Photography, Anthropology and History

Expanding the Frame

EDITED BY CHRISTOPHER MORTON AND
ELIZABETH EDWARDS

Photography, Anthropology and History
Expanding the Frame

Edited by

CHRISTOPHER MORTON
University of Oxford

ELIZABETH EDWARDS
University of the Arts London

ASHGATE

Mixed Sources
Product group from well-managed
forests and other controlled sources
www.fsc.org Cert no. SA-COC-1565
© 1996 Forest Stewardship Council
FSC

Contents

Chapter 1

'Distempered Daubs'[1] and Encyclopaedic World Maps: The Ethnographic Significance of Panoramas and Mappaemundi

Alison Griffiths

Introduction

Picture yourself walking through a darkened, narrow corridor that leads upwards to a staircase drizzled with light, feeling a little disoriented but nevertheless eager to reach the top. The year is 1793, and you have just paid to enter Irishman Robert Barker's patented 360 degree panorama entitled *The Grand Fleet at Spithead 1791* (Figure 1.1). When you finally reach the observation deck, a platform designed to resemble the poop deck of a frigate, emerging out of the darkness and a little disoriented, you find yourself gazing out at sea, or so it seems, having left the throbbing streets of the bustling metropole for another time and space. Here's how an anonymous contributor to *The Leisure Hour* described the experience in 1886:

> [W]e find ourselves in the centre of a landscape. We are standing seemingly on a hill, and around us in every direction stretches the wide ranging country. Above us is a canopy which prevents us looking too far up into the sky. Below us is a real foreground with bushes and trees, and facing us is what we know is a picture, but which looks so lifelike that we have great difficulty in persuading ourselves the scene is not real. Nowhere does the illusion fail; nowhere is there the sign of a frame or join; and it is only when we find that the figures, though all in action, remain motionless, we recognize how our senses were cheated at first glance. (1886: 45–46)

As futile as it may seem to try and reconstruct late eighteenth- and early nineteenth-century audience experiences of panoramas for a twenty-first-century one, and wary of reproducing contemporaneous hyperbolic accounts of the 'unsurpassed realism' of the attraction, I want to suggest that there nevertheless remains something very strange (even uncanny) in the panorama experience, and that this

---

1 The phrase 'distempered daubs' was used in an anonymous essay entitled 'Panoramas and Dioramas', *The Leisure Hour* 35 (1886): 45. My thanks to the editors and William Boddy for their feedback.
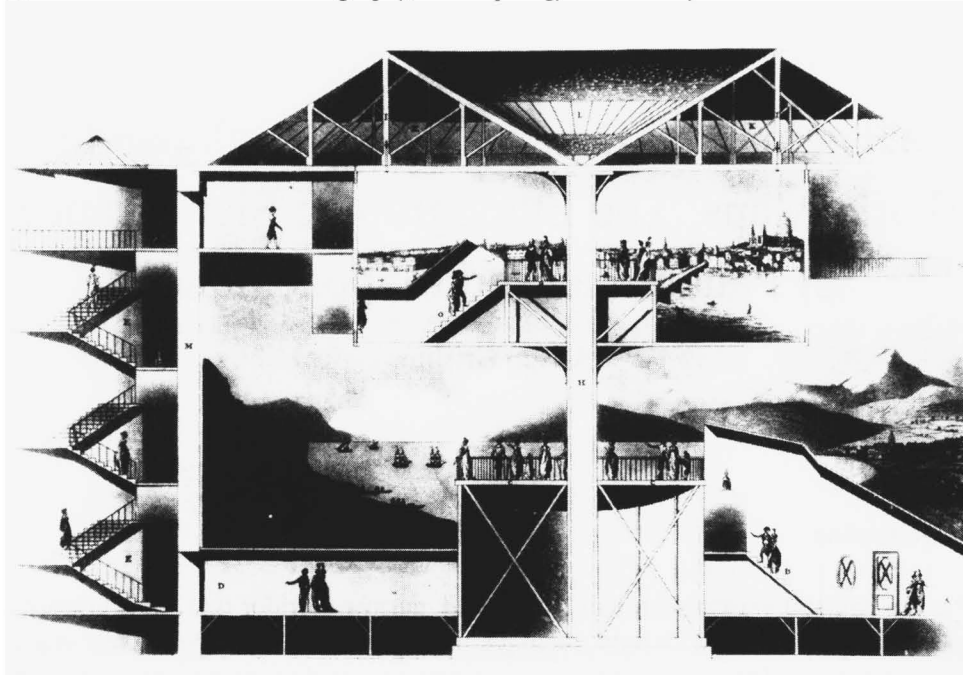
Figure 1.1   *Grand Fleet at Spithead* Panorama, 1798

strangeness is instrumental in how we recuperate ethnographic meaning from this nineteenth-century popular amusement. The three extant painted panoramas from the nineteenth century I have seen (only two of which are in their original rotundas) – the Mesdag Panorama in the Hague, the Cyclorama of Jerusalem outside of Quebec City, and the Gettysburg Panorama in Pennsylvania – invite a peculiarly embodied form of spectatorship, evoking what film theorist Vivian Sobchack describes as a 'radically material condition of human being that necessarily entails both the body and consciousness, objectivity and subjectivity into an *irreducible ensemble*' (Sobchack 2004: 4).

Hugely popular in Europe and the United States in the early nineteenth century, panoramas waxed and waned in public appeal throughout the century, finally fading from memory around the time that motion pictures ushered in an era ringing loudly with the sounds and sights of modernity (Wilcox 1988: 21). During their heyday, panoramas captured the imaginations of a wide swath of patrons, unlike easel painting, which largely appealed to the upper classes. Panoramas brought distant shores to European metropoles along with some of the architectural spoils of ancient antiquity. They were enormous billboards testifying to the visual proclivities of late eighteenth- and nineteenth-century audiences; as befits the scope of this collection, panoramas provide us with a unique way of accessing the interface between popular culture, the legacy of colonialism, and immersive visual technologies. This chapter examines how an ethnographic way of seeing infused panoramic painting, a medium that sought to show off its mimetic prowess as well as vouch for the authenticity of the view and the credentials of the
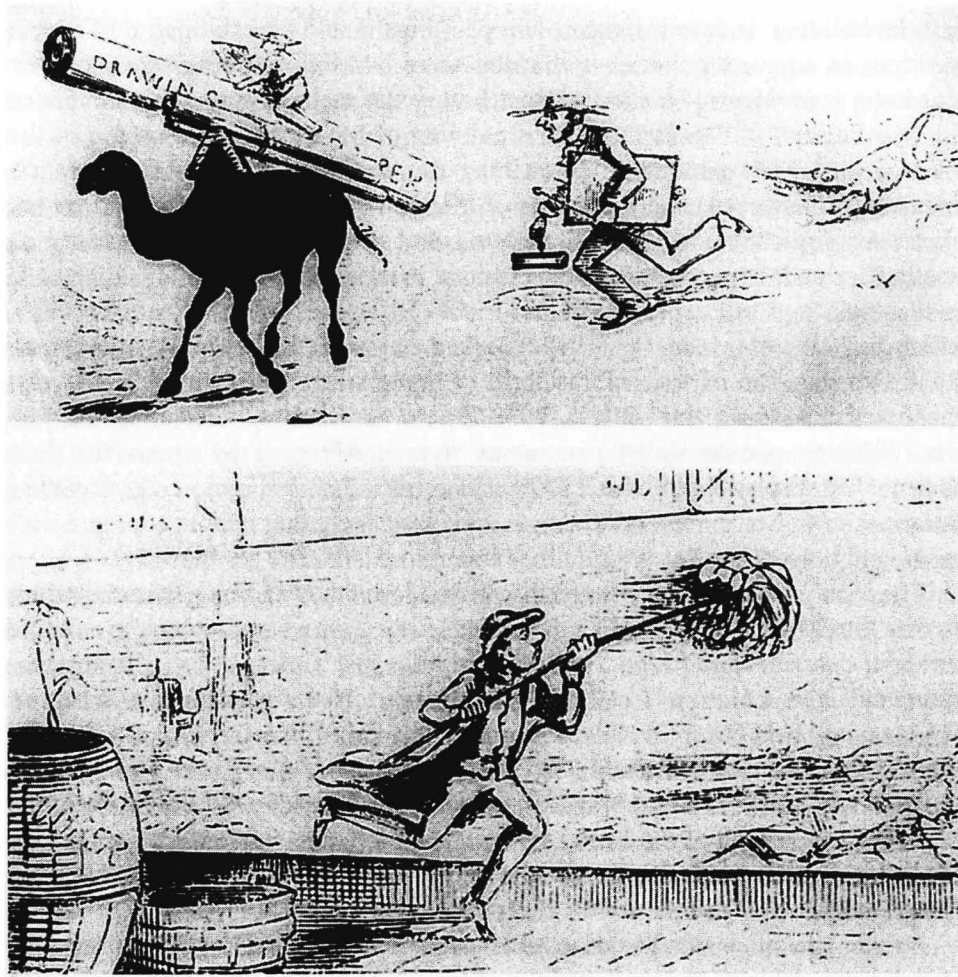
Figure 1.2   ***Punch* cartoon 'The Monster Panorama Manias', 1849**

painter. Panoramas were not read or even made sense of as modes of ethnographic inscription (the discipline of anthropology was still nascent); but they performed some of the same discursive functions as other forms of late eighteenth- and early nineteenth-century ethnographic representation (art objects, lithographs, native people's themselves, and eventually photography and cinema). Panoramas thus offered a window onto distant cultures, especially when viewed alongside the text included in pull-out orientation maps that could be purchased for a shilling or less at the exhibition. These maps provided a key to discovering points of significance within the painting, and also described the cultural practices depicted.

