seas, and the large river running into it is the Amu Darya (Oxus). Several other rivers are indicated: the Him, probably intended to represent the Syr Darya (Jaxartes), even though it does not run into the Amu Darya as shown; and what appear to be the Kabul and Jhelum rivers, running through the city of Kabul and through Kashmir, respectively. Several mountain ranges are also shown. The one skirting the great bend in the Amu Darya appears to represent the Hindu Kush; but on the whole the representation of orography, including most of the large mountain chain running along the right edge of the map, appears fanciful. Less prominent, but unquestionably meaningful, are the indications of mountains around several cities to show that they are wholly or partially hemmed in by highlands. Vegetation signs scattered throughout the map, seem to connote the presence of orchards or wooded areas but probably are largely decorative, especially when not in the immediate vicinity of a city.

Though most of the places shown are fairly well known and were important in the nineteenth century when the map was probably drawn, there are also several features that are mythological, such as the caves of the Pandavas, one of the two contending forces in the Indian epic *Mahābhārata*, which are shown by the six horizontal oblongs above (west of) Kabul. Some places that

appear mythological probably have a basis in fact, such as the burning mountain near the top of the map, which probably relates to an ancient Hindu fire temple near Baku that was maintained by priests from Punjab. (Oil seepages in this area, occasionally ignited, have been known for millennia.) Near ten towns on the map there is a conventional sign, along with the word *garhi* (little fort), suggesting their military importance. What appear to be Hindu temples are drawn at several places, possibly indicating resident communities of Hindu traders. Much more common, however, are minarets (present in every town shown except for Russian Korali Kadar) signifying the dominance of Islam in the region. Also near the towns are notes—often derogatory—about the nature of the local population or about matters of commercial interest, as well as figures giving distances of the towns from either Kabul or Nepal (i.e., Kathmandu), presumably in *khos* (a unit of about two miles). Roads appear as thin red lines. Notes along the edges of the map point the way to several places not shown, including China, Mecca, Rum (Turkey), and Hinglaj, a place of pilgrimage for both Hindus and Muslims on the coast of Baluchistan.

The degree of detail and the specificity of what is shown tend to be somewhat greater in the eastern portion of the map than farther west, especially in and around Kabul and Kashmir, where Gole was able to identify a number of important landmarks. For example, even at the greatly reduced scale of figure 15.32 one can easily recognize the famous Shalimar Gardens adjacent to the latter locale. This is one of a number of reasons to suppose that the artist either had firsthand knowledge of those areas or worked from relatively reliable second-hand information. Elsewhere, however, egregious errors abound, such as the already noted garbled physical geography or the inversion of the relative positions of Iran and Mazad (Tehran and Mashhad).

Although its style is essentially Tibetan, especially the way cities are depicted (compare plate 34 discussed below), the map also embodies certain European traits. One of these is the ruled, graduated border. Another, arguably, is the manner of depicting mountains. Especially significant is the use of color to suggest varying political control over particular areas, for example, salmon for Iran, yellow for the Russian empire, beige for Bukhara, and so forth; but if that is indeed the intention, the execution is not particularly clear and will not match

122. This map was brought to my attention by Susan Gole, who has had most of the text translated and has studied the map extensively. The text discussion is based mainly on her findings. See Gole, *Indian Maps and Plans*, 142–43 (a full-page color photograph and two additional black-and-white enlarged excerpts, along with a brief discussion) (note 99). A much more penetrating analysis, with numerous photographs, is Susan Gole, “A Nepali Map of Central Asia,” *South Asian Studies* 8 (1992): 81–89.

the actual configuration of territorial control at any single historical date. The area I take to be Russia appropriately envelops most of the conflated Caspian-Aral Sea in the upper left, but Baghdad's placement within this region makes no sense. Speculating on the date and purpose of the map, Gole wrote in her initial effort at interpreting the map:

It is possible that the map was drawn in the early years of the 19th century, when attempts were being made from Nepal to unite the neighbouring countries and throw out the foreign European invaders, before they became too powerful. The map may have accompanied a travel journal kept by one of the ambassadors sent to negotiate with the courts of far off countries, figured in the map. Attempts to learn more about its provenance in Kathmandu have been unsuccessful.¹²³

Although the seriousness of the errors over much of the map argues against its having been made in the course of, or as a result of, the travels of any ambassador or other single individual, the idea that a map so elaborate in execution would have served a diplomatic purpose strikes me as eminently plausible. In Gole's later and deeper study of the map, however, she backed away from that position, which appeared no longer tenable in light of her discovery in Russian Korali Kadar (upper right) of a "square building [which] appears to be the fort built by the Russians . . . in 1855, known as Kazala."¹²⁴ Assuming the correctness of the 1855 date, that would rule out the possibility that the map was made in the period of rapid territorial expansion by the Nepali House of Gorkha, which was terminated abruptly by the Anglo-Nepali War of 1814–16.

Nevertheless, there are grounds to pursue Gole's original hypothesis in a modified form. Not too long after its decisive defeat by the British, Nepal, thereafter a British protectorate, was witness to the great convulsion of the so-called Sepoy Mutiny of 1857–59, which for a brief moment in history appeared as if it might signal the end of British rule in the subcontinent. Many north Indian princes and landlords then joined forces with the mutineers, and though Nepal officially remained loyal, the temptation among antigovernment factions in Nepal—a country remarkably prone to political intrigue—to pursue an opposite course must have been considerable. To any such faction, forging a grand alliance of Asian powers would be an understandable objective. It is even conceivable that Nepal's close contacts with Tibet inclined people toward the idea, embodied in the Gesar epic, that a savior would come out of the west, or else from the mythic realm of Shambhala. In any event, it would have seemed reasonable for Nepali conspirators to seek out whatever intelligence they could obtain that might bear on the feasibility of their grandiose aspirations. One way



FIG. 15.34. REFERENCE MAP OF CENTRAL ASIA FOR FIGURES 15.32 AND 15.33. Only relevant place-names and physical features are indicated. Contemporary political boundaries are shown for reference purposes only. No specific referent for Kazak can be identified. Laghman is included as a regional designation. Saratov is off the map to the north.

of doing this would have been to commission a map, with relevant notes on the character of the regions and peoples in question and on the distances that would have to be traversed if their forces were to act in unison. The potential key ally in the undertaking would have been Afghanistan, which had dealt Britain one of its most humiliating defeats in the Afghan War of 1839–43 and which was strategically best situated to strike a new blow against the raj. This would explain why many of the road distances on the map were to Kabul rather than to Nepal itself.

To obtain the desired intelligence the hypothesized plotters would need to engage a person believed to possess considerable knowledge of the world beyond Nepal as well as familiarity with mapmaking. The evidence of the map itself, specifically its combining of the features of both British and Tibetan styles of cartography and the richness of the textual information provided, suggests that such an individual was indeed commissioned for the task. That much of what was presented in the map was factually incorrect is beside the point, for there was probably no one among the conspirators who could challenge the map's authenticity. The mapmaker, of course, need not have been sympathetic to the aims of those he was working for or have believed their goals were obtainable. In fact the evidence suggests quite the opposite—that he sought, rather, to dissuade the plotters from embarking

123. Gole, *Indian Maps and Plans*, 143 (note 99).

124. Gole, "Nepali Map," 82 (note 122).

on a venture doomed to failure and one that might cost him his head were he subsequently to be seen as supporting it.¹²⁵ That would explain the numerous, largely counterfactual, disparaging remarks about the peoples in the areas portrayed; for example: “The Pathans of Kabul are cowards, it has been determined, they are also deceitful.” “Throughout the kingdom of Kabul, there are screws of wood in the swords.” “Having determined that the mughals of Bokhara are absolute cowards, the womenfolk at least did some brave deeds.” “Iranian Muslims are very arrogant. They take a bath if even the shadow of a Hindu falls on them.”¹²⁶

The colors on the map, seemingly used—albeit ineptly—to indicate political control, also provide grounds for supposing that the work dates from the mid-nineteenth century, even if they do not enable us to point to a more specific date near 1857. For example, the distinctive rose color of the area around Herat suggests that the mapmaker viewed it as an independent state, which in fact it was during 1839–57 or, arguably, until its annexation by Kabul in 1862. Similarly, the beige coloration of what seems to be the emirate of Bukhara suggests that it too was regarded as independent, as was indeed the case from 1753 until its subjugation by Russia in 1868. Although these and previously noted arguments are inconclusive, they are certainly plausible.

Maps Emphasizing Sacred Places in the Regions around Lhasa and Kathmandu

Perhaps the most sumptuous of Tibetan regional maps available for public display outside Tibet itself are a group of large and similar works depicting Lhasa and other important monastic towns in central Tibet. I know of five such works, though others almost surely exist. Two are at the Musée Guimet in Paris: one (plate 34) said to be of the eighteenth century (but possibly the nineteenth), and a very similar work dating from the nineteenth century.¹²⁷ Two are in Belgium: one believed to date from the second half of the nineteenth century, at the Ethnografisch Museum, Antwerp, and a similar but somewhat smaller, undated work in the Musées Royaux d’Art et d’Histoire in Brussels.¹²⁸ Finally, the largest of the group, thought to be from either the Kham region of eastern Tibet or Mongolia and to date from either the eighteenth century or the first half of the nineteenth, is in the Royal Ontario Museum in Toronto.¹²⁹ This work is so strikingly similar to the one in Brussels that it seems safe to assert that one is a copy of the other or that both were copied from some unknown third model. Before the Chinese takeover in Tibet, paintings of this kind were displayed for pilgrims in monasteries and at important points of passage to provide them with a visual guide to the places to be visited. The monasteries also edited tex-

tual guides providing topographical information and serving as commentaries on the paintings. As Lauf notes, “The precision of the details . . . allows us however to assume that the artist must have seen these buildings with his own eyes.”¹³⁰ Yet the desideratum of verisimilitude does not prevent the composition from being ordered “like a mandala of sacred centers of Buddhist doctrine in and near Lhasa.”¹³¹

The style of depicting landscape on these paintings is said to descend from that of works produced during the Qianlong period in China (1736–96).¹³² Taken as a whole, the presentation is exalted, being “treated as a vision of a Pure Land here on earth, which is what Tibetans believe it to be. There are rolling hills, winding streams, jeweled trees, and pastel clouds, on a broad and tilted picture plane.”¹³³ The manner of composition of all five maps is not greatly different from that of figure 15.32, being marked in particular by the conventionalized representation in exaggerated size of the major urban places within a walled circular field, and the consequent contraction of the much larger nonsacred spaces between them. Also, because of the seeming reluctance to leave any large

125. For an account of some of the antigovernment conspiracies in Nepal immediately before the Sepoy Mutiny, including a potential revolt by Gurung troops within the Nepalese army, see Ikbāl Āli Shāh, *Nepal: The Home of the Gods* (London: Sampson Low, Marston, [1938]), 84–97.

126. Gole, “Nepali Map,” 86–87 (note 122).

127. The second of the two maps (inv. no. M.G. 21248) is illustrated in *Dieux et démons de l’Himālaya*, 241, text on 238 (note 33); and in Vergara and Béguin, *Dimore umane, santuari divini*, cover illustration with caption on inside cover page (note 27). A full-scale reproduction of the map proper (61 x 45 cm) was available for sale by the Musée Guimet in the form of a jigsaw puzzle.

128. The Antwerp map (inv. AE 73.25) is extensively discussed in Detlef Ingo Lauf, *Lhasa: De heilige stad van Tibet en haar omgeving* (Antwerp: Etnografisch Museum van de Stad, 1974), in Dutch with summaries in French, German, and English. Readers using this generally exemplary booklet should be advised that the captions therein generally do not match the numerous photographs next to which they appear. A separately published three-page set of errata corrects this problem. The Brussels map (Collection Léon Verbert 349) is illustrated with a brief note in Pia Van der Wee, Louis P. Van der Wee, and Janine Schotsmans, *Symbolisme de l’art lamaïque* (Brussels: Musées Royaux d’Art et d’Histoire, 1988), 32–33; and also in *Dieux et démons de l’Himālaya*, 240 (note 33). It also appears in four museum catalogs listed in the former.

129. This map, from the George Crofts Collection of the Royal Ontario Museum (cat. no. 2193), is published and discussed in Rhie and Thurman, *Wisdom and Compassion*, 374–75 (note 66). The museum description (personal communication, September 1989) suggests an eastern Tibetan provenance, and Rhie and Thurman suggest either that region or, for reasons not stated, Mongolia, which strikes me as unlikely; the museum assigns the earlier date and Rhie and Thurman the later.

130. Lauf, *Lhasa*, 21 (note 128).

131. Rhie and Thurman, *Wisdom and Compassion*, 374 (note 66).

132. Rhie and Thurman, *Wisdom and Compassion*, 374 (note 66).

133. Rhie and Thurman, *Wisdom and Compassion*, 374 (note 66).

empty space, many landscape elements are incorporated into the painting, though some of them may have no more than a purely decorative function. Of the five maps, those in Antwerp, Brussels, and Toronto are so compressed that what is depicted might pass for a single conurbation; yet the area included on those works and on the two in Paris would extend over several thousand square kilometers. The Paris maps show several rivers and mountain ranges, none of which I have identified with certainty. These are probably intended to serve largely as regional dividers, much as mountains do on the hagiographic paintings discussed in the preceding section, and it is possible that most of the mountains, if not the rivers, are not meant to represent actual physical features. The rivers and mountains shown on the maps in Belgium and Toronto are more sublimated than on those on the maps in Paris and are more naturalistic in appearance. In general, the oblique perspective of the former maps is that of an observer viewing the region from a much lower position than in the case of the Paris examples. Hence the format of the Paris maps has a long vertical dimension, whereas the other three examples (Antwerp, Brussels, and Toronto) greatly compress the vertical dimension.¹³⁴

The published guide to the Antwerp map identifies all the major settlements and many individual structures within them. Although no comparable descriptions of the other works are available, comparison with the Antwerp example should let one identify most places. For example, on all the maps the identity of the centrally situated Potala in Lhasa is unmistakable, and the distinctive appearance of the monastery in the lower-left corner of the works at Paris and Antwerp lets one immediately recognize it as Samye (bSam yas) (compare fig. 15.47 below), nearly forty kilometers to the southeast, though in plate 34 it appears to be only a stone's throw away. The relationship between those two settlements suggests a general westward orientation to the map; but there does not appear to be a concerted effort by any of the artists to maintain consistent directional relations among the places shown. Monasteries that could be intended as Samye show up near the lower-right corner of the Brussels and Toronto examples. I have not established all the correspondences among the five works, since it would be exceedingly difficult using only small-scale photographs, but the task would be worthy of carrying out from direct inspection of the paintings. Also worthy of investigation is the consistency of orientation with respect to the individual centers depicted. My impression is that the directional perspective from which particular towns are shown reflects the way they are most likely to be seen when approached from Lhasa, without reference to actual compass bearings.

There is another large scroll map (*paubha*) of the Vale

of Kathmandu (fig. 15.35) that is conceptually something of a hybrid between the biographical (actually hagiographical) maps and the types of regional maps discussed above. This beautiful, richly colored work is painted in a distinctly Newari style. It is unusual in that it bears a precise dedicatory date, a specific day in the year Newar Samvat 923 (A.D. 1802) and in that among its abundant text is an inscription stating that it was commissioned by Sri Cikhidi of the Śākya clan, whose genealogy is then provided. This map is the subject of a detailed analysis by Banerjee, who states that "such maps are often personalized" but does not indicate the grounds for implying, as he does, that maps of the type we are considering are a common genre. The map, he says, was not only a souvenir of the pilgrimage but in itself "an object of reverence."¹³⁵

The content of Cikhidi's map provides a vivid impression of the domestic architecture of the Vale of Kathmandu, of the appearance of a number of its important Buddhist and Brahmanical monuments, of the iconography of its religious sculpture and mural painting, and of the former mode of dress of its Newari inhabitants (whose religion is itself a Buddhist-Hindu hybrid faith). The perspective of the artist is mixed, usually frontal for single edifices and oblique for large architectural complexes, with individual components of them in a frontal perspective. As in Tibetan maps, people are shown in exaggerated size. Almost all the available map space is given over to interesting cultural and physical detail. The road network and drainage pattern are more completely and realistically presented than on any of the previous regional maps, though the courses of individual roads and rivers have been distorted to fit the demands of the composition. The mountain range at the top of the map is obviously the Himalayas, lying just north of the Vale of Kathmandu, including a distant range of snowcapped peaks and a nearer snow-free crest. But Banerjee errs, I believe, when he states: "A typical pictorial map is oriented . . . towards the north, in the style of modern maps, and is, therefore, scientific in its outlook."¹³⁶ The northern orientation in this case merely enables a composition in which the Himalayas provide an appropriate skyline away from which rivers flow toward the bottom of the

134. The Antwerp map measures 90.5 x 148 cm, Brussels 88.5 x 120 cm, and Toronto 135.4 x 184.6 cm.

135. N. R. Banerjee, "A Painted Nepalese *Paubha* in the Collection of the National Museum, New Delhi," in *Buddhist Iconography* (New Delhi: Tibet House, 1989), 154–63 and figs. 27–37; quotations on 155 and 159. An abridged version of this article, but with larger and clearer photographs, is N. R. Banerjee and O. P. Sharma, "A Note on a Painted Map of the Kathmandu Valley at the National Museum, New Delhi," *Marg* 38, no. 3 [1986]: 77–80. The work is also illustrated and discussed by Gole, *Indian Maps and Plans*, 68 (note 99).

136. Banerjee, "Painted Nepalese *Paubha*," 155 (note 135).



FIG. 15.35. NEPALI MAP OF THE VALE OF KATHMANDU. Newari style, text in Newari and Sanskrit, Newar Samvat 923 (A.D. 1802). Painted on cloth in black, red, light and dark green, yellow, gold, and white. This map provides a remarkably vivid and accurate impression of many aspects of the cultural landscape of the area around Kathmandu in the early nineteenth century, especially in respect to places of religious significance. The patron who commissioned the work is shown, along with his family and other members of his retinue, at many pilgrimage sites they jointly visited in that region. The abundant text of the map aids in the identification of all the major places depicted. The orientation is toward the north, where the snowcapped Himalayas form the skyline. Size of the original: 152 × 82 cm. National Museum, New Delhi (acc. no. 56.1168). From Susan Gole, *Indian Maps and Plans: From Earliest Times to the Advent of European Surveys* (New Delhi: Manohar, 1989), 68.

map. A similarly rendered skyline appears clearly at the top of one of the two regional maps at the Musée Guimet, and one is also evident, though sometimes more muted, on the other maps of the Lhasa region (compare plate 34). I am also inclined to discount Banerjee's implication that the artist might have tried to adhere to any particular scale, "between half an inch to a mile and an inch to a mile," in painting the map.¹³⁷ Finally, I would reject his suggestion that the artist who painted the map for Cikhidi might have received training from the British (although he thought it unlikely), given that comparably detailed maps were made in Tibet well before the time of significant British intercourse with Nepal.¹³⁸ It seems more probable that the stylistic traditions of Tibet and Nepal influenced one another more than either tradition derived from exposure to British influence, at least until after Nepal's military defeat by the British in 1814–16.

Tibetan Maps in the Wise Collection

Perhaps the most comprehensive set of relatively large-scale Tibetan regional maps is the Wise Collection, comprising three large folios of maps and drawings held by the Oriental and India Office Collections, in the British Library, London. Most of the maps in the collection are assembled from multiple sheets of European paper spliced together to form extensive and very detailed cartographic documents. The constituent map sheets vary in size, but most approximate forty-eight by sixty centimeters. Figure 15.36, for example, illustrates a portion of one such map (less than a third of its total surface), showing all of two sheets and parts of two others that compose it. Although the maps in the Wise Collection were at some unknown period the object of considerable study, as evinced by the hundreds of English annotations and key numbers they bear, the circumstances of their compilation and history before their acquisition by the India Office are shrouded in mystery. The maps and drawings, all in black ink and watercolor, are attributed in the undated, anonymous catalog description to "a Tibetan artist, probably a lama, who had had contact with Europeans and developed a semi-European style of drawing."¹³⁹ In my view, however, the map style remains essentially indigenous. The maps, which could justifiably be categorized under the traditional Tibetan genre of *sakbra* (picture map), are described as "similar to pilgrim maps showing villages and buildings in pictorial form," while the "25 drawings of places, monasteries, people and ceremonies in Tibet . . . appear to have been com-

137. Banerjee, "Painted Nepalese *Paubha*," 155 (note 135).

138. Banerjee, "Painted Nepalese *Paubha*," 159 (note 135).

139. Oriental and India Office Collections, British Library, London, Add. Or. 3013–43, unpublished catalog description, nine pages, p. 1.

