

2 Cityscape with Ferris wheel

Chicago, 1893

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I

Would you really feel any pity if one of those dots stopped moving for ever? If I offered you £20,000 for every dot that stopped, would you really, old man, tell me to keep my money? Or would you calculate how many dots you could afford to spend – free of income tax, old man, free of income tax?

The Third Man (dir. Carol Reed, 1949)

That's Harry Lime in Carol Reed's 1949 film *The Third Man* giving his old friend Holly Martins a lesson in moral relativism from the apex of Vienna's huge Ferris wheel in the Prater fairground. It's an old theme, this thinning of the ethical relationship through distance (see Ginzburg 2002: 157–72), its best-known expression perhaps contained in Diderot's *Letter on the Blind* when he supposes:

Do we ourselves not cease to feel compassion when distance or the smallness of the object produces the same effect on us as lack of sight does on the blind? . . . I feel quite sure that were it not for fear of punishment, many people would have fewer qualms at killing a man who was far enough away to appear no larger than a swallow than in butchering a steer with their own hands. And if we feel compassion for a horse in pain though we crush an ant without a second thought, are these actions not governed by the selfsame principle?

(Diderot 1966: 17)

In Reed's film Lime is a charismatic black-marketeer dealing in diluted penicillin in post-war Vienna; a cynical but charming vagabond who knows how to exploit the new unmapped topography of the shattered city – a shifting world of shadows, ruins, and debris where only fragile and apparently 'occasional' structures, such as the fairground wheel, or those underground, such as the sewers, seem to be fully intact. The oppressive atmosphere of alienation and disorientation that permeates *The Third Man* has often been remarked upon: the film portrays an urban world in which the possibility of commanding a 'cityscape' – both visually and operatively – is constantly cancelled. And so, although early in the film the laterally spreading rhizomatic underground city formed by the sewers seems to be within Harry's dominion, by the end it has turned into his trap. Disallowing any overview, the film

constantly places its audience and protagonists in shadowed and visually limited spaces whose connection to one another is obscure or even – like the ubiquitous and unstable piles of rubble – in motion. If the film gives us cityscapes, they are more akin to Jean-François Lyotard's (1989) 'scapelands' of sensory disorientation, where interpretation misses its mark or is silenced, than to any conventional understanding of the term.

This barring of the overview is perhaps most evident – because the opportunity to gain such an overview reaches, literally, its height – in the scene in the carriage of the Ferris wheel that vaults Holly and Harry high up into the dusty Vienna sky, whence the latter delivers his monologue and displays his truly Apollonian dispassion. There is a long understanding of the Ferris wheel, which it shares with other fairground rides, as an entertainment for lovers, and the scene reads as a parody of this. The intimacy of the upholstered carriage shifts into claustrophobia as the room with a view becomes a room with a drop. Despite the back-projection that flickers upon the car windows as the wheel turns, the city remains flat, its expanse ignored by the protagonists. Rather than the carriage opening on to a cityscape, the image seems paradoxically to press against the glass, shutting the windows down and leaving the extent of the vertical fall from the wheel's zenith – from which Harry looks down, and with which he threatens Holly – as the only registration of the city's space from the carriage interior.



Figure 2.1 Vienna: Harry Lime and Holly Martins on the Prater wheel in *The Third Man* (courtesy of Canal+ Image UK Ltd)

The Diderot-esque motif within the film continues later when Holly is brought into close quarters with the consequences of Harry's racketeering. In a hospital, to which he has been taken by the military police, he stands pressed hard against the foot of a bed that holds a dying child. The child is unseen by the audience; instead we focus upon Holly's eyes. He agrees to help the police trap Harry.

II

This chapter is about the Ferris wheel and vision. More particularly, it aims to examine – or at least to begin an examination of – the Ferris wheel as an episode within the broader cultural history of the elevated or aerial view. It should be said at the outset that this is also a history within which the emergence of the notion of 'cityscape' is equally and deeply implicated, dependent as it was upon the prior concept of landscape with its associations of prospect and expanse. The earliest use of the term given in the *Oxford English Dictionary* makes this landscape connection clear: the extended citation, from an 1856 letter by Thackeray, reads: 'A fairyland of frozen land, river, and city-scape, where all the trees were glistening with silver, and all the houses iced with plum-cake snow' (Thackeray 1924: 82). (He is describing a journey by sleigh in the vicinity of Albany, New York; interestingly, after Thackeray, no further citations are given until 1952.) It is not by chance that in Thackeray's description an atmosphere of enchantment arises from the sight of a world that is arrested and 'frozen' and which, as such, is presented as pristine and in important ways empty. We find the same relationship in that paradigmatic city poem of romanticism, Wordsworth's 'Composed upon Westminster Bridge, Sept. 3, 1802', a eulogy to a metropolis that appears as a landscape, frozen in sleep before the start of the commercial day. Likewise it is not coincidental that today, as visitors queue to enter the capsules of the London Eye – the gargantuan hi-tech Ferris wheel that was built on the bank of the Thames as part of the capital's millennium celebrations and that is now billed as 'the way the world sees London' – they are ideologically prepared by being guided past the text of Wordsworth's poem, monumentalized in large stainless steel letters.

