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Global Glimpses for Local Realities:
The Moving Panorama, a Forgotten Mass Medium of the 19th Century

Abstract:

Panoramas enjoyed widespread popularity in the 19th century. By a panorama we usually mean a circular 360 degree panoramic painting shown in a cylindrical building erected for the purpose. There were, however, other “panoramic” forms that have fallen into oblivion. This article analyzes one of them: the moving panorama, a long roll painting moved in front of the audience by means of a special apparatus. The moving panorama was a popular medium that purported to communicate the evolving global experience to local audiences, contributing to the dissemination of audiovisuality and, ultimately, to the formation of the “wired world”. Contrary to the common misconception, the moving panorama was not a simple spin-off of the circular panorama. It had a cultural identity of its own. Most accounts of the moving panorama have failed to grasp both its formal complexity and its cultural significance. This article re-positions the moving panorama within the history of audiovisual media. It begins by reviewing the existing literature on the panorama, explaining why the moving panorama has been neglected as an object of study. The next section outlines its history. The following sections reconstruct, albeit in rough form, the basic features of the aesthetics of the moving panorama. In conclusion, some reflections on the general cultural significance of the moving panorama as a “globalizing” medium will be provided.

"This is, amongst other features which characterise it, an age of Panorama-painting. The public is growing attached to this mode of seeing the world without the trouble or expense of locomotion and this spreading inclination has naturally determined the application of much artistic talent in the direction in question."

- Athenaeum, 27th July, 1850

Introduction: Panorama and “Global Vision”

I recently made a Web search for "panorama". Google found about 1.060.000 entries in 0.06 seconds - an overwhelming, although predictable experience. A quick sampling of the first hundred "hits" demonstrated the pervasive presence of the word "panorama" in global culture. It has been adopted to the vocabularies of numerous languages, including English, Polish, French, German, Italian, Spanish, Portuguese,

Russian, Czech and Indonesian (not to say anything about countless linguistic variants such as the Finnish word "panoraama", ignored by the digital logic of the current Internet search engines). "Panorama" or "panoramic" can refer to almost anything - hotels and restaurants, tourist attractions, travel agencies, television programs, all kinds of "overviews", computer programs and web design companies. Scrutinizing the highly heterogeneous list of entries one even discovers a few hits that a historically conscious web surfer might relate to the "real" panoramas. These include web pages for the Mesdag Panorama (The Hague, The Netherlands) and the Bourbaki Panorama (Luzern, Switzerland), two physically existing "apparata for exhibiting pictures" and "vehicles" for virtual world voyaging preserved from the 19th century.¹ Locating these after erring in the "panoramic" turmoil of the Internet feels like reaching a semantic haven. This feeling, of course, is illusionary: meanings are neither static nor fixed, not even when projected into the past and associated with tangible historical artefacts.

Yet, as theorists and historians have pointed out, the 19th century panorama holds a special place in the trajectory toward media as global experience. Although not "wired" in the technical sense, it purported to do something that anticipated the 20th century networked media: to transport the audience "beyond the horizon", dissolving the boundary between a local existence and a global all-embracing vision. Without forcing the spectator to leave one's familiar surroundings the panorama "teleported" him or her into the current hotspots of the world. Battlefields from Waterloo and Trafalgar to Gettysburg and Borodino became familiar experiences for countless spectators, witnessed "as if really on the spot". In an era when globe trotting and organized tourism were taking their first timid steps, the panorama offered itself as a virtual "vehicle" that took audiences to visit distant lands and famous cities. There were parallel channels that promised something similar, most notably the stereoscope. Instead of the collective public ritual of panorama spectatorship, the stereoscope offered the spectator the individualized experience of virtual voyaging in one's privacy. It was the ultimate device for "armchair travelling". From a mental-historical point of view both were derived from the desire to see and experience on a global scale, influenced by the onslaught of multi-national capitalism and colonialism. Although neither the panorama nor the stereoscope were able to provide a real-time experience that came to characterize later (potentially) global media like television broadcasting and the Internet, they compensated for this lack by an enhanced sense of presence, the near-tangible quality of the image. An absolutely synchronous here-and-now experience was still beyond the mental horizon of most 19th century observers, but the craving for it was already felt (inspired by news events like the laying of the Atlantic telegraph cable and the invention of the telephone).

As far as we know, the word "panorama" appeared in print for the first time on June 11, 1791 in the British newspaper *The Morning Chronicle*, referring to a visual spectacle invented some years earlier by Robert Barker, an Irish painter.² In 1787 Barker had

¹ "Apparatus for Exhibiting Pictures" was the title for Robert Barker's original patent for the panorama, granted 19 June 1787.

² This reference, the earliest found so far, is suggested by Scott Wilcox in "Erfindung und Entwicklung des Panoramas in Grossbritannien", *Sehsucht. Das Panorama als Massenunterhaltung des 19. Jahrhunderts*, edited by Marie-Louise von Plessen, Ulrich Giersch. Basel and Frankfurt am Main: Stroemfeld/Roter Stern, 1993, p. 35 (note 11). Altick says the word "came into use in 1791" without quoting a source (Richard D. Altick: *The Shows of London*, Cambridge, Mass.: The Belknap Press of

been granted a patent for "An Entire New Contrivance or Apparatus, which I Call La Nature à Coup d'Oeil, for the Purpose of Displaying Views of Nature at large by Oil Painting, Fresco, Water Colours, Crayons, or any other Mode of Painting or Drawing".³ Barker's patent concerned a new method of creating and displaying very large paintings. An enormous canvas, depicting a single situation or location, was stretched horizontally along the entire inner wall of a specially constructed cylindrical building so that its ends merged seamlessly. By skillfully hiding the upper and lower margins (often by props) and controlling the (natural) lighting from the outside the painting was turned into an illusionary environment. The audience, observing the view from a platform in the center of the building, was meant to feel, as Barker put it, "as if really on the very spot". Although most of the circular 360 degree panoramas exhibited throughout the 19th century conformed to Barker's original patent description, the uses of the word remained vague. It became a general metaphor and was applied to other types of visual forms as well. A case in point, the word "panorama" was often simply used about unusually large paintings exhibited separately.⁴

Another "panoramic" phenomenon that differed from the "barkerian" panorama was the "moving panorama". Contrary to the circular 360 degree panorama, its aim was not to provide an immersive "wrap-around" environment. Although the constitution of the moving panorama as an apparatus was never uniform, evolving with time, its basic elements could tentatively be described as follows. The audience members, instead of being surrounded by the image, were seated in front of it as in a theater or a lecture hall (or, anachronistically, a cinema). Facing them was a "window", a square opening visible through a proscenium arch. A long strip of canvas with painted images was moved horizontally across this stage opening from one vertical roller to another by means of a mechanical cranking mechanism. The images often formed more or less continuous "panoramic" scenes, but the roll could also consist of distinct "views". The rollers, as well as the cranking mechanism and the instruments for creating sound effects and music, were hidden from the audience's view. A lecturer usually stood next to the canvas, explaining it to the audience as it moved along. Instead of offering a static spatial illusion, such shows presented changing scenery and combinations of images, speech and sounds.

Harvard University Press, 1978, p. 132. Stephan Oettermann's authoritative *The Panorama. History of a Mass Medium* (translated by Deborah Lucas Schneider, New York: Zone Books, 1997, orig. 1980) is more vague. On page six Oettermann claims that the word "appears to have entered the English language sometime between 1787 and 1795, but most probably not before 1792". Later (p.101) he quotes an advertisement from *Times* (January 10, 1792), claiming it was here that the word was used for the first time. Bernard Comment in *Le XIXe siècle des panoramas* (Paris: Adam Biro, 1993) seems to agree with this, although he only mentions *Times* in "January 1792" (p. 5).

³ Although the word panorama does not appear in the patent document, it seems to have been suggested to the inventor by one of his "classical friends" between 1787 and 1891. A neologism, based on the Greek words *pan* (all) and *horama* (view), it no doubt seemed to have more commercial potential than Barker's original title "La Nature à Coup d'Oeil" (nature at a glance). A facsimile of Barker's patent has been published in Laurent Mannoni, Donata Pesenti Campagnoni & David Robinson: *Light and Movement. Incunabula of the Motion Picture 1420-1896*, Gemona: La Cineteca del Friuli / Le Giornate del Cinema Muto, 1995, pp. 157-158. According to Scott Wilcox, [f]riends of the proprietor provided him with a new title which was sufficiently striking to gain a permanent place in the English language.. Again, no source is quoted. (Scott B. Wilcox: "Unlimiting the Bounds of painting", in Ralph Hyde: *Panoromania! The Art and Entertainment of the 'All-Embracing' View*, London: Trefoil Publications in Association with Barbican Art Gallery, 1988, p. 20.

⁴ See Iris Cahn: "The Changing Landscape of Modernity: Early Film and America's 'Great Picture' Tradition", *Wide Angle*, Vol.18, No. 3 (July 1996), pp. 85-94.

Although the moving panorama enjoyed widespread popularity in the 19th century, it has fallen into oblivion, overshadowed by the massive presence of the circular 360 degree panorama. As this article argues, the situation does not do justice to the true cultural significance of the moving panorama. The moving panorama was a highly influential phenomenon that attempted to connect the local to the global, contributing to the dissemination of audiovisuality and ultimately effecting the formation of the “wired world”. Contrary to the common misconception, the moving panorama was not a simple spin-off of the circular panorama tradition. It had a cultural identity of its own. Most accounts of the moving panorama have failed to grasp both its formal complexity and its cultural meaning as a “screen practice”.⁵ This article attempts to re-place the moving panorama within the history of audiovisual media. It begins by reviewing the existing literature on the panorama, explaining why the moving panorama has been neglected as an object of study. The next section outlines the history of the moving panorama. The following sections reconstruct, albeit in rough form, the basic features of the aesthetics of the moving panorama. In conclusion, some reflections on the general cultural significance of the moving panorama as a “globalizing” medium will be provided. It should be emphasized that this article is not meant as the “final word” about its topic. Rather, it is a preliminary sketch which will be refined by further research.