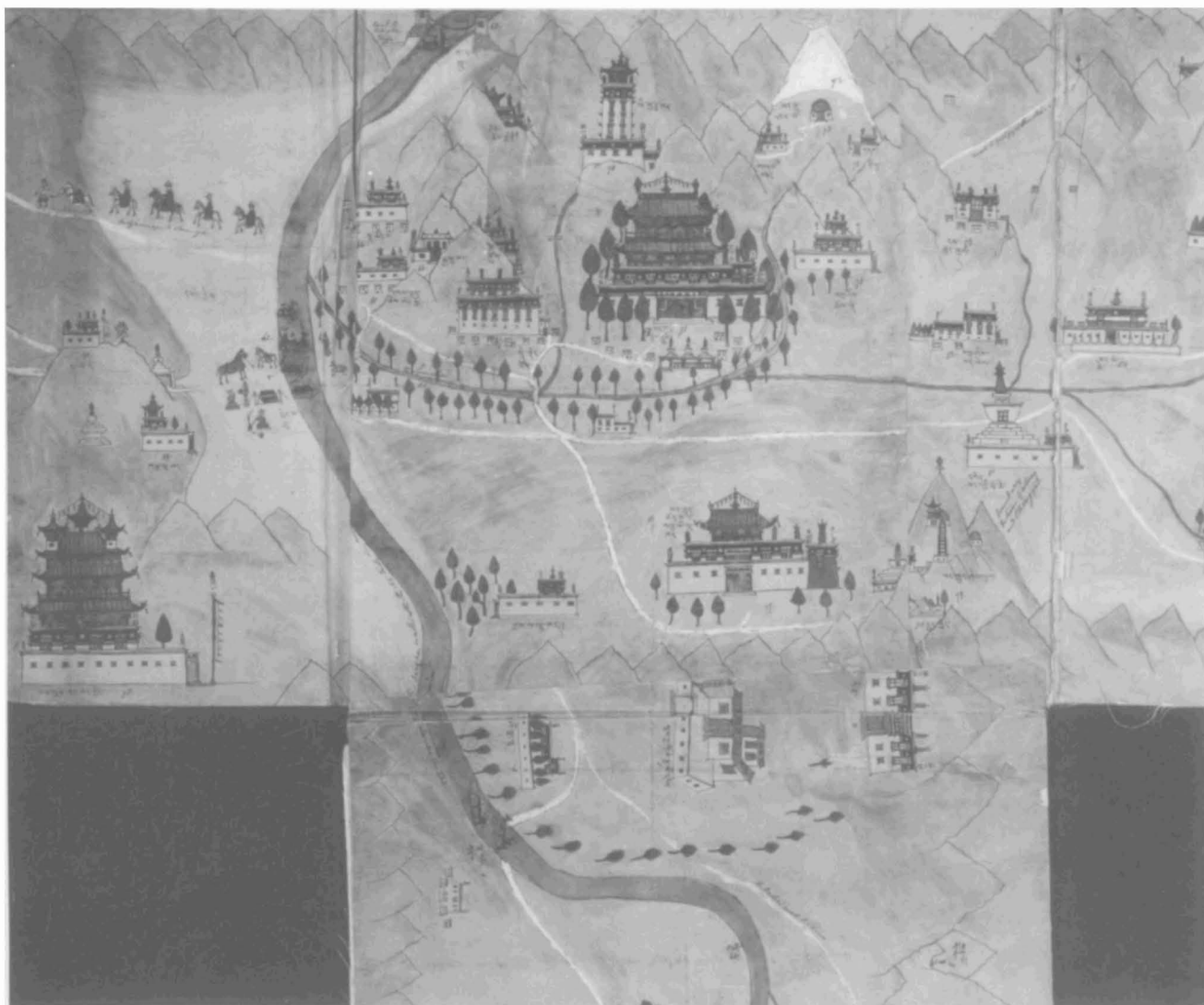


FIG. 15.36. PART OF A LARGE MAP OF A PORTION OF CENTRAL AND EASTERN TIBET. This illustration covers somewhat less than a third of an irregularly shaped painted map that forms one of seven large “picture maps” in the Wise Collection of Tibetan maps. The portion shown in the photograph comprises all or parts of five pages, out of a total of six, that were pasted together to form the complete map. The principal center shown in this illustration is the famous monastery at Samye, the oldest in Tibet. Included on the map are numerous

explanatory inscriptions in Tibetan for which—in contrast to other portions of the collection—no translation is currently available. The map is believed to have been made by a Tibetan who was specially trained by a British mentor (possibly Wise, about whom nothing is known) to carry out mapping and other intelligence gathering sometime between 1844 and 1862. Size of the detail: ca. 70 × 85 cm. By permission of the Oriental and India Office Collections, British Library, London (Add. Or. 3017).

missioned by the writer of the explanatory text.”¹⁴⁰ Just who that writer was is not known.

Although the bindings (c. 1890–1900) are lettered Wise, no record of anyone of that name connected with Tibet or adjacent areas can be found in the records. The water-marks [1849–56] of the explanatory text as well as internal evidence . . . suggest a date for the drawings of between 1844 and 1862. The notes suggest that “Wise” was acquainted with the western side of Tibet and had travelled in Ladakh.¹⁴¹

140. Unpublished catalog description (note 139).

141. Unpublished catalog description (note 139). I would dismiss as incorrect the handwritten suggestion added to the prefatory note for the catalog description that the Wise in question could have been James F. N. Wise (1834–85), author of *Notes on the Races, Castes, and Tribes of Eastern Bengal* (London: Harrison, 1883). I have checked the latter’s career via his several contributions to the *Journal of the Asiatic Society of Bengal*, beginning in 1873, and, in addition to the fact that he would have been too young to be involved with our anonymous lama as early as 1844, I find no grounds to link him in any way with Tibet.

In light of the British concern with military intelligence beyond the frontiers of India at the time the maps were made, a period straddling the establishment in 1849 of a British protectorate over Jammu and Kashmir, of which Ladakh was a part, it is reasonable to suggest that the “lama” (or lamas) who made the maps in the Wise collection was (were) secretly recruited for that task and that the name Wise was simply a pseudonym for some now forgotten British official who saw to his (their) recruitment and training and who, for diplomatic reasons, could not be correctly identified. Much, of course, has been written about the later “pundits” who worked for the Survey of India. They were brilliant individuals selected from among the peoples of several faiths living on India’s borders, who were specially trained to carry out trans-frontier intelligence and mapping missions, using assumed names and disguised as pilgrims and traders, during the period 1863–93. But such missions had precursors as early as the Central Asian expedition of Mir Izzet Ullah in 1812–13, and it seems likely that the maps in the Wise Collection were the outcome of a number of such precursor expeditions.¹⁴² Several facts support this line of reasoning. First, the maps were on European paper. Second, they were pieced together in such a way—some pages taking off at right angles from those that had previously been assembled (as in fig. 15.36)—as to suggest that the mapmaker could not fully anticipate what and how much mappable territory lay before him as he made his way into unknown country. No other Tibetan maps I have seen have this characteristic. Finally, one must consider the map content—for example, the great detail in which bridges were portrayed, the annotations relative to routes and the distances to places beyond the limits of the maps themselves, and so forth.¹⁴³ The maps and appended notes also contain much ethnographic and other detail that, though of only marginal interest for military purposes, would be highly relevant for the conduct of diplomacy.¹⁴⁴ Inclusion of certain more esoteric religious details might be explained on two grounds: first, as being of personal interest to the map compiler, who, though working for the British, was probably nonetheless a devout Buddhist; and second, as a means of seeming to legitimize an activity that would otherwise raise unwanted suspicions by Tibetan officials curious to know what the mapmakers were up to.

Appendix 15.1 provides a synopsis of some of the important particulars relative to the Wise maps, including several that do not properly qualify as “regional.” To the details provided there, I can add a few more general notes. First, what appears to be most characteristically Tibetan in the style of the maps is their attention to architectural detail. In general, monasteries, *chortens* (stupas), palaces, and other major cultural features are rendered in conventionalized colors and, along with people,

animals and plants, are drawn at scales vastly greater than those employed for physiographic features. The actual map size seems to be mainly a function of the amount of detail the artist feels it necessary to depict. But whereas architectural features are often shown in an oblique perspective in other Tibetan maps, in the Wise maps they are, with relatively few exceptions, shown in frontal perspective, presumably from the most likely direction of approach. In respect to map orientation, no general rule appears to be followed; though each page of a multisheet map does appear to have one predominant orientation, the orientation may shift as one goes from one sheet to another, as one can see by contrasting the lower portion of figure 15.36 with the other visible portions of the map. Further, whereas in a purely Tibetan style mountain summits are usually portrayed as pointing away from an observer on the ground (e.g., in the opposite direction as seen from a road following a river valley), that convention is frequently violated in the Wise maps. Another seeming concession to Western cartographic style is the depiction of linear features such as roads and many rivers as narrower than they would be on most Tibetan maps. The common Tibetan device of having smaller streams appear from and then disappear behind mountains is largely retained, as might be expected from a cartographer unable to follow every stream to its source and trying to map only what he actually saw as he made his way through a topographically complex countryside. Finally, in landscapes largely devoid of forests, lines of trees and village groves are prominently depicted wherever they occur.

Whether the maps in the Wise Collection were made by a single artist, as the catalog description suggests, or by two or more individuals is open to question. Although most of the maps in the collection are anything but crude, there are exceptions (items a and b of appendix 15.1), and I am inclined to think that at least two individuals were at work. But, it is possible that these exceptions are relatively crude because some circumstance (e.g., the need

142. A very readable and generally authoritative account is provided by Derek Waller, *The Pundits: British Exploration of Tibet and Central Asia* (Lexington: University Press of Kentucky, 1990), 14 and 22 for Mir Izzet Ullah in particular.

143. Examples of annotations that would have been militarily useful include the following (all taken from Add. Or. 3014): “Another bridge across the Indus. The river frozen in winter and passable.” “Kera—a village; road not passable here in summer when the river is very large.” “Hanle is eleven marches from Lé [Leh].”

144. Examples from Add. Or. 3014 include: “Pituk . . . a gunpo [monastery] of the Gelukpa . . . sect who came from Tashi-lunpo.” “Tok, the jaghier [personal estate] of the present raja of Ladak, given to him by Maharaja Golab Singh, after he conquered the country, . . . Masho, residence of the brother of the Ladak Raja, who is a lama.” “Liktse, a village & where a tax gatherer of the Ladak govt. stays.”

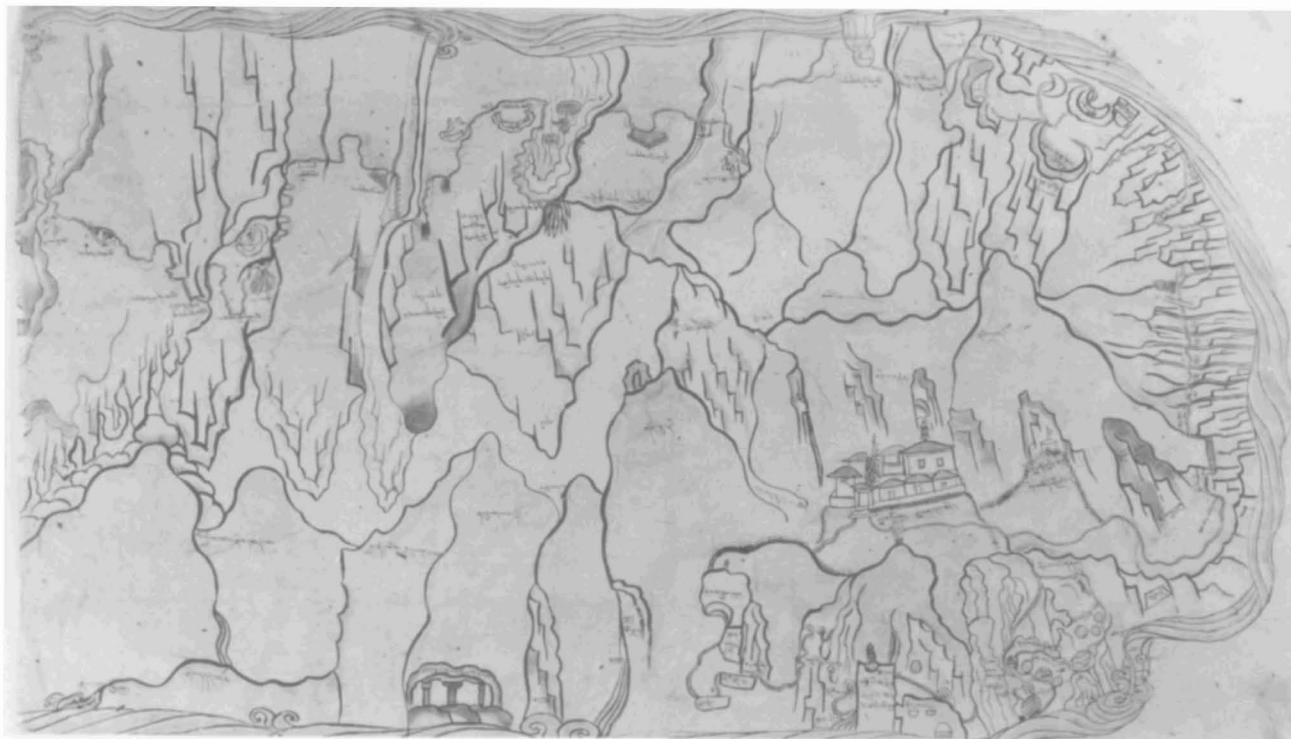


FIG. 15.37. PORTION OF A TIBETAN MAP SHOWING THE AREA IN THE GREAT BEND OF THE TSANGPO/BRAHMAPUTRA RIVER. The map illustrated here was drawn on non-European paper in black ink and yellow and brown watercolor. It probably dates from the late nineteenth or early twentieth century and was obtained by Heinrich Harrer in Tibet, about 1950. The artist employed many conventional symbols of Tibetan cartography in preparing this vivid depiction of

the difficult topography through which the Tsangpo flows in eastern Tibet. Particularly striking is the drawing of summits pointing away from the main axis of travel along the river itself and their apparent convergence within the river bend. As the map text has yet to be translated, a full interpretation of its content is not yet possible.

Size of the original: 52 × 171 cm. By permission of the Völkerkundemuseum der Universität Zürich (cat. no. 14495).

for security) forced the mapmaker to prepare them with more haste than was customary.

Although a number of published works have drawn attention to the maps in the Wise Collection, no one so far has analyzed them in any detail.¹⁴⁵ Such analysis—not only of the maps, but of the accompanying drawings and text—by a scholar with the requisite linguistic skills and knowledge of Tibetan culture and history is sorely needed and bound to be richly rewarding.

Tibetan Maps in the Harrer Collection

Another noteworthy collection of mainly regional maps from Tibet is in the Völkerkundemuseum der Universität Zürich. These constitute a portion of the Tibetan collection of Heinrich Harrer, acquired by the museum in 1972 and still awaiting detailed study. The maps I have seen are on non-Western paper and rendered in ink and various watercolors. One of the maps in the collection is illustrated in figure 15.37. Appendix 15.2 provides details of those maps and some of the others. The appen-

dix is based on a brief firsthand inspection in 1987, study of several published photographs, and notes in a museum catalog relating to an exhibit of Harrer's materials.¹⁴⁶

145. Among the works that cite the Wise Collection are Aziz, "Tibetan Manuscript Maps," in which fig. 1, labeled "folk drawing," is excerpted from one of the Wise maps (which one and the precise locale depicted are not stated); and idem, "Maps and the Mind," in which the same excerpt appears on p. 55, labeled "pilgrim's map" (both in note 12); Martin Brauen, *Feste in Ladakh* (Graz: Akademische Druck-u. Verlagsanstalt, 1980), 14 (fig. 1); and Müller and Raunig, *Der Weg zum Dach der Welt* (note 34), in which there are map excerpts showing the monastery complexes at Shigatse (p. 112), Gyantse (rGyal-rtse) (p. 263), and an unspecified locale (p. 357).

146. The photographs are published in Martin Brauen, *Heinrich Harrer's Impressionen aus Tibet* (Innsbruck: Pinguin-Verlag, 1974), pls. 9 and 110 in color, and fig. 7 (p. 104) in black and white. The book includes a fifteen-page catalog of the exhibition at the museum that opened in December 1974. The same map excerpt that appears in pl. 9 of Brauen is reproduced on p. 88 of Müller and Raunig, *Der Weg zum Dach der Welt* (note 34), where it is labeled "Landschaft am Knie des Tsangpo-Flusses," which would only barely place it, as Brauen does, in the Tibetan province of Kham. Another excellent photograph, which appears on stylistic grounds to be remarkably similar to most in the

The age of the maps is uncertain, but I would judge that none predates the late nineteenth century or post-dates the first quarter of the twentieth. Since Harrer left Tibet early in 1951, after a sojourn of seven years, that year represents an absolute terminus ad quem for the entire collection.¹⁴⁷ How and why Harrer acquired these specific maps is at present not known. Since several of the works in his collection appear to relate to a military campaign, however, as is evident from the depiction of weapons, military encampments, a field with a few corpses, and what appear to be battle lines, we may suppose that he hoped to use at least some of the maps to put forward a Tibetan view of the several Anglo-Tibetan skirmishes resulting from the British Younghusband expedition to Lhasa in 1904.¹⁴⁸

Although it is virtually certain, on stylistic grounds, that the Harrer maps were made by several different hands, most show broad similarities, and all use conventions of the type depicted in figure 15.9 to show landscape elements, especially various types of mountains. Other conventions for depicting religious edifices and settlement also tend to be broadly similar and comparable to those used in the earlier maps of the Wise Collection.

A singular exception, however, is one uncataloged map, a portion of which—judging from the house types and rope suspension bridges shown on it—relates to an area of transition from Tibetan culture to the tribal culture of what is now the northeast Indian state of Arunachal Pradesh. That area was of considerable interest to Anglo-Tibetan and Anglo-Chinese diplomacy during the period leading up to the Simla Conference of 1914, when Britain and Tibet agreed on the McMahon Line as their common border in that region, a border which China stoutly rejects. The area was first surveyed for Britain by Henry T. Morshead and Frederick M. Bailey in 1912–13, but it was visited in 1884 by Kintup (“KP”), the illiterate Sikkimese servant of a Chinese “lama” employed by the Survey of India to determine whether the Tsangpo and the Brahmaputra were the same river, as had been suspected.¹⁴⁹

Other Regional Maps

A small section of a large and elaborate cotton scroll map is illustrated in figure 15.38. This map has been studied in great detail by Huber.¹⁵⁰ It was given to Hugh Richardson in Lhasa about 1944, when he was the representative of the British government in Tibet. The work, which Richardson described as “well used” at the time he acquired it, is not dated, but it is ascribed by the British Museum to the nineteenth or twentieth century and designated a “pilgrim map.” The map was noted and partially reproduced in several publications by Aziz, who describes it as a pilgrimage map of Tsa-ri (rTsa-ri) rong skor.¹⁵¹ But,

as Huber pointed out, although “one end of the map does indeed depict *some* [my emphasis] of the south-western section of the long Tsa-ri *rong-skor* pilgrimage route, . . . the majority of it covers areas well to the west

Harrer Collection, appears in Tichy, *Himalaya*, 133 (note 43). This very detailed map, labeled “Alte tibetische Landkarte,” is not described in the work cited and is not attributed in any way to Harrer. Rather, it is stated that the photograph came from Ella Goldschmidt of Vienna (who may well have obtained it from or through Harrer). My attempts to establish contact with her proved futile.

147. Harrer, an Austrian mountaineer, was interned in India during World War II and in 1944 escaped from detention in the Indian town of Dehra Dun, subsequently making his way into Tibet. After a long and difficult journey to Lhasa, he was allowed to reside in that city, and in time he became a trusted employee of the Tibetan government and a tutor of the young Dalai Lama. He did not leave Tibet until March 1951, some months after the Chinese occupation of that country. He describes his Tibetan sojourn in *Seven Years in Tibet*, trans. Richard Graves (London: Rupert Hart-Davis, 1953), but he does not mention in that work that Tibetan maps were among the substantial body of Tibetan materials he took with him to India.

148. I am, however, aware of no attempt by Harrer to use the maps in the way suggested. Of greater concern to Harrer was the cause of Tibetan independence. To have called attention to Tibet’s past humiliation by Britain, a nation generally inclined to support Tibet’s interests vis-à-vis China, would have to be a diversionary exercise that would in no way further the aims of Tibet in the mid-twentieth century. Harrer makes no mention of the maps in his work *Return to Tibet*, trans. Ewald Osers (New York: Schocken Books, 1984).

149. Escaping twice from Tibetan captivity, Kintup managed to carry on with the mission (1880–84) after the defalcation of his Chinese master, who sold him into slavery in May 1881. His account of the routes he explored was largely discounted, and Kintup was all but forgotten until 1914, when his achievements were finally recognized. The stories of Kintup, Morshead and Bailey, and others concerned with making known the region in question are recounted in Waller, *Pundits*, 214–47 (note 142). It is conceivable that information obtained from Kintup while he was a captive in Tibet was in some way related to the decision by the Tibetans themselves to prepare the map and possibly others that may yet come to light. It is also conceivable, though less likely, that the map was made using information the Tibetans extracted from Kintup, whose powers of recollection were said to be extraordinary. In either event, Harrer’s being entrusted with the map when he left Tibet for India in 1951 may have related to some now unfathomable Tibetan diplomatic purpose.

150. Although I have had an opportunity to study the map at first hand, my discussion of it is based on work by Huber, who in conjunction with a Tibetan colleague, Tashi Tsering, resident in Dharmasala, India, has translated all of the abundant text on the map and prepared glosses, some of them rather lengthy, keyed to most of its 140 inscriptions; Toni Huber, “A Tibetan Map of lHo-Kha in the South-eastern Himalayan Borderlands of Tibet,” *Imago Mundi* 44 (1992): 9–23. Huber’s analysis is by far the most extensive and thorough scholarly commentary on a Tibetan map I have seen. His kindness in making this work available to me in draft form is acknowledged with gratitude.

151. Aziz, “Tibetan Manuscript Maps,” 29, with a partial illustration on page 30, and idem, “Maps and the Mind,” 54–55, with a different illustration overlapping those two pages (both in note 12). A small portion of the map has been printed in color on the dust jacket of Aziz and Kapstein, *Soundings in Tibetan Civilization* (note 28), but this will probably have been removed by most libraries.



FIG. 15.38. SMALL PORTION OF A LARGE TIBETAN MAP OF THE TSA-RI REGION AND AN ADJACENT PORTION OF ARUNACHAL PRADESH, INDIA. Painted on a cotton scroll, this undated Tibetan map shows an area along the upper Subansiri River straddling Tibet's border with the present Indian state of Arunachal Pradesh. Long thought to be a pilgrimage map, the work appears instead to have been prepared, very likely at the behest of the Tibetan government, as a cartographic

record of physical, administrative, ethnographic, and other needed intelligence relating to an area of conflicting political interests in the early part of this century. The map is exceedingly rich in place-specific information, as is evident not only from its visual detail, but also from its numerous inscriptions. Size of the entire original: 63.5 × 351 cm. By permission of the British Museum, London (1986.5–26.01).

of Tsa-ri proper.”¹⁵² It is also clear from the map text that its author had little or no concern with religion; but rather, the map was related to travel in general, questions of political and fiscal administration, and topographic and ethnographic intelligence.¹⁵³

152. Huber, “Tibetan Map,” 9 (note 150). Aziz appears also to have erred in stating that Richardson acquired the map “before World War II” and in placing Tsa-ri in northern Tibet and in a valley in a “legendary area accessible only by passage through dangerous lands inhabited by brigands and wild forest people,” rather than near Tibet’s southern border (“Maps and the Mind,” 55 [note 12]). Although the area covered is indeed difficult to reach, estimates of the number of pilgrims from all parts of Tibet making the Tsa-ri pilgrimage (held every twelve years) range from as few as 10,000 to 15,000 to as many as 100,000 (Huber, “Tibetan Map,” 17 [note 150]).

153. Consider, for example, the following translated map inscriptions (using Huber’s numbering system):

4. “Crossing the Gla-’khol pass from bKra-shis monastery it is one day’s journey as far as lHun-rtse (rDzong) [castle].”

35. “A forty-five-step ladder [clearly shown on map] to the upper valley.”

49. “Peaks on the eastern bDag-ri range.”

53. “The precipice which is the extremity of the (bDag-ri [referring to another note]) mountains.”

55. “From this resthouse above the Bya-chu [a river] it is five days’ journey as far as the nine passes and nine valleys.”