While there are suggestions that pleasure wheels may have originated in the Islamic world (Anderson 1992), and documentary evidence for them going back to at least 1620, the motorized Ferris wheel – as we know it today – is undoubtedly one of the iconic ascensional apparatuses of modernity and its historical emergence can be located at a very specific moment within modern society, one characterized by the linked developments of mass tourism and the urban spectacles of the turn-of-the-century World's Fairs. Consequently the Ferris wheel has a history of being a specifically urban form: it has a relationship with cities and may even be taken to be one of the modes – however minor – through which cityscapes are constituted, presented, disseminated and, potentially, challenged. In particular, it draws my interest because of its highly equivocal status: it was (and I think was unique in being so) simultaneously a vantage point, a kinaesthetic device, and an optical entertainment installed within mass society – the reception of which, I will argue, was informed by the optical toys and 'hypervisual spectacles' of the late nineteenth

century (Prodder 2003: 252). This chapter's supposition is that this could historically give rise to more complex and ambiguous forms of visibility – and, by implication, a visual politics – than those normally associated with the aerial view. And while there is no doubt that early experiences of the Ferris wheel were shaped by, for example, dominant popular discourses on ascension, and could sometimes be resolved into them, it perhaps made other possibilities available too.

III

Harry Lime's speech at the top of the Prater wheel is rooted in a key ascensional narrative within Western modernity whereby the departure from the terrestrial surface is conceptually linked to notions of transcendent subjectivity, futurity, and abstraction that have the potential to license a violence directed towards the surface from which one has departed. This particular constellation is strikingly illustrated in a brief but loaded passage from Antoine de Saint-Exupéry's (1942) description of his experiences as a war pilot:

All I can see on the vertical are curios from another age, beneath clear, untremling glass. I lean over crystal frames in a museum; I tower above a great sparkling pane, the great pane of my cockpit. Below are men – protozoa on a microscope slide . . . I am a scientist, and for me their war is a laboratory experiment.

(Cited in Virilio 1989: 71)

It is all here: the Promethean detachment from the ground; the consequent detachment from its historicity, so to look down is to look into the past; the dehumanization of those below and the emergence of a dispassionate, instrumental relationship towards them.

Harry gives us one kind of view from above, but there is another – more auratic, more enchanted, and more characteristically associated with the idea of cityscape. Emerging from the pastoral tradition, but transforming in complex ways within modernity, it is grounded within the tradition of landscape representation – prospect painting – and appreciation. Its historical development intersects with mythologies of the city within modernism and is equally shaped by technical developments in ascensional devices (observation balloons, viewing towers, etc.). The sense of removal or distance from the city – of being in a separate world – becomes the condition of possibility within mass society for the transformation of the visual field of the city into a popular entertainment, a development foreshadowed with the emergence of 180° and 360° panoramic painting in the late eighteenth century. When he wrote of the 'Haussmannization' of Paris, Walter Benjamin (1997) commented that for the first time the citizens became aware of the city's inhuman character. In the light of this, the development of techniques of estrangement from the quotidian reality of the city and its transformation into a distanced object of visual consumption assume a compensatory and ideologically recuperative effect as the violence of urbanism 'on the ground' – as it were – is sublimated into the

spectacle of the 'urban landscape'. Certainly Nadar, who in 1858 took the first ever aerial photograph, recognized the entrancing effects of distantiating. Describing the transfigured landscape seen from a balloon in his memoir *Quand j'étais photographe*, he wrote: 'Everything appears to us with the exquisite impression of a marvellous, ravishing cleanliness! No squalor or blots on the landscape. There is nothing like distance to remove us from all ugliness' (Nadar 1900: 77–8, cited in Frizot). Notwithstanding Nadar's opposition to Napoleon III and the Second Empire (Hambourg 1995), his imprecise but extraordinary aerial photographs – in their description of a relationship between city, landscape, and spectacle – powerfully contribute to this process. The historical trajectory of this visual modality leads in the last instance not to the abject, flattened world that Harry Lime looks down upon, but to the fascinating imagery of the commodity-spectacle.

In 1889 the Paris International Exposition was held, the event that saw the construction of the Eiffel Tower, then the tallest structure in the world. The edifice was an engineering marvel, a stupendous observation pylon that rose from the heart of the city that was the acknowledged capital of aviation and the great dreamscape of the late nineteenth-century aerial imagination. The affinity between the tower and flight was evident from the start, and was consummated when Alberto Santos-Dumont rounded it in his dirigible in 1901 to win a 100,000 franc prize (Wohl 1994: 41). The enchantment of the view offered from the tower was clear: that of a city posed as a purely visual object, unified, cleansed of labour and social conflict, and utopic: a spectacle that dissimulated the conditions of its own constitution and that had the power to pose the city, as Barthes was to point out in his classic and affectionate essay on the tower, as a force of nature (Barthes 1997: 8).