The Moving Panorama - a Neglected Object of Study

The voluminous literature on the history of the 360 degree panorama has relegated the moving panorama to a subordinate role, treating it as a minor variant of the "real" - meaning: circular - panoramic tradition. Stephan Oettermann's authoritative *The Panorama. History of a Mass Medium* dedicates only about twenty-five of its 400 pages to the moving panorama.⁶ Silvia Bordini's *Storia del panorama* (350 pages) and Bernard Comment's *The Painted Panorama* (272 pages) are even more sparse: both devote to it about four pages.⁷ Interestingly, Comment admits that the moving panorama, like the diorama, "brought about a radical shift in relation to the circular panorama, a shift that involved another logic".⁸ Yet, he does not elaborate on this logic. In spite of the recent interest in “pre-cinematic” cultural forms, few serious attempts have been

⁵ The word “screen practice” was coined by Charles Musser. See his *Emergence of the Cinema: The American screen to 1907*, *History of the American cinema*, vol.I, Berkeley and Los Angeles: University of California Press, 1994, chapter one, “Towards a History of Screen Practice”. For Musser, screen practice means the “magic lantern tradition in which showmen displayed images on a screen accompanying them with voice, music, and sound effects.” (p.15). Musser does not consider moving panorama. In spite of differences (no luminous projection, etc.) as cultural forms, including the constitutions of their viewing apparatus, there are many similarities between the magic lantern show and the moving panorama. I think the moving panorama should be seen as one form of “screen practice”.

⁶ In her review (1997) of the English translation of Oettermann's book Danielle Hughes wrote, quite correctly: “The author's focus on the circular panorama limits his discussions of the moving panorama, a later important variation of the panoramas [sic] form. This also limits the discussion of work in the United States, since many of the major developments here were in moving panoramas.” Available online at <http://brickhaus.com/amoore/magazine/hughes.html> .

⁷ Silvia Bordini: *Storia del panorama: la visione totale nella pittura del XIX secolo*, Roma: Officina Edizioni, 1984; Bernard Comment: *The Painted Panorama*, translated by Anne-Marie Glasheen, New York: Harry N. Abrams, Inc., 1999.

⁸ Comment, op.cit., p. 65.

made to salvage the moving panorama from the semi-obscurity into which it has fallen. Although there are valuable earlier studies, like John Francis McDermott's *The Lost Panoramas of the Mississippi* (1958), several articles by Joseph Earl Arrington and an illuminating chapter in Richard D. Altick's *Shows of London* (1978), the lack of recent critical writing on the moving panorama is striking.⁹ Among the rare studies worth mentioning are articles by Kevin J. Avery, Ralph Hyde and Angela Miller.¹⁰

Why have cultural critics and historians focused on the circular panorama, neglecting the moving panorama? One factor might be the changes taking place within art history as a discipline. The field has been shifting its focus from "high" art to hitherto neglected "sub-canonical" areas like printed ephemera, images by underprivileged social groups and classes, art of the mentally deprived, comic strips and other forms of visual popular culture, advertising and visual media spectacles. For such revisionistic art history, the 360 degree panorama has been a suitable topic, because it falls somewhere between the classical traditions of painting and architecture, popular visual spectacles and the emerging "mass media". The early panorama painters often had pretensions to creating "high art", although they were not welcomed with open arms by the academic art world. The emergence of the panorama raised a heated cultural and aesthetic debate about its cultural and artistic value.¹¹ Whatever its artistic merits, panorama painting continued the traditions of perspectival and illusionistic painting. Thus it can be associated with baroque church interiors and illusionistic rococo house decorations, as well as with historical painting, landscape painting, topographical prints and pencil sketches in the tradition of "voyages pittoresques". As Comment's and Bordini's books demonstrate, the circular panorama is a perfect topic for mildly revisionist art historians – not too radically different but not too conventional either.

⁹ John Francis McDermott: *The Lost Panoramas of the Mississippi*, Chicago: The University of Chicago Press, 1958; Altick, *op.cit.*, Ch.15 (pp. 198-210). There are numerous references to moving panoramas in other chapters as well. An example of the books that either ignore or misrepresent the moving panorama is Emmanuelle Michaux: *Du panorama pictural au cinéma circulaire. Origines et histoire d'un autre cinéma 1785-1998*. Paris: L'Harmattan, 1999. Michaux is almost totally ignorant about the moving panorama. She claims, for example, that there is "very little information" about "The Original Grand New Peristrepheic" [sic] (1823), which the author assumes is the first moving panorama (p.62). If one is limited to reading sources only available in the French language this may indeed be the case. Like Comment, Michaux considers the circular panorama the only "real" panorama (p.63). Even Barbara Maria Stafford's text for *The Getty Center's Devices of Wonder* exhibition catalogue (Barbara Maria Stafford and Francis Terpak: *Devices of Wonder. From the World in a Box to Images on a Screen*, Los Angeles: Getty Research Institute, 2001) contains confusions that I have pointed out in my "Peristrepheic Pleasures, or The Origins of the Moving Panorama" (forthcoming).

¹⁰ See Avery's and Hyde's articles in *Sehnsucht. Das Panorama als Massenunterhaltung des 19. Jahrhunderts*, edited by Marie-Louise von Plessen, Ulrich Giersch. Basel and Frankfurt am Main: Stroemfeld/Roter Stern, 1993. See also Avery's "Movies for Manifest Destiny: The Moving Panorama Phenomenon in America", published in the catalogue *The Grand Moving Panorama of Pilgrim's Progress*, Montclair, NJ: Montclair Art Museum, 1999 (available online at <http://www.tfaoi.com/aa/3aa/3aa66.htm>). Angela Miller: "The Panorama, the Cinema, and the Emergence of the Spectacular", *Wide Angle*, Vol.18, No 2 (April 1996), pp. 34-69. Miller's essay contains little original research on the moving panorama, relying mostly on published standard works. Miller attempts, however, to apply recent audiovisual theory to put the moving panorama in context. The text is frequently marred by the writer's failure to take into account the mutual differences between the circular and the moving panorama. One should also mention the work of Russell A. Potter on the moving panoramas dealing with arctic travel (for example "The Arctic Panoramas of Elisha Kent Kane", 2000, available on-line at <http://www.ric.edu/rpotter/kanepans2.html>).

¹¹ See Hyde: *Panoromania!*, *op.cit.*, for a detailed discussion of this debate.

Yet the circular panorama has also appealed to cultural theorists looking for traces of cultural “epistemes”. It has been seen as a symptom of a cultural rupture. After all, the panorama was a new kind of institution; it was based on a patented invention; as a commercial enterprise it was part of the industrialization of the image in the 19th century. As various theorists have pointed out, the panorama can be read as a novelty on different levels: physical (the rotunda as an urban landmark), mental (new mode of virtual and immersive experience), commercial (capitalist enterprise), ideological (vehicle for nationalism and imperialism), communicative (panorama as a “mass medium”) and discursive (cultural metaphor). The panorama has thus become an emblem representing an entire era. Like another “vision machine”, Jeremy Bentham's Panopticon (conceived almost simultaneously with Barker's panorama), the circular panorama has been treated as a symptom of a re-organization of the regime of the visible. Some theorists have treated it as a model for a new kind of spectatorship. For Anne Friedberg the fact that the visitors were made to stroll around the platform while observing the surrounding panoramic scenery constitutes a new mode of mobile spectatorship that finds an echo in the flâneur, the female window shopper and in modified form in the cinema spectator.¹²

The circular panorama has been closely connected with the evolving urban environment and with the experience of modernity. For Walter Benjamin, it represented “an attempt to bring the country into the town” by the town-dweller “whose political supremacy over the countryside was frequently expressed in the course of the century”. In the panoramas the town was in a sense “transformed into landscape”, anticipating the mobile visual experience of the flâneur.¹³ It should be noted, however, that beside sublime romantic landscapes, many panoramas represented great cities as well. Often the topic was one's own city, seen from an unusual vantage point. The panoramas functioned as giant “holodecks” teleporting their audiences not just to the countryside, but to other urban centers and civilizations as well. Benjamin's central argument is valid: the circular panorama subordinated the rest of the world to the sweeping gaze of the urban spectator. As a virtual “vehicle” it “moved” simultaneously to two directions: while the audience was being teleported to the remote location, the remote location was at the same time transported to the city. This situation has attracted media theorists trying to map the “pre-history” of contemporary immersive media. The circular panorama has been identified as the predecessor of illusionistic spectacles like immersive theme park rides, cinematic giant screen forms like Cinerama and IMAX, and virtual reality systems.

Painting a circular panorama and building a rotunda for it was a time-consuming and costly undertaking, which usually required the formation of a commercial panorama company. To cover the investment, the painting had to be exhibited for months and even for years in the panorama building. After its value as an attraction had faded, it could be rented or sold to be shown in another rotunda. Because of this the exhibition of 360 degree panoramas depended on the availability of capital and the existence of large crowds. The privilege to experience them belonged to the town-

¹² Anne Friedberg: *Window Shopping. Cinema and the Postmodern*, Berkeley: University of California Press, 1993.