58. “All (this area is) the continuous frontier of the country with the lDing-klo [a tribal group of Arunachal Pradesh] in those (places) behind, to the south of here.”

67. “The narrow footpath to Klung.”

75. “There is only Klo(-pa) [tribal] country behind the passes on the entire southern flank of these snow mountains (i.e., the Grand Himalayan range).”

From Huber, “Tibetan Map,” 4–18, passim (note 150).

Those who wish to compare the content of the map with that of the Tibetan guidebook discussing a number of the features the map

The map content is largely conveyed by inscriptions and, even more, by its highly varied graphic elements/signs, using both shape and color to convey meaning. It is thus a particularly good example of the *sa-khra* (picture map) genre. Several different signs are used to show mountains, some suggesting glacial terrain, others karstic highlands, and still others lower, rounded summits. As in many other Tibetan maps the summits point away from the observer's route in a valley, in this case of the Subansiri River, that forms the main axis of the map. Although it might at first appear that the mapmaker had little concern for what lay away from this axis, the notes on the map—many of them referring to the number of days' march to other locales and the passes to be crossed to get there—prove otherwise. Other map notes point out areas of special interest such as grassy flats and plains. Many regions and areas occupied by particular tribes and clans are explicitly identified. Dozens of settlements—not all of them identifiable—are depicted, as are more than a dozen monasteries, a comparable number of estates, smaller numbers of temples and stupas, several forts, and at least one trading post. Footpaths are frequently labeled as such, and at least one “cattle path” is noted.

The western portions of the map . . . show the barren, rolling landscape of the Tibetan plateau marked regularly by small villages (in general, only 1 or 2 buildings are used to represent a village), religious establishments and plots of land under cultivation. Moving into the eastern portions the settlements become less frequent and the Tibetan style dwellings begin to give way to the thatched huts used by the pre-literate Arunachal tribals who visited the upper Subansiri valleys on the Tibetan border in order to trade. The scene painted here is marked by dramatic cliffs, waterfalls, and a variety of vegetation . . . including bamboo, flowering herbs and different tree species, all reflecting the high rainfall that this area is well known for.¹⁵⁴

Huber does not suggest a date for the map or a responsible agency, but I believe it is similar in date, origin, and purpose to the uncataloged map in the Harrer Collection discussed above. The circumstances surrounding the drawing of the Harrer map would have applied equally for the map obtained by Harrer's contemporary, Richardson, since both works refer to a troubled and politically sensitive frontier region.

We can only speculate on how many and what sorts of additional regional maps survive in Tibet. Todd Lewis, an anthropologist specializing in the Himalayan region and Tibet, reports having seen “very extensive frescoes that depict major regions of Tibet” in the Potala and Norbulinka (Nor-bu-ling-ka, Summer Palace) in Lhasa, but he was not able to obtain photographs of such works.¹⁵⁵ The Potala is vast, and its treasures have yet to be made fully known beyond Tibet. Its mural paintings,

begun in the year 1648 and repeatedly painted over during the following three centuries, are said to adorn “every hall, every chapel, and every corridor,” often being drawn with a “vertical view and diversified perspective” suggesting maplike images.¹⁵⁶ Further, it is reasonable to suppose that what was true of the Potala was also true, though obviously to a lesser degree, for other major monasteries. Regrettably, however, relatively few Tibetan monasteries have survived the cultural vandalism and officially sanctioned destruction that Tibet has suffered since 1950, especially during the Chinese Cultural Revolution of 1966–69.¹⁵⁷

Mural and scroll maps are also known to exist in Buddhist monasteries outside Tibet. For example, a seventeenth-century map of Bhutan may be seen on a wall of the Punakha *dzong* (castle). And as noted in the introduction, long cloth map scrolls (*paubhas*) are periodically put on public display in the courtyards of various Nepali monasteries. No inventory of mural and scroll maps has yet been attempted, but it is highly probable that more will come to light in the near future. It is not always easy to classify the few known examples as regional, route, or locality maps. One such painting appears in figure 15.2 and an excerpt from another, an enormous work of the eighteenth or nineteenth century, in figure 15.46. Although the latter could be regarded as a regional map, it seems preferable to discuss it below under locality maps.

PILGRIMAGE AND OTHER ROUTE MAPS

Travel and visibility in Tibet and neighboring areas are largely constrained by difficult mountain topography marked by long and deep orographic troughs (such as those along the upper Indus, Sutlej, and Tsangpo rivers). Consequently, what might be intended as maps of major regions may take the form of rather elongated strips (as do several in the Wise Collection), making the distinction

depicts may consult Elena Rossi Filibeck, “A Guide-Book to Tsa-ri,” in *Reflections on Tibetan Culture: Essays in Memory of Turrell V. Wylie*, ed. Lawrence Epstein and Richard F. Sherburne (Lewiston, N.Y.: Edwin Mellen Press, 1990), 1–10.

154. Huber, “Tibetan Map,” 10 (note 150).

155. Letters from Todd Lewis to me dated 1 September 1987, 12 February 1988, and 28 March 1988.

156. *The Potala Palace of Tibet*, comp. Cultural Relics Administration, Tibet Autonomous Region (Shanghai: People's Art Publishing House, 1982), 52. This work contains numerous photographs with glimpses of mural paintings, but none are good enough to permit a meaningful assessment of their cartographic quality.

157. Since the opening of Tibet to foreign tourists beginning in 1982, the Chinese authorities have restored portions of some of the more important monasteries. What effect, if any, this may have had on the state of their cartographic murals is not known. Photography within the monasteries is largely forbidden.

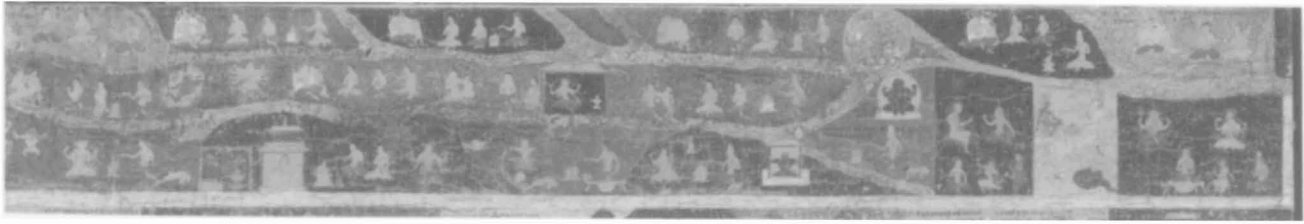


FIG. 15.39. MAP PORTION OF A TIBETAN SCROLL SHOWING PILGRIMAGE PLACES IN THE VALE OF KATHMANDU. This map occupies the upper half of a large fragment of a two-part Nepali cloth scroll completed in Newar Samvat 755 (A.D. 1634). Referred to as a “banner painting,” the entire work was executed in opaque watercolors (various greens, blues, salmon, red, black, white, and gilt) on cotton. The lower register of the work (not shown) is a narrative painting relating to a traditional Buddhist history of the deity Svayambhūnāth. The portion shown here is designated a *tīrtha mahātmya*, which signifies that its function was to glorify *tīrthas* (pilgrimage places), in this case in the Vale of Kathmandu, and guide pilgrims to them. The *tīrthas* are symbolized by icons representing their

between regional and route maps more arbitrary and problematic than in other parts of the world. Nevertheless, I have selected here a number of works whose principal objectives appear to be to illustrate routes or places with relatively little regard for the nature of the terrain away from those routes. Some of these have the elongated shape characteristic of many route maps, while others do not.

Oldest among the known works of the latter type is a fragment of a Newari scroll painting (fig. 15.39) that illustrates an ancient text, the *Svayambhū Purāṇa*.¹⁵⁸ In its original form, the entire scroll probably was of a type similar to the one illustrated in figure 15.2. The fragment shown here comprises two horizontal components, a lower narrative register of scenes and an upper register that has been designated as a *tīrtha mahātmya* (i.e., a record of “eminent places of pilgrimage”). The map includes fifteen or so named pilgrimage places in the Vale of Kathmandu, of which most can be identified iconographically, and a few additional scenes of worship. These are regionally grouped into elongated fields (shapes necessitated by the scroll format), set off from one another by the course of the Bagmati River and several identifiable tributaries.¹⁵⁹ In its use of rivers as dividers, this scroll map is similar in appearance to many cosmographic scenes in the lengthy scroll presentations of the Thai Buddhist *Trai phum*, discussed in chapter 17 of this volume (compare fig. 17.23). This raises the possibility of the existence of an intermediate Indian form, which might have spread to both Nepal and Siam from a sacred site such as Bodh Gaya, frequented by pilgrims from both countries.

Totally different in form from the *tīrtha mahātmya*, though similar in function, is an undated Tibetan work (fig. 15.40) that relates to the sacred Mount Kailas (Kai-

presiding deities, occupy distinctive fields of color, and are identified by inscriptions in the Newari script. Only a few of the identified *tīrthas* shown, however, correspond clearly to currently frequented sites. The rivers on the map reflect the actual network of the Vale (but with the topological distortion required by the scroll format) and group those sites by subregions. We may assume that this work, like other banner paintings, was hung out for periodic display in the courtyard of some Nepali *vihāra* (monastery), and it is likely that exposure to the elements is the reason only a fragment of the original remains. Size of the entire original: 39 × 130.2 cm. By permission of the Cleveland Museum of Art, gift of Mrs. Albert S. Ingalls (54.788).

lāsa) and other places of pilgrimage in its vicinity. The work in question is a bas-relief bronze tablet that includes a rather detailed representation of the physically visible, as well as mythological, features on and in the vicinity of Kailas (Ti-se to Tibetans). This is taken by Buddhists, Bön-pos, Hindus, and Jains to be the earthly manifestation of the sacred Mount Meru, the axis of the universe.¹⁶⁰ Despite its absence of text, the most important features shown on the tablet (see fig. 15.41) may be readily recognized on medium- and large-scale maps of the region it depicts, in particular Mount Kailas, which rises 6,700 meters above sea level; the lesser mountain, Dorje Tijung to its west (the tablet being oriented with the viewer looking to the north); and Lakes Manasarowar

158. This map is discussed at length in Slusser, “Serpents, Sages, and Sorcerers” (note 13).

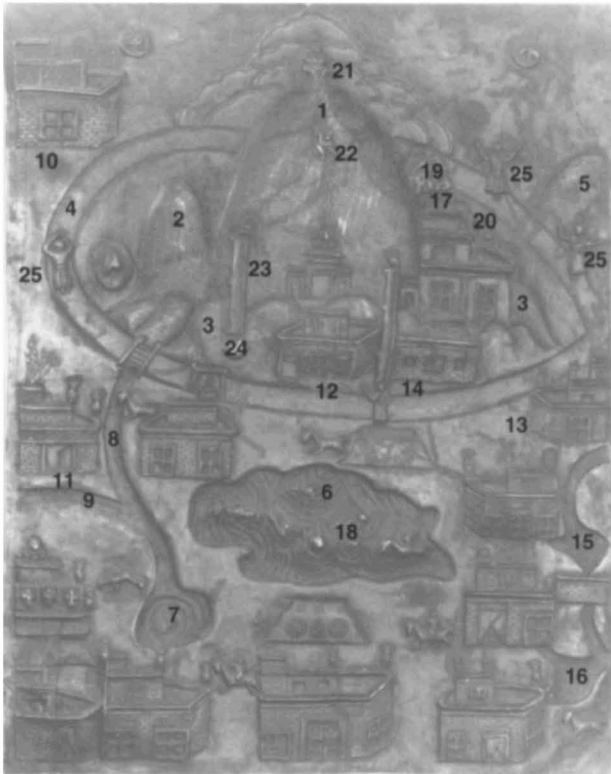
159. The entire fragment measures 39 by 130.2 centimeters, of which the upper half is the map portion. Slusser, “Serpents, Sages, and Sorcerers,” 68 (note 13), provides a key diagram on which the several map elements are noted and, wherever possible, identified. Each is further discussed in the accompanying text. The work is also illustrated in Slusser, *Nepal Mandala*, vol. 2, fig. 569 (note 13). A photograph of a more modern, though undated, painting, somewhat similar to the work discussed by Slusser and relating to the same region—but with a distinctly more Indian appearance—was given to me in Brussels in 1987 by Armand Neven, a historian of South Asian art. At the time the work was in the London gallery of Jean-Claude Ciancimino, but I do not know its present location. As in the earlier work, the various *tīrthas* are grouped into fields by a network of rivers and are recognizable both by the images of their tutelary deities and by names written on the painting itself. A line of mountain peaks near the top of the painting presumably represents the Himalayas.

160. See the expert analysis by Eva Stoll, “Ti-se, der heilige Berg in Tibet,” *Geographica Helvetica* 21 (1966): 162–67. The tablet is also illustrated and more briefly discussed, in the broad context of Buddhist beliefs about Mount Sumeru, by Van der Wee, “Rirab Lhunpo,” 71–72 and fig. 7 (note 57).



FIG. 15.40. TIBETAN BRONZE TABLET SHOWING PLACES OF PILGRIMAGE IN THE AREA OF MOUNT TISE (KAILAS). This undated bas-relief tablet shows not only many places and monasteries that pilgrims are enjoined to visit, but also unreachable features that are purely mythological. Of

particular note are the pilgrims circumambulating the mountain clockwise. Size of the original: 34.2 × 28 cm. By permission of the Völkerkundemuseum der Universität Zürich (cat. no. 12665).



1. Ti-se (Mount Kailas); 2. Mount Dorje Tijung; 3. other unspecified neighboring mountains; 4. pilgrim route around Ti-se; 5. peak signifying the Tsering-Changa group; 6. Lake Manasarowar; 7. Langag, Lake of the Demons; 8 and 9. Tarchen-C'u and Lha-C'u, tributaries to Langag; 10 to 14. five *gompas* (monasteries) of which four lie in the cardinal directions around Ti-se (10. Tint'ipu, north; 11. C'oku, west; 13. Zupral, east; 14. Gyantrag, south; and the fifth, 12. Silung); 15 to 17. Lakes Kurkyal C'ungo, Ding Ts'o, and T'uki Zingbo; 18. lotus bud in Manasarowar; 19. traces of the struggle between Saint Mila Rêpa and the Bon-po; 20. Mila Rêpa's hand and footprints; 21. Mila Rêpa on Ti-se; 22. Mila Rêpa circumambulating Ti-se; 23. flagpole; 24. the Buddha's footprint; 25. pilgrims of whom the one in the high hat is a Bon-po.

FIG. 15.41. KEY TO FEATURES SHOWN ON FIGURE 15.40. After Eva Stoll, "Ti-se, der heilige Berg in Tibet," *Geographica Helvetica* 21 (1966): 162-67, esp. fig. 1.

(Ma pham) and Langag (La-ng) to the south. Some idea of the scale of the area shown may be obtained from the knowledge that circumambulation of Manasarowar, the larger lake, normally takes several days, the circuit extending for seventy kilometers, or roughly one hundred kilometers if one visits all eight of the surrounding monasteries that are also depicted on the tablet. A shorter circuit is that of the mountain itself, but that the more arduous trip is also enjoined on the devout is made evident from the clearly marked path on the tablet along which two pilgrims and a monk are shown making their clockwise circumambulation. Regrettably, the published accounts of the tablet say nothing about the circumstances of its acquisition, or about its date or provenance. What is reasonably certain, however, is that the work conforms closely to published Tibetan pilgrimage guides for the region, and that it would have served well in

orienting pilgrims toward realizing the several objects of their journey.

Included in Stoll's article are photographs of several paintings of Ti-se and its surroundings. These are among a number of pilgrimage maps that are remarkably similar in content to the Zurich tablet: (a) a work by a Tibetan lama, Nav-Kushok, taken from a book on the region by the Indian explorer Swami Pranavānanda, who spent years in the vicinity of Kailas; (b) a wall painting, rendered in a naive folk style, found in a Nepali village near the Tibetan border; (c) a *thangka* painted by Tulku Tsewang, remarkably similar to the earlier-mentioned wall map, found in a monastery in Dolpo, Nepal; and (d) a painting on paper of unknown date and provenance, but with accompanying Tibetan text, that is rather different in style and composition from all of the foregoing, though generally similar in content.¹⁶¹

Well to the southeast of Kailas and Manasarowar is another sacred mountain-lake dyad, the peak of Gosainthan (Shisha Pangma) and the lake of Gosainkund, with respect to which one pilgrimage map is known to exist. This work, painted on cloth and measuring 125 by 79 centimeters, is held by the Department of Oriental Antiquities, British Museum, London (registration number 1928.0707.1). Found in Kathmandu, the map is believed to date from the early nineteenth century. Although I know it only from a black-and-white photograph, I would judge that it is the product of a Shaivite Hindu artist, despite some apparent influences from Tibetan models, notably in its embossed border, similar to those found on many Buddhist *thankas*, and its composition, in some ways reminiscent of the cosmography of Sukhāvātī depicted in figure 15.21. The map is richly detailed and seems to show many Shaivite temples on either side

161. Only works a and b are illustrated by Stoll, "Ti-se" (note 160). Work a also appears in Swami Pranavānanda, *Kailās-Mānasrōvar* (Calcutta: S. P. League, 1949), fig. 93, with numbers keyed to an accompanying list of forty-four specific features it depicts, largely duplicating those of the bronze tablet in Zurich. Pranavānanda provides even more detailed explanations of these features (pp. 10, 14, and 123) than does Stoll and appears to be the source Stoll largely relied on. Stoll's source for work b is Olschak and Thupten Wangyal, *Mystic Art*, 6 (note 39), which presents the work at a larger scale. The map was discovered by the Swiss geologist Augusto Gansser en route to Mount Kailas, on the wall of a small monastery in Tinkar, southwest of the Tibetan town of Taklakot and near the junction of the borders of India, Nepal, and Tibet. Both it and work c are illustrated in Blanche Christine Olschak, Augusto Gansser, and Andreas Gruschke, *Himalayas* (New York: Facts on File, 1987), 192 and 81 respectively. Work d is illustrated in Louis P. Van der Wee, "A 'Cloister-City'—*Ṭanka*," *Journal of the Indian Society of Oriental Art*, n.s., 4 (1971-72): 108-20; relevant note on 113 and illustration in fig. 5. The *thangka*, in the Rijksmuseum voor Volkenkunde, Leiden, is incompletely and somewhat misleadingly identified in the relevant museum note that Van der Wee cites. I have referred here only to works I have seen photographs of; others, however, are known to exist.

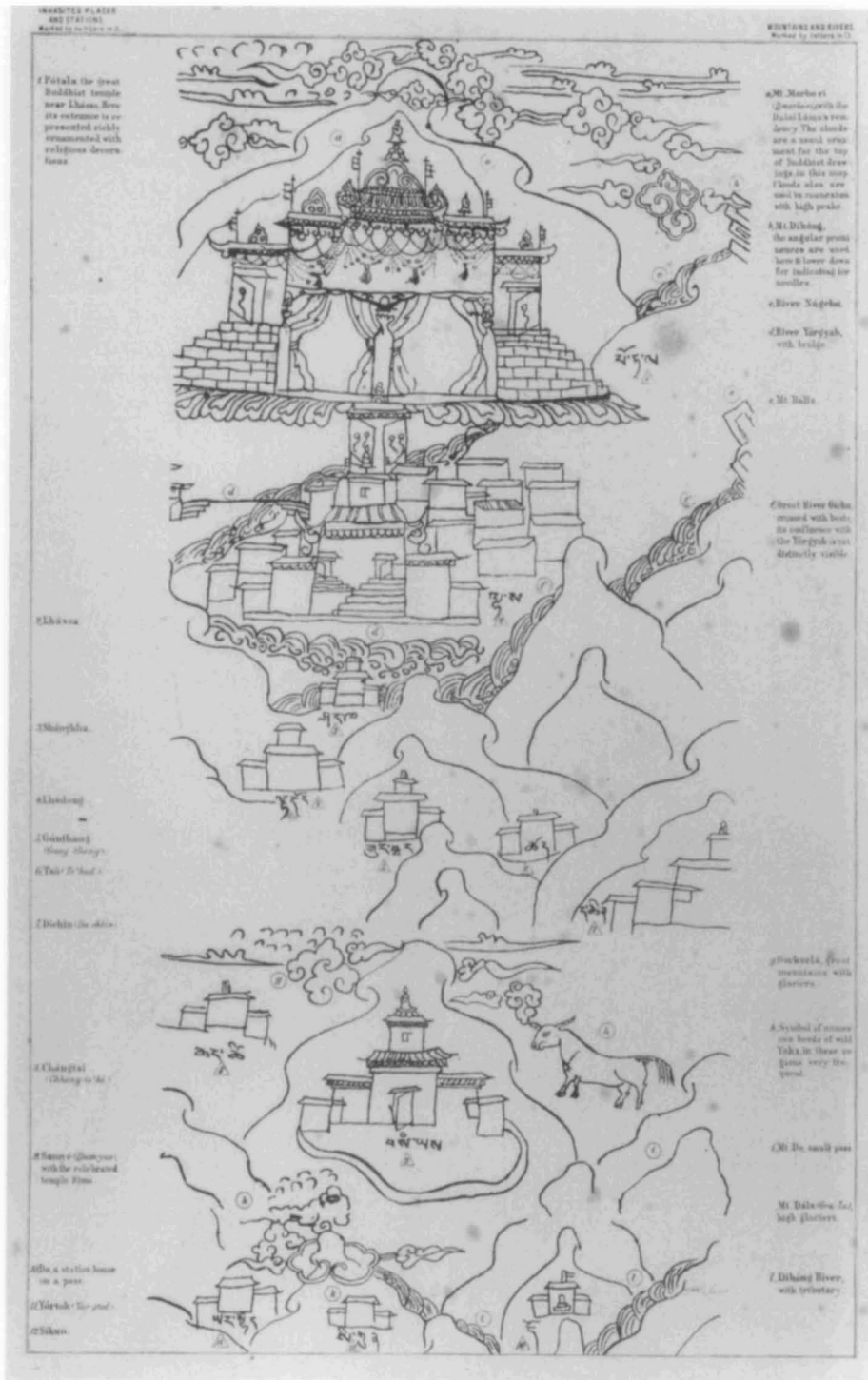


FIG. 15.42. TIBETAN MAP OF THE COMMERCIAL ROUTE FROM LHASA TO ASSAM. This seemingly naive map makes use of numerous conventional signs in Tibetan cartography, evident from the annotations along the margins. It is the northern half of the map taken from Hermann von Schlagintweit-Sakünlünski, Adolphe von Schlagintweit, and Robert von Schlagintweit, *Results of a Scientific Mission to India and High Asia* (1861). The map embodies far more specific detail than the uninitiated non-Tibetan viewer might suppose. The

route depicted begins at the Potala, shown at the top of the map, continues through Lhasa itself, and thence through Samye. The second half of the map (not shown) continues through Tawang, now in India, and south to a point near the plains of Assam. The scale is notably larger in the better-known northern part of the map than in its southern portion. Size of this portion: ca. 30 × 20 cm. By permission of the Bodleian Library, Oxford (Maps 206a.2).

of the Trisuli River along the pilgrimage route to Gosainkund and beyond to Gosainthan, as well as lines of pilgrims wending their difficult way toward those high Himalayan destinations whose sanctity for Nepali Hindus rivals that of the more renowned region around Kailas.