IV

The first Ferris wheel was developed for the World's Columbian Exposition in Chicago in 1893 as an explicit competitor and counterpart to the Parisian tower, a kind of historical after-image of it (Kouwenhoven 1980: 171). The project for the establishment of a viewing device went through several iterations before the Pittsburgh bridge builder and steelman, the appropriately named George Ferris, proposed his wheel. The earlier suggestions had been towers: the first was a kind of enlarged and elaborated version of Eiffel's. Others included a three-tower structure for bird's-eye photographers. The last was a 400 ft high ziggurat served by an electric railway and described in the Rand McNally *Handy Guide to Chicago and the World's Columbian Exposition* as the 'Tower of Babel' (Gilbert 1991: 107–8).

The loaded epithet had much to do with the location of the proposed tower – and indeed the future Ferris wheel – and it is important to appreciate this, as it is crucial to the way the wheel was understood at the time. Recent scholarship on the Chicago fair has insisted on the importance of its local, as well as its international, context in the early 1890s. Chicago was a city hardly sixty years old and in some ways an unlikely location for the celebration of the quadri-centennial of Columbus's landfall. But in fact it was precisely this newness that established its claim in the eyes of many



Figure 2.2 World's Columbian Exposition, Chicago, 1893: the Ferris wheel (courtesy of Paul V. Galvin Library, Illinois Institute of Technology, Chicago)

to be the most characteristic American city: the most freed from history, and therefore future-orientated and universal. Certainly the fair was underpinned by the ideology and ethics of universalism and incorporation. But these were asserted on specific terms, and through a very particular vision of the city and its future: the famous White City, constructed under the directorship of the architect Daniel Burnham – ‘a pedagogy, a model, and a lesson not only of what the future might look like but, just as important, how it might be brought about’ (Trachtenberg 1994: 209). This was, the argument goes, intended to present a high-cultural and acommercial vision of the city palatable to the contemporary Chicagoan elites that was asserted in the face of the dynamism, diversity, and cultural confusion of the contemporary immigrant city. While the exhibition of manufactured products was one of the major functions of the fair, their commodity character was suppressed in the White City. In only one area did an explicitly commercial condition prevail,

the peripheral Midway Plaisance, described by Burnham in his notes on the exposition for visitors in the Rand McNally *Handbook* as ‘a most unusual collection of almost every type of architecture known to man – oriental villages, Chinese bazaars, tropical settlements, ice railways, the ponderous Ferris wheel, and reproductions of ancient cities. All these are combined to form the lighter and more fantastic side of the fair’ (cited in Trachtenberg 1994: 213).

The Midway Plaisance developed as a sort of *Wunderkammer* hitched to the side of the fairgrounds. Its arrangement presented itself as an extraordinary commercial heterotopia of concessions against the utopic Beaux Arts uniformity of the White City. On the published plans, its divisions appear as diagrammatic lot lines – suggesting letterable areas – as opposed to the descriptive lines that outlined each structure in the highly composed sequence that comprised the White City itself. The Midway had been originally conceived as an anthropological Street of All Nations where a sequence of ‘living villages’ would be placed on display. Traces of this conception remain in Burnham’s description. It was placed under the direction of the Harvard anthropologist F.W. Puttnam, although it was perhaps Sol Bloom, a San Franciscan theatre impresario hired by Burnham to supervise the organization of the Midway exhibits, who was more responsible for the final result. There have been attempts to read the structure of the Midway in terms of a supposed sequence of racial development rising as one moved towards the White City – and



Figure 2.3 World’s Columbian Exposition: the Grand Basin and Court of Honor, White City (courtesy of Paul V. Galvin Library, Illinois Institute of Technology, Chicago)

certainly some contemporary commentators saw in it a ‘sliding scale of humanity’ (Rydell 1984: 64–5) – but this was complicated by Bloom’s commercial acumen, his understanding of popular culture, and his appreciation of how to provoke and titillate his audience. In his hands the Midway developed as an avenue of simulacra where exotic and orientalist fantasies overlapped with theatrical presentations and ethnographic *tableaux vivants*.

This was the world over which the Ferris wheel presided. The various tower proposals that had been put forward had been intended for the junction at which the Midway met the larger fairgrounds; but the site of the Ferris wheel became the mid-point of the Plaisance, where it sat surrounded by orientalist attractions such as the Moorish Palace and the Street in Cairo. Although at least one published plan of the Midway suggests, interestingly, that the wheel was orientated towards the city – that is, at right angles to the Midway itself (see Gilbert 1991: 112) – contemporary photographs show it aligned with the street as if the Plaisance was a mill race and the structure a prodigious waterwheel. To many it seemed distinctly American: on one hand an expansive and even vaguely cosmic emblem of unity – on 22 June 1893, the day after the Ferris wheel opened to the public, the *Chicago Daily Tribune* ran an article entitled ‘In an Endless Circle, the Ferris Wheel Commences its