¹³ Benjamin, *op.cit.*, p.162. Note that the use of the word “diorama” is a translator's mistake. It should read: panorama, except in the sentence: “In 1839 Daguerre's diorama burned down”. (p. 162)

dwellers and those who came to visit the new urban centers.¹⁴ Even during the peaks of its popularity - in the first decades of the 19th century and again during the "panorama revival" from the late 1870s until the end of the century - the total number of panorama rotundas was fairly small and mainly restricted to the larger cities of Western Europe and the American East Coast. In addition panoramas were shown at mass events like world's fairs. It has been estimated that only about 300 circular panoramas were ever painted. Although cultural theorists and historians have emphasized the meaning of the circular panorama as a token of the 19th century culture, its visibility was always limited, at least compared to that of the moving panorama.

Moving panoramas were exhibited in cities as well. However, their visibility was never limited to the metropolitan audiences. The moving panorama was a nomadic medium. While the circular panoramas were "static" in more than one sense (the images did not move; they were shown in permanent buildings), the moving panoramas were mobile. Not only did the images move; the panorama shows moved constantly from place to place. While the circular panorama companies were run by professional business managers and executives, the moving panoramas were often personal or family businesses. Many troupes were small, consisting of a handful of people: the showman/lecturer, the panorama operator, a musician and perhaps a coachman/assistant. The shows rarely stayed in one place long, although some shows did spend the cold winter months in cities, resuming touring in the spring. The tours reached both smaller towns and villages. While there were many moving panoramas that had very short life spans, there were others that were presented for years, even for decades. Some of them were seen by several generations of spectators, often with modified titles and updated content, as an anecdote told by Charles Dickens demonstrates. Dickens once went to see a new panorama show about "the intrepid navigators, M' Clintock and others". It proved to be the same one had seen in his childhood:

"Faithful to the old loves of childhood, I repaired to the show; but presently begun to rub my eyes. It seemed like an old dream coming back. The boat in the air, the wounded seal, and the navigators themselves, in full uniform, treating with the Esquimaux - all this was familiar. But I rather resented the pointing out of the chief navigator 'in the foreground' as the intrepid Sir Leopold, for he was the very one who had been pointed to as the intrepid Captain Back."¹⁵

¹⁴ In the United States train excursions were organized to visit circular panoramas. Such journeys were often arranged by railway companies, fiercely competing with each other. There is a large broadside in the author's collection, announcing "Excursions to the Cyclorama of the Battle of Gettysburg at 541 Tremont St., Boston, just above Dover Street, from May 20 to 29, 1885, inclusive". The trip was organized by the Old Colony R.R. (railroad) Main Line Division. A round trip ticket included a free admission to the Cyclorama. Circular panoramas were often known as cycloramas in the USA. As Charles Musser has shown, the railway companies also sponsored early silent "phantom ride" films to make their routes known and to persuade the spectators to make a real train journey after seeing a virtual one. See Charles Musser: *Before the Nickelodeon: Edwin S. Porter and the Edison Manufacturing Company*, Berkeley : University of California Press, 1991.

¹⁵ Charles Dickens: "Moving (Dioramic) Experiences", *All The Year Round*, March 23, 1867, p. 305 (reproduced in Stephen Herbert: *A History of Pre-Cinema, Volume Two*, London and New York: Routledge, 2000, p. 112. Contrary to the title, Herbert's book is not a complete history; rather it is a very valuable compilation of original documents reproduced in facsimile.)

Contrary to Walter Benjamin's idea about bringing the countryside into the town, it could be claimed that the moving panorama did the opposite: it brought the town (and even the world at large) to the countryside. In their emphasis on the onslaught of modernity cultural theorists and historians have neglected the fact that in the 19th century the majority of the people still lived in smaller communities outside main urban centers. These people participated in the "project" of modernity in a more indirect and invisible way. For them, particularly in the United States and England, moving panoramas were an important source of "edutainment", combining colorful pastime with an opportunity to witness what was happening in the world. Moving panoramas offered simulated journeys, including trips to the Holy Land, adventures along the Overland Trail to India or journeys up and down the Mississippi river. Spectators joined arctic explorers and mountain climbers on their daring adventures; they were given front row seats at coronations, and observation posts to witness the battles of the American Civil War. Although no exact statistical evidence exists, the production figures of moving panoramas, the density of their showings, the number of localities in which they were shown and the total number of their spectators far exceeded those of the circular panoramas. As Ralph Hyde has remarked, particularly in the United States most contemporaries would have associated the word "panorama" outright with the moving panorama, not with the circular panorama.¹⁶

Why has such a phenomenon fallen into oblivion? The most obvious reason is its nearly total disappearance. Although pretending to be "high class entertainment", the moving panorama was a form of commercial popular culture. Its presence was ephemeral. Most panoramas were used until they literally broke into pieces. Their artistic quality was often inferior to that of the circular panoramas, often created under the guidance of academically trained painters. Moving panoramas, including those by John Banvard (Mississippi) and O.E. Bullard (New York City) were often created by stage painters and craftsmen with little or no formal education. Many of them can be classified as naive folk art. Although a handful of original moving panoramas still exist, mostly in the United States, they are rarely seen. Most of the existing ones are too fragile ever to move again (the recent resurrection of the long lost panorama of Bunyan's Pilgrim's Progress, 1850-51, being an exception). In contrast, there are several circular panoramas still open to the public in both Europe and North America. They are regarded as historical and national treasures, and attract large numbers of visitors. It should also be noted that the popularity of the moving panorama reached its peak early, between the 1840s and the 1860s, while the circular panorama had a second coming in the late 19th century. Thus it had a better chance to remain in the popular memory. Last but not least, in retrospect it has been easy to dismiss the moving panorama as something rather conventional, monolithic and unexciting, a modest anticipation of the cinema. Such a simplified notion needs to be corrected.

The History of the Moving Panorama - A Sketch

¹⁶ Ralph Hyde: "Das Moving Panorama zwischen Kunst und Schaustellung", in *Sehsucht*, op.cit., p.84. Perhaps this is one of the reasons why 360-degree cyclical panoramas were often called "cycloramas" in the USA. To add to the confusion, moving panoramas were sometimes known as "cycloramas" in Europe.

The origins of the moving panorama is an intricate question I have dealt with in detail elsewhere.¹⁷ Stephan Oettermann, the author of the most detailed history of the panorama to date, ignores the exact origins of the moving panorama.¹⁸ It seems clear, however, that the basic principle of the moving panorama, the showing of images by unwinding a long picture roll by means of a dedicated apparatus, *antedeceded* the invention of the circular panorama.¹⁹ The earliest manifestation of such a practice may be the Wayang Beber, a tradition of shadow theatre from East Java.²⁰ It seems to have found its form by the 14th century at the latest.²¹ Whether Wayang Beber could have influenced the Western moving panorama is an open question. The earliest documented form of "moving panoramas" in the West were the scrolls of hand-coloured perspective prints (*vue d'optique*) shown inside specially fitted peepshow boxes. The scroll was unwound from reel to reel by means of a crank, operated by a showman. The audience would see the images by peering into the lenses at the front of the box. Peepshow was a popular form of entertainment well into the 19th century.²² Like the moving panorama, it was also a nomadic form, bringing impressions of the outside world to local communities. The views, published by commercial print sellers, depicted famous places or newsworthy events. The peep show was truly an ambulant news medium. In its own way it both served and created visual curiosity toward the world at large. However, when it comes to the arrangement of the views, phenomenologically it hardly mattered to the spectator whether they were separate sheets or attached to a roll.

Towards the end of the 18th century the idea of the roll re-appeared in forms that were even closer to the moving panorama show. A case in point are the "*décors transparents animés*", created by the French garden designer, painter and playwright Carmontelle (Louis Carrogis, 1717-1806). The "animated transparent decorations [‘stage sets’]" were roll paintings shown by means of specially constructed viewing boxes placed against the window for back illumination.²³ Such devices were favoured

¹⁷ See my "Peristrepthic Pleasures, or The Origins of the Moving Panorama" (forthcoming).

¹⁸ Oettermann, *op.cit.*, p.63.

¹⁹ The "extended" (Oettermann) or roll panorama had many kinds of "precursors", ranging from horizontally extended landscape paintings and topographic prints to far Asian painting scrolls and even medieval artifacts like the Bayeux tapestry. From the point of view of the panorama proper, the emergence of special viewing devices and institutionalized viewing contexts is however, essential.

²⁰ The resemblance between Wayang Beber and the Western moving panoramas was (first?) pointed out by Olive Cook in her *Movement in Two Dimensions*, London: Hutchinson & Co., 1963, p. 54.

²¹ According to the *Dictionary of Traditional South-East Asian Theatre*, in Wayang Beber "colour pictures were introduced for the first time in 1378 during the Majapahit period by King Brawijaya I, with the colours playing symbolical roles in the representation of characters. The scrolls were also provided with wooden sticks at each end so that they could be spread out and planted on a wooden base." (quoted in: *Observations on the historical development of puppetry*, chapter two: scenic shades, available on-line at <http://www.sagecraft.com/puppetry/definitions/historical/chapter2.html> . The same source also contains a rare photograph of a Wayang Beber performance in 1900. The audience members were sitting in front of the roll, but also on the sides, so they could see the performance from the other side. Similar arrangements can be found from other forms of shadow theatre as well.

²² See Richard Balzer: *Peepshows. A Visual History*, New York: Harry N. Abrams, 1998.