But what exactly were panoramas? Panoramas were enormous canvases suspended on the inside of cylindrical rotundas; spectators entered through the centre and walked around the belvedere (viewing platform) until they decided they had experienced the vast painting long enough and then descended the staircase to

exit the building. In rare instances, two paintings would be exhibited in different locations in adjacent galleries within the same building, offering spectators the cinematic equivalent of a short subject before the main feature. An example of this can be seen in Figure 1.1, with a painting of Margate located on top of the main *Grand Fleet* panorama. Describing the exhibition set-up of panoramas does not, however, explain the nature of the viewing experience. Panoramas are phenomenologically complex sign systems, and helped spawn what art historian Shelly Rice calls a 'panoramic consciousness' in the nineteenth century, evidenced in such paintings as Caspar David Friedrich's *Moonrise Over the Sea* from 1821, which includes two men 'who have walked out onto the rocks extending into the sea so they can experience the thrill of being virtually encircled by the vast "panoramic" horizon line' (Rice 1993: 70). In addition to influencing the fine arts (although paradoxically, panoramas were condemned by artists for their poor quality, as parodied in this 1849 cartoon from *Punch* (Figure 1.2), miniature panoramas came in innumerable shapes and sizes, including parlour toys and wall paper, and helped inspire a vibrant movement in panoramic photography.

The term panorama also entered the vernacular of the American literati, finding its way into Mark Twain's 1883 *Life on the Mississippi* when Stephen, in a manic outburst, describes his friend Yates as being not just a picture, but a panorama: '*Some* call him a picture; I call him a *panorama*! That's what he is – an entire *panorama* globe' (Twain 1917: 159, emphasis added). Likewise, Edgar Allen Poe in his epic prose poem written in 1848 titled *Eureka: An Essay on the Material and Spiritual Universe*, is quite at home with the term panorama in his discussion of the miniscule percentage of the earth's entire circumference visible from a mountain top vantage point: in Poe's words 'the entire *panorama* would comprehend no more than one 40,000th part of the mere *surface* of our globe' (Poe 1850: 190).

As 'vehicles of personal and social fantasy,' to quote Rice, 'an escape from the spatial, temporal, and social limitations of [people's] lives' (1993: 70), panoramas were vibrant canvases upon which were projected the hopes and fantasies of an era. While many panoramas offered an elevated view of a distant natural landscape, as with the countless alpine and mountain-view panoramas, others evoked the idea of time travel to sites of antiquity. Animating the vast majority of nineteenth-century panoramas were notions of virtual travel, immersion, and the imagination of foreign peoples and scenes. A significant number of nineteenth-century circular and moving panoramas contain some ethnographic content, a sign of the obvious desire on the part of the artists (these were almost always collective endeavours), not simply to accurately reconstruct the landscape of exotic places, but to imbue such topography with a social and cultural life, to evoke its singularity as a place, event, or historical moment, often via a narrative device.

My goal in this chapter is to explore some of the diverse and distinctive ways panoramic painters constructed their ethnographic subjects. This is by no means an exhaustive account of ethnographic representation in panorama painting, but rather an attempt to widen the lens on the prehistory of visual anthropology, open up new spaces of investigation that can thicken our understanding of how images

of non-Western subjects circulated in previously overlooked eras. Panorama painters drew upon both popular iconographic tropes as well as opening up less stable significatory spaces for the representation of native peoples. It is precisely these spaces of unstable meaning that make it possible to 'look past' contexts of colonial visualization, as Edwards and Morton (following Aird) point out in the Introduction to this book; to see panoramas as neither outside of colonial discourse, nor overdetermined by it, but somewhere in between. One possible way of beginning a conversation about panoramas and ethnographic representation is to consider whether panoramic vision itself created possibilities for making sense of cross-cultural difference along different epistemological axes (i.e. the affect of panoramic form on content). Did, for example, the inclusion of native peoples shift the cognitive and emotional register of the panorama, and were there differences between "incidental" modes of ethnographic knowledge, such as including a native person on the canvas synecdochally (to signify the location via costume and physical appearance) versus more ambitious attempts to use the circular or flat canvas to construct autochthonous knowledge (through the use of the orientation guides)? By untangling some of these modes and influences, this essay considers the panorama as a neglected (and somewhat unexpected) site of ethnographic imagery from the nineteenth century.

Our understanding of the panorama might also be enhanced by another informing context, that of medieval mapmaking, which I consider as an example of what J.B. Harley calls 'the broader family of value-laden images' (Harley 1988: 278). While the connection between map making and panoramas may appear tenuous, it is possible, as Harley points out, to make maps '"speak" about the social worlds of the past' (Harley 1988). There are a great many correspondences: the panorama's roots can be traced to mapmaking (as well as to landscape painting, Baroque painted ceilings/stage sets, as documented by Stephan Oettermann) since the panorama was initially developed as a topographical device that would assist in land surveys and planning for military manoeuvres (Pearson 1907: 8–18, Harley 1988: 277, Oettermann 1997: 5–48). Panoramas and *mappaemundi* were both peripatetic objects, moving between purpose-built rotunda in European cities in the case of panoramas and between royal dwellings and religious sites in the case of *mappaemundi* (Birkholz 2004: xviii). *Mappaemundi* and panoramas also both furthered the project of colonialism, and 'offered richly coloured exotic experiences', bringing the geographically remote closer to the spectator with such titles as *View of Pompeii*, *View of Constantinople*, and *View of Lucknow* (Wernick 1985: 69).

Medieval maps might be considered among the earliest modes of ethnographic representation, especially of the so-called "monstrous races"; as John Block Friedman argues in his canonical work on the monstrous in the Middle Ages: 'the medieval taste for the exotic was in some ways comparable to our National Geographic interest in primitive and colourful societies today'. Friedman argues that it would be a mistake 'to regard medieval maps as we do modern road maps or political atlases, for in the Middle Ages the map was far more a visual work of art

and expression of contemporary cosmology and theology than it was an object of utility' (Friedman 2000: 1, 38). The map that I will discuss here is the famous late thirteenth century Mappa Mundi housed in Hereford Cathedral, which resonates in unlikely yet significant ways with our understanding of panoramic vision and cross-cultural image-making. This extraordinary manuscript, a book in graphic form, is compelling testimony to the deep-seated fascination with mapping and documenting the world through an ethnographic lens.

Figures in the landscape: peopling the panorama

Discussion of the impact of human figures on the panoramic landscape appears regularly in reviews of paintings. For example, as late as 1886, one critic argued that despite the near perfection of the panorama's illusionist powers – 'on entering the exhibition room we find ourselves standing seemingly on a hill' he writes – the spell was broken through the inclusion of people; in his words, 'the introduction of figures really spoils the illusion [since] it is only when we find that the figures, though all in action, remain motionless, that we recognize how our senses were cheated in the first place' (Anon. 1886: 45). Placing the blame squarely on the 'more modern panoramas', he argued that it was 'in a great measure [to the absence of figures] that the most remarkable panorama of modern times owed its success' (Anon. 1886: 47). If for this reviewer the inclusion of human figures compromised the panorama's illusionism, he nevertheless strongly approved of the use of sound effects in the exhibition space, praising the *Panorama of London* installation at the Colosseum in Regent's Park (Figure 1.3) for including ambient sound such as the 'hum of the city' and 'street music by day and bell-ringing and clock-striking by night' (Anon. 1886: 45). Given the sustained debate over the appropriateness of sound effects, human figures, and other attempts at heightening verisimilitude, the best we can surmise from the historical record is that while attempts by some artists to heighten realism through illusionistic effects were warmly welcomed by some critics, others found them inappropriate to the artistic integrity of panoramic vision.

While New York acquired its first permanent panorama rotunda in 1804, by the mid-1850s the moving (or peristrephic) panorama – a form well suited to the inclusion of narrativized ethnographic information on American Indian battles and cultural life – had assumed a hegemonic position in the United States. Organizing its vision quite differently to the circular panorama, the moving version consisted of a canvas suspended between two rollers (Figure 1.4), which would move gradually as it was unfurled before a seated audience (the painting could also be scrolled vertically, although this shift in perspective was reserved almost exclusively for the alpine genre). Panoramas with "Indian subjects" not only catered to a national interest in Anglo-Indian relations, furthering the racist discourse of Manifest Destiny and US expansionism, but also went down well with overseas audiences. *The Sioux War Panorama*, painted by John Stevens in 1868, redefined the 1862 Sioux uprising