Figure 2.4 World’s Columbian Exposition: the Temple of Luxor, Midway Plaisance (courtesy of Paul V. Galvin Library, Illinois Institute of Technology, Chicago)



Figure 2.5 World's Columbian Exposition: the Javanese Village, with the Ferris wheel in the background, Midway Plaisance (courtesy of Paul V. Galvin Library, Illinois Institute of Technology, Chicago)

Journey through Space'; and on the other, an expression of the progressive machinic force of industry, at night a 'rainbow of revolving light', wrote Hubert Howe Bancroft, 'like the bow of scientific promise set athwart the blackness of the night' (Bancroft 1893: 869). Compared with this the inert stump of Eiffel's tower was nothing but a historical souvenir, a 'thing dead and lifeless' (Graves 1893) in the words of an essayist for *The Alleghenian*. A 1:50 model of the tower was placed in a concession alongside the wheel. As John A. Kouwenhoven (1980) has pointed out, viewed from the ground the wheel had a visual dynamism, its form shifting as one moved around it, in a way the tower did not. Viewed end-on along the Midway, it displayed the strikingly abstract profile of an impossibly thin, linear skyscraper. As one moved around, the form of the wheel gradually opened out into an expanding ellipse and it developed an ocular quality, which was in turn emphasized in popular stereographic images (see Anderson 1992: 83). This, together with its animation, conferred a certain anthropomorphism: Julian Hawthorne, son of Nathaniel, called it a 'Brobdingnag' (cited in Larson 2004: 290). Ferris himself, emphasizing its great size, had described it as a 'monster' (Snyder 1893: 270), and, as with all monsters, it provoked anxieties of loss of control. In the popular literature related to the fair, this is most bizarrely expressed in the paranoid episode on the wheel in Tudor



Figure 2.6 World's Columbian Exposition: the Street in Cairo, Midway Plaisance (courtesy of Paul V. Galvin Library, Illinois Institute of Technology, Chicago)

Jenks's *The Century World's Fair Book for Boys and Girls* in which two Arabs, unable to extort money from the protagonists, superhumanly pull the towers supporting the axle apart, thus releasing the wheel, which runs amok down the Midway (Jenks 1893: 239–41).

V

What was it, then, to look from this device? Some answers can be sketched. First, to some it undoubtedly provided a progressivist vision. James Gilbert (1991) has pointed out the importance of the Chicago tourist guidebooks produced in the years leading up to and during the fair in developing a genre of city literature that shaped responses to and interpretations of the city. Important to this genre was an interplay between vignettes of life seen on the ground and the synoptic overview of the city allowed from the tops of Chicago's burgeoning high-rise buildings, the tallest of which was Burnham and Root's Masonic Temple. The overview played precisely the role of the prospect – a looking forward that was geographic, temporal, and visionary. Thus Carroll Ryan, writing in his 1893 *Chicago the Magnificent*:



Figure 2.7 World's Columbian Exposition, looking east along the Midway: the captive balloon and the Ferris wheel (courtesy of Paul V. Galvin Library, Illinois Institute of Technology, Chicago)

Looking down on Chicago from the dizzy summit of the Masonic Temple, strange thoughts must fill the mind of him who has travelled far, who has seen the ruins of empires, empires in decay, and the new empire of the west rising with a civilization greater, more intense, more free, more universal than all that preceded it.

(Ryan 1893: 43)

The homology between Chicago's contemporary high-rise buildings and the wheel – as 'a skyscraper that moved . . . from the basement to the penthouse and back again' (Miller 1990: 239) – has been emphasized and contrasted to the Paris tower, which dwarfed its surroundings: perhaps not coincidentally the height of the Ferris wheel at the top of its apex equalled the highest occupied floor in Burnham and Root's building (Larson 2004: 290).

This interplay of vignette and synopticism developed in surprising ways. When Frederic Putnam rode the Ferris wheel he described the experience in his ethnographic guide to the Midway, *Oriental and Occidental Northern and Southern Portrait Types*, an experience clearly akin to the auratic and enchanting visual modality that we have already discussed. From the Ferris wheel the anthropologist could see the Midway as a 'magic gathering', the wheel 'enabling us to view this



Figure 2.8 A comparison of building heights. From left to right: the Masonic Temple, Chicago; Trinity Church, New York; the Statue of Liberty, New York; the Capitol, Washington, DC; and the Ferris wheel (courtesy of *Scientific American*)

mimic world as from another planet, and to look upon an enchanted land filled with happy folk' (Puttnam 1894: 2). Again this is an image both neutralizing and consoling, one that pictures a world from which social contradiction and conflict have vanished and which forms a counterpart to the experience of 'dazzlement' that some visitors, such as Owen Wister, described on visiting the White City itself: 'a bewilderment at the gloriousness of everything seized me', he wrote, 'until my mind was dazzled to a standstill' (cited in Trachtenberg 1994: 218). Puttnam's vision from the wheel was also potentially a strongly incorporating vision of diversity as a prelude to unity. In June 1893 a reporter from the *Pittsburgh Commercial Gazette* rode the wheel on its inaugural rotation: his description carefully sequences 'this great picture . . . disclosed to men' by the 'marvellous mechanism':

It was an impressive, almost weird scene, a memorable experience, this looking down for the first time on this wondrous street teeming with thousands swept by the breath of the effort of the ages into this narrow lane and there living and moving in careless gaiety. . . . To the east was the wonderful city of glistening palaces . . . like the dreams of the biblical prophets who saw in their reveries the nations of the earth come together in mighty concourse and to whom the glories of heaven were revealed.