²³ About Carmontelle and his transparencies, see Birgit Verwiebe: *Lichtspiele. Vom Mondscheintransparent zum Diorama*, Stuttgart: Füsslin Verlag, 1997, pp.28-31. At least five of Carmontelle's roll paintings are believed to survive. The longest one, measuring 42 X 0.5 meters, is in Chantilly, France. It depicts the four seasons. The Getty Center (Los Angeles, USA) has one, known as "Figures walking in a parkland" (circa 1783-1800), executed in watercolor and gouache, with traces of black chalk. It was shown for the first time at The Getty Center in May 2000, together with other

by the pre-Revolutionary aristocracy in France. From the several existing rolls it is easy to conclude that Carmontelle's roll paintings did little to advance the emerging "global vision" - the topics were bucolic fantasy landscapes, based on the milieu that the viewers would have recognized as a reflection of their own surroundings. The image size was small, evoking the size of the present television screens. Being made for private consumption, Carmontelle's boxes lacked the massiveness of the circular panorama. However, Carmontelle's shows did anticipate the moving panorama in that they were accompanied by a spoken commentary. This anticipated the role of the panorama showman. It is also known that two of Carmontelle's viewing boxes were rented out for eleven years, no doubt to be exhibited by touring showmen.²⁴ Whether there was a connection with the emerging institution of the moving panorama show cannot be established with certainty. Other late 18th century audiovisual spectacle, such as de Louthembourg's famous Eidophusicon in London, had certain affinities with the moving panorama as well.²⁵

The earliest documented form of the touring moving panorama show was the peristrepthic (> "turning round, revolving, rotatory") panorama.²⁶ Showmen known as the Marshall brothers are known to have shown their "peristrepthic" panoramas both in specially erected buildings and in temporary locations in various British and Irish cities from about 1818 on.²⁷ Their panoramas depicted topics considered actual and newsworthy: recent battles, a shipwreck, a polar expedition and the coronation of king George IV, one of their greatest successes.²⁸ The preface of one their booklets provides interesting information about the visual logic behind the show: "In the execution of this Spectacle, the Artists received the greatest assistance from the Painting being of the Peristrepthic form, as they were thus enabled to connect and

works by Carmontelle. The most interesting was a reproduction of a drawing (the original is at Bibliothèque nationale, Paris) showing in profile his employer, Louis-Philippe, Duc d'Orleans, and his son Louis-Philippe, Duc de Chartres sitting and intensely staring at something (off the image), obviously a presentation of Carmontelle's "panorama". For an "archaeology of media" this drawing has extraordinary value as an early depiction of the concentrated mode of domestic spectatorship associated with television.

²⁴ Stafford and Terpak, p. 334.

²⁵ Eidophusikon was an actorless audiovisual spectacle on a fairly small scale. Its stated purpose was to present "various Imitations of natural phenomena, represented by Moving Pictures". I have dealt with its relationship to the moving panorama at length in my "Peristrepthic Pleasures, or The Origins of the Moving Panorama" (forthcoming)

²⁶ "Peristrepthic" was a new word, perhaps coined by the Marshalls. According to the Oxford English Dictionary, it means "turning round, revolving, rotatory" (Altick, op.cit., p.201).

²⁷ Item. Hyde claims that Peter Marshall had exhibited "a moving panorama of the Clyde in Prince's Street [Edinburgh] as early as 1809, unfortunately without mentioning his source. (Hyde: *Panoromania!*, p.136.) By building special venues for their shows the Marshalls were obviously influenced by the panorama rotundas. They also slightly anticipated the invention of the Diorama, which was shown in a specially designed building. However, like later dioramas, peristrepthic panoramas were also shown in multi-purpose showrooms, which makes it a hybrid form in terms of its location (permanent-nomadic).

²⁸ This panorama was shown in London in 1823. Its reception was commented on in a satirical print titled "The Moving panorama, or Spring Garden Rout" by C. Williams (published by S.W. Fores, 1923), showing a crowd of people in front of the premises where Marshalls' peristrepthic panorama is being shown. A woman says: "I am told the King looks very Majestic and Elegant." A man answers: "He is positively moving [sic] like life, and as large too." This joke must have been triggered by Marshall's advertising material. (see Altick, op.cit., p.178.). The front pages of Marshalls' guide booklets mention that the figures are presented large as life.

portroy the most striking features of each day's battle..."²⁹ The "connect and portroy" formula implies that the peristrepthic panorama consisted of a series of separate, but physically and thematically connected views. From a first-hand account of a Marshall show in 1828 we can deduct that the images moved slowly in a concave semicircle in front of the audience.³⁰ By making their screen concave the Marshalls very probably wanted to compete with the immersiveness of the circular panorama, although they were only able to present images covering one half (or less) of a full circle. From program booklets we find out that the presentations were accompanied by a lecture, music and sound effects.

Parallel with the efforts of the pioneering British panorama showmen like the Marshalls, J.B. Laidlaw and others, moving panoramas were used as moving backdrops in theatres in London and elsewhere.³¹ They attracted much attention and were always listed, with the names of their painters, on handbills and broadsheets. Although some noted scene painters, like David Roberts, later produced moving panoramas that were shown as independent attractions outside the theatre context, the mutual influence between the theatrical panoramas and the early touring panoramas is not quite clear. It cannot be said with absolute certainty which came first, although the theatrical origin seems more likely. It seems clear, however, that the moving panorama show, like the circular panorama, originated in the British Isles and spread from there to other countries. The first incontestable evidence of a moving panorama show in the United States is from 1830, when Niblo's Garden in New York introduced in its saloon a "Grand Peristrepthic Panorama" showing "connected views" of the Battle of Navarino.³² It must have been considered a novelty at the time, because it remained in the program for several months. The next year Niblo's Gardens presented another peristrepthic panorama dealing with Waterloo, St. Helena, and the funeral of Napoleon. It was claimed that altogether ten thousand figures were brought before the spectators on 20000 square feet of canvas. The use

²⁹ "Description of Messrs. Marshall's grand historical peristrepthic panorama... of the ever memorable Battles of Ligny and Waterloo...", London: M.Wilson, Skinner-Street, 1818, p.IV. (Getty Center Research Institute, Los Angeles).

³⁰ Hermann von Pückler-Muskau: *Reisebriefe aus Irland*, Berlin: Rütten & Loening, n.d., pp. 9-11. The notes about the panorama are dated August 12, 1828.

³¹ From around 1820 at the latest painted moving panoramas were frequently used in the Royal "patent" theatres of Drury Lane and Covent Garden in London. The first documented case is Covent Garden's *Harlequin and Friar Bacon*, performed in 1820. Scene 14 consisted of a rolling canvas the depicted a steam packet's voyage from Holyhead to Dublin. See Hyde: *Panoromania*, 131. There may have been earlier occurrences not yet discovered. A "moving Panorama" was already mentioned in the connection of the Christmas pantomime *Harlequin Amulet* (1800) at London's Drury Lane theatre, but that seems to have been something different.

³² Odell, III, pp. 537-538. Already in 1828 Odell notes a "moving diorama, Punch and Judy, Fantoccini, etc. for the infantile of all ages" shown by a Mr Henry, "lately from Europe". (Odell, III, p. 426). It is doubtful whether this was a real moving panorama. We have already talked about the "moving panorama" shown by Stollenwerck, a mechanical three-dimensional model (see note 29). On May 18, 1829 Maelzel showed at Tammeny Hall, New York among other things *Automata* and "a mechanical panorama of The Conflagration of Moscow" (Odell, III, p. 427). This was more likely a smaller scale dioramic painting with back-lit fire effects. Theatrical moving panoramas had been seen, and even produced, in the USA already a couple of years earlier. There was a moving panorama scene in William Dunlap's play *A Trip to Niagara, or Travellers in America. A Farce in Three Acts*, New York, 1830, 26-27 (Getty Research Center, Los Angeles). It was performed in New York in 1828.

of the word "peristrepthic" implies that these panoramas were probably brought from England. They could well have been by the Marshall brothers.³³

Throughout the rest of the 19th century numerous moving panoramas, sometimes advertised as "peristrepthic panoramas", "moving dioramas" or "peristrepthic dioramas" (all meaning essentially the same thing, with variations that will be explained later), were shown in the United States, the British Isles and sometimes on the European Continent. It was not uncommon for successful shows to cross the Atlantic to either direction. Although the British origins of the moving panorama seem certain, the form has often been considered typically American; it has even been claimed that it was invented in America.³⁴ This idea has to do with the fact that the first moving panoramas that received wide international attention originated in the United States, travelling to London and from there to other European venues. These panoramas were considered sensational novelties, and their fame even exceeded their actual - large - spectatorship. The beginning of the "golden age" of the moving panorama in the late 1840s has often been credited to a single man: the American painter and storyteller John Banvard, whose panorama of the Mississippi river was shown in the Eastern part of the United States in the late 1840s, and premiered at the Egyptian Hall in London in December 1848. Banvard's panorama was an overnight sensation, and inspired competitors to enter the field. From the late 1840s on no less than seven panoramas of the Mississippi river were produced.³⁵ Many of them travelled to Europe after touring the United States.