Despite the recent inroads of modern technology and Western education in the Himalayan region, it appears that pilgrimage maps embodying elements of traditional cartography are still being made. Snellgrove illustrates one such map, taken from a modern printed Tibetan pilgrimage guide to the holy places in the region of Thakkola (Thag)—now included in the Nepali region of Mustang, just south of the Tibetan border—and he also provides a key to its contents, drawn on a modern geographic base.¹⁶² The guide the map is taken from is one of many such works that have been produced in the areas of Tibetan Buddhism over a period of centuries. A systematic search through such guidebooks may well uncover many more pilgrimage maps.

The final route map that I shall consider is among the earliest works of Tibetan cartography to be brought to the attention of Western scholars. Drawn on a scroll for Hermann von Schlagintweit-Sakünlünski in the monastery town of Narigun in January 1856, it was published in a black-and-white facsimile, at two-thirds the original size, in the atlas volume that formed part of the massive report of the scientific expedition of the Bavarian Schlagintweit brothers to India and “High Asia.”¹⁶³ The map illustrates a route followed by Bhotia traders between Lhasa and Assam, via Samye and Tawang. Figure 15.42 reproduces its northern (upper) half. A note on the map, printed in English, indicates that it was drawn by Dávang Dórje, a Bhotia chief, with the assistance of some lamas. His signature appears in a panel near the bottom of the map, a rare instance of attributing authorship on a Tibetan map. All the original map text is in Tibetan, but along both sides of the facsimile appear notes in English keyed to its contents: thirty-two, along the left margin, relating to “inhabited places and stations,” and twenty-three on the right referring to mountains, rivers, and other physical and biological features.

Notwithstanding the circumstances attending its preparation, the map is in an unadulterated Tibetan style, employing many common conventions. For example, map annotations relating to clouds indicate not only that those behind the Potala are the “usual ornaments for the top of Buddhist drawings,” but also that others “are used in connection with high peaks.” Elsewhere, in relation to the lone yak depicted not far from the lower-right corner of the illustration, the note reads, “Symbol of numerous herds of wild Yaks, in these regions very frequent.” Thus, just as a single house, on this and other Tibetan maps, may signify a village, one yak may indicate an entire herd or herds.

The route this map deals with runs generally north-south at right angles to the predominant grain of the terrain. Hence the mountains do not point away from the observer following a route in a river valley, as they conspicuously do so on several other maps we have examined. Rather, they point away from the southerly locale of Narigun, from which the author’s dominant view is toward the north. As with most Tibetan maps, the scale is not consistent from one part of the map to another; in this case the scale for the northern portion is greater than for the south. However, that nearly half of the vertical dimension of the northern half is taken up by the Potala, the most prominent feature shown, and the city of Lhasa would in itself account for most of this difference.

PLANS OF TOWNS, MONASTERIES, AND OTHER SMALL LOCALITIES

Apart from cosmographic maps, the most common type of cartographic artifacts from Greater Tibet are those that relate to specific localities, especially major religious centers or particular monasteries or other religious edifices within those centers. Many of these depictions, as we have seen, are appended to much larger, essentially hagiographical works, being designed to indicate the sanctified places associated with a particular religious figure, whether mortal or divine. Here I shall consider only paintings in which a particular locality forms the dominant focus of the composition. Only a small sample of such maps—chosen to demonstrate the diversity of their modes of representation—will be individually discussed. Brief notes relating to the remainder of those known to me—probably a reasonably representative sample of a much larger corpus—are provided in appendix 15.3.¹⁶⁴

Possibly the most intriguing, best-studied, and oldest among locality maps is one focusing on Svayambhūnāth stupa, on the outskirts of Kathmandu (fig. 15.43).¹⁶⁵

162. David L. Snellgrove, trans. and ed., “Places of Pilgrimage in Thag (Thakkhola),” *Kailash* 7 (1979): 72–132; Tibetan text 133–70, maps on 72 and 132. The date of the text the map relates to may be 1607, 1667, or 1727, depending on the specific sixty-year Tibetan calendric cycle the stated date refers to. The map itself, however, has clearly been made to conform broadly to recent geographic knowledge of the region depicted.

163. Schlagintweit-Sakünlünski, Schlagintweit, and Schlagintweit, *Results of a Scientific Mission*, vol. 4, map 3 (note 10).

164. Appendix 15.3 includes a few maps that I have seen personally and a much larger number that I know only through photographs, either published—with or without explanatory text—or sent to me by various sources. Obviously any attempt at analysis based solely on small-scale photographs has serious limitations. The citations of published works in the final column of the appendix are limited to those I have personally examined.

165. The first attempt at scholarly analysis of this map was that of Theodore Riccardi, Jr., “Some Preliminary Remarks on a Newari Paint-

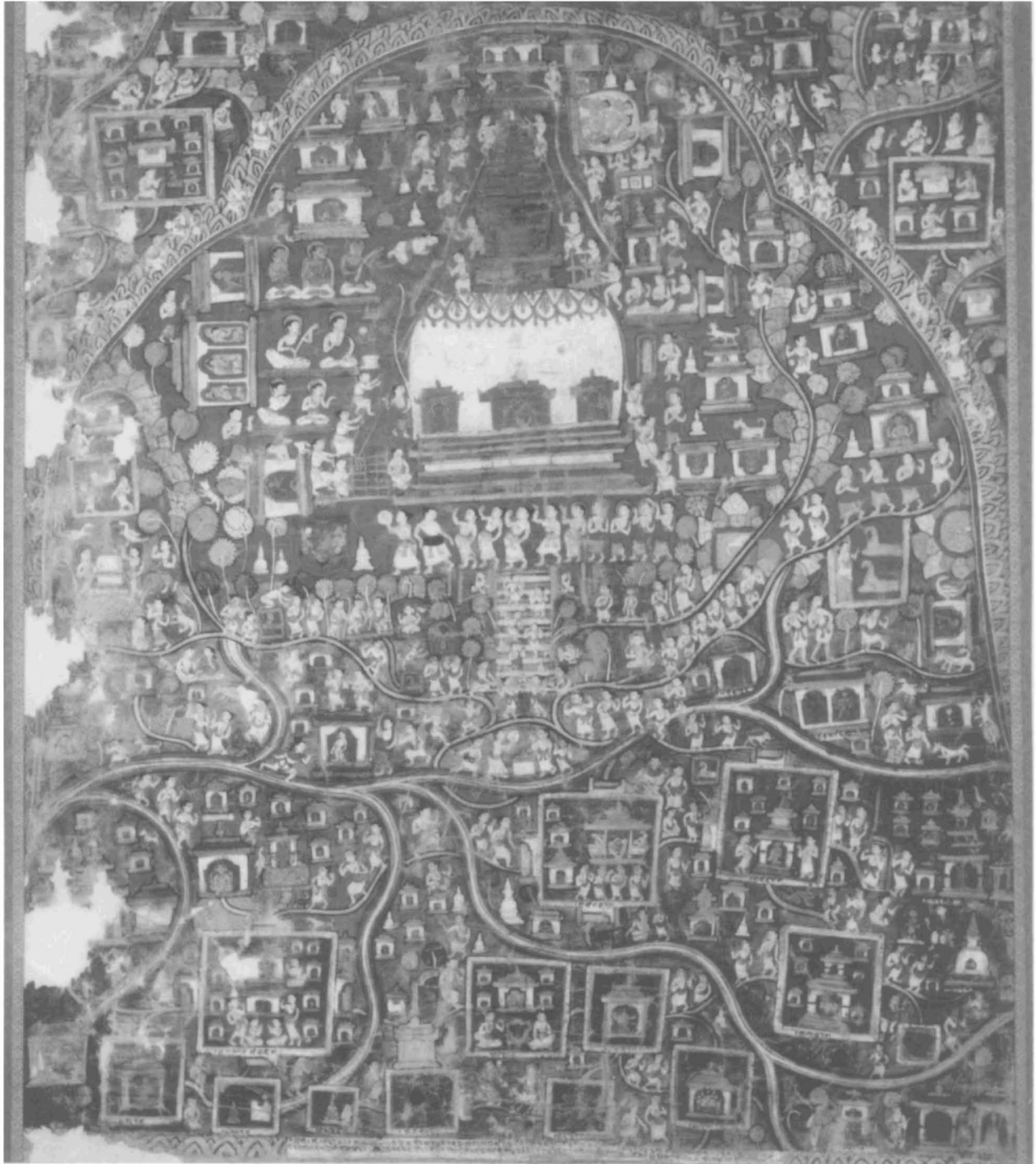
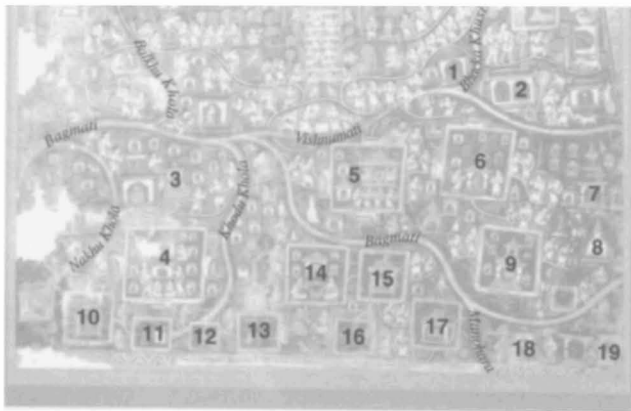


FIG. 15.43. NEWARI MAP OF THE PRECINCTS OF SVAY-AMBHŪNĀTH STUPA AND THE VALE OF KATHMANDU. This unusual painted cloth map was prepared in connection with the rededication of the ancient Svayambhūnāth stupa in A.D. 1565. The work has two relatively discrete components: an upper portion, in which the stupa and the structures in its immediate vicinity are depicted at a very large scale against a field of cinnabar, and a lower portion in which several dozen places in the Vale of Kathmandu are shown within a field of muted gray. Prominent features of the map include the moun-

tain rim of the Vale, shown in a highly stylized manner in the arch that largely envelops the stupa and also at the bottom of the map, and the Bagmati River system. The placement of specific towns and religious sites within this system illustrates the basic orderliness of the presentation. The abundant text on the map, in both Newari and Sanskrit, enables the positive identification of most of the features shown. Size of the original: 101 × 85 cm. Photograph by Mary Shepherd Slusser. By permission of Princeton University Press.



1. Vidyāsvari; 2. Sobhā Bhagavati; 3. Pulchok; 4. Patan; 5. Yaṅgal (southern Kathmandu); 6. Yambu (northern Kathmandu); 7. Tham Bahī; 8. Bodhnāth; 9. Deopatan; 10. Kumbheśvara (?); 11. Theeva; 12. Sanagaon; 13. Harasiddhi; 14. Pharping (?); 15. Thimi; 16. Lubhu; 17. Bhaktapur; 18. Sūrya Vināyaka; 19. an unnamed vihāra.

FIG. 15.44. KEY TO PART OF FIGURE 15.43. The numbered sites are those that bear identifiable labels on figure 15.43. With two exceptions (10 and 19), these are named and similarly numbered on figure 15.45.

After Mary Shepherd Slusser, “The Cultural Aspects of Newar Painting,” in *Heritage of the Kathmandu Valley: Proceedings of an International Conference in Lübeck, June 1985*, ed. Niels Gutschow and Axel Michaels (Saint Augustin: VGH Wissenschaftsverlag, 1987), 13–27, esp. fig. 2.

Although the area of this map includes most of the Vale of Kathmandu and is similar to that of the regional map illustrated in figure 15.35, I have chosen to consider it here as a locality map because of the extraordinary emphasis given to a single dominant religious complex. The date of the map is Newar Samvat 685 (A.D. 1565), when it was, according to its inscription, commissioned in a monastery in the Nepali town of Patan in connection with the reconsecration of the nearby renowned ancient stupa that is its central object. Long forgotten and seriously deteriorated over the following four centuries, the map resurfaced in 1967 and passed into the hands of a private collector, who saw to its restoration.

The painting is arranged in two sections, the upper one devoted to the glory of Svayambhū, the lower to the towns and sacred sites—Buddhist and Hindu—that bathe in its refulgence. In both sections the arrangement is by no means haphazard but represents on the one hand an exact site plan of the Svayambhū compound and on the other a correct map of the Kathmandu Valley. Indeed, the painting . . . serves as a pilgrim’s guide to the sacred geography of the Kathmandu Valley. In short, it is a map.¹⁶⁶

Arching above the stupa and to both sides is a highly stylized representation of the mountain wall that forms the western, northern, and southern rims of the Vale, a pattern one sees also at the bottom of the map, which represents the Vale’s eastern margin. Between the two

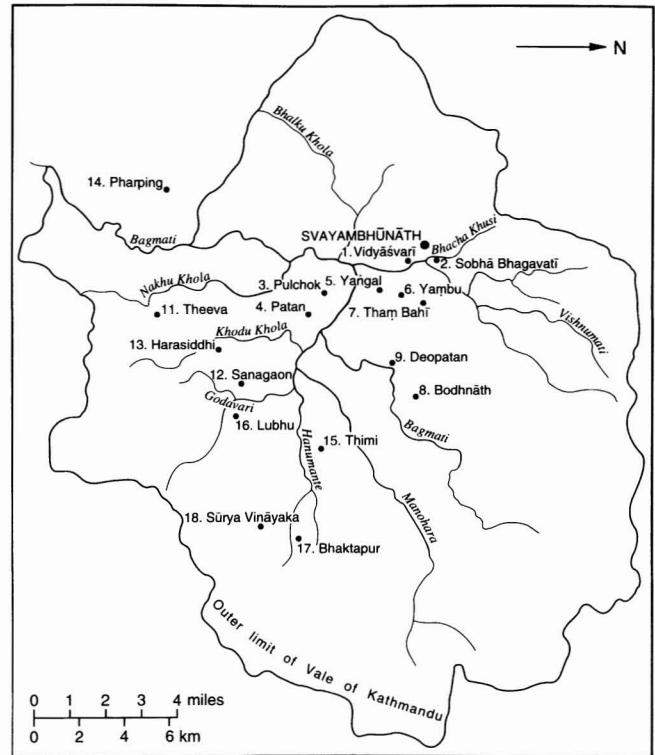


FIG. 15.45. REFERENCE MAP FOR FIGURE 15.43. This is a modern map of the Vale of Kathmandu. Key numbers on this map are identical to those of figure 15.44. Sites 5 and 6 represent southern and northern Kathmandu respectively. Sites 10 and 19 on figure 15.44 cannot be located on a modern map.

After Mary Shepherd Slusser, “The Cultural Aspects of Newar Painting,” in *Heritage of the Kathmandu Valley: Proceedings of an International Conference in Lübeck, June 1985*, ed. Niels Gutschow and Axel Michaels (Saint Augustin: VGH Wissenschaftsverlag, 1987), 13–27, esp. fig. 4.

runs the Bagmati River, exiting the Vale to the left (south). Over much of the map, captions in Newari, varying in legibility, identify many of the places depicted. Between the places so marked, we can identify the major components of the drainage system by interpolation. Figure 15.44 shows the major features of the map apart from the stupa itself and the buildings in its immediate vicinity; these may then be compared with the corresponding features on a modern map as presented in figure 15.45.¹⁶⁷

Also from Patan is another map relating to the city

ing of Svayambhūnāth,” *Journal of the American Oriental Society* 93 (1973): 335–40. A more complete study is that of Slusser, “Cultural Aspects,” and Slusser, *Nepal Mandala*, vol. 1, 299, and vol. 2, fig. 495 (both in note 13); and Pratapaditya Pal, *The Arts of Nepal*, pt. 2, *Painting* (Leiden: E. J. Brill, 1978), 80–81, 152, and fig. 108.

166. Slusser, “Cultural Aspects,” 20 (note 13).

167. Slusser, “Cultural Aspects,” figs. 7 and 8 (note 13); Slusser’s fig. 6 is a modern plan of the Svayambhūnāth compound to which one can also relate the features in the appropriate portion of the original map.



FIG. 15.46. NEPALI SCROLL MAP OF THE VALE OF KATHMANDU. This is a small portion of an enormous cloth banner painting that is periodically displayed in the courtyard of the Kwa Bahal monastery in the town of Patan in the Vale of Kathmandu. It depicts numerous sacred places and several towns of the region, but it has not been analyzed sufficiently to determine the full extent of the area it relates to. Many of the features depicted have been labeled, presumably in Newari, while other features are distinctive enough in their representa-

tion to be readily identifiable. Despite the restrictive format of the painting, there is an unmistakable topographical logic to the organization of the features, including various meandering streams, rolling hills, and—marking the horizon—cloud-capped mountains. In many locales flora, fauna, and people enliven the work.

Size of the entire original: ca. 90 × 1,800 cm. Photograph courtesy of Mary Shepherd Slusser.

and neighboring places in the Vale of Kathmandu. This work, believed to date from the mid-nineteenth century, appears on an enormous painted cloth scroll that is hung from time to time in the courtyard of the Kwa Bahal monastery. A small part of the map is illustrated in figure 15.46. Neither Slusser nor Pal, who discuss it in several works, provides an estimate of its overall dimensions, but based on color slides and black-and-white prints of the entire painting, I estimate its length as approximately eighteen meters and its height as about ninety centimeters.¹⁶⁸ On this map

all the principal sacred places and a number of towns are graphically illustrated, some further identified with written labels. They occupy a landscape of cloud-capped mountains, rolling hills, and meandering streams enlivened with diverse flora, fauna, and people, the latter largely occupied with religious affairs. Given the limitations of the long narrow format, the shrines are so well organized topographically that, labeled or not, most can be easily identified.¹⁶⁹

Regrettably, this is the extent of Slusser's description. One might also wish to know how far beyond the urban core of the Vale the map extends and also the point of view of the artist. Is the map a panoramic view, as if seen

from a particular point, or does some other principle guide its composition? These questions also apply to the other scroll map from Patan noted in appendix 15.3.

In striking contrast to the Nepali map focusing on Svayambhūnāth are a number of Tibetan representations of the renowned Tibetan monastery of Samye, founded in A.D. 775 and restored several times since. Of these, the best known is undoubtedly the one reproduced in figure 15.47, which has been dated as early as the sixteenth century but more likely dates from the seventeenth or eighteenth. Samye is of particular interest because it is the first and oldest of all Tibetan monasteries and was also consciously designed, largely following the model of the monastery of Odantapura, in what is now the Indian state of Bihar, to symbolize the Buddhist universe.

The central square temple represents Mount Meru.
... Its three stories are each in a different architectural

168. This work is illustrated in several works by Slusser: *Nepal Mandala*, vol. 2, fig. 98; "Pilgrim's Guide from Nepal," 30–31; and "Cultural Aspects," 26 (all in note 13); and also by Pal, *Arts of Nepal*, fig. 164, plus note on 132 (note 165). I am indebted to Todd Lewis for his sending me sets of black-and-white photographs and color slides covering the entire painting.

169. Slusser, "Pilgrim's Guide from Nepal," 30 (note 13).

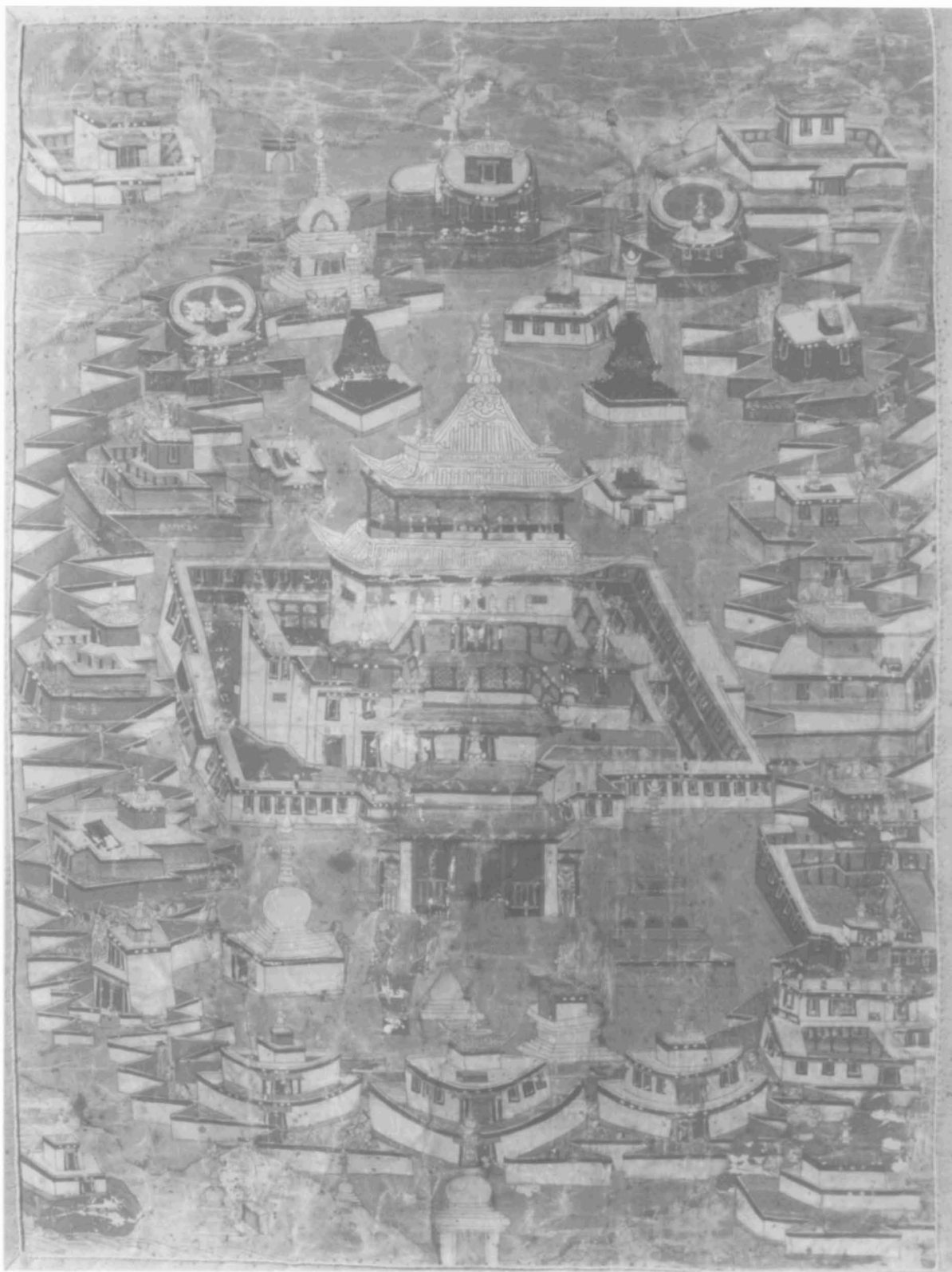


FIG. 15.47. TIBETAN MAP OF SAMYE MONASTERY. This exquisitely painted *thangka* faithfully depicts the eclectic nature of its central temple, which is compounded of Tibetan, Indian, and Chinese styles, one for each of its three stories, and makes evident the attempt to re-create, within the complex as a whole,

a model of the universe as conceived by Tibetan Buddhists. Size of the original: 53 × 38 cm. By permission of the Newark Museum, Newark, N.J., Shelton Tibetan Collection (acc. no. 20.271).