(Anonymous 1893)

There are other accounts, however, that suggest alternative visual modes provoked by the mechanism – less official and more elusive, complex, transient, and imbricated. Earlier in this chapter I suggested a reading of the wheel as a kind of

hybrid cultural phenomenon that displayed a threefold character of vantage point, kinaesthetic device, and optical entertainment. This hybridity made the wheel interpretable both in official, high-cultural terms (the elevated observation point, and the vistas it permitted) and in commercial, low-cultural terms (the carnivalesque fairground ride). Moreover it made these interpretations – or at least the experiences upon which they drew, and which they at least in part defined – spatially proximate, if not necessarily simultaneous. The terminologies applied to the wheel, and descriptions of it, register this ambivalence. Officially called an ‘observation wheel’, but popularly a vertical ‘merry-go-round’, it was not by chance that Ferris himself insisted on the former, thereby positioning his construction both within the lineage of its Parisian predecessor and within an officially sanctioned and elite, although now popularized, visual modality. Two of the three aspects of the wheel I suggested are clear enough: but what of the third? My argument here, admittedly conjectural, is that the experience of riding upon the wheel was shaped in important ways by the development and proliferation of public and domestic optical entertainments and toys during the nineteenth century, and that they are discernible in descriptions of the visual effects induced by the wheel. Certainly some contemporary reports suggest that the view from the wheel could be a kind of proto-cinematic spectacle. When William Gronlau – Ferris’s partner and the engineer responsible for much of the wheel’s structural design – first stepped upon it, it seemed ‘*as if everything was dropping away from us, and the car was still*. Standing at the side of the car and looking into the network of iron rods multiplied the peculiar sensation mentioned’ (cited in Anderson 1992: 62; my italics). The sense of being stationary while the city and fair ‘fell away’ implies an experience comparable in some regards to that of the earlier diorama, an entertainment that was based, as Jonathan Crary writes, ‘on the incorporation of an *immobile* observer into a mechanical apparatus and a subjection to a pre-designed temporal unfolding of optical experience’ (Crary 1996: 113). In Daguerre’s diorama, which had opened in Paris in 1822, the spectators were seated upon a central rotating platform that shifted by turns to address painted screens whose scenes were ‘animated’ using various lighting techniques. The two scenes that were displayed in the first diorama were ‘The Interior of Trinity Chapel, Canterbury Cathedral’ and ‘The Valley of Sarnen’. A visitor described it thus:

While gazing in rapt admiration at the architectural beauties of the cathedral, the spectator’s attention was disturbed by sounds underground [presumably the mechanical apparatus]. He became conscious that the scene before him was slowly moving away, and he obtained a glimpse of another and very different prospect, which gradually advanced, until it was completely developed, and the cathedral had disappeared. What he saw now was a valley, surrounded by high mountains capped with snow.

(Cited in Gernsheim and Gernsheim 1956: 14–15)

Not only does Gronlau’s description of his impression of the city shifting in relation to a static viewing point reiterate the visual sensation of the diorama, but there is a curious resonance between the way in which Daguerre sequenced the two scenes

– with their shift from proximity to distance, from interior (however sublime) to Alpine landscape, the lateral shift of the diorama's seating mechanism gaining, by implication, an elevational value – and the Ferris wheel. Compare it, for example, with another description of the wheel: 'It seems as if the earth were sinking away out of sight slowly and quickly. Going up, the passengers had the whole of Chicago and the prairies for miles beyond them unobscured' (Currey 1912: 85).

In his – by now classic – *Techniques of the Observer*, Crary locates the diorama within a constellation of nineteenth-century toys and entertainments that bear evidence of a contemporary reconceptualization and reconstruction of the viewing subject, a 'modernization of the observer' as he puts it (Crary 1996: 113). His account situates the development of optical toys such as the phenakistiscope and the zootrope within a historical physiology of vision whose research into after-images had prompted speculation about the persistence of vision when separated from the phenomenal immediacy of its objects. This discourse on the retinal after-image, Crary argues, was the crucial context for the optical devices and toys that developed from the 1820s on (whose animation effects were dependent upon the persistence of vision), some of which were directly prompted by new experiences induced by mechanical movement (train wheels seen through railings, cogs in factory machinery, etc.). Pointing out the immobility of the body presupposed by these devices, the eye being aligned and spatially fixed in relation to a moving mechanical assemblage, Crary insists on their disciplinary character whereby the body is submitted to the machine and incorporated and regulated as a component within it (Crary 1996: 112). In this, however, the experience of the Ferris wheel diverges from that of the diorama: for while it submitted the body to the circular mechanical movement of the wheel (and its strange pleasures), at the same time it did, within the confines of the carriage, allow something of (and even something more than) the ambulatory and visual movement and autonomy that Crary associates specifically with the panorama form, in opposition to the diorama.