It is not an exaggeration to say that around 1850 London became the capital of the moving panorama culture. As the greatest metropolitan city of the time, it served as the nexus where new shows were introduced before they began their long tours in the provinces. In some exceptional cases the moving panorama show became identified with the metropolitan city (in the manner of the circular panoramas). The most obvious case was that of the journalist, writer and showman Albert Smith, who became one of the great celebrities of the time.³⁶ Inspired by the extraordinary success of Banvard's Mississippi panorama and his own interest in alpinism Smith created the Ascent of Mont Blanc, a moving panorama show about his ascent to the famous mountain. Smith's show became an immediate success: it was shown 2000

³³ The one on Navarino was probably the one seen by Prince Pückler-Muskau in Dublin in 1828 and the other a combination of two earlier shows. The Marshalls' panorama on Waterloo had been shown (in combination with another one about the battle of Ligny) already in 1818. Another show had featured a "the Napoleon Panorama" dealing with Napoleon's exile on St. Helena and ending with "a correct Representation of the Funeral Procession of Bonaparte""Description of Messrs. Marshall's grand historical peristrepthic panorama... of the ever memorable Battles of Ligny and Waterloo...", London: M. Wilson, Skinner-Street, 1818; "Description of Marshall's grand peristrepthic panoramas: Battle of Genappe, St. Helena, and the most interesting events that have occurred to Bonaparte, from his defeat At the Battle of Waterloo, Until the Termination of his Earthly Career at St. Helena; and the memorable Battle of Trafalcar. Guidebook, London: J. Whiting, Lombard Street, 1825 (both at Getty Center Research Institute, Los Angeles).

³⁴ A case in point, in 1950 H. Stewart Leonard wrote: "Yankee ingenuity brought about the development of the panorama which consists of a canvas wound from one vertical roller to another behind an enframement or stage opening", in *Mississippi Panorama*, edited with an introduction by Perry T. Rathbone. St. Louis: City Art Museum of St. Louis, 1950, p. 128.

³⁵ John Francis McDermott: *The Lost Panoramas of the Mississippi*, Chicago: The University of Chicago Press, 1858.

³⁶ For a recent study of Smith's career, see Mike Simkin: "Albert Smith: Entrepreneur and Showman", *Living Pictures*, vol I, n:o 1 (2001), pp. 18-28.

times at the Egyptian Hall in the 1850s. The contents of the show were updated from time to time, and a veritable avalanche of side-products (from paper roses and board games to sheet music and miniature toy panoramas) were produced to promote it and to assure its continued success. The Ascent of Mont Blanc became an urban institution, yet this was not typical.³⁷ In Britain, the activities of professional touring panorama companies like those run by the Poole and Hamilton families were much more common. From decade to decade, these companies traveled around the British Isles with their rich supplies of panoramas. According to Ralph Hyde, a Poole show could have a staff of thirty five members; in the late 19th century six different Poole troupes were touring simultaneously. In addition to the main attraction (known as a “Myriorama”), a brass band, ventriloquists, jugglers and other variety artists were employed.

In the United States the moving panorama enjoyed great popularity during the 1840s and 50s. Numerous shows were circulating the country, presenting panoramas about great rivers, trips to various parts of the world, including California and the Mammoth Cave of Kentucky, wars and battles, whaling expeditions, and even literary subjects like Bunyan’s Pilgrim’s progress. Reviewing the supply of moving panoramas in New York in 1850, Odell makes an appropriate remark: “Verily, a journey up Broadway was in those days almost a circling of the globe.”³⁸ The popularity of the moving panorama continued during the Civil War in the 1860s, which is understandable: the events of the war provided the showmen plenty of urgent and dramatic subject matter. Thereafter interest in them began to decline, although moving panoramas were painted and exhibited until the early 20th century. One reason for the fading popularity was the loss of novelty; moving panoramas had simply become too familiar. Equally important was the competition by other media, particularly the magic lantern or “stereopticon” show. The final blow to the moving panorama was the appearance of the cinema in the 1890s. The British Poole family gradually moved to the film business eventually becoming a proprietor of chains of cinema theatres. As William Uricchio has shown, early cinema inherited also formal features from the panorama tradition.

Aesthetics of the Moving Panorama - Continuity

The “nature” of the moving panorama cannot be understood by concentrating exclusively on the canvas (which in most cases is impossible anyway). The show had many performative and contingent aspects. Elements like cranking speed, additional special effects and the interplay between image, narration, music and sound effects all contributed to the total effect, as did the physical viewing context (including the size, lighting and temperature of the auditorium, etc.). Unfortunately, very few contemporary descriptions of actual panorama shows have been preserved. Somewhat paradoxically, among the most detailed descriptions are parodies written

³⁷ The Ascent of Mont Blanc did make a tour of the provinces except for a short time between September and November 1851. The success of Smith’s show could perhaps be compared with that of musicals like *Cats* and *Mamma Mia* that stay in the theatre repertory for years, becoming real institutions. In London these musicals are shown in the Leicester Square - Piccadilly Area, in the same neighborhood where also The Egyptian Hall was located.

³⁸ Odell, V, 584.

and even performed by humorists like Artemus Ward, who created an amusing panorama spoof about his adventures among the Mormons in Utah.³⁹ As a consequence, the aesthetics of the moving panorama have to be reconstructed piece by piece from mostly secondary sources, such as newspaper announcements or comments, show booklets and handbills, broadsides, literary references and miniature toy panoramas like Milton Bradley's Myriopticon (circa 1870), a lilliputhian re-enactment of a Civil War (or "Rebellion") era panorama show complete with a broadside and tiny entrance tickets.⁴⁰

The toy panoramas may have contributed to the often repeated misconception, according to which the moving panorama was an enormously long piece of canvas depicting a spatially and temporally continuous scene. In many 19th century pocket panoramas, housed in a cylindrical container or folded between book covers, this is the case: a river or a coronation procession are typical topics. One might also look for an explanation from the notion of the moving panorama as a spin-off of the circular panorama. This may have led some people to conceive of the moving panorama as a circular panorama cut open, stretched, and mounted on a roller, with the element of time added. Yet even a cursory look at the sources mentioned above defies any such notion. The moving panorama was never a simple, homogeneous and unchanging phenomenon. A closer analysis reveals much more variety than uniformity. The moving panorama was a hybrid construct incorporating many different elements that seem sometimes incompatible. It was influenced by other media such as the diorama and the stereopticon show.⁴¹ Its identity emerged from its multiplicity and variability, rather than from an uniform and unchanging formula.

As already stated, already the earliest form of the moving panorama show, the peristrepthic panorama, consisted of a series of successive "views" connected by the topic of the panorama. A case in point, the Marshalls' show about "Battle of Genappe, St. Helena, and the most interesting events that have occurred to Bonaparte, from his defeat At the Battle of Waterloo, Until the Termination of his Earthly Career at St. Helena; and the memorable Battle of Trafalgar" (1825) consisted of two topics, the battle of Trafalgar (Views I-IV) and the "Napoleon panorama" (Views V-XII). In the guide booklet the views are identified by numbers ("View VII") and descriptive titles that emphasize their semi-independence. An exception seems to be Views XI and XII which are listed together ("Views XI and XII, Subject - Another View of the Interior of the Island, and a correct Representation of the Funeral Procession of Bonaparte.."). This might refer to a special arrangement. Perhaps the beginning was an "establishing shot", showing a picturesque landscape, followed by (or turned into?) a longer than usual moving view of the funeral procession, which would also have

³⁹ Artemus Ward's Panorama, as Exhibited at the Egyptian Hall, London. Edited by T.W. Robertson and E.P. Hingston, New York: G.W. Carleton, 1869.

⁴⁰ An example can be found from the author's collection. The fact that the memory of the moving panorama has been preserved in the form of toys may have had an impact on its low esteem, branding it as something simplistic, ephemeral and obsolete.

⁴¹ The Diorama was an illusionistic show invented by Daguerre and Bouton in 1822. The audience was facing a large painting, that underwent atmospheric changes, achieved by alterations in the amount and direction of light falling on the screen. In Daguerre's and Bouton's original Paris Diorama (opened in 1822) the audience sat on a rotating platform, which turned between two "stage openings". A show thus consisted of two "animated" paintings. I have dealt with the relationship between the Diorama and the moving panorama in my "Peristrepthic Pleasures, or The Origins of the Moving Panorama" (forthcoming).

served as a Finale to the whole show. Because there were relatively few views in the show, it is logical to think that each of them was wide enough to fill the entire concave “field of vision” at any one time - as the view XII shows, they may also have been even wider. The views seem to have moved slowly, but whether they stopped at any point cannot be proven.⁴²

Hermann Pückler-Muskau, who described a show he saw in 1828, reported “that the pictures are changed almost imperceptibly, and without any break between scene and scene”.⁴³ How was this achieved? The continuity across the temporal ellipses between the views was no doubt partly provided by the narrator, who guided the spectators’ gazes, but also by visual and perhaps even auditive means. It is possible that the “seams” were masked by painted details near the edges of the individual views or that the edges slightly overlapped. The concave screen and the constant movement of the roll may also have helped.⁴⁴ A conscious effort was obviously made to create an illusion of continuity. This issue is encountered over and over again in the history of the moving panorama. The circular panorama may have offered a continuous representation of a space, but this was practically never the case with the moving panorama. Even when the subject matter required a linear mode of presentation (for example in a panorama depicting a trip along a river), the continuity was apparent rather than actual. In most cases striving for a literally continuous space would have been both impossible and meaningless. John Banvard’s Mississippi panorama followed the river for hundreds of kilometres, as if seen from a river boat. Although Banvard (and the other panoramists as well) made lengthy and adventurous sketching trips along the river, bringing back hundreds of individual sketches, the final “continuity” was created during the execution of the painting in the studio.⁴⁵

The panoramist had two challenges: to focus on the most important highlights, and to present them in such a manner that an illusion of continuity and “integral reality” was achieved. Although perhaps formally more simple, this task was not totally different from the challenges faced later by the film editors in Hollywood. To which extent the choice of the highlights in the Mississippi panoramas reflected already codified iconographical and semiotic systems, is an interesting question.⁴⁶ Because of their huge success the Mississippi panoramas undoubtedly contributed to the formation of such systems. Thanks to John Francis McDermott’s historical detective work, it is possible to get a glimpse of the “codification of the Mississippi” by the panoramists.⁴⁷ There were sights that were considered a “sine qua non”, including cities like St.