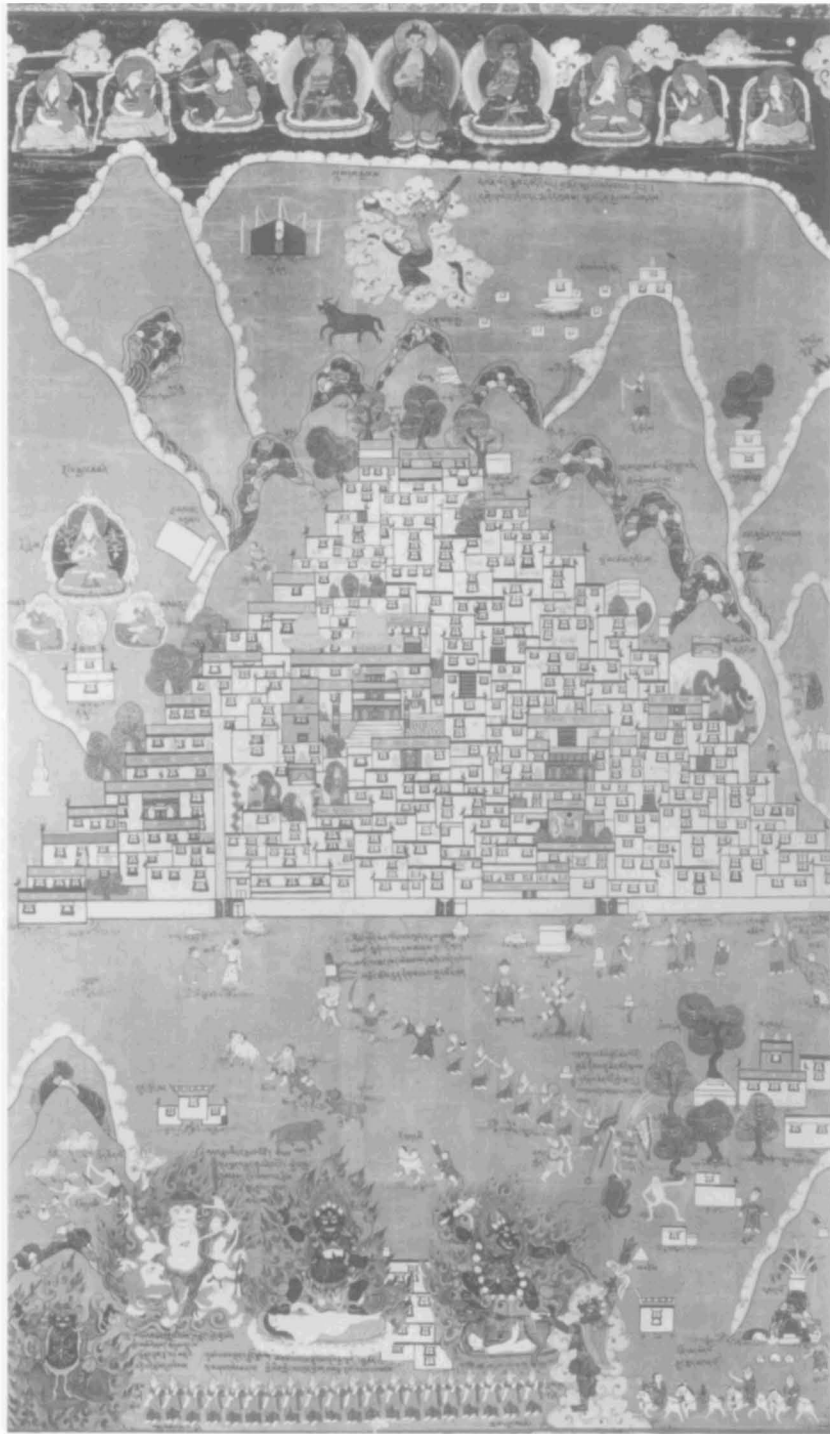


FIG. 15.48. MAP OF DREPUNG MONASTERY. This stylistically distinctive mid-eighteenth century *thangka* of the place where the Dalai Lama resided before the construction of the Potala is believed to have been made by a pilgrim from the Amdo region of northeastern Tibet. Though not evident at the scale of the photograph, the painting abounds in descriptive text, which has enabled it to be studied more intensively, perhaps, than any other Tibetan locality map. The text identifies not only scores of individualistically portrayed buildings within the city, most of them serving religious functions (including a number associated with a Tantric college with which the pilgrim

was presumably affiliated), but also numerous features of the natural landscape. The seeming disregard for perspective—note in particular the vertical bar representing a street in the lower left portion of the city—is deceptive; generally speaking, the higher the feature within the image, the greater its distance from the observer. An inscription on the map indicates that its sanctity is such that individuals apprehending it, by sight or touch, will be rewarded with a speedy attainment of liberation (*nirvana*). Size of the original: 115 × 68 cm. By permission of the Musées Royaux d'Art et d'Histoire, Brussels (Collection Léon Verbert 350).

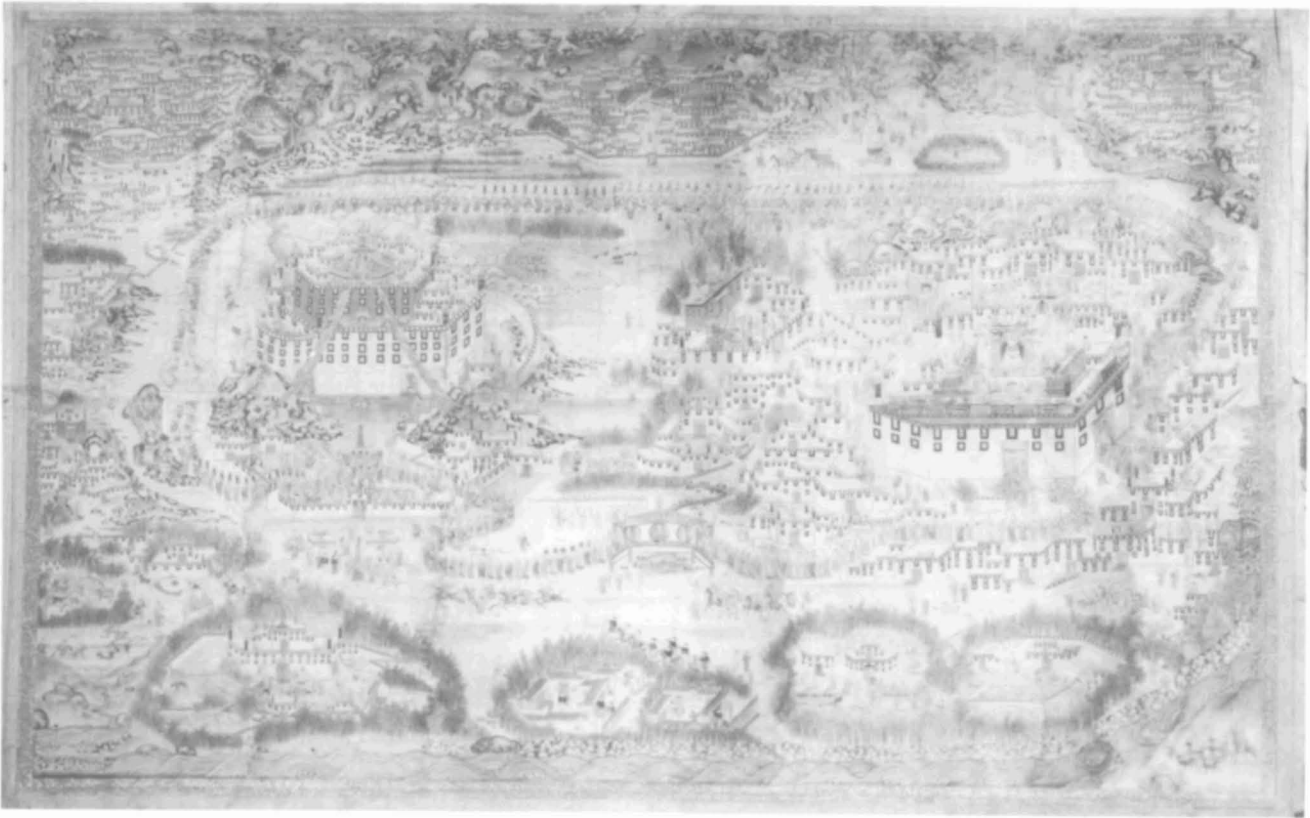


FIG. 15.49. MAP DEPICTING A PROCESSION OF MONKS ENCIRCLING THE POTALA IN LHASA. This large map, of uncertain date and provenance, appears to combine Tibetan and Chinese stylistic elements and may well have been produced by a follower of Tibetan Buddhism in China. It was acquired in Beijing in 1931. The work has yet to receive careful study, and it not certain whether the small areas of settlement surrounding

the Potala are intended to be villages in the vicinity of Lhasa or sacred centers in their own right. Possible Sinic elements in the map include the rings of trees that surround these peripheral areas and the wave pattern in the stream running along its lower edge.

Size of the original: unknown. ©The National Museum of Ethnography, Stockholm (H.2882). Photograph by Bo Gabriellson.

style: Tibetan, Indian, and Chinese. Four temples to the north, south, east and west represent the four worlds [i.e., *dvīpas* or island continents]; smaller temples represent the [tributary] islands. . . . Two further temples symbolize the sun and the moon.¹⁷⁰

Most of the elements just noted can be readily discerned on the painting. For example, the three cusp-shaped structures in the foreground presumably represent the continent of Jambūdvīpa and its two island tributaries, while the temples in the upper-right and upper-left corners probably signify the sun and moon. Additional noteworthy features are the two zigzag walls enclosing the compound, said to represent the ring of mountains surrounding the terrestrial plane of the universe.¹⁷¹ The fidelity of the map is noted by Reynolds: “Except for the fanciful hill and stream landscape, this painting faithfully represents the main elements of Sam-ye as it looks in photographs taken in the mid-20th century.”¹⁷² A similar concern for fidelity seems to infuse the three other paint-

ings of Samye of which I have seen photographs (all noted in appendix 15.3), though none of these is quite as detailed as the Newark example.

About eight kilometers west of Lhasa and some seventy kilometers northwest of Samye lies Drepung (‘Bras-spung), another important monastery town (formerly inhabited by 7,000 to 10,000 monks); a painted map is illustrated in figure 15.48. The contrast between the maps of Drepung and Samye is so striking that one would hardly suppose that both fell within the same broad Tibetan Buddhist tradition. Although it is not apparent at the scale of our photograph, the Drepung map is

170. *Catalogue of the Tibetan Collection and Other Lamaist Material in the Newark Museum*, 5 vols. (Newark, N.J.: Newark Museum, 1951–71), 3:65.

171. Trungpa, *Visual Dharma*, 130 (note 105).

172. Valrae Reynolds, *Tibet: A Lost World*, exhibition catalog for the Newark Museum Collection of Tibetan Art and Ethnography (New York: American Federation of Arts, 1978), 118.

replete with text identifying more than one hundred buildings, natural features, icons, and other elements. Hence the map has lent itself to what is perhaps the most thorough scholarly analysis ever made of any Tibetan locality map.¹⁷³ Based on both inscriptional and stylistic considerations, it has been suggested that the map was made in the mid-eighteenth century, probably by a pilgrim from the region of Amdo in northeastern Tibet. Of particular concern to the artist were the institutions associated with a Tantric college in Drepung, and notes on them are especially numerous. A particularly important legend, a “formula of consecration” inscribed just below the town’s lower wall, reads: “Through the merit of [i.e., conveyed by] the perfect realization of this image of the glorious monastery of Drepung, well known in the three worlds, one will obtain speedy liberation by seeing it, by understanding it through touching it, and by remembering it.”¹⁷⁴ The composition of the painting has a deceptively naive appearance. Although there appears to be a general lack of concern for perspective, the distance of buildings from the hypothetical observer increases with their apparent altitude on the prominence that dominates the composition, which in fact may not be particularly prominent. The buildings are drawn in considerable detail, mostly painted white, while temples, abbots’ residences, and other religious edifices are surmounted by an ochre band.

The view of Lhasa illustrated in figure 15.49 resembles the maps of Samye and Drepung in its strong focus on a major monastic complex, and it also resembles that of Svayambhūnāth in placing its dominant object within a much more inclusive spatial and religious context. This painting has not previously been published, so far as I am aware, and I know it only from several photographs and the tantalizingly brief descriptive note provided to me by the museum, which reads, “Big painting depicting a procession encircling the Potala in Lhasa—acquired in Peking 1931.”¹⁷⁵ Neither the provenance nor the date of the painting is known. The style appears more or less Tibetan, but the work could be by other followers of Tibetan Buddhism, possibly resident in China’s capital. The map does not appear to have any inscriptions. A characteristic it shares with several other paintings I have noted (see especially plate 34) is that it shows Lhasa surrounded by a cluster of smaller centers, none of which I can identify positively. In this case, however, the striking degree to which those lesser centers are subordinate to the Potala justifies classifying this work as essentially a locality map. It is not clear whether the map’s peripheral settlements are meant to be distinct from Lhasa and at a distance from it or merely quarters of what one might consider “greater Lhasa.” On other maps the lesser centers are generally shown surrounded by walls, but here they seem to be ringed by circles of broadleaf trees. This

is contrary to what one would actually find in the pre-vaillingly bleak environment of the Tibetan Plateau and would support the hypothesis of a non-Tibetan origin. What appears to be a more Chinese than Tibetan feature of the map is the wave pattern within the stream that runs along the bottom edge.

Shigatse, the locale of Tashilunpo, the monastic seat of the Panchen Lama and the second largest city of Tibet, is the subject of the final illustration, figure 15.50. This seemingly unfinished and undated painting on canvas is on display at the American Museum of Natural History, New York. It is of interest for a number of reasons. First, it effectively combines a remarkable diversity of perspectives: planimetric, oblique, and frontal. Second, the features portrayed are rendered with great fidelity to what actually existed in Shigatse at the time the painting appears to relate to, roughly the third quarter of the nineteenth century. Third, it is one of at least two maps that appear to have been copied from the whole or a part of some unknown prototype. The upper-left portion of the painting, depicting Tashilunpo, bears a resemblance to another work (item kk in appendix 15.3) in a private collection, which is believed to be based on the same prototype.¹⁷⁶ Finally, there exists for this map a very detailed key (though not as complete as for the map of Drepung), made to accompany a faithful copy of it reproduced in a work by Sarat Chandra Das, a celebrated Bengali student of the religion, geography, ethnography, and history of Tibet, who between 1879 and 1883 made several extensive journeys to that country and to China proper as an agent of the British Indian government.¹⁷⁷

173. The most extensive discussion, together with a detailed map key, is that of Philippe van Heurck, “Description de la *thañ-ka* représentant le monastère de Drepung,” *Bulletin des Musées Royaux d’Art et d’Histoire* 57, no. 2 (1986): 5–29. Briefer notes with illustrations appear in *Dieux et démons de l’Himalaya*, 58, 237–38 (note 33); Lauf, *Tibetan Sacred Art*, 12, 16 (color photograph) (note 54); and Vergara and Béguin, *Dimore umane, santuari divini*, 80 (note 27), on which striking similarities in the compositions of the Drepung and Samye paintings are demonstrated, notwithstanding their huge stylistic differences.

174. Heurck, “Description de la *thañ-ka*,” 22 (note 173).

175. Letter from Claes Hallgren, 23 October 1989.

176. The privately owned map of Tashilunpo is illustrated and described in Van der Wee, “‘Cloister-City’—Tanka,” 109, 114–20, and figs. 1 and 7 (note 161). It appears at first glance to be only a fragment of a larger work covering the same area as figure 15.50, but Van der Wee observed, on removing the map from its frame, that the right border, which would have been painted were that the case, was a blank area in which the artist tried his colors before working on the rest of the composition. Thus that map could not have been the one from which figure 15.50, or any other showing the whole of Shigatse, was copied.

177. Sarat Chandra Das, *Journey to Lhasa and Central Tibet* (1902; reprinted New Delhi: Mañjuśrī Publishing House, 1970), Shigatse map facing 45. The caption for figure 15.50 is based primarily on Das’s keyed notations for many of the major features depicted. Das’s work includes,

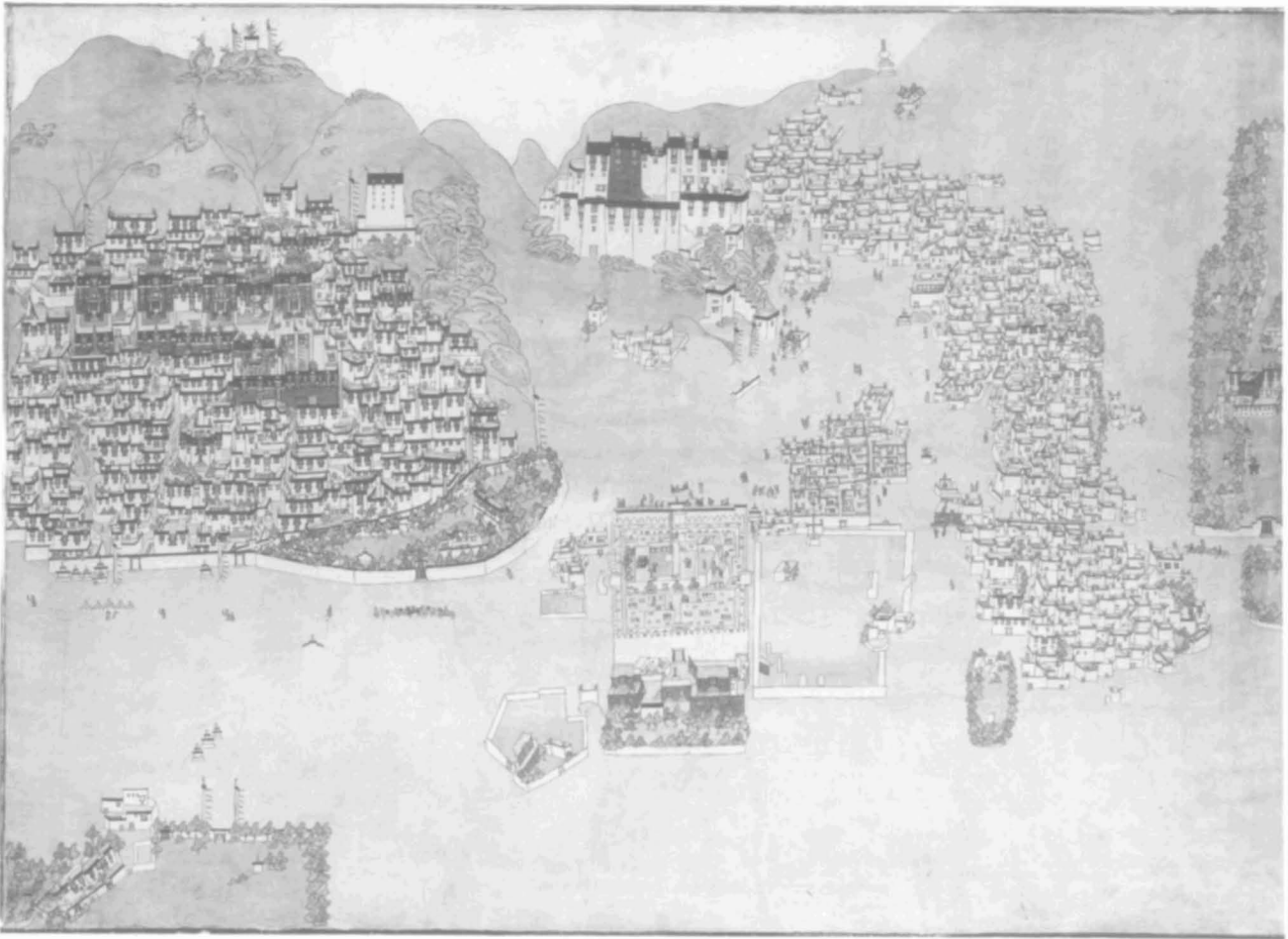


FIG. 15.50. TIBETAN PAINTING OF THE TOWN OF SHIGATSE, INCLUDING THE TASHILUNPO MONASTIC COMPLEX. This seemingly incomplete yet remarkably detailed painting on canvas appears to have been copied from a larger original. Although this map is undated, the work it is based on appears to have been painted in the latter half of the nineteenth century. Where that original may be is not known; but it is possible that a painted cloth map, restricted to the area of Tashilunpo (shown here at the left), now in a private collection, may be a fragment of that work. The map is marked by a remarkably wide range of perspectives, generally looking north: planimetric, oblique (from various angles and occasionally divergent), and frontal. The artist seemingly chose whichever type of view would best enable him to convey a visual impression of particular types of features. Despite this inconsistency, or perhaps because of it, structures are rendered with great fidelity, and dozens of them have been positively identified. Among the main components of the map, in addition to Tashilunpo, are Shigatse *dzong* (fort), in the top center; the town of Shigatse proper, in a descending arc to the right of the *dzong*; the compound of an important nobleman, shown by the oblong

at the lower right; a “camp for exercise,” the nearly square feature to the left of the nobleman’s compound; another low-lying *dzong*, marked by a wall with battlements, a bit farther to the left; the temple of the war god, Gesar, directly below the *dzong*; a market area, in the empty space above the *dzong*; an important stupa (not in the usual form), between the market area and Shigatse *dzong*; and the summer palace of the Grand (Panchen?) Lama, lower left. Among the more conspicuous features in Tashilunpo itself are the mausoleums of the first four Panchen Lamas, marked by their Chinese-style roofs and shown in a straight line upper left in Tashilunpo (but not the mausoleum of the fifth Panchen Lama, who died in 1882); a tall stone structure (said to be more than thirty-five meters high) above them and to the right, from which great banners were hung at certain festivals every year; and “the Park of Happiness,” the walled garden attached to the monastery at the lower right, where the Grand Lama’s parents reside.