In the end what is perhaps most striking in the descriptions, and what deserves emphasis, is the powerful bivalence in the views offered from the wheel. On one side – looking through the moving structure of the mechanism – was the unsettling vision of space shredded and set into motion around the carriage that so disconcerted Gronlau. But on the other, a more serene, transcendent, and tranquil vista opened up and all sense of motion was cancelled. Joining Gronlau again on the inaugural rotation:

I advised any timid person riding in the wheel to look straight ahead and not into the wheel, when no sensation is at all experienced and the view is simply magnificent . . . I could do nothing but admire the great spectacle. Looking [east] one can see the beautiful buildings, grounds and lake. As I said before it was a fine day, with a brightly shining sun, which threw its golden rays upon the water and the harbour and presented a more magnificent sight than my mind had ever pictured. The harbour was dotted with vessels of every description, which appeared mere specks from our exalted position, and the reflected rays of the beautiful sunset cast a gleam upon the surrounding scenery,



Figure 2.9 World's Columbian Exposition: the view towards the White City, through the Ferris wheel structure (courtesy of the Chicago Historical Society)

making a picture lovely to behold. Looking [north] one can see the city of Chicago with its many tall and grand buildings. The sight is so inspiring that all conversation stopped, and all were lost in admiration of this grand sight. The equal of it I have never seen . . .

(Cited in Anderson 1992: 62)

The descriptions suggest that within the carriages passengers were interposed between two incommensurable visual fields, the tension between which seems to have replicated something of that between the Midway and the White City itself: on one side the Midway, 'always changin' like one o' those kaleidoscopes', and on the other the 'great beautiful silence of the White City' (Burnham 1893: 201), as a character in Clara Louise Burnham's novel *Sweet Clover* described them. Perhaps this tension was too much for some. In a news article from 1893 entitled 'Madman in Mid-air; Kentuckian becomes Crazy in the Ferris Wheel', there was a report of a passenger who lost control in one of the Ferris wheel cars, smashing into its sides with such force as to bend the iron bars that lined them. As the wheel completed its first revolution he became calmer and 'breaking down completely, laughed and sobbed convulsively' (cited in Anderson 1992: 66). Unfortunately for him, however, the wheel went through two rotations per trip, and as it rose again he tore loose



Figure 2.10 World's Columbian Exposition: the view towards the White City, from the Ferris wheel (courtesy of Paul V. Galvin Library, Illinois Institute of Technology, Chicago)

from the men who were holding him down, before a woman in the carriage undid her skirt and flung it over his head, after which he became docile. Is this a simple case of 'fear of heights' as reported in the article, or is it something more akin to the late nineteenth-century 'bourgeois hysteria', as discussed by Peter Stallybrass and Alon White (1986) in their *Politics and Poetics of Transgression*, so closely linked to vision and triggered by the tension between desire and its interdiction?

The reading of the Chicago wheel in terms of popular visual entertainments would have been encouraged by the specific context within which visitors encountered it. To the east and west of the wheel, among the other concessions and diversions on the Midway Plaisance, two panoramas were exhibited: one showed the Volcano of Kilauea, another a view of the Bernese Alps. The contemporary Rand McNally *Miniature Guide Map* to the exposition (reproduced in Appelbaum 1980: 102) also indicates a 'Diorama of the Destruction of Pompeii' close to the footings of the wheel. (Was the tableau of a city being destroyed by flame and submerged in ash redolent of Chicago's own devastating, although subsequently highly allegorized, Great Fire of 1871 (Gilbert 1991: 63–5)?) This may have replaced, on the same site, the small Zoopraxographical Hall where the photographer Eadweard Muybridge had, on the invitation of the fair's Fine Arts Commission, projected short action sequences based on his animal locomotion



Figure 2.11 World's Columbian Exposition: the panorama of the Volcano of Kilauea (courtesy of Paul V. Galvin Library, Illinois Institute of Technology, Chicago)

studies using his zoopraxiscope, a phenakistiscope–magic lantern amalgam (Solnit 2003: 233).