The geometrical Ascent to the Galleries,
in the Colosseum, Regents Park
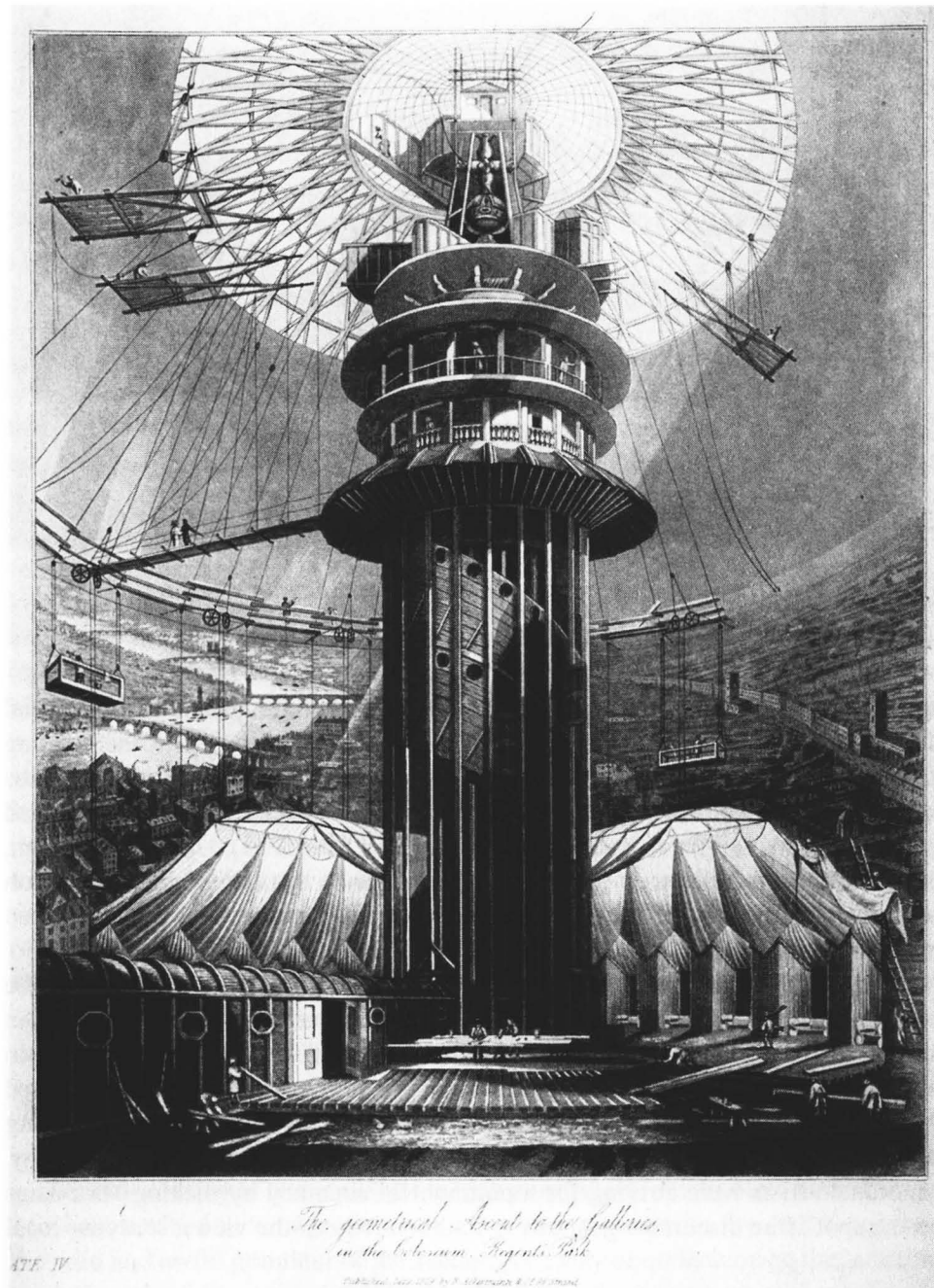
Figure 1.3 *Panorama of London* **at the Colosseum in Regent's Park**
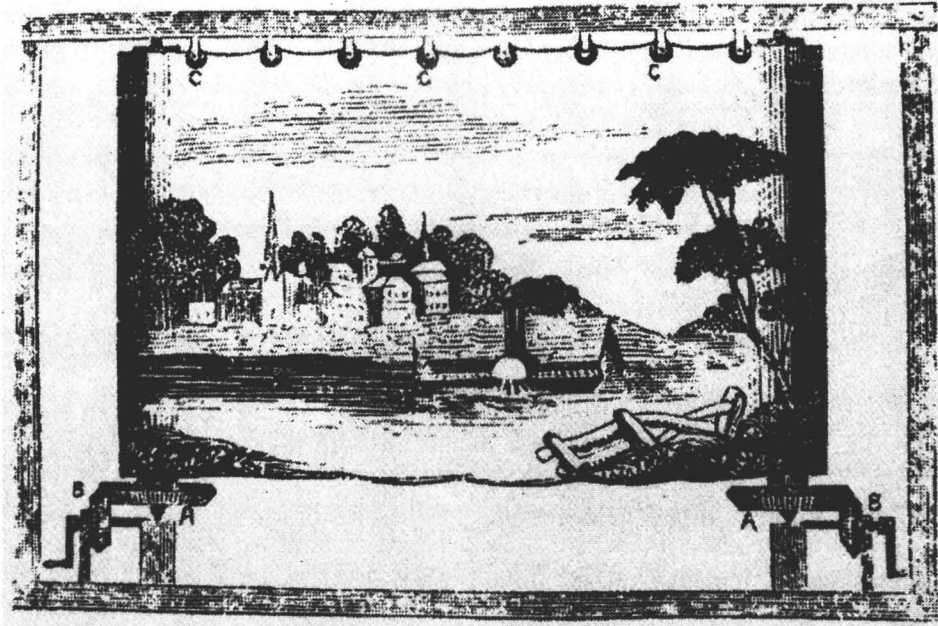
**Figure 1.4   Drawing illustrating the moving panorama winding
mechanism, c. 1880s**

as an 'epic narrative of white innocence, Indian savagery, vulnerable nature, and
death' (Bell 1996: 279–80). Consisting of a series of separate panels, the painting
exploits familiar oppositions between European and native dress and settlers versus
indigenous communities, although the hybridity of the contact zone is also reflected
in the mixing of European and Sioux clothing (Bell 1996: 291). Ultimately though,
the painting functioned as a 'propaganda performance that treated the elimination
of Indians as an inevitable and ultimately reasonable consequence of American
manifest destiny'[2] (Bell 1996: 286, 283).

Three of the most significant pioneers of the continuous view panorama in the
US were John Banvard, John Rowson Smith, and Samuel A. Hudson, all of whom
immersed themselves in their respective projects with zeal. Without wanting to
push the analogy too far, one could argue that some panoramists approached
their paintings with a quasi-anthropological desire for local knowledge; long
before participant-observation become the methodological norm in anthropology,
panorama artists were striving for topographical accuracy by making "drawings
on the spot" (the discursive guarantee of authenticity of the view), studying local

---

2   After the Dakota War in 1862, 303 Santee Sioux were found guilty of the rape
and murder of American settlers and were sentenced to death. President Abraham Lincoln
remanded the death sentence of 284 of the Sioux prisoners, allowing the execution of 39
Santee men on December 26, 1862 in Mankato, Minnesota.

cultural features, including dwelling, dress, and diet, and ensuring that what appeared on the canvas measured up to its referent.

In addition to servicing discourses of American supremacy, native people authenticated the landscape, evoking its geocultural specificity both figuratively and ideologically. In the broadside for the lecture accompanying Dr. M.W. Dickeson's 15,000 square foot canvas panorama titled *Antiquities and Customs of the Unhistoried Indian Tribes*, we are told that Dickeson had devoted 12 years of his life to studying Native American culture and collected over 40,000 artefacts. Painted by the artist I.J. Egan, the individual views and scenes were transcribed from 'drawings made on the spot' by Professor Dickeson himself (Oettermann 1997: 337). This pledge of verisimilitude also served as an early form of branding, a way of differentiating product and luring audiences to performances. In accord with this promotional rhetoric, the work of the panoramist was perceived by critics and audiences alike as containing a strong pedagogic dimension. The notion of the panoramist as 'public benefactor' (the term is Scott Wilcox's) was evoked in the popular press as early as 1830, when an article from the *Morning Chronicle* praised long-time panorama painter and impresario Robert Burford for 'having contributed as much to the instruction and amusement of his countrymen as, with few exceptions, any man of his day' (Wilcox 1988: 39). Samuel Hudson, the lesser known of the three major American river panoramists, reportedly travelled up and down the Ohio river four times making sketches and drawings before finally transferring to the canvas 'things as God and man has shaped them (at ten foot high and 700 yards long, the canvas was divided into four sections, exhibited not unlike the reels of a film)' (Arrington 1957: 359, 361).

This notion of transference, of documenting both natural and manmade incursions upon the landscape in a seemingly unmediated manner, offers us an important clue to understanding how these paintings may have generated meaning for spectators and how their ethnographic significance can be recuperated. If this was, as the artists touted, a 360 degree view as it appeared in real life (in the case of circular panoramas), or an enormous painting that gradually unfurled before the viewer's eyes, then an adherence to high standards of verisimilitude in terms of documenting the landscape may have been extended to the native peoples occupying that space.