Size of the original: ca. 66 × 94 cm. Courtesy of the Department of Library Services, American Museum of Natural History, New York (cat. no. 70.2-187; neg. no. 335058).

No record exists of how the museum obtained the Shigatse map, but it is not unlikely that it was a bequest from Das’s friend and fellow student of Tibet, W. W. Rockhill (1854–1914), an American diplomat, who may have received it from Das himself. In his 1899 introduc-

in addition to the copy of the map of Shigatse, two illustrations that appear to be faithful copies of Tibetan locality maps of the Potala and the Jo-khang palaces and provides a few notes, in English, on their major features (facing 154 and 160). I have not been able to determine the originals from which they were taken and have not noted the works in appendix 15.3.

tion to Das's account of his Tibetan travels, Rockhill acknowledges his "lasting debt of gratitude for the valuable information which he gave me while in Peking." Rockhill, who edited Das's travel narrative, worked for the Smithsonian Institution for several years; that he may also have had a connection with the American Museum of Natural History in New York City is suggested by the fact that he was residing in Block Island, New York, when he wrote his introduction.¹⁷⁸ As to the date of the unknown original, one may safely infer that it was painted between 1854 and 1882, the years when the fourth and fifth Panchen Lamas died, since the painting prominently shows, in a single line, the mausoleums of the first four such dignitaries but fails to show the fifth.¹⁷⁹ This would accord with the period of Das's visits to Shigatse.

Though not illustrated here, one additional locality map worthy of brief consideration is a mural painting of Chang'an, the capital of China under the Tang dynasty (618–907). It is one of a large number of paintings of localities occupying the corridors of the Potala in Lhasa. That undated map is illustrated in a Chinese work on Buddhist art from Tibet, but unfortunately it appears without any explanatory text apart from the caption, "This is an interesting depiction of the famous grid layout of the Tang capital."¹⁸⁰ The painting's combination of an overall planimetric frame for the city and the set of vertical elevations for the buildings within its sixteen compartments and horizontal perspectives to depict the landscape above and below provides a starker duality of perspectives than in any other of the Tibetan maps I have considered. Obviously the painting is no more than an idealized and relatively abstract view of what Chang'an was supposed to look like, and it lacks the sense of fidelity, or at least personal familiarity with the subject, that characterizes most other Tibetan locality maps. It warrants notice, however, in that its manner of execution reinforces the proposition that Tibetan painters were not locked into a uniform artistic style as they prepared the maps I have sought to describe in this chapter.

CONCLUSIONS

For Greater Tibet, no less than for India and Southeast Asia, the standard histories of cartography to this point lead one to suppose there was virtually no indigenous tradition of cartography. As this history has demonstrated, such a conclusion is clearly untenable for all three regions. The cartographic legacy of Greater Tibet in particular displays a richness, variety, and vigor that are remarkable given the region's meager population and its relative isolation, both physical and political, from the rest of the world.

Although several scholars, mainly art historians and anthropologists, have written exemplary articles relating

to individual maps and provided valuable insights into the mental processes underlying them, none has tried to assess the entire corpus. Only Aziz and Slusser have sought to make generalizations based on the study of a number of maps, and in both cases that number was small.¹⁸¹ We still await a comprehensive study by a scholar with the requisite linguistic skills, cultural knowledge, and sensitivity. What is provided in this chapter should be considered no more than an overview of the many types of maps that call for further investigation.

The most important point to be made about indigenous cartography from Greater Tibet is that its impetus was overwhelmingly religious. While exceedingly informative maps (e.g., figs. 15.32 and 15.38) for essentially secular purposes were certainly made (though few premodern examples survive), the vast majority of the maps that have come to light served some religious end. Among these were cosmographies—often including a temporal dimension—of widely varying complexity, intended to aid in religious education and meditation; maps forming components of hagiographical and biographical compositions, used to promote the veneration of important religious figures; maps painted as adjuncts to illuminated religious texts, such as the Jataka stories; *tirtha mahātmyas*, glorifying places of pilgrimage; other types of pilgrimage guides; and cartographic records of pilgrimages successfully undertaken (e.g., fig. 15.35). Additionally, though they are only cursorily considered in this work, there are innumerable religiously sanctioned astrological charts and other graphic aids (e.g., fig. 15.23) that still guide Tibetans in their day-to-day lives and are regarded as indispensable resources in making major decisions.

Although for organizational purposes a basic distinction has been made in this history between cosmographic and geographic mapping, one must note that such a distinction might appear arbitrary to most people from the region that concerns us. The road to Shambhala, for example, wherever that land may be, certainly began, in the minds of the faithful, in locales that some of them experienced at first hand, as is evident from the scroll maps showing the route that were once carried about by itinerant Tibetan storytellers. Conversely, pilgrimage maps, such as those of the sacred region around Mount Kailas, included numerous wholly mythological places.

The scale of maps from Greater Tibet varies enormously. Leaving aside cosmographies, the range is from

178. Rockhill's introduction to Das, *Journey to Lhasa*, xv (note 177).

179. Van der Wee, "Cloister-City"—Tanka," 115–16 (note 161).

180. Liu, *Buddhist Art*, 187 (note 36).

181. Aziz, "Tibetan Manuscript Maps," *Tibetan Frontier Families*, and "Maps and the Mind" (all in note 12); Slusser, "Serpents, Sages, and Sorcerers," *Nepal Mandala*, "Pilgrim's Guide from Nepal," and "Cultural Aspects" (all in note 13).

what were probably intended to be world maps (e.g., figs. 15.27 and 15.30) to plans of an individual edifice. Within this broad spectrum, maps of individual localities appear to be most common (see appendix 15.3). Furthermore, some maps of considerably larger regions, especially of the area around Lhasa, are drawn with so much compression of sacrally “empty” space between major religious centers that the uninitiated observer gets the impression that a single, though rather expansive, locality is being depicted.

Within individual maps uniformity of scale seldom appears to be a desideratum. The use of varying scales for different map elements seems to be a general feature of Tibetan cartography. Thus it is not uncommon to show human beings and occasionally animals at a much larger scale than the buildings they move among. What rules govern such decisions by mapmakers is not entirely clear, but there are several probable reasons for depicting certain map elements at an exceptionally large scale. First, the need to draw features large enough so the artist can show all their essential attributes (e.g., within a city, the main gates, towers, important religious edifices, and so forth or, within a building, the number of stories and the general nature of the construction). Second, the desire to underscore the religious or political importance of particular places. Third, the need to make visible small but significant features that might otherwise be overlooked (frequently to aid a teacher or storyteller using a map in a didactic way). Finally, the need to highlight the existence of a common, but physically small, element in a particular locale by depicting only one or a few such elements at a large scale, assuming that the map reader will recognize it/them as signifying a general class. Conversely, scale compression might have been regarded as appropriate when none of the foregoing considerations applied.

There appears to be no general rule with respect to the “correct” orientation of maps in Greater Tibet. It is not especially significant that a number of maps from Nepal appear to be oriented toward the north. Since it is a common convention for mapmakers within the region to show a line of mountain summits at the top of a map, the choice of the Himalayas for the purpose in Nepal appears to be the most appropriate; on the other hand, the frequent use of other real or aesthetically contrived crests in Tibet proper, without particular regard to their direction vis-à-vis the map viewer, suggests that the Nepali use of north is merely fortuitous.

It is common for mapmakers of Greater Tibet to orient features so that they point away from the map reader. This is particularly true of route maps, especially when the routes depicted lie within long river valleys. In such cases mountain peaks typically point away from the valley bottom, in opposite directions on its two flanks, as might

also trees, houses, and other features. A more common practice, however, is to adopt an oblique perspective, as if from a perch in space. Even more common is the use of multiple perspectives (e.g., fig. 15.50), showing some features, such as buildings, mountains, and trees, from a horizontal perspective (in frontal elevation); others from one or more oblique perspectives (oblique frontal also being very common for buildings); and still others, such as lakes and large compounds, from a vertical (planimetric) perspective. The use of a divergent perspective (e.g., fig. 15.10), the very opposite of that conventionally used in Western drawing, is also common. On maps showing a number of towns, the perspective chosen for each would presumably be the one that normally obtains for travelers approaching it along the most traveled routes. Thus Lhasa would generally be shown as if one were looking toward the north, while on the same set of maps another town, say Shigatse, might be seen as if one were looking at it toward the south.

The foregoing generalizations on perspective apply as much to cosmographic as to geographic maps. In the former, when—as is often the case—the emphasis is on the vertical dimension of the universe, the obvious choice is to employ a frontal perspective such that the dominant orientation of the map is at a right angle to the horizontal plane, which is generally assumed to be the norm in modern cartography. Similarly, in showing the cities or celestial palaces in which specific divinities are believed to reside, there is usually one widely accepted correct view based on specific religious texts or precedents drawn from earlier cosmographies. But in composite depictions (e.g., fig. 15.15), multiple perspectives are also common.

If there is any general principle at work here, it is that cartographers consciously choose the perspective or combination of points of view that will best allow communication with their intended audience. They feel in no way hamstrung by a scientific need for consistency in how they accomplish that purpose, just as they feel no obligation to maintain consistency of scale. Moreover, mapmakers seem to give their audience credit for being able to make the mental adjustments necessary to derive the intended meaning from the map, even when the task is relatively difficult—for example, in seeing the “field of assembly” (fig. 15.19) as constituting, in essence, two tangent spheres rather than a mere two-dimensional representation of a tree.

The rules that govern the composition of maps in Greater Tibet appear to be far from uniform, and it is not at all clear, especially outside the realm of cosmographic maps, in what ways and to what extent general principles apply. For cosmographies, of course, especially for mandalas (see figs. 15.3 and 15.8), rules tend to be relatively rigid, and learning them is an important aspect of the training of many monks. Also, in Tibetan painting

in general, there are well-developed canons of composition and principles of aesthetics that guide the artist. In geographic maps, on the other hand, individual cartographers appear to have enjoyed considerable personal discretion, judging from the idiosyncratic nature of much of the available corpus. This question calls for further study. It is certainly reasonable to assume that part of the difficulty in interpreting the Zhang-zhung world map (fig. 15.27) derives from the fact that its author felt constrained by the necessity of placing all the places shown in such a way as to constitute a mandala. But what of more modern maps? It would be interesting, for example, to compare all the regional maps of Lhasa and its environs (i.e., plate 34 and maps analogous to it) to determine how far the selection, placement, and directional relationships of and among the various places depicted were kept more or less uniform and were guided by aesthetic, hierarchic, and other nongeographic considerations. Unfortunately, such an exercise is virtually impossible to undertake using only small photographs and would require firsthand study in the various museums that hold these works. Further, on the same set of maps, as well as on many others, one might wish to ascertain whether the mountains and rivers that set off one part of the map from another had any function other than to define sections of the map for the reader to scan in turn. That is, do those features on the map even exist in nature, rather than being mere aesthetic or didactic devices used by the cartographer? And if they do exist, how much liberty may the cartographer take in literally bending them to a particular purpose, as obviously happened in the depiction of rivers on the map focused on Svayambhūnāth (e.g., fig. 15.43)? Likewise, in the case of purely cosmographic maps, despite the existence of widely shared views, one should not rule out the role of an individual's faith in determining the image, as evinced by the passage describing the diversity of ways Mount Meru is depicted (p. 624).

That there are widely used graphic conventions in Tibetan mapping is beyond question. Many of these conventions may be seen in figure 15.9. The signs used there apply not only to geographic maps but also to many cosmographies and are commonly employed in works of art that have no specific cartographic quality. Hence their meanings are, on the whole, self-evident and easy for laymen and even non-Tibetans to comprehend. Other conventions relate to color; for example, red is used to indicate religious buildings and white to show ordinary residences or to identify specific cosmic elements. A category of sign that calls for special mention is the religious icon. Such signs are of particular importance in cosmographic maps but are used in others as well. The icon (be it a particular deity, a bejeweled palace, or a particular type of tree) is often taken to represent a specific place and may be used with no other sign (such as a circle or

square) to designate that place. Tibetan Buddhists, Bönpos, and Nepali Hindus are likely to have no difficulty in making the necessary associations, and what laymen might fail to see, their preceptors will make clear to them; but followers of alien faiths will encounter much difficulty in interpreting, or even recognizing, the signs that many maps employ. Even more difficult for the uninitiated will be the interpretation of the many religious icons that are metaphoric or allegorical—for example, the narrow, winding road, suggestive of a navel cord, that leads across the black sea of *bardo* (an intermediate state of existence that prefigures one's next rebirth) to Sukhāvātī, the "happy land" of the west (shown in fig. 15.21).

To this point we have been considering what is shown on maps from Greater Tibet and how. But it is also necessary to ask what is omitted. Silences are often pregnant with meaning, yet easy to overlook. One wonders, for example, if Tibetan Buddhist maps made a point of omitting holy places sacred only to Bön-pos and vice versa. Similarly, within the former tradition, did maps by followers of the dominant Gelukpa (Yellow Hat) sect fail to show establishments associated primarily with other sects? I have noted that on primarily secular maps, even those believed to have been drawn primarily for intelligence purposes at the behest of the British, places of religious importance figured prominently. But was the opposite true? What place, if any, did sites with little religious importance find on explicitly religious maps?

The roots of cartography in Greater Tibet extend far back in time and probably first took hold outside the region itself. Among the earliest surviving objects from Tibet that we may designate as maps are works such as the fragment, possibly of the ninth century, of a depiction of the Dunhuang region of Gansu (fig. 15.7) and two detailed models of the Mahābodhi Temple thought to have been carried away from Bodh Gaya early in the thirteenth century (noted on p. 612). Even earlier, and certainly not later than the tenth century, some sort of model must have been taken to Tibet from India to enable the construction, dated 971, of Samye monastery in the form of the one at Odantapura in what is now Bihar. Also borrowed from India were cosmographic schemata such as the *bhavacakra*, or wheel of life, which would have been transmitted at a still earlier date. The diffusion of cosmological ideas back and forth between Tibet and China also appears to be indisputable, and one may reasonably suppose that with them went cosmographic artifacts. Turning again toward the west, if we accept the views of Gumilev and Kuznetsov relative to the Zhang-zhung world map, we would have to believe that substantial geographic knowledge from Persia and lands even farther west made its way to Tibet long before the establishment of Buddhism in that region and was incorporated in the earliest of all Tibetan maps. Other

seeming relationships between Tibetan and Western mapping relate to cosmography. How, for example, do we explain the remarkable similarity between the basic schema of the *tathāgatamaṇḍala* (fig. 15.13) and that of many Western cosmographic schemata? At a much more recent date, what accounts for the similarity in the style of the Nepali map of western Asia (fig. 15.32), obviously the work of a Hindu, and various regional maps showing the Buddhist holy cities centered on Lhasa (of which plate 34 is an excellent example)? Can we establish a connection, as was suggested, between the kindred Tibetan beliefs in a blessed land to the west, Sukhāvātī, and in the virtuous warrior-king, the protagonist of the Gesar epic, who comes out of Shambhala to rid the world of evil forces (p. 637) and the notion that this Nepali map may have been commissioned, perhaps during the time of the Indian Mutiny of 1857–59, with a view to forging a grand alliance to drive the British out of Asia?

Although the specific events, routes of transmission, and particular ideas and artifacts transmitted in all directions to and from Greater Tibet are at present only dimly discernible, it seems clear that the cartography of Greater Tibet, especially in its formative phase, owes much to foreign cultural influences. As historical research advances, it should shed fresh light on the relevant diffusion processes. This is clearly a topic on which new thought and research are needed. In this regard the intriguing, though partially tendentious, arguments of Gumilev and Kuznetsov and of Teramoto (as put forward by Nakamura) with respect to the two supposed Tibetan world maps (pp. 639–43) call for reexamination and independent confirmation or refutation.

Beyond Greater Tibet, particularly in Mongolia, there are other areas where virtually the same form of Buddhism is practiced and for which cosmographic and other cartographic artifacts are known to exist. I have not had an opportunity to study those works in detail. Many of the topographic maps in Mongolian script have been studied by Walther Heissig, especially for their toponymy, but the corpus has not been analyzed from the viewpoint of the history of cartography. A brief introduction, with basic bibliographic references and representative illustrations, is found in appendix 15.4 and in figures 15.51 and 15.52.

Within Greater Tibet itself there was a progressive differentiation of ideas relative to the style and content of cosmographic and geographic maps. Again, research is needed to establish the periods, routes, and nature of transmissions and to discover when and where significant endogenous developments occurred. It is probably too early to state whether identifiable “schools” of cartography arose, but distinctive regional styles, identifiable by art historians (e.g., that of the map of Drepung, illustrated in fig. 15.48), certainly came into being. Whether

these styles were different in respect to cartography than in respect to painting in general needs to be investigated. To what extent, one should ask, were they a product of competition among various faiths (Hindu vs. Buddhist in Nepal, Buddhist vs. Bön in Tibet) or of religious orders within the community of monks? What did they owe to the personal influence of particularly charismatic lamas or of scholarly pilgrims? What role was played by military conquest, from which not even Tibet was immune? How was mapping affected by the introduction of paper? What other factors were at work?

The areas of provenance of known Tibetan maps suggest that only a few centers account for a very large proportion of the total corpus: central Tibet (especially Lhasa), the Vale of Kathmandu, and arguably Ladakh. It is not clear, however, whether other centers also existed, since the interests of the outside world, especially of the British, focused on only a handful of places in Greater Tibet. In particular, the portions of the Tibetan cultural sphere within the Chinese provinces of Qinghai and Sichuan are poorly represented among the artifacts I have considered, even though the number of ethnic Tibetans living in those areas is considerably greater than in Tibet proper (the Autonomous Region of Tibet). It is therefore doubtful that my sample of artifacts is representative.

With respect to the few known centers of mapmaking, one is struck by, and must try to explain, the profound diversity among surviving maps. This is especially noteworthy in the case of the Vale of Kathmandu, long the hearth of the particularly vibrant Newari culture. Compare, for example, the works illustrated in figures 15.35, 15.39, 15.43, and 15.46, to which might be added other strikingly different maps that I have not illustrated. Of course the works in question were not contemporaneous; but it is doubtful if that factor alone explains the differences.

Finally, one cannot ignore the possible influence of the physical environment on the development of cartographic sensibility and on the propensity to use and understand maps. Over most of Greater Tibet, there exist high vantage points from which largely barren expanses of land stretch before the observer, who would see them through the clear mountain air as if they were living maps. Can viewing such sweeping vistas and, in the case of habitual travelers, comparing one such view with many others possibly be without effect in the development of mapping skills? Might not habituation to such views largely account for the popularity of high oblique perspectives in Tibetan mapping? Further cognitive studies such as those carried out by Fisher and others of the mapmaking skills of Nepali schoolchildren (pp. 618–19), and analogous studies of Tibetans and control groups including adult populations, appear warranted.

To conclude, I quote an observation by Slusser that,

though written about Nepali maps, has much more general applicability within the region that concerns us here: “We know little about the Newar penchant for map making, perhaps because we have not thought about it.” After noting some of the known, though admittedly remote, antecedents of Nepali mapping going as far back as an Indian map sent to China in A.D. 648, Slusser suggests that “it may well be that in Nepal as well, map making

is a venerable science.”¹⁸² In my judgment that suggestion is likely to prove valid for most, if not all, of Greater Tibet. Surely the time has come for historians of cartography to take a fresh and much more penetrating look at the remarkable evolution of mapping in that fascinating remote corner of the world.

182. Slusser, “Cultural Aspects,” 26 (note 13).

APPENDIX 15.1 TIBETAN MAPS IN THE WISE COLLECTION,
ORIENTAL AND INDIA OFFICE COLLECTIONS, BRITISH LIBRARY, LONDON

Volume and Catalog Number	Number and Arrangement of Sheets	Approximate Dimensions ^a (h × w) (cm)	Area Covered	Remarks
a. Vol. 1, Add. Or. 3013	Three, in a line	62 × 153	Lhasa and environs, especially the Potala and Jo-khang	More a locality than a regional map. Relatively crudely rendered.
b. Vol. 1, Add. Or. 3014	Four, in a line; one end sheet at a right angle to others	70 × 283	Ladakh, from Leh to Hanle, about 200 km to the southeast	Abundant annotations are keyed to numbers on the map. Even more crudely rendered than item a.
c. Vol. 1, Add. Or. 3015	Seven, in a line; one irregular end sheet at a right angle to others	74 × 335	From west of Demchok in Ladakh, past Mount Kailas and Lake Manasarowar to Pekut Lake in Tsang Province of central Tibet, i.e., from approximately 79° to 86°E	Seen as if the imaginary viewer is looking south (actually south-southwest). A prominent river on the map, labeled “Makchakabad,” flowing out of Lake Manasarowar and into the Tsangpo, cannot be identified on modern survey maps. Parts of five sheets left blank.
d. Vol. 1, Add. Or. 3016	Seven, in a line	48 × 300	Central Tibet, middle sheet includes Tashilunpo monastery in Shigatse (ca. 89°E)	Sheets 6 and 7 of the map are said to relate to “Namtsho?” the location of which has not been determined. More than 150 key numbers on map, but no accompanying text.
e. Vol. 2, Add. Or. 3017(a)	Six, some joined to others at right angles	160 × 185	Central and eastern Tibet, including Samye and Chunggye	Includes numerous Tibetan captions, but without accompanying explanatory text. Partially illustrated in figure 15.36. See also item f.
f. Vol. 2, Add. Or. 3017(b)	One, affixed to right of item e	48 × 62	Chunggye	Scale much larger than that of item e, to which this is affixed. Fifty-seven edifices, taken to be the tombs of Tibetan kings, are named in Tibetan. Text to match Arabic key numbers is not available.
g. Vol. 2, Add. Or. 3018	Five, in a line	33 × 194	Zanskar valley in Ladakh and adjacent areas	Accompanied by abundant explanatory text

^aBecause most of the maps do not form perfect rectangles, their actual areas may be significantly smaller than the maximum vertical and horizontal dimensions cited suggest.