⁴² From the descriptions it seems that the curved screen may have resembled the three-projector Cinerama screen of the 1950s, except for being probably smaller (although the great size of the moving panorama images was often emphasized in the advertising material).

⁴³ Cit., Altick, op.cit., p.202. Pückler-Muskau's description of his "Tour in England, Ireland, and France, in the Years 1826, 1827, 1828, and 1829" was originally published in 1833.

⁴⁴ Although Pückler-Muskau claims that the roll moved continuously, the detailed descriptions in the guide booklets at the Getty Research Center give the impression that it might have stopped at times, giving the audience more time to enjoy the details.

⁴⁵ The diary kept by one of the panoramists, Henry Lewis, on his sketching trip along the Mississippi has been published as *Making a Motion Picture in 1848. Henry Lewis' Journal of a Canoe Voyage from the Fall of St. Anthony to St. Louis. With an Introduction and Notes by Bertha L. Heilbron*, Saint Paul: Minnesota Historical Society, 1936.

⁴⁶ About the formation of the iconography of the Mississippi, see *Mississippi Panorama*, edited with an introduction by Perry T. Rathbone. St. Louis: City Art Museum of St. Louis, 1950.

⁴⁷ McDermott, op.cit.

Louis and New Orleans, Nauvoo (Illinois) with the great Mormon temple, the Wabash Prairie (today's Winona) with a view of Fort Snelling and camps of native Americans, the Fall of St. Anthony, etc. There were also stock scenes, either historical or imaginary, that most of the Mississippi panoramas contained. They often had to do with fire: the great St. Louis fire, well-known collisions or explosions of steam boats, a view of prairie on fire, etc.. Accommodating such disparate elements within the overall composition meant that neither a spatial nor a temporal continuity existed. Events that had taken place many years apart were distributed along the same route, and mixed with imaginary scenes. Such deliberate vagueness was certainly both in the showman's and the audience's interest. For the showman it provided a way to include captivating tales and anecdotes. For the audience, living in a pictorially impoverished environment, it offered a possibility to witness "with their own eyes" scenes that were only known from oral or literary descriptions. Neither party had any reason to be concerned about missing spatio-temporal "purity".

The continuity, although "naturally" implied by the logic of the trip, was often formally disrupted or manipulated. To save the operator from the trouble of rewinding the canvas after the show, the audience of the next show had to take a trip along the river to the opposite direction. Contrary to the later medium of film (which the moving panorama is often claimed to have anticipated), the presentation could thus be easily reversed. The depiction of the scenery along the river was not only discontinuous (consisting of highlights merged together), but it sometimes alternated between the opposite sides of the river. Because it would have required too much work to create two separate panoramas, each depicting one side of the river, the most interesting sights from both sides were depicted by alternating between them.⁴⁸ This choice was probably justified by the logic of attraction: showing all the important sights for the audience was more important than retaining a coherent simulation of actual space. Yet, As McDermott suggests, this choice could be motivated by narrative means. Considering that the audience was supposed to be travelling on a (virtual) steamboat, the alternation could be justified by imagining that the boat made a circle before continuing in the original direction. It might have also been possible to suggest that the spectator-traveller was momentarily glimpsing to the opposite direction.

Occasionally the Mississippi panoramas included scenes that were not seen from the direction of the river all, depicting a famous sight nearby or a panoramic view from a cliff or a rock. Such a deviation could possibly have been motivated as a short field trip ashore - if, indeed, there was any need for an explanation at all. Most spectators would probably have been pleased to given an additional point-of-view, without questioning its consequences for the diegetic coherence of the show. The painted panoramas were often supported by elements that were external to them. Sometimes vessels were represented by mechanical cut-out figures "sailing" in front of the panorama, a detail readily ridiculed by humorists.⁴⁹ The panorama show could also contain "tableaux" that were not part of the panorama roll itself. They were large transparent canvases placed in front of the panorama, which was stopped for a while. These static views could be animated by "dioramic" backlighting in the manner of

⁴⁸ In the first photographic panorama of the Hudson river, published in 1888 in book form, both sides of the river were presented simultaneously, one upside down (like a mirror image). To follow the other shore, one had to turn the book upside down (author's collection).

⁴⁹ See Robert Ganthony: "Panorama Skit", in Bunkum Entertainments, L. Upcott Gill, n.d. (reprinted in Stephen Herbert: A History of Pre-Cinema, Volume Two, London: Routledge, 2000, pp. 62-73.)

many peepshow prints of the past. After the tableau had been presented, it was removed, and the panorama kept on moving. When O. E. Bullard's Panorama of the New York City (1850) was presented, close-up "single views of remarkable buildings and localities" were "dropped over the panorama" to provide more detailed glimpses of city life or of places which were outside of the chosen route.⁵⁰ Interestingly, Bullard's single views even contained portraits of the city's well-known personalities. This way of modifying the continuity of the panorama by changing image size and point-of-view anticipated the principle of analytic film editing, although it was realized during the performance, not in production.

The moving panoramas have often been associated by cultural theorists and historians with idea of travelling in a virtual vehicle, from hot air balloons and steamships to trains. In *The Railway Journey*, Wolfgang Schivelbusch, for example, compared the moving panorama to the view seen from the window of a railway car.⁵¹ Although drawing such parallels is tempting, it is interesting to note that few panoramas in the form of a railway journey were even produced, one of the rare - and early - examples being the "panorama of the Liverpool and Manchester Railway, with moving wonders of a journey thereby", shown in Brooklyn in 1835.⁵² None seems to have had much success (at least until the Trans Siberian Railway panorama shows at the Paris World's Fair in 1900). Although the role of the vehicle was at times emphasized as an integral part of the attraction, for example in the Pleorama (Berlin, 1831) where the audience sat on a model boat while two moving panoramas of a sea journey were rolled simultaneously on both sides, it may be that the importance from contemporary spectators of riding a "virtual vehicle" has been exaggerated.⁵³

It is unlikely that a moving panorama of a balloon journey from the British Isles to the Continent of Europe would have been able to create a very intensive sense of presence and participation. For the panoramist, a balloon journey provided various possibilities of temporal manipulation and editing. For example, the crossing of the British Channel would most likely take place by night. Flying above the sea, there would have been little to show, so the crossing could be conveniently represented by a short ellipsis, a dark passage. At dusk and dawn, additional "dioramic" light effects could be introduced for the setting and the rising sun.⁵⁴ When the balloon had "landed" in Paris, it would be possible to switch to another panorama showing the city from the street level (perhaps following Rue de Rivoli). Afterwards, the balloon could "take off" again and continue its journey, most often to the Rhine river valley. If

⁵⁰ Joseph Earl Arrington: "Otis A. Bullard's Moving Panorama of New York City", *The New - York Historical Society Quarterly*, Vol. XLIV, No 3 (July 1960), p. 317. The broadside for Bullard's panorama is in the author's collection.

⁵¹ Wolfgang Schivelbusch: *The Railway Journey*, translated by Anselm Hollo,

⁵² Odell, IV, 110. As Altick reveals, the show had been already seen in London in 1834 under the title Padorama. In front of the moving scenery were "miniature mock-ups, also in motion, of various kinds of rolling stock - locomotive engines and wagons filled with goods, cattle, and passengers". (Altick, 203) This resembles interestingly the Trans Siberian Railway panorama, which also had moving mock-ups in front of the panorama. Padorama inspired no imitators in London (Altick, 204)

⁵³ About Carl Ferdinand Langhans' Pleorama, see Oettermann, pp. 66-67.

⁵⁴ The word "dioramic" refers to the Diorama, invented by Daguerre and Bouton in 1822. It came to mean transformation effects achieved by means by backlighting. A day could turn into night, the moon would rise to the night sky, etc. The sections of a moving panorama meant for dioramic effects were made transparent. During the presentation of dioramic effects the panoramas often seem to have stopped.,

the crossing of the Channel was supposed to take place by a boat, it made sense to let it happen in daytime, because this gave the panoramist a fine opportunity to present to the spectator all kinds of boats (possibly including an entire navy fleet) and stock elements, such as a dramatic storm and a ship wreck; by capturing the viewer's attention by these highlights, the actual duration of the mostly uneventful crossing could be drastically shortened.

Instead of creating a strong sense of participation, it is much more likely that the balloon journey was seen as a novel context to present views of distant cities and landscapes. It gave the show a structure, helping to satisfy visual curiosity and to disseminate visual information. Creating a real sense of immersion was a secondary goal, in spite of the emphasis on continuity. Probably much the same could be said about almost all the moving panoramas in the form of a simulated journey. The moving panorama was above all a presentational medium. The lecturer played a very important role as a mediator and interpreter of the images. The immersion into these images was not stronger here than in the case of any narrative medium. It should also be noted that the image always had a "frame" and was often much smaller than the advertising broadsides pretended. In this sense the moving panorama clearly differed as a spectacle from the circular 360 panorama and the Diorama. The last mentioned were primary "machines of illusion", meant to dazzle the spectator by the make-believe realities they offered. All other goals, including the subject matter of the paintings, depended on the quality of the illusion. Compared with them, the moving panorama was more down-to-earth: its success was more directly linked to the topic and the overall impact of the show, including the lecturer's performance. The illusion of presence in the image was always a secondary goal.