Of the three, it was Banvard who integrated ethnographic imagery most completely into his work, significantly more than the "noble savage" typology we find in a great many American panoramas, such as John Frankenstein's 1853 sequential painting of Niagara Falls, which one reviewer in the New York *Evening Mirror* described as 'a majestic type of the Aborigines in dignity stand[ing] amid the wild and awful grandeur of the scene'. As a way of underscoring the 'startling naturalness' of the space, the iconic figure works as a mutually reinforcing signifier, shoring up the sublimity and untamed wonder of the "actual" Niagara while exploiting clichéd connotations of the touristic "Niagara" to close the circuit of meaning. Similarly, Banvard's purported 'Three Mile Long' panorama of the Mississippi was a phenomenal success in the US in 1848, as well as

attracting 604,524 visitors to the Egyptian Hall in London and touring over 40 towns throughout the rest of England, Scotland, Ireland, and Wales.[3] Banvard clearly viewed himself as something of an amateur ethnographer, and, perhaps, more significantly, was also perceived this way by critics and spectators. A visit to Banvard's studio by US Navy Officer Selim Woodworth in 1847, constructs a (somewhat clichéd) image of the bohemian artist; in a letter to General Morris of New York from St Louis, the Officer wrote that: 'Here and there were scattered about the floor, piles of his original sketches, bales of canvas, and heaps of boxes. Paint-pots, brushes, jars, and kegs were strewed [sic] about without any order of arrangement ...' But Woodworth also praised the painter's success in evoking both the physical landscape and the human population of the Mississippi River valley:

> The manners and customs of the aborigines and the settlers – the modes of cultivating and harvesting peculiar crops – cotton, sugar, tobacco etc. – the shipping of the produce in all the variety of novel and curious conveyances employed on the river for transportation, are here so vividly portrayed, that but a slight stretch of the imagination would bring the noise of the puffing steamboats from the river and the songs of the negroes in the fields, in music to the ear, and one seems to inhale the very atmosphere before him. (Banvard 1847: 17)

That Banvard was neither trained as an ethnographer nor working from motives beyond recouping money from his investment when he floated up and down the banks of the Mississippi is obvious. The wish to include some, albeit fleeting, sense of the political and cultural economy of the Mississippi was commonplace in river panoramas at the time; one 1853 reviewer of John R. Smith's panorama also evokes the fascination with class and externalized racial difference as part of this project:

> In no other work is to be witnessed so amply the diversity of the human race, nor of the variableness of scenery. Man, from the lofty ruler to the slave, moves before us engaged in the various occupations of life. The swarthy Indian ... stands in fine contrast with the white captain ... and to strengthen the effect, the tawny mariners are grouped with visages of Nubian blackness, and thus present to one passing glance every variety of complexion. (Anon. 1853)

Whether the 'passing glance' of the typical nineteenth-century panorama artist should properly be interpreted as an ethnographic way of seeing is less important in this context than how ethnographic knowledge is shaped, inflected, and

---

3 Moving panoramas saw something of a renaissance in London between 1864 and 1881, when the London Colosseum panorama rotunda in Regent's Park closed its doors; proprietors of moving panoramas made appearances at virtually every provincial town's Corn Exchange, Mechanics Institute, Temperance Halls, Athenaeums, or Assembly Halls (Hyde n.d.).

transformed by panoramic – as opposed to rectilinear – perspective, although in the case of the peristrephic panorama, the moving landscape and inclusion of human elements within the frame suggests a vision closer to cinema (and certainly to magic lantern slides) than to the circular panorama. The fact that audiences would watch Banvard's images scroll before their eyes in *his* presence would surely have authenticated the images and given non-initiated audiences (i.e. those *not* living within travelling distance of the Mississippi) a unique way into the history, culture, and geography of the region. As American landscape art historian Angela Miller points out, 'the panorama offered a liberating access to an apparently encyclopaedic reality and unlike other forms, it did not require particular or specialized knowledge or aesthetic experience' (Miller 1996: 43). We should also take note of the fact that for river communities, where these paintings toured extensively, the documentary value of the painting would clearly have resonated differently than for more distant metropolitan audiences. Whereas depictions of battle subjects and news events drawn from the headlines required a degree of historical knowledge, river subjects may have been more accessible. For audiences unable to afford the five shilling admission to the Colosseum, a moving panorama brought the New World a little closer. The encyclopaedic vision that Banvard and his cohorts employed in documenting river landscapes is not new, however, dating back to the medieval practice of mapmaking, which shares a strange affinity with the panorama. Let us now turn to the late thirteenth-century Mappa Mundi in Hereford Cathedral before resuming our panoramic journey.

The Mappa Mundi: the fantastical world of thirteenth-century mapmaking

> The [Mappa Mundi] is primarily intended for edification and improvement. It is
> not intended as a guide for travellers. (Denholm-Young 1957: 307)

The late thirteenth-century Mappa Mundi in Hereford Cathedral (Figure 1.5) has been something of an unstable signifier ever since it arrived in Hereford from Lincoln where it was made in the late thirteenth or early fourteenth century. Dismissed by some in the nineteenth century for being little more than 'illustrated romance' and a 'chaos of error and confusion', its schematic form was criticized for failing to conform to protocols of cartographic knowledge production, in other words, 'geographical reality structured according to a coordinate system, such as longitude and latitude' (Bevan and Philcott 1874: 22). Labelled 'curious' and 'grotesque' by the German scholar Dr. K. Miller in the late nineteenth century, the Hereford Map has generated a considerable amount of interest since it was discussed at the first meeting of the National Geographic Society in 1830, a period coinciding with the rise of anthropology as a discipline (Crone 1965: 447). The twentieth century brought international recognition to the Mappa Mundi culminating in the 1996 opening of a purpose-built exhibition space at Hereford

Figure 1.5   The Mappa Mundi of Hereford Cathedral, made around 1300

Cathedral and recognition of the fact that the map is a 'veritable encyclopaedia of cosmological, geographical, ethnographical, theological, and zoological knowledge about the earth' as Natalia Lovosky argued in 2004.

What this means in relation to the map's recuperative potential, is that it should be approached not primarily as a repository of 'then current geographical knowledge … but as illustrated histories or moralized didactic displays in a geographical setting' (Woodward 1985: 510) developing the 'confidence or stimulating the imagination of intended travellers, for which recognizable content

was desirable' in geographer David Woodward's words (Crone 1965 cited in Woodward 1985: 514). Whereas early scholarship on the Hereford Map furthered a largely static view of culture in the Middle Ages which reflected 'an apparent obliviousness to the technical and conceptual constraints on scribes and artists of the period' (Woodward 1985: 510), the map's meanings have recently been reappraised by geographers and medievalists, thus making it far easier to compare it to panoramas.[4] Part of this work involves recognition of the fact that, as Rees argues,

> Until science claimed cartography, mapmaking and landscape painting were kindred activities, often performed by the same hand ... making a map invariably was an occasion for the display of artistry. Cartography and landscape painting were also connected by the fact that their practitioners held common conceptions of the earth and shared the problems of selecting phenomena and of representing them coherently on a plane surface. They are similar arts in that they both present phenomena in context rather than in isolation ... Like landscape paintings, the maps mark stages in conceptions of the environment. (Rees 1980: 60, 65)

Panoramas and medieval *mappaemundi* constructed particular models of visuality for their respective audiences that were multidimensional, an embodied form of spectatorship and heightened sense of immersion. Woodward's argument that a map 'does not by its nature have to represent a cosynchronous scene but may be a many-layered cumulation of historical events as well as objects in geographical space' is apposite here, although it should be noted that there are a great many dissimilarities between *mappaemundi* and panoramas. One obvious difference centres around the idea of a fixed vantage point, found in the 360-degree and moving panorama, against the multiple points of view in *mappaemundi*. Ironically, this sensory engagement, rather than occluding the differences between the two forms, actually binds them together (Rees 1980: 66). Another irrevocable difference involves the incomparable scale of the two art forms, although one could argue that scale aside, both invoke a powerful sense of wonder in the onlooker.

Thanks to painstaking research by G.R. Crone and others, we know that the Hereford map was a 'complex blending of Greek, Roman, and Christian sources' with influences going back as far as the fourth or fifth centuries A.D. (Crone 1954 cited in Woodward 1985: 514).[5] According to most accounts, Richard of

---

4   As Woodward argues, 'the *mappamundi* must be studied on its own terms, according to its intended function and in the context of the scriptorium in which it was compiled' (Woodward 1985: 512).

5   The map is an example of a Noachid or tripartite map also known as a T-O map which represents the world as a flat disk surrounded 'by a ring of ocean that forms the shape of the letter O. Within the O and dividing it into three parts is a shape resembling the letter T, whose stem is formed by the Mediterranean imagined as a narrow, vertical mass (North

Holdingham drew the Hereford Map on a single piece of parchment measuring 1.59 by 1.32 metres and as E.G.R. Taylor points out, it was 'drawn in a fashion that the public expected to see, a fit ornament either for a king's chamber or a cathedral shrine' (Taylor 1954: 223).[6] Christ in Judgment is shown at the top of the map, with 'the saved being led to paradise on his right hand and the doomed being led to hell on his left' (Harvey 2002: 2). The Virgin Mary stands below. The visuality and cosmology of the thirteenth century that informed the making of the Mappa Mundi is utterly alien to a twenty-first-century spectator, the cartographical equivalent of a narrative medieval picture rather than a 'snapshot of the world's geography at a given time' (Woodward 1980: 514).

In terms of temporality and the organization of vision, the Mappa Mundi more closely resembles the moving panorama (notwithstanding major differences in scale and viewing co-ordinates), especially with regards to the idea of the itinerary, which in the case of the moving panorama, spectators would be invited to retrace when the painting was unfurled before them. The Hereford Mappa Mundi included the itineraries of St Paul, especially his second journey in Asia Minor, and, as Crone claims, 'many of the names were almost certainly obtained from itineraries of merchants or pilgrims' (Crone 1965: 452).[7]

Recognizing that the map was a moralizing display rather than a locational one, relying as Woodward argues on 'mystical, symbolic, and allegorical imagery to a remarkable extent', allows us to think about it as a progenitor of sorts of the eighteenth-century panorama, at least in so much as both represent events spatially and both provide us with insight into how racial and cultural "Others" were cartographically or narratively inscribed onto parchment or canvas (Woodward, 1985, 515). But as Harley astutely reminds us, 'maps are never value-free images ... [b]oth in the selectivity of their content and in their signs and styles of representation maps are a way of conceiving, articulating, and structuring the human world which is biased towards, promoted by, and exerts influence upon particular sets of social relations' (Harley 1988: 278). But maps were also instrumental in the process of colonial expansion – facilitating as well as documenting colonial practice according to Dana Leibsohn (1995: 265) – and as useful as guns and warships as weapons of imperialism in Harley's view,

---

being to the left and East at the top) and whose crossbar was formed by the river Tannis (the Don) to the left and the Nile to the right' (Friedman 2000: 38).