APPENDIX 15.2 TIBETAN MAPS IN THE HARRER COLLECTION,
VÖLKERKUNDEMUSEUM DER UNIVERSITÄT ZÜRICH

Catalog Number	Approximate Dimensions (h × w) (cm)	Medium	Area Depicted	Description/Remarks	Reference in Brauen, <i>Impressionen aus Tibet</i> ^a
a. 14481	87 × 97	Black ink; red and gray wash	Southeastern Tibet	Area of relatively dense settlement. Seems to relate to a military campaign, probably the Younghusband expedition of 1904.	104 and catalog, p. 3
b. 14482, side A	52 × 67	Black, red, blue, and yellow watercolor	Presumably similar to item a	Undoubtedly related to a military campaign; seems to be by the same artist as item a	
c. 14482, side B	52 × 67	Black ink	A single locality, presumably in southeastern Tibet	Very large-scale depiction. Compounds shown planimetrically, but individual houses, of several types, shown in frontal elevation. Much detail relating to religious structures. Association with item b not clear.	
d. 14485	32 × 95	Painted	Not known	Not seen by me. Described as “ <i>Landkarte</i> .”	catalog, p. 3
e. 14488	31 × 190	Painted	Southern Tibet	As for item d	catalog, p. 3
f. 14493	32 × 94	Painted	Not known	As for item d	catalog, p. 3
g. 14495	52 × 171	Black ink; yellow and brown watercolor	Area of eastern bend of Tsangpo/Brahmaputra	See figure 15.37 and text	pl. 110
h. ?	52 × 62	Same as for item b	Kham Province in eastern Tibet	Style similar to item b but richer in detail, especially in regard to vegetation. Appears also to have a military purpose. One building flies British flag. Ferries prominently shown.	pl. 9
i. ?	62 × 95 (L-shaped, two sheets of paper)	Black ink; brown, yellow, green, and mauve wash	Presumably on or near Tibet’s border with Arunachal Pradesh in India	Bears note: “Restauriert Winter 1982”	
j. ?	26 × 46	Black ink and red watercolor	A small locality	Style similar to item b. Monastery shown in oblique perspective, with several hamlets.	
k. ?	32 × 106	Black ink; blue, red, and yellow watercolor	One main river valley (Chumbi?) with several tributaries	Filed in same drawer as items b and c. Also seems to relate to military campaign. Flags flying in several crudely drawn settlements.	

^aMartin Brauen, *Heinrich Harrers Impressionen aus Tibet* (Innsbruck: Pinguin-Verlag, 1974), including a fifteen-page catalog of the exhibition at the museum that opened in December 1974.

Locality ^a	Place Where Map Is Held	Provenance and Date	Dimensions (h × w) (cm)	Language/Text ^b
a. Chang'an, China	Potala, Lhasa	Lhasa; date unknown	Not known	None evident
b. Chokpuri Hill, Lhasa	Potala, Lhasa	Lhasa; date unknown	Not known	None evident
c. Chokpuri Hill, Lhasa	Potala, Lhasa	Lhasa; date unknown	Not known	None evident
d. Drepung, near Lhasa	Musées Royaux d'Art et d'Histoire, Brussels, Collection Léon Verbert 350	Probably around Amdo in northeastern Tibet; eighteenth century	115 × 68	Numerous inscriptions in cursive Tibetan
e. Dza-rung, Nepal (?)	Not known	Gi-long Nor-bu (artist); 1975	Not known	None evident
f/g. Gang-gar, Ding-ri, Tibet	Private collection of Barbara Nimri Aziz?	Pän-tän P'a-la (artist), former inhabitant of town; ca. 1975	Not known	None evident
h. Gorkha, Nepal	Museum, Bhaktapur, Nepal	Nepal (Newari style); early nineteenth century	Not known	None
i. Gyantse, Tibet	Palchor monastery, Gyantse, Tibet	Gyantse, Tibet, date unknown	Not known, but quite large	None evident
j. Jo-khang Palace, Lhasa	Potala, Lhasa	Potala, Lhasa; date unknown	?	None evident
k. Lhasa	Not known	Probably Darjeeling, India; late nineteenth century	?	None
l. Lhasa	Gerd-Wolfgang Essen Tibetica Collection, Hamburg	Tibet; ca. 1900	93 × 160	None

^aChokpuri Hill, Drepung, Jo-khang, and the Potala are all within the orbit of Lhasa; Tashilunpo is similarly within the orbit of Shigatse.

^bThe note "none evident" signifies that text cannot be discerned on available photographs and is not mentioned in relevant references.

^cThe citations in this column are: Barbara Nimri Aziz, *Tibetan Frontier Families: Reflections of Three Generations from D'ing-ri* (Durham, N.C.: Carolina Academic Press, 1978); *Catalogue of the Tibetan Collection and Other Lamaist Material in the Newark Museum*, 5 vols. (Newark, N.J.: Newark Museum, 1951–71), vol. 3; Sarat Chandra Das, *Indian Pandits in the Land of Snow* (1893; reprinted Delhi: Delhi Printers Prakashan, 1978); Gerd-Wolfgang Essen and Tsering Tashi Thingo, *Die Götter des Himalaya: Buddhistische Kunst Tibets*, 2 vols. (Munich: Prestel-Verlag, 1989); Werner Forman and Bedrich Forman, *Art of Far Lands*, ed. Lubor Hájek, trans. W. Cungh and H. Watney ([London]: Spring Books, [1958?]); Manfred Gerner, *Architekturen im Himalaja* (Stuttgart: Deutsche Verlags-Anstalt, 1987); Philippe van Heurck, "Description de la *thai-ka* représentant le monastère de Dre-

pung," *Bulletin des Musées Royaux d'Art et d'Histoire* 57, no. 2 (1986): 5–29; Lumír Jisl, *Tibetan Art*, trans. Ilse Gottheiner (London: Spring Books, 1957); Detlef Ingo Lauf, *Tibetan Sacred Art: The Heritage of Tantra*, trans. Ewald Osers (Berkeley, Calif.: Shambhala, 1976); Lobsang P. Lhalungpa, *Tibet, the Sacred Realm: Photographs, 1880–1950*, exhibition catalog, Philadelphia Museum of Art, 20 March–22 May 1983 ([Millerton, N.Y.]: Aperture, 1983); Li Jicheng, *The Realm of Tibetan Buddhism* (New Delhi: UBS Publishers' Distributors, 1986); Liu Lizhong, *Buddhist Art of the Tibetan Plateau*, ed. and trans. Ralph Kiggell (Hong Kong: Joint Publishing, 1988); Alexander W. Macdonald and Anne Vergati Stahl, *Newar Art: Nepalese Art during the Malla Period* (Warminster, Eng.: Aris and Phillips, 1979); Claudius C. Müller and Walter Raunig, eds., *Der Weg zum Dach der Welt* (Innsbruck: Pinguin-Verlag [1982]); Ngapo Ngawang Jigmei et al., *Tibet* (New York: McGraw-Hill, 1981); Blanche Christine Olschak, Augusto Gansser, and Andreas Gruschke, *Himalayas* (New York: Facts on File, 1987); Blanche Christine Olschak and Geshe Thupten Wangyal, *Mystic Art of*

GREATER TIBETAN LOCALITY MAPS

Medium	Description	Where Published ^c
Mural painting	See text, p. 670	Liu, <i>Buddhist Art</i> , 187 (fig. 343)
Mural painting	Various unidentified buildings in oblique frontal perspective ranged about hill; rugged hills in background	Li, <i>Realm of Tibetan Buddhism</i> , 166–67 (mislabeled)
Mural painting	As for item b, but gentler terrain in background	Liu, <i>Buddhist Art</i> , 187 (fig. 344)
Painted <i>thanka</i>	See text, pp. 666–68, and figure 15.48	Heurck, “Description de la <i>than-ka</i> ,” 5–29; Lauf, <i>Tibetan Sacred Art</i> , pl. 5; Lhalungpa, <i>Tibet</i> , 22; <i>Tibetische Kunst</i> , fig. 96 and pp. 72–73; Van der Wee, Van der Wee, and Schotsmans, <i>Symbolisme</i> , 34–35; Vergara and Béguin, <i>Dimore umane</i> , 80
Ink and paint on paper	Town, within sight of Mount Everest; oblique perspective; background naturalistically rendered	Aziz, <i>Tibetan Frontier Families</i> , unnumbered plate between 96 and 97
Painted on paper	Oblique perspective of mountainside town	Aziz, <i>Tibetan Frontier Families</i> , unnumbered plate between 96 and 97
Wall painting	Palace and neighboring buildings set in middle ground in circuit of trees; forests to rear and cultivated fields and river in foreground, each marked by characteristic animals drawn larger than many buildings; very diverse treatment of vegetation	Vergati, “Les royaumes de la vallée de Katmandou,” 202–3
Mural painting	Several clusters of temples and monasteries in oblique frontal perspective, separated by areas of relatively verdant terrain	Liu, <i>Buddhist Art</i> , fig. 302
Mural painting	Festival scene with large gathering of monks; mixed oblique and frontal perspectives	Liu, <i>Buddhist Art</i> , 184 and fig. 339
Ink on paper	Multiple, partially divergent perspectives	Waddell, <i>Buddhism of Tibet</i> , facing 287
Painted <i>thanka</i> with brocade border	Painted as guide map for pilgrims; varying oblique perspectives; much open terrain between city proper and Potala	Essen and Thingo, <i>Die Götter des Himalaya</i> , 1:245–47 and 2:221–22

Ancient Tibet (1973; Boston: Shambhala, 1987); Valrae Reynolds, *Tibet: A Lost World*, exhibition catalog for the Newark Museum Collection of Tibetan Art and Ethnography (New York: American Federation of Arts, 1978); Theodore Riccardi, Jr., “Some Preliminary Remarks on a Newari Painting of Svayambhūnāth,” *Journal of the American Oriental Society* 93 (1973): 335–40; Mary Shepherd Slusser, *Nepal Mandala: A Cultural Study of the Kathmandu Valley*, 2 vols. (Princeton: Princeton University Press, 1982); idem, “On a Sixteenth-Century Pictorial Pilgrim’s Guide from Nepal,” *Archives of Asian Art* 38 (1985): 6–36; idem, “The Cultural Aspects of Newar Painting,” in *Heritage of the Kathmandu Valley: Proceedings of an International Conference in Lübeck, June 1985*, ed. Niels Gutschow and Axel Michaels (Saint Augustin: VGH Wissenschaftsverlag, 1987), 13–27; David L. Snellgrove and Hugh Richardson, *A Cultural History of Tibet* (London: Weidenfeld and Nicolson, 1968); *Tibetische Kunst: Katalog zu Ausstellung*, 8.–30. März, 1969, *Helmshaus, Zürich*, 17 Apr. bis 11 Mai 1969, *Gesellschaftshaus zu Schützen, Luzern* (Bern: TIBETA, 1969); Herbert Tichy,

Himalaya (Vienna: Anton Schroll, 1968); Chögyam Trungpa, *Visual Dharma: The Buddhist Art of Tibet* (Berkeley, Calif.: Shambhala, 1975); Louis P. Van der Wee, “A ‘Cloister-City’—*Tanka*,” *Journal of the Indian Society of Oriental Art*, n.s., 4 (1971–72): 108–20; Pia Van der Wee, Louis P. Van der Wee, and Janine Schotsmans, *Symbolisme de l’art lamaïque* (Brussels: Musées Royaux d’Art et d’Histoire, 1988); Paola Mortari Vergara and Gilles Béguin, eds., *Dimore umane, santuari divini: Origini, sviluppo e diffusione dell’architettura tibetana/ Demeures des hommes, sanctuaires des dieux: Sources, développement et rayonnement de l’architecture tibétaine* (Rome: Università di Roma “La Sapienza,” 1987); Anne Vergati, “Les royaumes de la vallée de Katmandou,” in *Les royaume de l’Himalaya: Histoire et civilisation* (Paris: Imprimerie Nationale, 1982), 164–208; Laurence Austine Waddell, *The Buddhism of Tibet, or Lamaism, with Its Mystic Cults, Symbolism, and Mythology, and Its Relation to Indian Buddhism*, 2d ed. (Cambridge: W. Heffer, 1935 [first published 1895]); Siddiq Wahid, *Ladakh: Between Earth and Sky* (New York: Norton, 1981).

Locality ^a	Place Where Map Is Held	Provenance and Date	Dimensions (h × w) (cm)	Language/Text ^b
m. Lhasa	Private collection of David Tremayne, London	Tibet (?); probably twentieth century	?	None evident
n. Lhasa and environs	National Museum of Ethnography, Stockholm, cat. no. H 2882	Provenance and date unknown	Very large	None evident
o. Menri monastery, Tsang Province, Tibet	Oriental and India Office Collections, British Library, London	Menri (?), Tibet; ca. 1900	?	None
p. Nepal /Tibet border? Unknown stupa and surrounding holy places	Ashmolean Museum, Oxford University	Tibet or Nepal	?	None evident
q. Patan, Nepal	Guita-bahil monastery, Patan, Nepal	Patan, Nepal; seventeenth to eighteenth century	Very large, more than 10 m long	Newari
r. Patan and environs in Vale of Kathmandu, Nepal	Kwa Bahal monastery, Patan, Nepal	Patan, Nepal; ca. 1850	Est. 90 × 1,800	Newari
s. Potala, Lhasa	Private collection of Blanche Christine Olschak	Tibetan monastery in northern Nepal; seventeenth century (?)	?	Devanagari script
t. Potala, Lhasa	Private collection	Tibet; seventeenth-eighteenth century	81 × 56	None evident
u. Potala, Lhasa	Probably Darjeeling, India; in late nineteenth century	Tibet; probably late nineteenth century	?	None evident
v. Potala, Lhasa	Potala, Lhasa	Potala, Lhasa; date unknown	Height ca. 3 m; width not known	Abundant text, presumably Tibetan
w. Potala, Lhasa	Potala, Lhasa	Potala, Lhasa; date unknown	As for item t	Tibetan
x. Potala, Lhasa	Potala, Lhasa	Potala, Lhasa; date unknown	?	As for item t
y. Potala, Lhasa	Potala, Lhasa	Potala, Lhasa; date unknown	Very large	None evident
z. Potala, Lhasa	Potala, Lhasa	Potala, Lhasa; date unknown	?	None
aa. Potala, Lhasa (future site of)	Potala, Lhasa	Potala, Lhasa; date unknown	?	None evident
bb. Samye, Tibet	Newark Museum, Newark, N.J.; acc. no. 20.271	Kham region, eastern Tibet, seventeenth-eighteenth century	53 × 38	Tibetan text in red and gold
cc. Samye, Tibet	Samye (?), Tibet	Samye (?), Tibet; date unknown	?	Cursive Tibetan

(continued)

Medium	Description	Where Published ^c
Painted on paper	Oblique perspective, terrain presented in relatively naturalistic style	
Painted on cloth	See text, p. 668, and figure 15.49	
Paint and ink on paper	Shows a major monastery of the Bön religion; buildings in frontal and terrain in oblique perspective, considerable attention to vegetation	Müller and Raunig, <i>Der Weg zum Dach der Welt</i> , 373, 375
Temple banner painted on cloth	Stupa at a very large scale and surrounding holy places at much smaller scales, all in frontal perspective within mountainous terrain presumably near Nepal/Tibet border; work illustrates a pilgrimage	Snellgrove and Richardson, <i>Cultural History</i> , appended photographic plate
Painted cloth scroll	Detailed townscape in panoramic form, oblique perspective. See also figure 15.2.	Slusser, <i>Nepal Mandala</i> , vol. 2, fig. 97; idem, "Pilgrim's Guide," 30
Painted cloth scroll	See text, pp. 663–64, and figure 15.46	Slusser, <i>Nepal Mandala</i> , vol. 2, fig. 98; idem, "Pilgrim's Guide," 31 and 32; idem, "Cultural Aspects," fig. 11
Painted <i>thanka</i>	Does not show buildings constructed in reign of fifth Dalai Lama (1617–82); oblique perspective	Olschak and Thupten Wangyul, <i>Mystic Art</i> , 78
Paint and ink on cloth	Oblique perspective, structures very individualistically portrayed	Forman and Forman, <i>Art of Far Lands</i> , 204
Ink on paper	Multiple, partially divergent perspectives	Waddell, <i>Buddhism of Tibet</i> , 40
Mural painting	Shows Potala being extended; oblique frontal perspective	Li, <i>Realm of Tibetan Buddhism</i> , 166; Jisl, <i>Tibetan Art</i> , 29 and fig. 33
Mural painting	As for item t; further stage in construction	Jisl, <i>Tibetan Art</i> , 29 and fig. 34
Mural painting	Shows a near terminal phase of construction; frontal perspective	Gerner, <i>Architekturen im Himalaja</i> , 98
Mural painting	Festive scene showing unfurling of giant <i>thanka</i> on south wall; oblique frontal perspective	Liu, <i>Buddhist Art</i> , 184 and fig. 338
Mural painting	Shows Potala before expansion; mixed frontal and oblique perspectives	Liu, <i>Buddhist Art</i> , 187 and fig. 342
Mural painting	Shows original temple and fortifications where Potala was to be; oblique perspective	Jisl, <i>Tibetan Art</i> , fig. 32
Painted and gilt <i>thanka</i> on Chinese silk	See text and figure 15.47	<i>Catalog of the Tibetan Collection</i> , 3:64 and 91; Reynolds, <i>Tibet</i> , 118 and 126; Trungpa, <i>Visual Dharma</i> , 37; Vergara and Béguin, <i>Dimore umane</i> , 79–80
Fresco painting	Extraordinary composition; monastery complex shown in varying oblique perspectives, within circular wall, set against variegated landscape depicted at much smaller scale, also in mixed perspectives	Ngapo et al., <i>Tibet</i> , 247–49

Locality ^a	Place Where Map Is Held	Provenance and Date	Dimensions (h × w) (cm)	Language/Text ^b
dd. Samye, Tibet	Samye monastery	Samye, Tibet; date unknown	?	None evident
ee. Samye, Tibet	Main temple in Gangtok, Sikkim	Sikkim, date unknown	?	None evident
ff. Sherpa village, Nepal	Not known	Kalden, a twentieth-century Sherpa artist	?	None
gg. Shigatse, Tibet	American Museum of Natural History, Hall of Asian Peoples	Tibet; late nineteenth or twentieth century	ca. 66 × 94	None evident
hh. Svayambhūnāth, Nepal	Collection of A. Peter Burleigh	Patan, Nepal; 1565	101 × 85	Newari and Sanskrit
ii. Svayambhūnāth, Nepal	Private collection, Paris	Central Nepal; late seventeenth century	90 × 70	None evident
jj. Svayambhūnāth, Nepal	Private collection, Brussels	Nepal; late eighteenth century (?)	82 × 55	Devanagari script, language not known
kk. Tashilunpo, Shigatse, Tibet	Shigatse, Tibet, owner not known	Shigatse, Tibet; late eighteenth century	?	None evident
ll. Tashilunpo, Shigatse, Tibet	Private collection	Central Tibet; between 1854 and 1882	?	None evident
mm. Tashilunpo, Shigatse, Tibet	Library at Alchi monastery, Ladakh	Ladakh (?); date unknown	?	None evident
nn. Tashilunpo, Shigatse, Tibet	Traktok monastery, Ladakh	Traktok monastery, date unknown	?	None evident
oo. Unknown city	Somewhere in Tibet?	Tibet?	Very large	Considerable text, presumably Tibetan
pp. Unknown monastery complex	National Museum of Ethnography, Stockholm	Northern Tibet or Qinghai (?); date unknown	138 × 186	None evident

(continued)

Medium	Description	Where Published ^c
Fresco painting	Oblique view of monastic complex in its original form	Gerner, <i>Architekturen im Himalaja</i> , 53
Fresco painting	Approximation of Western one-point perspective	Olschak, Gansser, and Gruschke, <i>Himalayas</i> , 175
Painted, on paper (?)	Village painted against background of vividly depicted Mount Khumbila. People and animals shown larger than houses. Oblique frontal perspective.	Tichy, <i>Himalaya</i> , frontispiece
Paint and ink on paper	See text, pp. 668–70, and figure 15.50	
Painted on cloth	See text, pp. 661–63, and figure 15.43	Riccardi, “Preliminary Remarks”; Slusser, <i>Nepal Mandala</i> , vol. 2, pl. 495; idem, “Pilgrim’s Guide”; idem, “Cultural Aspects,” 20–27
Painted on cloth	Frontal perspective for stupa, oblique perspective for its surroundings	Macdonald and Vergati Stahl, <i>Newar Art</i> , frontispiece
Painted on cloth	Frontal perspective for stupa, oblique perspective for some nearby structures	
Painted <i>thanka</i>	Mixed frontal and oblique perspectives; terrain presented in relatively naturalistic style	Liu, <i>Buddhist Art</i> , 228 (fig. 435)
Painted on cloth, formerly in silk frame	Oriented toward north, many structures can be individually identified; wall in foreground, mountains in background; oblique frontal perspective	Van der Wee, “Ṭanka,” passim
Painted <i>thanka</i>	Oblique frontal perspective	Wahid, <i>Ladakh</i> , 88–89
Painted, on paper (?)	Essentially a frontal perspective	Gerner, <i>Architekturen im Himalaja</i> , 85
Appears to be mural painting	Very detailed representation of a townscape with many large edifices (monasteries?) and places of assembly in a rather verdant setting. Mixed oblique and frontal perspectives. Conventional crest of mountains in background.	Das, <i>Indian Pandits</i> , frontispiece
Painted on cloth	Monastery complex mountain girt on three sides; foreground shows laymen with horses, camels, wagons, and tents; varying oblique perspectives	

APPENDIX 15.4 MONGOLIAN CARTOGRAPHY

G. HENRIK HERB

Although the Mongolian people of the Central Asian steppes have had enormous historical influence on China, the Middle East, and even Europe, an authoritative account of a Mongolian cartographic tradition is still lacking. Indigenous sources for the reconstruction of this tradition either have not survived or have yet to come to light.¹ The only Mongolian geographical maps that have been preserved were made after the middle of the eighteenth century—that is, after close contact with well-established foreign cartographic traditions.² As a result, it is extremely difficult to isolate indigenous Mongolian elements from the existing maps. Apart from geographical maps, there is the question of cosmographical artifacts. It would be surprising if the traditional use of such works among Tibetan Buddhists were not mirrored to some extent by their Mongol coreligionists. However, I have not had the opportunity to investigate that issue.

Even the two maps customarily cited as the oldest Mongolian artifacts—which have been termed Renat 1 and Renat 2 in the literature—thus appear to have been made with little Mongolian contribution.³ These maps were brought to Europe in 1734 by a Swedish officer, Johan Gustav Renat, after a seventeen-year captivity by the West Mongolian Kalmyks. Both Renat 1, which covers the area from about 70° to 90° east longitude (the western terminus is Samarkand), and Renat 2, which covers an even larger region stretching from 79° to 107° east longitude (the eastern terminus is Ulan Bator), are oriented to the south and use Oirat, a modified Mongolian script.⁴ Beyond the script, there is little that indicates a Mongolian tradition; they are believed to be copies of Chinese originals.⁵

The remaining Mongolian maps—about 565 artifacts are known—differ considerably from the Renat maps and form a unified corpus. They are regional manuscript maps that depict Mongolian tribal and pasture territories. Their most striking features, which are clearly visible in most of them, are annotations extending beyond the boundaries in different directions (see figs. 15.51 and 15.52). A few of the maps date from the middle of the eighteenth century, but most were made between the middle of the nineteenth century and the early twentieth century.