VI

An afterword. The mythical origin of the wheel was at a chop dinner. According to Ferris, the idea came to him while dining with other engineers during a Saturday afternoon at a chop house, that most characteristic and emblematic of Chicagoan institutions. Ferris ‘got some paper’ and began to sketch, and before the meal was over had designed the wheel in ‘almost the entire detail’ (cited in Anderson 1992: 43). ‘The wheel stands in the Plaisance at this moment,’ he told a reporter, ‘as it stood before me then’ (cited in Anderson 1992: 43). Ferris’s story conforms to a familiar type – that of the genius who gives birth to his creation fully formed – and its likelihood has been discussed. But what I find most interesting and suggestive in the myth is its context of the mundane chop house and the way its narrative thus binds the final stages of the ‘disassembly’ of the pig to the birth of the wheel, in a kind of profane, Joycean reworking of the tale of the aerial Pegasus springing from an act of slaughter. Slaughter, butchery, and meat packing were central to the

Chicagoan economy of the later nineteenth century and they hung in the air, a nauseous reminder of the material basis upon which elite culture was being built. It may have been repulsive but, as one banker remarked, one soon realised it was the smell of dollars (in Flanagan 2002: 1). Chicago was the ‘porkopolis’ of America, of the world, having overtaken its rival Cincinnati in the 1860s after the Civil War. The industry was centred on the immense Union Stock Yards (which, by the early 1870s, were processing well over one million hogs each year (Cronon 1991: 230)), themselves a widely visited and troublingly fascinating urban spectacle that, in retrospect, look like a kind of obscene and sanguineous precursor to the ethereal and purged White City. As Louis Sullivan, architect of the fair’s Transportation Building, noted: ‘all distinguished strangers, upon arrival in the city, at once were taken to the Stock Yards . . . to view with salutary wonder the prodigious goings on’ (Sullivan 1956: 307–8). Characteristically, visitors to Chicago were asked first how they liked the city, and then, had they seen the stockyards?

In 1948 the architectural historian and critic Siegfried Giedion published *Mechanization Takes Command: A Contribution to Anonymous History*. In the ‘Foreword’ Giedion announced this study of ‘anonymous history’ as a development and extension of his book *Space, Time and Architecture* – that most canonical of histories of architectural modernism – which had been published seven years earlier. Whereas the first book had ‘attempted to show the split that exists in our period between thought and feeling’, the present volume – by studying the processes of mechanization – would ‘show how this break came about’ (Giedion 1948: v). In *Space, Time and Architecture* the Chicago fair had been briefly mentioned once, and only then to be summarily dismissed as the regressive counterpart of the 1889 Paris Exposition and a marker of the moment that the tradition of great exhibitions went into decline. Whereas Giedion epitomized the achievements of the Paris Exposition by Eiffel’s tower and the Galerie des Machines, Ferris’s wheel went unmentioned (Giedion 1944: 209–10). In *Mechanization Takes Command*, however, Chicago occupies what is very much the centrepiece of the book. Under the heading ‘Mechanization and death: meat’, Giedion develops an examination of the Union Stock Yards that both acts as a structural opposition to his reflections on revivification, water, and bathing at the end of the book and introduces a concern whose treatment is strikingly oblique and evasive for a study of this kind, researched during the war years. (There is no consideration at all, for example, of the rise of industrialized warfare.)

Giedion’s comments on the Chicago stockyards are framed through a comparison with the huge abattoir of La Villette in Paris, which was developed under Haussmann at about the same time as the Chicago yards. At La Villette, cattle were slaughtered in individual booths in a ‘survival of handicraft practices’ (Giedion 1948: 211); but in Chicago, slaughtering at an unprecedented rate was achieved through a staged and increasingly mechanized ‘disassembly line’ process into which the live pig was input at one end and from which it was output as a variety of animal products (meat, lard, bristles, etc.) in a hitherto unprecedented rationalization of production that eventually attained, as one critic has written, ‘a level of “geometric” perfection’ (D’Eramo 2002: 32). Not only did the modern mechanical assembly line