6   The parchment has faded considerably over the centuries, rendering many features such as the bright green seas and blue rivers a dull brown and black color. The map itself is circular (Figure 1.5) with an outer band naming the cardinal points and an inner band identifying the 12 winds of classical authority (Harvey 2002: 3).

7   Most of the factual information cited here and below is derived from Harvey 2002. The exhibit housing the map at Hereford Cathedral also contains one of the oldest chained libraries in the world. While there is no admission charge to the cathedral, a separate fee is required to enter the exhibit. For more on the map, see Westrem (2001), Williams (2005) and Crone (1965).

giving imperial users 'an arbitrary power that was easily divorced from the social responsibilities and consequences of its exercise' (1988: 282).

The monstrous races were represented on the map for several reasons: first, they suggest a demarcation of what could and could not be considered human; second, they reflected a deep psychological need, as Friedman argues, for 'fantasy, escapism, delight in the exercise of the imagination, and fear of the unknown'; and third, they represent indigenous peoples that *did* (and still do) in fact exist, although are not initially recognizable from the medieval record perhaps due to perceptual errors and hyperbole on the part of travellers (Friedman 2000: 24). The Hereford Mappa Mundi is both wondrous and impenetrable, a response that links the uninitiated medieval spectator to the modern viewer.[8] But how was wonder understood at this time? In their seminal work on wonder in the medieval world, Lorraine Daston and Katharine Park argue that it was perceived by many as a 'goad to inquiry' and wonders themselves as 'prime objects of investigation… [that] marked the outermost limits of the natural'. Found at the margins rather than the center, wonders 'constituted a distinct ontological category, the preternatural, suspended between the mundane and the miraculous' (Daston and Park 2001: 13–14, see also Bynum 1997 and Romm 1997: 9–44, 82–120). While the Hereford Map can itself be considered a wondrous object to contemporary observers, its ability to engender wonder was no less significant in the late thirteenth century. Aside from the absence of recognizable topographical coordinates, countries familiar to Western Europe at the time are generally in correct relationship to one another, although as Harvey notes, 'often much out of proportion and oddly skewed out of shape' (Harvey 2002: 14). As densely packed as the Mappa Mundi is with Christian references, symbolism, and allegory – Jerusalem is located in the centre with the crucifixion directly above – the entire surface of the map is nothing less than an 'encyclopaedic mass of information about the people, the history and the natural history of distant lands', although the rivers and seas, having lost their original colorization, now resemble dark brown bloodstains, oozing from the centre of the map like some toxic spill (Harvey 2002: 14). However, the principles governing the location and form of this information are not readily accessible to viewers; for example, the area encompassing the old Roman Empire consists of conventionally named and pictured cities, whereas in other regions of the map geographic, ethnographic, mythological, and fantastical information coexist and are mutually informing. And yet as with all maps, omissions can be read as

---

8   For example, there is no easy way of identifying the location of Britain, since the principalities of the United Kingdom are separated by water and located at approximately seven o'clock on the map (the names of Hereford and the river Wye were probably added at a later stage). Often exhibited in the context of royal residences, where the maps were painted on walls alongside other allegorical or moral subjects, the map was probably 'viewed as a form of enlightenment or diversion for the literate, and used as the basis of a religious or moral object lesson for the illiterate', who were probably as confused as to the overall meaning of the map as are today's spectators (Harvey 2002: 14).

Figure 1.6   Purported African peoples shown on the Mappa Mundi

metaphorical silences, lacunae of information that speak volumes and 'exert a social influence through their omissions as much as by the features they depict and emphasize' (Harley 1988: 290).[9]

On many levels, the lack of distinction between mythical figures, such as the bird-like people called the Cicones or the corpse eating Essedones and purported representations of native peoples of southern Africa (Figure 1.6), shown on the outer edge of this image, whose ten races are comprised of individuals with physical peculiarities such as one leg (Sciopod), one eye (Monoculi or Cyclops),

---

9   Colonial mapping had devastating effects on the Native American population during the eighteenth century: in that context silence contributed directly to discrimination. Likewise, as Harley argues, 'throughout the long age of exploration, European maps gave a one-sided view of ethnic encounters and supported Europe's God-given right to territorial appropriation' (Harley 1988: 292).
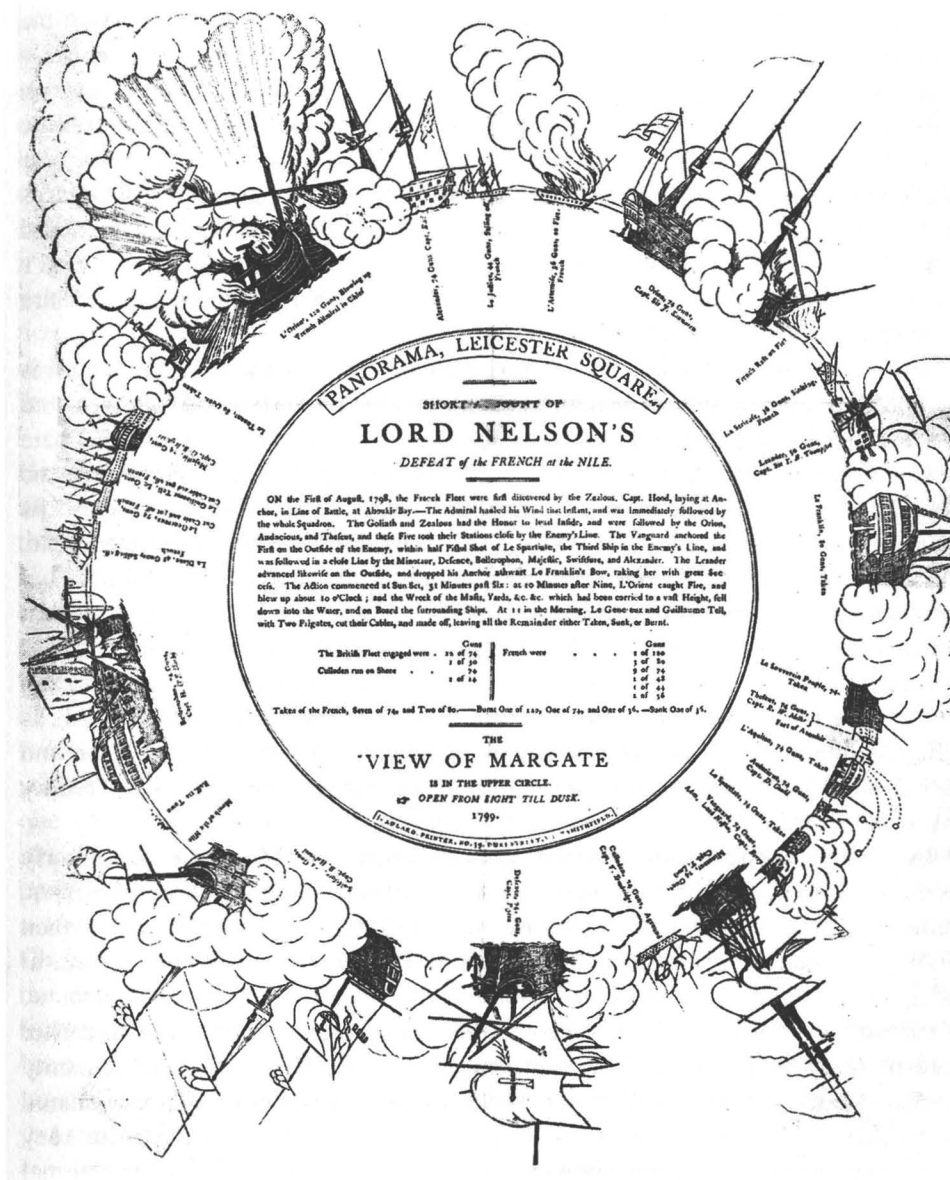
Figure 1.7   Anamorphotic guide to the 1799 panorama *The Battle of the Nile*

a face in the chest (Blemmyae), or who take nourishment only through a straw (Straw-Drinkers from Ethiopia), points to a fantasmatic construction of racial and cultural difference far removed from that of the panorama, which traded in ideas of expert witnessing and visual verisimilitude.[10]

---

10   For a taxonomy of the most common fantastical races, which Friedman calls the 'Plinian races', see the chapter of the same name in *The Monstrous Races* (5–25)

The Mappa Mundi's graphic component belies the purely visual register of the panorama, whose aesthetic (and rhetoric) of virtual travel constructed an entirely different visual experience for spectators. And yet the bird's eye view orientation map of the panorama offered for sale to panorama visitors – the anarmorphotic view seen in the circular Panorama of London (Figure 1.7) and the semi-circular *The Siege of Acre* from 1801 – share an affinity with the Mappa Mundi with regards to the graphic rendering of locations and objects and the coexistence of text and icon. Pre-Renaissance topographical maps also employed high, oblique, or bird's eye views, which made them 'particularly attractive wherever there was a desire ... to show profiles' (Rees 1980: 69).