The maps are held in several depositories: the largest collection, 335 maps, is part of the Mongolian State Archive in Ulan Bator, followed by the Staatsbibliothek zu Berlin—Preussischer Kulturbesitz, with 182 maps and the Tenri Central Library in Tenri, Japan, with 44.⁶ Additional maps are preserved at the Royal Library in Copenhagen, the Archive of the Polish Academy of Sciences in Krakow, and in private collections.⁷

The German scholar Walther Heissig—who was the first to describe these maps in detail and on whose work this brief account is based—believes that the incentive for their production came from the outside.⁸ He links their production to the division of Mongols into “banners” that took place in 1649, shortly after submission to Manchu rule. The creation of banners—that is, the delimitation of enduring territorial boundaries for the pasture areas of Mongolian tribal units—was intended

to prevent border disputes and to limit the groups’ movements. By restricting pastoral nomadism, it fundamentally changed the

1. “Mongolian” in this context is clearly not restricted to the present Mongolian state, since this political unit does not encompass all Mongolian people. Large numbers of Mongols inhabit Inner Mongolia in China, Chinese Turkestan (now Xinjiang Uygur Autonomous Region), parts of Manchuria, and the Buryat-Mongol lands of Siberia.

2. This does not mean there was no indigenous Mongolian cartographic tradition. It is possible that surviving maps might not have come to light and that others might have been drawn directly on the ground, or on materials such as animal hides and wooden boards, as well as paper or cloth, that did not survive the rigors of time.

3. The maps are preserved at the University Library, Uppsala. They are reproduced in John F. Baddeley, *Russia, Mongolia, China; Being Some Record of the Relations between Them from the Beginning of the XVIIth Century to the Death of the Tsar Alexei Mikhailovich, A.D. 1602–1676*, 2 vols. (London, 1919; reprinted New York: B. Franklin, 1964), and Nicholas Poppe, “Renat’s Kalmuck Maps,” *Imago Mundi* 12 (1955): 157–59.

4. The Oirat script was introduced in 1648 by Zaya Pandita, a Buddhist monk and scholar; see Poppe, “Kalmuck Maps,” 157–58 (note 3).

5. There is considerable uncertainty about the authors of the maps. Heissig stated that Renat 1 was drawn by the Kalmyk ruler Galdan Tseren (1727–1845), whereas Poppe mentioned that the map was given to Renat by Galdan Tseren. In the case of Renat 2, Heissig believed that the map was made by Oirats (*Ölöten*), who made improvements to a Chinese original, whereas Poppe claimed that Renat had obtained the map from Chinese troops who had attacked the Kalmyks. See Walther Heissig, “Über Mongolische Landkarten,” *Monumenta Serica* 9 (1944): 123–73, esp. 124 and 127, and Poppe, “Kalmuck Maps,” 157 (note 3).

6. The holdings in Ulan Bator are mentioned in Walther Heissig, ed., *Mongolische Ortsnamen*, 3 vols. (Wiesbaden: Franz Steiner, 1966–81), 1:VIII, and see the Mongolian reference cited there. The maps in Berlin, which were collected by Herrmann Consten and Walther Heissig, are cataloged in Walther Heissig, *Mongolische Handschriften, Blockdrucke, Landkarten* (Wiesbaden: Franz Steiner, 1961). Twenty-six of the maps were reproduced in 1966 (2 in color and 24 in black and white), and 118 of them were reproduced in 1978 (black-and-white facsimiles); see Heissig’s *Mongolische Ortsnamen*, vols. 1 and 2. The maps in this collection were made between 1890 and 1920; most date from 1907 (Heissig, *Mongolische Handschriften*, 338; this source also contains a list of the maps in Tenri, 493–94, with references).

7. The map in Copenhagen, MS. Mong. 562, is of the Setsen Khan district (Khalkha), 1913. Heissig mentioned that he saw a map depicting the Khalkha district in the collection of L. Kotwicz in Krakow (*Mongolische Ortsnamen*, 2:XI [note 6]). Heissig has mentioned that there are three maps in private collections in addition to the 182 maps kept at the Staatsbibliothek zu Berlin, referring to his 1944 article for further information. However, only two maps could be identified from Heissig’s sources. (1) Map of the Khangghin Banner of the Ordos region from 1909, owned by the German professor Walter Fuchs (described, including a list of 189 toponyms, and reproduced in “Über Mongolische Landkarten,” 126, 136–47, pl. XIII [note 5]). A similar map is part of the Berlin collection (Hs. Or. 108); see *Mongolische Handschriften*, 337 (note 6). (2) Map of the Dzungghar Banner of the Ordos region, undated, which is owned by Heissig (described, including a list of 210 toponyms, and reproduced in “Über Mongolische Landkarten,” 126, 160–70, and pl. XV). A similar map is part of the Berlin collection (Hs. Or. 836); see *Mongolische Handschriften*, 337).

8. Heissig, “Über Mongolische Landkarten,” 128 (note 5).

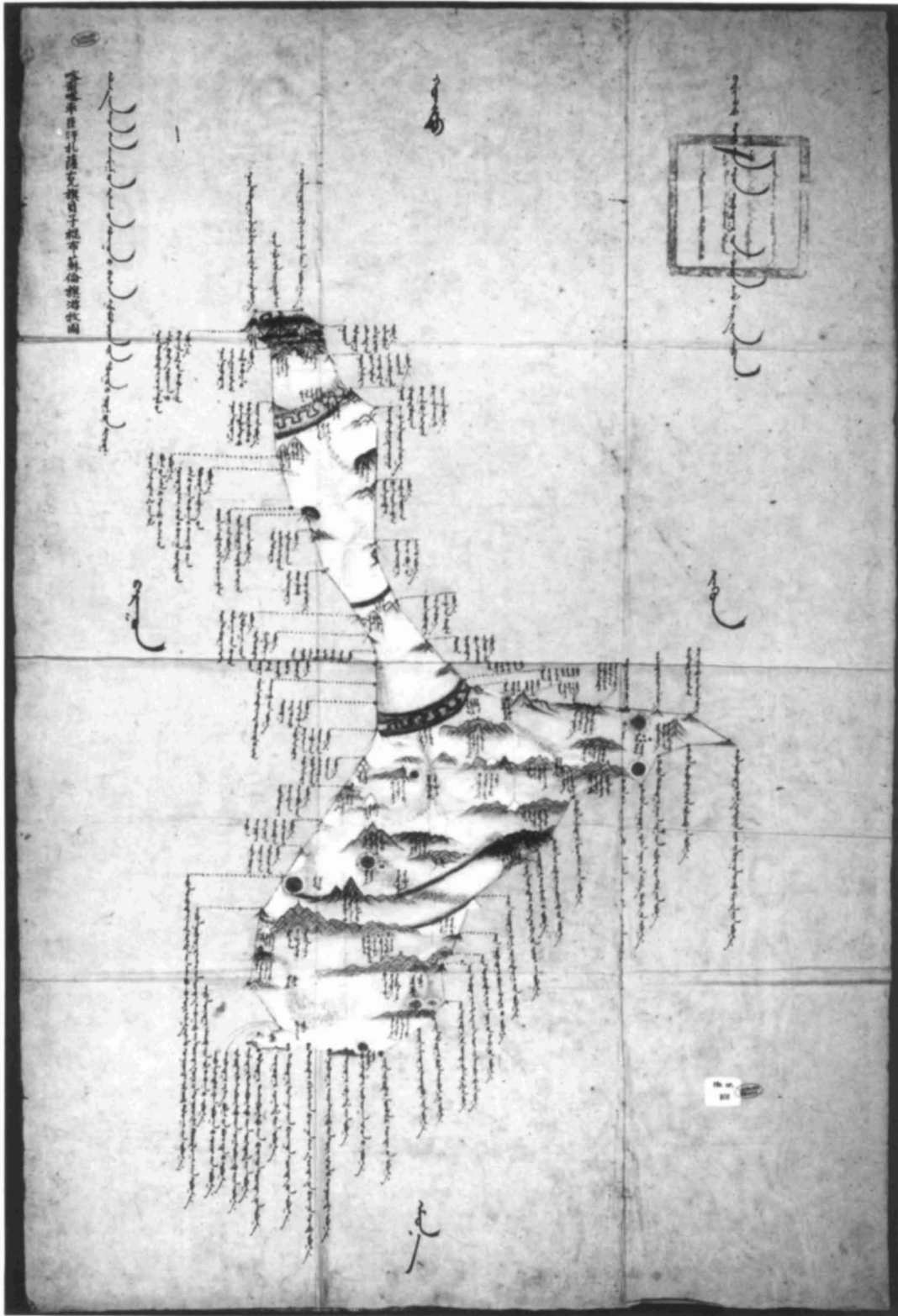


FIG. 15.51. MAP OF THE GOMBOSURUN BANNER IN THE SETSEN KHAN DISTRICT (KHALKHA). Mongolian manuscript map from 1907, depicting sixty-nine boundary markers (*oboja*) extending beyond the pasture territory. In addition to a variety of toponyms, it also shows six caravan routes

that traverse the banner from west to east, leading to Küriyen (Urga).

Size of the original: 96.3 × 64.3 cm. By permission of the Staatsbibliothek zu Berlin—Preussischer Kulturbesitz, Orientabteilung (Hs. Or. 101).

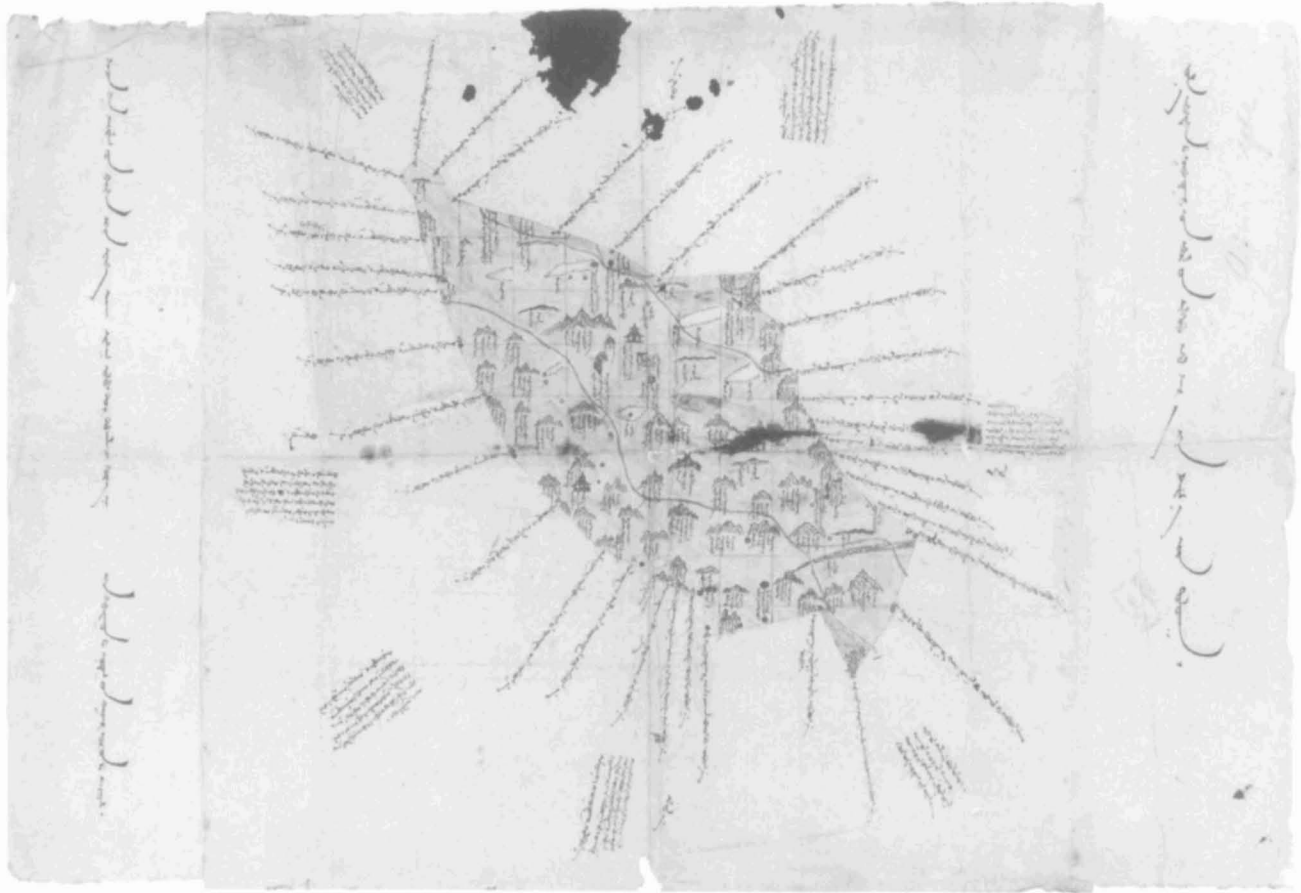


FIG. 15.52. MAP OF THE TUSALAṂCI GÜNG BANNER IN THE SETSEN KHAN DISTRICT (KHALKHA). This Mongolian manuscript map from 1913 depicts a tribal pasture territory. Thirty-five annotations extending radially from the boundary identify the directional position of boundary markers, called *oboḡa*. It also depicts the names of fifty-five mountains

and mountain ridges, sand dunes, the monastery Yerügel-i dayayaysan sümee, and the site of a religious school as well as a homestead. Seven annotations in the margins define the distances between the border markers.

Size of the original: 49.5 × 75 cm. By permission of the Oriental Department, Royal Library, Copenhagen (Mong. 562).

tribal social structures. The banner boundary markers, called *oboḡa*, were not permanent. They consisted mostly of piles of stones, sand, or earth, and the imperial government ordered that they be checked and repaired periodically.⁹

The production of maps is not mentioned in the context of the first Manchu orders to fix banner boundaries, but it is documented for later years. A Mongolian treatise from 1802 mentions that maps were made in 1686 at the order of an imperial envoy to document newly established banner boundaries. A letter from the colonial office in Beijing to the ruler of the Tümet Banner in Köke Khota in the summer of 1690, written in Mongolian, asked for detailed geographical descriptions about the individual Mongolian banners.¹⁰

The information requested, which was to be used in preparing the *Da Qing yitong zhi* (Comprehensive gazetteer of the Great Qing realm, completed 1746), included “the pasture areas of each banner and also the name of the banner and its territory; the extent of each banner territory in miles in all cardinal directions; and also the numbers of paths and, furthermore, from which direction the banner borders meet with the borders of

another country.” Also requested were the “mountains, rock formations and ruins, temples and monasteries, bridges, ravines and mountain passes that exist in each banner; moreover, the products of the region and the submitted taxes, persons of rank and name, laws and customs, the number of settlements, and the size of the families.”¹¹

A printed map of the Dolonor (Dolon Nor) region, which has been dated to about 1911, also provides corroborative evi-

9. Documents indicate that yearly checks were requested in 1832, 1855, and 1889; see Heissig, “Über Mongolische Landkarten,” 130–31 (note 5).

10. Heissig, “Über Mongolische Landkarten,” 128–30 (note 5), and idem, *Mongolische Ortsnamen*, 1:vii (note 6). I have followed Heissig’s spellings for Mongolian place-names throughout this appendix; Heissig also provides maps of some of these areas.

11. From the German in Heissig’s “Über Mongolische Landkarten,” 128–30 (note 5), where he used the word *aufschreiben* for the recording of this geographical information, which could also mean preparing a list. However, he later used the word *aufzeichnen*, which implies drawing a map (*Mongolische Ortsnamen*, 1:vii–viii [note 6]).

dence. Its title states that it was based on a manuscript map submitted at the request of the imperial government in 1742.¹²

Imperial involvement in the production of maps of Mongolian banners is documented for yet another case. Mostaert reports that on 16 December 1739, a meeting took place that included the imperial emissary Liou Bayar, the head of the Mongolian confederation in the Dolonor region, and the rulers of the seven Dolonor banners.¹³ The purpose of the meeting was to delimit the boundaries for the seven banners because a dispute had arisen. A map was drawn, and each of the seven rulers affixed his seal to state his approval. The map was sent to the colonial office in Beijing.¹⁴

Heissig claims that these individual requests by the imperial government for maps of Mongolian territories were routine procedure: all Mongolian districts, confederations, and banners were required to submit maps every ten years to the colonial office in Beijing, where they were registered and translated.¹⁵ The maps in the collection of the Staatsbibliothek zu Berlin give testimony to five stages in the process from production to use by the colonial office: (1) initial Mongolian drafts; (2) completed Mongolian maps, not colored; (3) finished Mongolian maps; (4) finished maps with small glued-on pieces of paper bearing Chinese transcriptions and translations; (5) maps with Chinese lettering that were based on Mongolian originals.¹⁶

Despite foreign incentives for the production of these maps, Mongolian scholars claim they are part of a Mongolian tradition. According to Heissig, B. Goncigdorž traced the maps and their construction to the Khitans, whose cartographic activities apparently have been documented for as early as 1179.¹⁷ Chagdarsurung (Shagdarsurung in other transcriptions) pointed out that the maps of Mongolian banners and districts were based on what he called the “compass rose system of Mongolian cartography,” which used twenty-four directional points to define the locations of the boundary markers, or *oboγa*.¹⁸ These directional points were made up of the twelve elements of the Chinese zodiac (which included the four cardinal directions), in combination with eight colors and with four points related to elements of divination.¹⁹ In addition, he identified a set of intermediary points that enabled a further division into forty-eight directions. To support his argument he gave a translation of the Mongolian lettering on a map of the Čeringwangduyibabudorji Banner in the Setsen Khan district, Khalkha. On this map, thirty-two annotations extended vertically from each boundary marker beyond the boundary line, similar to the representation in figure 15.51. Each of these annotations identified the location of that marker by giving reference to the directional points and also its distance to the next boundary marker clockwise.²⁰

Apart from these tentative findings by Mongolian scholars, little attention has been given in the general literature to the precursors and designs of regional Mongolian pasture area maps. Most efforts have been directed at their geographical content, because the maps are unique resources for place-name research. Virtually all authors who discuss them include long lists of toponyms in their works. As comparisons between maps from different time periods have shown, the place-names mentioned in the maps have changed little over the last two to three hundred years.²¹ To make this resource more accessible, Walther Heissig initiated an ambitious project of collecting,

alphabetizing, and cross-referencing the place-names on many of the maps in the Staatsbibliothek zu Berlin. This resulted in the most comprehensive and authentic collection of Mongolian place-names to date and provides a solid basis for etymological research.²²

Although the scarcity and late date of the extant sources makes it difficult to trace the origins of Mongolian cartography, further synthesis is still feasible and desirable. A first step would be a translation from Mongolian and a critical examination of the work by Goncigdorž mentioned by Heissig. Goncigdorž's findings appear to be very promising, particularly his claim that the maps of the Khitans were precursors to Mongolian maps. In order to free the study of Mongolian cartography from its linguistic isolation, and to prevent the introduction of nationalist bias, it will be necessary to enlist the help of scholars from different disciplines and with different linguistic competence.

12. The scripts on the map were Chinese and Mongolian (Heissig, “Über Mongolische Landkarten,” 130–31 [note 5]). Note that Heissig never consulted the original printed map, but had only seen a reproduction of the printed map in a journal.

13. See Mostaert's introduction in Sayang Sečen (Ssanang Ssetsen), *Erdeni-yin Tobči: Mongolian Chronicle*, 4 vols., ed. Antoine Mostaert (Cambridge: Harvard University Press, 1956), 1:85–86.

14. The 1739 map has not been preserved, but Mostaert showed that it was the archetype of a 1740 map he illustrated. Mostaert reproduced a 1903 photo of the original 1740 map as well as a 1927 copy; Sayang Sečen (Ssanang Ssetsen), *Erdeni-yin Tobči*, pl. 1 and additional plate (note 13). Joseph Klér, “A propos de cartographie mongole,” *Bulletin de la Société Royale Belge de Géographie* 24, pts. 1 and 2 (1956): 26–51, also reproduced the map. However, as Mostaert pointed out, Klér reproduced not the original map, as he claimed, but the 1927 copy. According to Mostaert, the 1740 map is preserved at the “*ia men de la bannière d'Otoγ*” (126 and additional note at the end of the book).

15. Heissig, *Mongolische Handschriften*, 338 (note 6).

16. Heissig, *Mongolische Handschriften*, 338 (note 6). In addition to works conforming to these five stages, Heissig described two maps that were unique: Hs. Or. 253, which he considered “so modern in design that it is certainly purely Chinese,” and Hs. Or. 33, which has Manchu script (p. 337).

17. Heissig, *Mongolische Ortsnamen*, 2:xii (note 6). I have been unable to locate the Goncigdorž work cited by Heissig.

18. Ts. Chagdarsurung, “La connaissance géographique et la carte des Mongols,” *Studia Mongolica*, vol. 3 (2) (1975): 345–70, esp. 347.

19. The twelve elements are, clockwise: rat (north), bull, tiger, hare (east), dragon, snake, horse (south), sheep, monkey, rooster (west), dog, and pig; and the eight colors are two shades each for black, blue, red, and white. See Chagdarsurung, “La connaissance géographique,” 347–50 (note 18), and Heissig, *Mongolische Ortsnamen*, 2:xii–xiii (note 6).

20. Chagdarsurung, “La connaissance géographique,” 355–58 (note 18); Heissig notes that the descriptions of the 32 boundary markers correspond exactly with Hs. Or. 146 in the Berlin collection (*Mongolische Ortsnamen*, 2:xv and pl. 65 [note 6]).

21. Heissig, *Mongolische Ortsnamen*, 1:ix (note 6).

22. Magadbürin Haltod collected 13,644 Mongolian place-names from the 182 maps in the Staatsbibliothek zu Berlin—Preussischer Kulturbesitz, and they were published as an alphabetical list in volume 1 of *Mongolische Ortsnamen* (note 6). Volume 2 contains facsimiles of 118 of the 182 maps. In volume 3 the place-names have been cross-referenced by Š. Rasidondug, H.-R. Kämpfe, and V. Veit. Other lists of place-names were often based on inaccurate Chinese translations; Heissig, *Mongolische Ortsnamen*, 1:ix–xi (note 6).