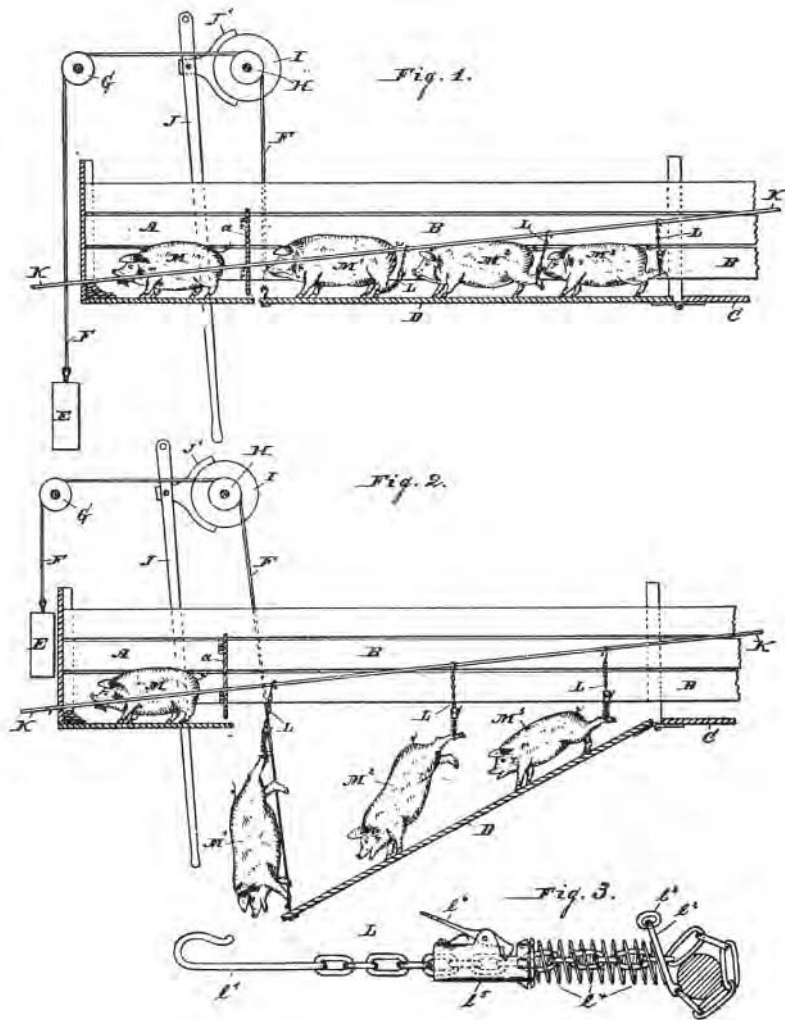


Figure 2.12 Apparatus for catching and suspending hogs, 1882: from Giedion, *Mechanization Takes Command* (courtesy of Oxford University Press)

synonymous with Fordist production develop out of a spatial organization of labour and mechanisms dedicated to the disassembly or breaking down of material – with its rails and endless chains upon which the pigs were conveyed during the stages of their dismemberment – but, Giedion argues, its development was, furthermore, ‘implicitly related’ to the vast spatial expanses of the Great Plains whose livestock was funnelled into Chicago (Giedion 1948: 211).

On page 217 of *Mechanization Takes Command*, Giedion published what he called a panoramic painting illustrating the hog slaughtering and packing line at Cincinnati, Chicago's forerunner. Looking at it, one is immediately struck by the fact that it is not so much a panorama – at least as conventionally understood, as it has none of the implied circularity of visual field – as a stadial description of an inherently linear process. In the essential seriality of the disassembly line, the painted vignettes that illustrate the various procedural stages – each one separated by a spatial interval from the others – are reminiscent of the sequential images arrayed around the wheel of the phenakistiscope. But they are even more similar to Eadweard Muybridge's serial and linear photographic studies of animal motion, which were taken by cameras set at intervals and triggered in turn in something like an image production line. These were the images of course that Muybridge animated using the zoopraxiscope and of which he tried – it seems rather unsuccessfully – to sell engravings, mounted on phenakistiscope discs, in his hall at the base of the Ferris wheel (Haas 1976: 176). Whereas Muybridge's process decomposed the continuum of movement by sequentially freezing the transient body, thus capturing its temporal development in space, its counterpart in the stockyards beyond the fairgrounds – the disassembly line – worked upon the material of the body itself, effecting its staged, temporal dismemberment through an analogous stadial and spatial distribution of transformations.

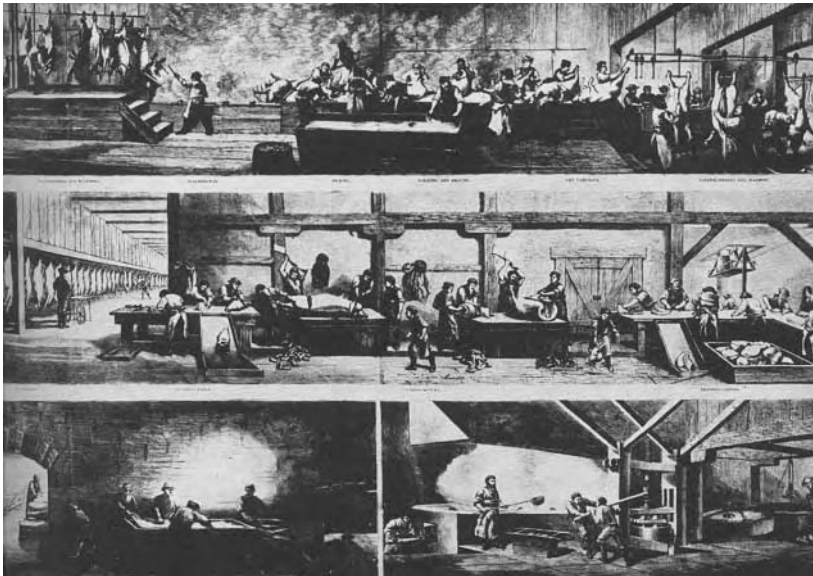


Figure 2.13 Cincinnati: slaughtering and packing hogs, panoramic painting, 1882: from Giedion, *Mechanization Takes Command* (courtesy of Oxford University Press)



Figure 2.14 Eadweard Muybridge, “‘Daisy’ galloping, saddled’ (courtesy of Dover Publications)

The chops that lay on Ferris’s plate as he sketched his design may at first glance seem unlikely emblems of modernity. But in fact they, and the processes they signify, have greater resonance and kinship with the wheel than the more synthetic, ‘constructive’ industrial analogies that are usually made in relation to it (the tower, the bridge, etc.); and not least because of the wheel’s own dismembering and unhinging optical powers.