For our purposes, though, the most significant feature of the Mappa Mundi is its representation, in figural form, of transhistorical relations between the West and its Others, who are transformed into so-called monstrous races. The dispassionate labelling of western cities is part of a rational, disciplined gaze, whereas the eclectic snippets of information about strange animals, plants, birds and even people, shifts the map's semantic register, by inviting the spectator to view the phantasmatic, the monstrous, and the ethnographic as mutually informing sites/sights of visual spectacle and pleasure. But as Daston and Park compellingly argue, this interest in the Other was not 'primarily an expression of anxiety', and while exotic races were certainly used to explore and deconstruct boundaries existing in European culture, the monstrous races did not appear as 'scandalous or pathological, as seriously challenging European values or establishing a rival norm' (Daston and Park 2001: 14). They were simply too remote and far removed from lived reality to present a threat.

According to medievalist Jeffrey Jerome Cohen, 'writers and artists in early medieval England were fascinated by the grotesque and the marvellous ... [reflecting] a cultural obsession with the malleability of the human form' (Cohen 1999: 1). When it comes to reclaiming these representations for the project at hand, it seems at first extremely difficult to move beyond the dominant discourse of monstrosity, the idea of native peoples as 'degenerate or fallen from an earlier state of grace in the Judeo-Christian tradition [in which] even their humanity was questioned' (Cohen 1999: 1) and their otherness doubled by a lack of shared spirituality.[11] All monstrous forms thus fascinate and terrify us because they 'challenge our understanding, showing the fragility and uncertainty of traditional conceptions of man' (Friedman 2000: 2–3).

But attitudes toward the "monstrous races" were far from monolithic, dependent, in Friedman's words, on 'place, medium of expression, and

---

in which Friedman lists the races alphabetically and offers shorts descriptions of each. Friedman claims that their long and unusual names – 'Abarimon', 'Bragmanni', 'Epiphagi', 'Garamantes', and 'Himantopodes' – enhanced their appeal for Western audiences.

11   The medieval literary tradition had about 'fifty different monstrous races of men, often shifting about geographically or combining with one another, concentrated mainly in Africa, India, and the unknown northern regions near the Caucasus' (Friedman 2000: 24).

philosophical persuasion' (Friedman 2000: 4), a point driven home by T.K. Beal in his book *Religion and Its Monsters*, arguing that while in the world, monsters are never 'of the world ... [functioning instead as] paradoxical personifications of otherness within sameness' (Beal 2002: 4, see also Wittkower 1942). In a similar train of thought, J.J. Cohen, in his influential book *Of Giants: Sex, Monsters, and the Middle Ages,* argues that the monster is 'definitionally a displacement: an exhibit, demonstrative of something other than itself ... [a]s sheer representation, it follows that the monster should have no life outside of a constitutive cultural gaze, outside of its status as specular object' (Cohen 1999: xiv). Monsters are therefore 'personifications of the *unheimlich* [uncanny] ... stand[ing] for what endangers one's sense of at-homeness, that is, one's sense of security, stability, integrity, well-being, health, and meaning' (Beal 2002: 5).

But can the monstrous figures peopling the edges of the parchment of the Hereford Mappa Mundi be recuperated and read metaphorically as evidence of an enduring human drive for knowledge about exotic cultures, a similar desire that crept quietly like a hermit crab into the panorama? And is there any similarity in the relatively value-free representation of native peoples in the Hereford Map and circular and moving panoramas of the nineteenth century? Notwithstanding concerns about the alleged cannibalism and idolatry of exotic cultures, late thirteenth-century authors viewed difference in largely positive terms, as a 'source of pleasure and delight' (Daston and Park 2001: 33). It is most likely that these representations inspired (rather than put off) potential pilgrims and travellers from venturing to these geographic locales, especially since the prevailing attitude was one of tolerance and civility toward expressions of difference, sometimes for strategic purposes on the part of merchants, diplomats, and missionaries, rather than open hostility (Daston and Park 2001: 38, see also Campbell 1988). Missionary activities among the exotic races became, as Friedman argues, a 'popular topic for Christian evangelists, who welcomed the occasion they provided for dramatizing the duties Christ had assigned to the Apostles (Friedman 2000: 59). But the figures themselves are also complex signifiers eschewing simplistic assessments based on their obvious human/animal hybridity; for example, the meaning of the gigantes (dog-headed figures) who guard the gates of heaven demonstrate a certain jouissance for Cohen:

> The monsters are depicted with raised snouts, apparently barking with joy. Each touches the hip or belly of the other's naked body, and their slender, extended arms form a sensuous bridge between their monstrous forms ... For all the "cosmic terror" they inspire, the giant and the cynocephalus are twinned bodies beyond which lies not the utter dissolution of selfhood, but just the opposite: immortality, the gift of an identity that is unending and immutable, the reward of heaven itself. (Cohen 1999: 120)

There is a distinction between the rationalist discourse surrounding western and religious landmarks featured on the map and the hypertextual quality of the many

graphic elements, whose meanings can only fully be grasped alongside extratextual information. The obvious difference between representing an iconic object versus an animal–human hybrid, demands that we assign different orders of knowledge to these features of the map. While the hypertext may be lacking exactitude as an episteme, it nevertheless opens up ways of reading the "monstrous races" in the associative, nonlinear form of the encyclopaedia. If the orders of knowledge inscribed in the coexistence of textual and graphic elements in the Mappa Mundi appear opposed to the organization of ethnographic knowledge in the panorama, closer inspection of how a subgenre of circular panoramas integrated human elements into the landscape suggests an interesting point of convergence. The analogy is more effective when drawn between pull-out orientation maps accompanying panoramas, and the medieval map, since ethnographic panoramas would also encrypt figures and scenes that were illegible in the absence of paratextual material, providing a rationale for the purchase of the pull-out map that explained the views on the canvas.

Whilst there is nothing "panoramic" about the experience of standing in front of the Mappa Mundi, its attempt to structure knowledge in a circular manner does espouse a similar kind of encyclopaedic sweep of history, betraying Eurocentric biases and imperialistic ambitions – celebrating mapping as an act of possession. And yet at the same time as these ways of representing the world open it up, they nonetheless also enclose it through their circularity – the panorama, one could argue, hems us in as well as taking us on a virtual voyage. While each representational form suggests a certain singularity with regards to its structuring of vision along with its cultural and ideological valences, there are nevertheless resonances across each era, resonances that should remind us of the complex intersections and vestigial remnants of Medieval cosmology in the panorama.

Finally, one could argue that while the panorama's interpellation of the spectator into an immersive virtual reality is entirely absent from the experience of gazing at the Mappa Mundi, both invoke notions of the haptic, privileging to some degree what religious scholar David Morgan calls 'a look that touches' (Morgan 1988: 66). In the panorama, the inclusion of a faux terrain with actual objects invites audiences to reach out and touch, and there are (albeit apocryphal) stories of people running into the canvas when they leapt over the belvedere railings to retrieve a lost personal object or runaway dog, deceived by the relatively short distance between the belvedere railing and the canvas. The Mappa Mundi, too, when it was displayed uncovered in Hereford Cathedral, shows sign of having been touched or kissed by pilgrims, since the area round Jerusalem in the centre of the image is more worn than the surrounding parchment.

Reclaiming ethnographic knowledge from the over-determined mythological and monstrous meanings attached to these images on the Hereford Map, while challenging, is eminently possible given a context in which exoticism was embraced rather than feared. The Mappa Mundi and the panorama both evince a deep-seated desire to gratify human fascination with peoples of the world that are wondrously similar yet different – the monster, as Beal contends is often 'both demonized
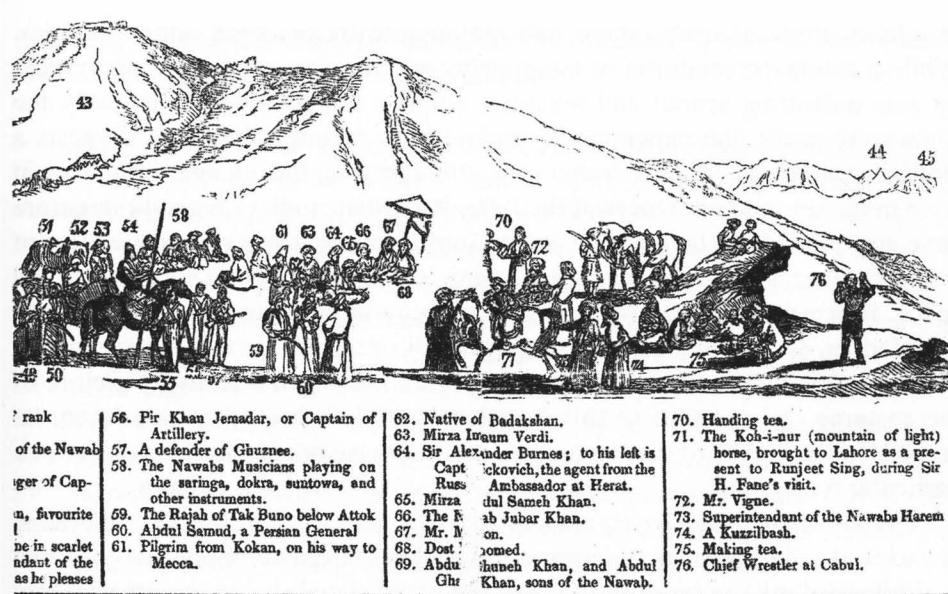
: rank	56. Pir Khan Jemadar, or Captain of Artillery.	62. Native of Badakshan.	70. Handing tea.
of the Nawab	57. A defender of Ghuznee.	63. Mirza Imaum Verdi.	71. The Koh-i-nur (mountain of light) horse, brought to Lahore as a present to Runjeet Sing, during Sir H. Fane's visit.
iger of Cap-	58. The Nawabs Musicians playing on the saringa, dokra, suntowa, and other instruments.	64. Sir Alexander Burnes; to his left is Capt ickovich, the agent from the Russ Ambassador at Herat.	
n, favourite	59. The Rajah of Tak Buno below Attok	65. Mirza dul Sameh Khan.	72. Mr. Vigne.
I	60. Abdul Samud, a Persian General	66. The N ab Jubar Khan.	73. Superintendant of the Nawabs Harem
ne in scarlet	61. Pilgrim from Kokan, on his way to Mecca.	67. Mr. N on.	74. A Kuzzilbash.
ndant of the		68. Dost ? 1omed.	75. Making tea.
as he pleases		69. Abdu ihuneh Khan, and Abdul Gh Khan, sons of the Nawab.	76. Chief Wrestler at Cabul.