Aesthetics of the Moving Panorama - Discontinuity

Although creating a continuity was a major goal for the panoramists, there were numerous panoramas that made little effort to conceal the "seams" between the successive views. The views were presented as separate "tableaux", although connected by a common theme. Writing about Professor Montroville Wilson Dickeson's and I.J. (John J.) Egan's panorama of the Monumental Grandeur of the Mississippi Valley!" (circa 1850) McDermott states that "it is not, properly speaking, a panorama of the Mississippi...[i]t was rather a series of pictures which derived unity from the lecture."⁵⁵ For a traditional panorama scholar like McDermott the sense of continuity, even when artificially achieved through a "montage", was a pre-condition for something to be classified as a "panorama". In 1950, H. Stewart Leonard had defended the formal solution adopted in the Dickeson-Egan panorama against the other Mississippi panoramas:

"The other panoramas of the Mississippi had the scenery of the river as the major theme. The spectator either ascended or descended the river, depending on whether the panorama was being wound from left to right or from right to left. The Dickeson-

⁵⁵ McDermott, 170-171. The original broadside, which is in the author's collection, uses the words "gorgeous panorama". The Dickeson-Egan panorama has been preserved at the St. Louis Art Museum.

Egan panorama did not have this limited interest in landscape; it reflected to a great extent the Doctor's interest in Indian culture, archaeology, habits and customs."⁵⁶

The panorama was meant as an illustration to the lecture given by Dr. Dickeson about the "Ærchiological" excavations he had made in the Ohio and Mississippi river valleys during several years, focusing on the "antiquities & customs of the unhistoried indian tribes", as the show's broadside tells us. The painting was about 220cm high and 107m long.⁵⁷ It consists of three sections presenting about 45 views.⁵⁸ Although the panorama began in the north at the historic native mounds of Marietta, Ohio and continued down along the Mississippi river there was no effort to simulate its "flow". The views were separate paintings, including several with historical subject matter, and even a "distant view of the Rocky Mountains", which had little to do with the route. There were also didactic "tableaux", including one depicting a cross section of a native tomb, with African-American slaves digging it open in the foreground ("Huge Mound and the manner of opening them"). Dickeson and Egan (who painted the panorama based on Dickeson's sketches) also included a comic interlude, a "Louisiana Squatter pursued by Wolves". The historical tableau about "De Soto's Burial at White Cliffs" contained a dioramic "special effect", a translucent moon illuminated by holding a lamp behind a transparent section of the canvas. Judging from the topics it seems likely that the panorama may have been stopped momentarily, particularly when the detailed didactic views were shown. Unfortunately this is impossible to prove.

There were numerous panoramas that belonged to the discontinuous type, including most of the early peristrepthic panoramas. It is not uncommon to find formulations like "that elegant collection of Panoramic views" or "[t]his extraordinary picture (or rather series of pictures)" from show booklets and broadsides.⁵⁹ A "Grand Moving Diorama of Canada & the United States with Descent of Niagara & the St. Lawrence" featured scenes like a "visit to a Canadian farm", "Ascent of the Mountain, and magnificent coup d'oeil from its summit over the Island and City of Montreal and the River St. Lawrence", "Moose Hunt: Arrival of the Train, and disappointment of the Hunters", and dioramic views of Greenwood Cemetary and New York by Night. The "tableau" -form was perhaps the most evident in panoramas based on literary works, like the recently re-discovered "Bunyan Tableaux" (1850-51), based on John Bunyan's classic Pilgrim's Progress. It was painted by a group of academic artists, who could use their own recent oil paintings as models for some of the views. Altogether there were more than fifty views.⁶⁰ The successful panorama provided a journalist, writing

⁵⁶ in Mississippi Panorama, op.cit., p.129.

⁵⁷ Based to the measures of the existing roll in the St. Louis Art Museum (7 1/2 ' x 348'). The panorama was painted with tempera on muslin sheeting. Although their length was usually exaggerated, many panoramas were considerably longer than this.

⁵⁸ The three sections were probably on three separate reels, although I have not been able to find this out.

⁵⁹ The Grand Moving Panoramic Mirror of Italy. Painted by the Celebrated American artist S.B. Waugh, Esq. Philadelphia, 1856; Sun, July 23, 1850, listed as a testimonial in the backside of the broadside for "The Great Moving Panorama of the Dardannelles, Constantinople and the Bosphorus, with Additional Scene of the Harem painted by Mr Allom", at Polyorama, 309, Regent Street (adjoining the Polytechnic Institution), [London 1850]. (Getty Center Research Institute, Los Angeles).

⁶⁰ Because of much demand, the artists painted a copy of their work in 1851. This is the version which has been preserved at the Saco Museum in Maine. It originally contained 54 views out of which 41 have been preserved. See <http://www.sacomaine.org/historyculture/museum/yorkpan.shtml> .

in the Literary World, an opportunity to defend its cultural merits against those based on the idea of virtual travel. The comment was willingly quoted in the “descriptive catalogue” for the show:

“Its predecessors were, with whatever other merit, all in the commonest of spirit of appeal to idle curiosity, and gratification for desire of a little every day information with regard to the physical peculiarities of the Mississippi River, Cuba and California. While the public, perhaps, fancied that they were encouraging the fine arts, and cultivating the love of pictures, they were no more than so many open-eyes travellers or tourists with their heads out of the railroad car, or strolling on the upper deck of a high pressure steamboat. In the Pilgrim’s Progress they are doing something else, and something we fancy, in rather a worthier spirit. They are giving a little scope to the imagination - some indulgence to that love of human nature, which lies rather deeper than the visible rocks, trees, rivers and gold mines.”⁶¹

This leads to interesting questions. Did the discontinuous “tableau” form, derived from the structure of the literary work itself, somehow contribute to the perceived higher cultural value of the Bunyan panorama? Could it be that the linear, (pseudo)continuous moving panorama was considered culturally inferior because of its association with virtual sightseeing, tourism and thus the surface of things? As Bunyan’s classic text, also the Bunyan-panorama used the motive of the journey in a metaphoric sense, representing the human’s inner journey towards spiritual enlightenment. The successive views could be interpreted to correspond with stages in this inner strife, while the journey along the Mississippi river proceeded on the same continuous horizontal plane, back and forth, offering no cues to turning inwards, always ending in either New Orleans or Rush Island, depending on the cranking direction.⁶² Although such an interpretation may be exaggerated, it is a fact that most of the moving panoramas focused the eyes of the spectator on external reality, celebrating material progress and the advancing dominion of the Western civilization over the rest of the world, revelling from time to time in the disturbances encountered along the way.

The discontinuous nature of many moving panoramas was emphasized by the fact that programs often consisted of more than just one topic, anticipating later newsreels. The program could also contain different visual forms. A case in point, in about 1837 the British showman J.B. Laidlaw advertised a program with a long and detailed title: “Now open, A Most splendid Panorama of the city of Jerusalem embracing all the holy stations mentioned in the scripture, within twenty miles of the city, Painted on 2520 square feet of Canvas, 140 feet in length. The City of New York, Taken from the centre of the Broadway, exhibition of all the Public Buildings and Streets, with upwards of 6000 Figures, the Park, the Harbour, and Coast Scenery, as far as the Narrows, the Jersey Shore, & c. painted on 2480 square feet of Canvas. Like wise two very extensive Views of the Perilous Situation of the Whale Ships in Davis’

⁶¹ A press comment from the Literary World, included in *A Descriptive Catalogue of the Bunyan Tableaux*. Albany, N.Y.: Munsell & Rowland, 1859, p. 34. (The Getty Center Research Institute, Los Angeles).

⁶² Description of Banvard’s *Panorama of the Mississippi River, Painted on Three Miles of Canvas: Exhibiting a View of Country 1200 Miles in Length, Extending from the Mouth of the Missouri River to the City of New Orleans; Being by Far The Largest Picture Ever Executed by Man*, Boston: John Putnam, Printer, 1847 (author’s collection).

Straits. And a view of the Boulevard du Temple, In Paris, when an attempt was made by FIESCHI, to destroy the Royal Family of France.”⁶³ Laidlaw presented his show in Manchester in a building in Dickinson Street, "erected at a great expense [...] on purpose". The building was said to stand "on the site the Diorama", which makes one suppose that the former diorama building had only been adapted to the new purpose.

The program, which lasted between one and one and half hours, consisted of four "sections": Boulevard du Temple, in Paris; The City of New York; The Perilous Situation of the Whale Ships In Davis Straits, in 1835-36; Jerusalem and the Surrounding Country. Closer scrutiny reveals that the sections had quite different character. While the panoramas of New York and Jerusalem were "virtual voyages" to famous places, the ones about Paris and the Davis Straits had topical character: the former depicted the attempt by Fieschi to assassinate Louis Philip, King of France on July 28, 1835; the latter visualized the drama of whaling boats trapped in ice in the Davis Straits in 1835-36. All the sections of the program were not moving panoramas. The assassination (painted in Paris) was just a large and detailed single view of the event, perhaps with backlighting dioramic effects. The section on the fates of the whaling ships was told by means of "two very extensive Views". The New York section was probably a large single view as well. The spectator was "supposed to be standing on an eminence in the centre of the Broadway, and from thence has a most distinct view of most of the public buildings". In the distance the spectator could see "Brooklyn, the Narrows, Governor's Island, the Jersey Shore, & c."