Figure 1.8   Detail from orientation map for Burford's *View of the City of Cabul, Capital of Afghanistan*, 1842

and deified, revealing a deep sense of ambivalence about the relation between the monstrous and the divine, and intensifying the sense of paradox' (Bealm 2002: 6). Bringing them into productive tension is just one way of considering how they might resist traditional interpretation and systematization.

Orientation guides and the composite view: thick(er) ethnographic description

If the experience of viewing the Mappa Mundi evokes the orientation guides available with some panoramas, it is important to examine such artifacts in more depth since they provide us with some of the most compelling suggestion of how an ethnographic impulse within the canvas was realized more fully through the text. In the orientation guide for Robert Burford's 1842 panorama *View of the City of Cabul, Capital of Afghanistan*, of the 76 points of interest on the map, 30 of them are of the indigenous people of the region, as seen in this detail (Figure 1.8).

Proscribing an idealized encounter with the panorama, the guide first directs the viewer to the distant mountains of 'Kaffristan', 'Nejhau', and 'Taghau' before moving to closer views of the native peoples. Similarly, in Burford's 1845 *Description of a View of the City of Nanking and the Surrounding Country* which was exhibited at the Panorama, Leicester Square (London), the spatial and temporal sequencing indicated on the map is reminiscent of some early ethnographic filmmakers' use of long shots of the landscape followed

by closer shots of architecture and metonymically-rendered native peoples. While a cinematic rendition of these sights may or may not have been marked by cuts indicating spatial and temporal ellipses, depending on how early the films were made, the panorama is marked by a textualization that suggests a similar structuring of geographic and ethnographic knowledge, which must have made sense to audiences at the time. Panorama audiences might therefore have appreciated the fact that the painting of Nanking was a composite view of the city rather than a 360-degree rendering of a landscape in a single time and space. Burford defended his composite strategy by arguing that the technique afforded 'an opportunity of presenting portraits of the principal persons engaged in the negotiations, and, at the same time, a characteristic and lively picture of the costume and customs of this singular people'. It has been introduced, he argued, 'on a portion of the Panorama, not otherwise occupied by an object in a particular moment'.[12]

The blending of the topographical with the anecdotal within the panorama, however, also threatened to undermine the very laws of verisimilitude that governed it. While Burford was sensitive to issues of historical realism, he nevertheless saw in the composite view the potential for greater audience engagement and interest, and to this end, modified the panoramic vision, creating a more fragmented way of seeing the world – a more modern perception increasingly invoked by illustrated newspapers, public advertising displays (and, later, cinema). This is not to suggest that ethnographic images incorporated into circular panoramas could only be found in those composite panoramas which broke free from the spatial and temporal unity of the 360-degree panorama; for example, Burford's *View of the Bay of Islands, New Zealand and the Surrounding Country* which appeared at a Broadway panorama building in New York City and was painted by Burford from drawings by Augustus Earle in 1840, blends both geography and ethnography with seamless ease. According to the brochure description:

> In various parts around are native settlements, and huts, decorated with singular
> devices of rude sculpture – the inhabitants of which are seen following their
> domestic avocations, or engaged in the dance; with their painted and half naked
> figures, and wild gestures, strangely contrasting with the staid demeanor, and
> ample costumes of the Europeans. (Burford 1840)

In the orientation guide, which includes an engraving of the panorama with 44 numbered items stacked one on top of the other, the paragraph-long description entitled 'Natives Dancing (#42)' provides the spectator with vital context, the kind of background information one would expect from a lecturer. The lengthy description of the Maori people is remarkably detailed, and, aside from a tone of

---

12 *Description of a View of the City of Nanking, and the Surrounding Country, Now Exhibiting at the Panorama, Leicester Square*, brochure of panorama painted by Robert Burford, 1845, British Library, 1.

disapproval levelled at the hyper-enthusiasm of the dancers, we glean information about Maori economic, social and cultural life:

> In common with all savage nations, the New Zealanders are fond of dancing and singing. Their dances are similar to those of most persons in a state of nature; they have no half measures; and whether it is the dance of pleasure, or the war dance of defiance, they enter into the spirit of it with such good will, as to completely exhaust themselves by excessive fatigue. The upper mat being laid aside by both sexes, the performers range themselves in one or two lines, beating their breasts, and singing a plaintive chorus. The action of the arms and gestures of the body soon become more violent, and they utter piercing and savage cries. They stamp vehemently, but seldom move to any considerable distance from the place where they commence. Every movement is simultaneous with all the individuals; no irregularity is perceptible, however great their numbers; as the dance continues, their countenances become violently distorted, and they appear under the influence of ungovernable phrenzy [sic]. (Burford 1840)

Redolent with cultural anxiety about the excesses of native performances with synchronized movements that engage the body in ways both terrifying and impressive, the writer betrays a somatophobia quite common in eighteenth- and nineteenth-century records of cultural encounter. Interesting here, however, is the attempt made by the author to animate the scene, to compensate for the stasis of the painted canvas by describing aspects of the dance that would be entirely lost in the viewing of the painting. But by animating the dance, the writer seems unwilling to let the images testify to their cultural significance outside of a non-western frame, which is why such phrases as 'in common with all savage nations' perform crucial ideological work.

We see a similar homogenization at work in the myrioramas of the Hamilton and Poole families, which dominated the industry of moving panoramas in the last quarter of the nineteenth century and which space precludes a detailed analysis here. Launching their business in 1848, the Hamilton's acquired two major panoramas in the 1850s, Philip Phillip's *Grand Moving Panorama of Hindustan* and Charles Marshall's *Grand Tour of Europe*. Operating as showmen, the Hamilton and Poole families co-opted the term myriorama (which included everything from panoramas, dioramas, variety acts, and eventually cinema), and started using the term to describe their shows in 1883. From the Greek *myrioi* (various) and *horama* (view), the term myriorama was originally used to describe a children's game in which the matching horizon lines of cards with various landscapes could be placed down in any order. Coined in 1802 by Jean-Pierre Bres, the term was used to describe countless grand tours (the term "grand" being taken from the English institution of the Grand Tour to the European continent). One of the most popular and enduring performances was Poole and Young's *Overland Route to India* (c. 1875) (Figure 1.9), which claimed to occupy 100,000 feet of canvas. The poster, with the caption 'The Maidan at Calcutta', offers us some sense of the content and
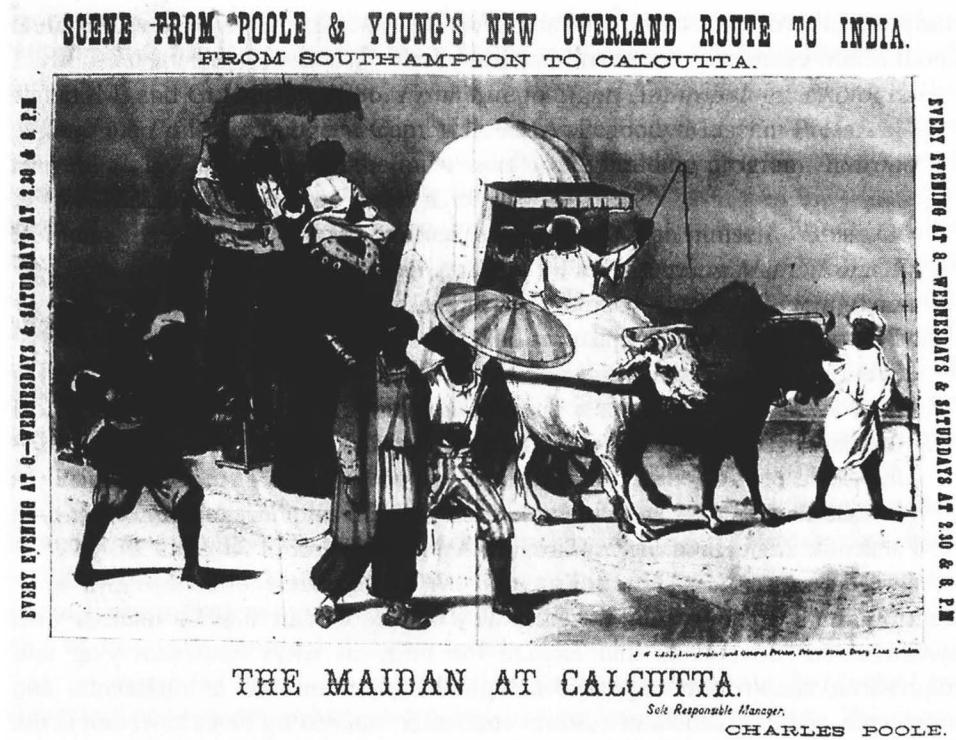
Figure 1.9　Poole and Young's overland route to India, c. 1875

tone of the myriorama and is different in style to the more common multi-shot posters that previewed the places visited in the show. The image of the bullock pulling the cart has a distinctly prosaic quality to it, signalling to audiences that the performance will offer something more substantive in terms of cross-cultural information than the fleeting glimpses of the typical myriorama, although in the absence of detailed information about the lecture we can at best speculate at what kinds of ethnographic meanings were available.

Conclusion

Panoramas and *mappaemundi* found unique and intriguing ways to satisfy a deep-seated fascination with non-Western culture, a fascination that has persisted over centuries and continues today via the internet and the National Geographic channel. They carved out a niche for ethnographic image-making, exploiting ways of seeing drawn from cartography, landscape painting, map-making, and the fantasy/reality of travel. Moreover, the fact that both the Hereford Map and most of the panoramas discussed in this essay were completed and exhibited at a time when even the very notion of an anthropological discourse had not yet taken shape, may afford us an opportunity to reclaim these cross-cultural seeing devices from their

traditional contextualization within art history, medieval studies, geography, and cinema studies, and re-read them through an ethnographic lens. In the absence of concrete information about how the ethnographic meanings of these artworks were negotiated by their respective audiences, we can only be guided by pre-existing frames of reference, dominant perceptual modes, and in the case of panoramas, information embedded in reviews that provide us with some sense of how an ethnographic discourse circulated. For example, in a *London Examiner* review of the engraved version of Major James Taylor's 1828 *Panorama of Sydney*, in which he singles out the Australian Aborigines with spears in the centre foreground as a point of interest – 'several groups of Natives employed in their exercises and sports' – we get an inkling of how indigenous practices were understood, or at least deemed important enough to pique the interest of the reviewer (Anon. 1828: 821 quoted in Colligan 2002: 33). What I have tried to suggest in this essay is that something rather different occurred when spectators were left to their own devices to stare at the wondrous surface of the Mappa Mundi or wander around the viewing platform of the 360-degree panorama. In the liminal space of the panorama, where reality was optically embalmed, and on the altar of Hereford cathedral where the Mappa Mundi was displayed for medieval spectators, ethnographic imagery may have resonated differently, imputing to native peoples an inkling of agency perhaps by celebrating their wondrous difference – as remarkable as that difference may have been. If the real success of the panorama lay, as Scott Wilcox has argued, not in the artistry but in the creation of new publics for art and a 'new conception of what a work of art could be', perhaps it is not unreasonable to revisit the panorama and Hereford Map as previously overlooked sites of ethnographic image-making (Wilcox, 1988, 42).

References

Anonymous. 1828. *The Examiner* (December).

Anonymous. 1853. *Great National Painting: Professor Risley's Original Gigantic Moving Panorama of the Mississippi River Extending from the Falls of St. Anthony to the Gulf of Mexico, Painted by John R. Smith* (Philadelphia: 1853).

Anonymous. 1886. Panoramas and Dioramas. *The Leisure Hour*, Vol. 35, 45–8.

Arrington, J.E. 1957. Samuel A. Hudson's panorama of the Ohio and Mississippi rivers, *The Ohio Historical Quarterly*, vol. 66, no. 4 (Oct.), 359–61.

Banvard, J. 1847. *Description of Banvard's Panorama of the Mississippi River Painted on Three Miles of Canvas Exhibiting a View 1200 Miles in Length Extending from the Missouri River to the City of New Orleans*. Boston: John Putnam.

Beal, T.K. 2002. *Religion and Its Monsters*. New York: Routledge.

Bevan, W.L. and H.W. Phillott. 1874. *Medieval Geography*. London: Stanford.

Birkholz, D. 2004. *The King's Two Maps: Cartography and Culture in Thirteenth-Century England*. New York: Routledge.

Burford, R. 1840. *Description of a View of the Bay of Islands, New Zealand, and the Surrounding Country; Now Exhibiting at the Panorama, Broadway, New York*. New York: W. Oxborn.

Bynym, C.W. 1997. Wonder, *American Historical Review*, 102, 1–26.

Campbell, M.B. 1988. *The Witness and the Other World: Exotic European Travel Writing, 400–1600*. Ithaca, NY: Cornell University Press.

Cohen, J.J. 1999. *Of Giants: Sex, Monsters, and the Middle Ages*. Minneapolis: University of Minnesota Press.

Colligan, M. 2002. *Canvas Documentaries: Panoramic Entertainments in Nineteenth-Century Australia and New Zealand*. Victoria: Melbourne University Press.

Crone, G.R. 1965. New light on the Hereford Map, *The Geographical Journal*, vol. 131, no. 4 (December), 447–58.

Daston, L. and Parks, M. 2001. *Wonders and the Order of Nature 1150–1750*. New York: Zone Books.

Denholm-Young, N. 1957. The Mappa Mundi of Richard of Haldingham at Hereford, *Speculum*, vol. 32, no. 2 (April 1957): 307–14.

Edison, E. 1997. Review of *Mappa Mundi: The Hereford World Map*, by Paul D.A. Harvey, *Imago Mundi*, vol. 49, 162–63.

Friedman, J.B. 2000. *The Monstrous Races in Medieval Art and Thought*. Syracuse: Syracuse University Press.

Griffiths, A. 2008. *Shivers Down Your Spine: Cinema, Museums, and the Immersive View*. New York: Columbia University Press.

—— 2001. *Wondrous Difference: Cinema, Anthropology, and Turn-of-the-Century Visual Culture*. New York: Columbia University Press.

Harley, J.B. 1988. Maps, knowledge and power, in *The Iconography of Landscape: Essays on the Symbolic Representation, Design, and Use of Past Environments*, edited by D. Cosgrove and S. Daniels. Cambridge and New York: Cambridge University Press, 277–312.

Harvey, P.D.A. 1996. *The Hereford World Map*. Toronto: University of Toronto Press.

—— 2002. *Mappa Mundi: The Hereford World Map*. Hereford: Hereford Cathedral.

Hyde, R. [no date] *The Artist, the Showman, and the Moving Panorama*. Unpublished, undated manuscript held at the Bill Douglas Center, Exeter University, moving panorama file.

Leibson, D. 1995. Colony and cartography: shifting signs on indigenous maps of New Spain, in *Reframing the Renaissance: Visual Culture in Europe and Latin America 1450–1650*, edited by C. Farago. New Haven and London: Yale University Press, 264–81.

Lozovsky, N. 2004. Review of *The Hereford Map. A Transcription and Translation of the Legends with Commentary*, by S.D. Westrem, *Terrae Incognitae: The Journal for the History of Discoveries*, vol. 34, 117–18.

Miller. A. 1996. The panorama, the cinema, and the emergence of the spectacular, *Wide Angle*, vol. 18, no. 2 (April), 34–69.

Morgan, D. 1988. *Visual Piety: A History and Theory of Popular Religious Images*. Berkeley: University of California Press.

Oettermann, S. 1997. *The Panorama: History of a Mass Medium*. New York: Zone Books.

Pearson, R.F. 1907. *Military Panorama Drawing in Three Lessons and Notes on Hand Sketches, Panoramas from Maps, Maps from Panoramas*. London: Gale and Polden.

Poe, E.A. 1850. *The Works of the Late Edgar Allan Poe. Vol. 2, Poems and Miscellanies* (edited by R.W. Griswold). New York: J.S. Redfield.

Rees, R. 1980. Historical links between cartography and art, *Geographical Review*, vol. 70, no. 1 (January), 60–78.

Rice, S. 1993. Boundless horizons: the panoramic image, *Art in America*, vol. 81, 68–71.

Romm, J.S. 1992. *The Edges of the Earth in Ancient Thought: Geography, Exploration, and Fiction*. Cambridge: Cambridge University Press.

Sobchack, V. 2004. *Carnal Thoughts: Embodiment and Moving Image Culture*. Berkeley: University of California Press.

Taylor, E.G.R. 1954. The Hereford Map in facsimile, *The Geographical Journal,* vol. 120, no. 2 (June), 221–23.

Twain, M. 1917 [1883]. *Life on the Mississippi*. New York: Grosset and Dunlap.

Wernick, R. 1985. Getting a glimpse of history from a grandstand seat, *Smithsonian*, Vol. 16 (August), 68–82.

Westrem, S.D. 2001. *The Hereford Map. A Transcription and Translation of the Legends with Commentary*. Turnhout: Brepols.

Wilcox, S.B. 1988. Unlimiting the bounds of painting, in *Panoramania!: The Art and Entertainment of the 'All-Embracing View'*, edited by R. Hyde. London: Trefoil Publications in association with Barbican Art Gallery, 13–45.

Williams, J. 2005. *Mappa Mundi and the Chained Library*. Hereford: Hereford Cathedral.

Wittkower, R. 1942. Marvels of the east: A study in the history of monsters, *Journal of the Warburg and Courtauld Institutes*, 5, 159–97.

Woodward, D. 1985. Reality, symbolism, time, and space in medieval world maps, *Annals of the Association of American Geographers*, vol. 75, no. 4 (December), 510–21.