The only moving panorama, presenting "A Variety of Views in succession", was the one on Jerusalem, based on "drawings made on the Spot in 1834, by Mr. Catherwood".⁶⁴ The broadside lists sixteen views.⁶⁵ In addition to the customary scenery, local people are depicted, giving the show an ethnographic character: "Numerous Groups of FIGURES, consisting of TURKS, ARABS, CHRISTIANS, ARMENIANS, PILGRIMS, and JEWS, each in their respective Costumes, give the Spectators a most correct idea of the Inhabitants..." It clear why the section on Jerusalem was placed last in the program, but featured first, and with largest letters, in the broadside: although the subject matter of the other static views must have been exciting, they were not enough. The moving panorama was still considered the main attraction. Later in the 19th century the newsreel-like character of panorama-programs became even more prominent. It became common for the programs by Poole and Hamilton companies to consist of several topics dealing with current world events, all realized as moving panoramas with various special effects. In 1886 Charles W. Poole's "Royal Jubilee Myriorama" promised "Picturesque trips Abroad, All over the World. Also Visiting Scenes and Illustrating Events made memorable during the past few years".⁶⁶ The moving panorama had quite literally come to

⁶³ From an original broadside in the author's collection.

⁶⁴ Very probably Frederick Catherwood, who had returned to London from the Near East in 1835. Catherwood got involved in the 360 panorama business, collaborating with Robert Burford's Leicester Square panorama on a panorama on Thebes, based on Catherwood's drawings. In the late 1830s Catherwood exhibited his 360 panorama of the city of Jerusalem in his own panorama rotunda in New York. Obviously the moving panorama shown by Laidlaw was painted by an unknown painter from Catherwood's sketches soon after 1835. About Catherwood, see Oettermann, pp. 317-323.

⁶⁵ There is a slight possibility that these views were presented separately, but considering their number it does not seem likely. Beside the broadside, no additional information is available.

⁶⁶ From an original guide booklet in the author's collection.

embrace the world, that was often felt to be growing smaller, thanks to telecommunication and new forms of transportation. Everything was ready for the Lumière cameramen to bring the world, transformed into short cinematographed fragments of reality, to the image-hungry audiences.

Conclusion: Facing Dr. Judd's Challenge

In 1891 Mark Twain, who was well familiar with the history of the panorama, began to ponder the possibility of creating a new kind of moving panorama based on Bunyan's Pilgrim's Progress, realized with live actors and photography:

"Dress up some good actors as Apollyon, Greatheart, etc., & the other Bunyan characters, take them to a wild gorge and photograph them -- Valley of the Shadow of Death; to other effective places & photo them along with the scenery; to Paris, in their curious costumes, place them near the Arc de l'Étoile & photo them with the crowd -- Vanity Fair; to Cairo, Venice, Jerusalem, & other places (twenty interesting cities) & always make them conspicuous in the curious foreign crowds by their costume. Take them to Zululand. It would take two or three years to do the photographing & cost \$10,000; but this stereopticon panorama of Bunyan's Pilgrim's Progress could be exhibited in all countries at the same time & would clear a fortune in a year. By & by I will do this."⁶⁷

Although Twain never came to realize his "stereopticon panorama", his idea was in line with the general developments of the time. Even though painted moving panoramas were still manufactured and exhibited, their greatest popularity had passed a long time ago. This had partly been caused by other competing media, especially the magic lantern or stereopticon show. Although magic lantern projections had been seen from time to time in the United States since the mid 18th century, the 1860s meant a real surge in their popularity. One reason was the introduction of the photographic lantern slide, invented by the Langenheim brothers in Philadelphia in the late 1840s and put into the market during the next decade.⁶⁸ Compared to the hand-painted slides of the past, the photographic slide gave presentations a new reality-effect and a near-tangible quality. The literally brought the Civil War to the lecture hall. In the 1860s lantern projections were often compared to the viewing of stereoscopic photographs with the stereoscope, which may explain the use of the word "stereopticon".⁶⁹ There were also significant improvements in the magic lantern projector itself, including better optics and more effective light sources. Lantern pairs or double ('bi-unial') lanterns made it possible to dissolve smoothly

⁶⁷ Twain's Life on the Mississippi contains several references to moving panorama shows. The citation is from Twain's notebook, quoted in Mark Twain. A Biography, Chapter 167. Edited by Jim Zwick. Available on-line at http://www.boondocksnet.com/twaintexts/biography/paine_bio167.html .

⁶⁸ About the early history of Langenheim's photographic lantern slides, see George S. Layne: "Kirkbride-langenheim Collaboration: Early Use of Photography in Psychiatric Treatment in Philadelphia", The Pennsylvania Magazine of History and Biography, Vol. CV, No 2 (April 1981), pp. 182-202.

⁶⁹ The word "stereopticon" show seems to have something to do with the stereoscope, in principle a very different device. The stereoscope was used for the individual viewing of stereoscopic view. The early audiences for projected photographic magic lanterns slides were amazed at their details, high definition and three-dimensional effect. The felt like three-dimensional photographs projected on the big screen. Early lantern slides actually were often stereoscopic pairs of images cut into half.

from one image to the next or to realize impressive “dioramic” transformations and apparitions. Such “dissolving views” were often compared with moving panoramas and dioramas. Sometimes it is difficult to tell from existing evidence, whether a certain show was a moving panorama or a stereopticon projection.

Judging from broadsides for moving panoramas and stereopticon shows, an intense competition developed between these two forms of showmanship. The panorama showmen often emphasized the superior artistic quality of their offerings. “True & Hunter’s Great War Show and Concert Troupe” admonished the public: “Remember we visit your place with no Magic Lantern or Paste-board Moving Figure affair, but a grand Historical Work of Art, which demands the attention of all classes at the present time.”⁷⁰ On the other hand, the magic lantern showmen frequently appropriated the word “panorama” for their promotional purposes. A case in point, “Prof. Alexander’s” program of Illustrated Lectures (1883) consisted of six “panoramas” dealing with biblical scenes, President Garfield’s assassination, a temperance story, views from Rome and England and various comic subjects.⁷¹ Quite clearly the “panoramas” were series a regular lantern slides. To convince the public the stereopticon showmen praised the variety of their programs and the marvels made possible by the latest technology, such as the bright oxy-hydrogen light and moving mechanical slides like chromatropes. The programs of the stereopticon shows were certainly more varied than those of the moving panorama shows, partly because of the larger variety and easier availability of lantern slides. Because painting a panorama was a time consuming and laborious process, there was less room for trial and error experiments. Although stereopticon shows inherited certain topics, above all the ‘travelogue’ and the ‘newsreel’, from the moving panorama, there were other topics that were rarely covered by the panorama showmen. These included popular scientific demonstrations, humoristic animated slides and “life models”, picture stories told by means of photographic slides with human actors (a probable inspiration for Twain’s “stereopticon panorama”). These became regular features of the stereopticon show.

The moving panorama also anticipated certain features of the early film culture. Similarities included the arrangement of the viewing situation, the presence or the lecturer, certain formal features (like the “panoramic shot”) and even the fact that both were based on cranking a “film” from reel to reel in front of the audience. It is tempting to posit straightforward continuities between these two media, as Angela Miller has done.⁷² Yet, as Tom Gunning has aptly reminded us, we should be wary of dealing with history in terms of simple teleologies. Gunning writes: “As we move away from a naive teleology we must not only abandon conceiving of early cinema as the ur-form of later practices, but also avoid valorizing it as the climax and culmination of a series of inventions and cultural practices understood simply as stages in the invention of ‘the movies’.”⁷³ The further back in time we go, the more clear-cut and coherent things appear. This is an illusion caused by our vantage point in time. As this article has shown, the moving panorama did not have a pure and

⁷⁰ Broadside, circa 1865, in the author’s collection.

⁷¹ Broadside in the author’s collection. A handwritten note on the backside identifies the showman as “F.M. Alexander, New Harmony, Brown County, Ohio”.

⁷² Miller, *op.cit.*

⁷³ Tom Gunning: “The World as an Object Lesson”, *Film History*, 1994

immutable “essence”. It was a complex phenomenon, in the state of constant becoming. It appropriated features from other cultural artefacts and communicated with the cultural and social environment. Although the moving panorama may resemble film and the institution of the cinema in certain respects, there are also important differences. These similarities and differences can only become apparent by investigating cultural artefacts within those cultural and social contexts in which they were conceived, used and signified. Failure to do this has distorted our view about the 19th century panorama culture.

A former panorama showman calling himself “Dr. Judd” wrote about his experiences in *Billboard* in 1904. By then, moving panoramas were little more than a nostalgic memory from the past. Judd made a remark that is still largely valid, at least when it comes to the moving panorama: "There is one branch in the history of the United States neglected by historians; they do not give any account of the old showmen and their shows that were perambulating the country in the early days."⁷⁴ This article has been a late response to Judd's remark. It has not attempted to cover all there is to say about the moving panorama. Rather it should be seen as an early stage in an investigation which has to expand to deal with other issues as well. Little has been said about the relationship between the moving panorama and other nomadic forms of entertainment, including touring theatre troupes, railroad shows, touring circuses, etc. Another issue that has been omitted is the role of the moving panorama (and the stereopticon show) as part of the culture of public lecturing, a particularly influential phenomenon in the second half of the 19th century. Finally, it is clear that understanding the constitution of the moving panorama spectacle itself requires further work. A case in point, the role of music as an integral part of the show is little understood. Positing continuities or dis-continuities with subsequent media forms becomes meaningful only after these -- and other -- questions have been answered.

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⁷⁴ Dr. Judd: "The Old Panorama", *Billboard*, Dec. 3, 1904. Much the same could be said about our knowledge about the history of the touring magic lantern show. Thanks to Charles Musser's and Carol Nelson's *High-Class Entertainment Lyman H. Howe and the Forgotten Era of Traveling Exhibition, 1880-1920* (Princeton, N.J.: Princeton University Press, 1991) we now know much more about the early touring film showmen.