Embodied Motion in the Modern Metropolis

text and illustrations by Jay Worthing

Introduction

The modern city – the metropolis – is a site of movement. It is a place of exchange and transfer, of people, vehicles, materials and information, which ebb and flow through its infrastructure. The increasingly mobile dynamics and the use of transient and tensile urban forms, indicate the origins of a distinctly 'nomadic' experience of the metropolis.

This paper explores nomadic qualities of the modern city through a consideration of architecture, urban studies and philosophy. The question addressed in this paper is whether the subjective experience of the city, defined in terms of transience, transport, motility, shifting territories, flux, and fluid space, offers a convincing account of the metropolis. In order to answer this question I will discuss three types of architecture arising in the modern city: the arcades in nineteenth-century Paris, shantytowns or 'favelas' in the late nineteenth-century to present day Rio de Janeiro, and modern membrane structures in New York. With each the focus is on shifting and subjective experiences of the structures, and the perceptual and visceral relations with movement and space.

Arcades in Paris

The German- Jewish philosopher Walter Benjamin drafted *The Arcades Project* from 1927 until his untimely death in 1940. The encylopaedic work of quotes and commentary recalls the 'arcades', an architectural invention of nineteenth-century Paris. The arcades were gas-lit, glass covered, and vaulted passageways, which served as enclaves for the city's burgeoning commerce. Benjamin quotes from the *Illustrated Guide to Paris*: "These arcades, a recent invention of industrial luxury, are glass-roofed, marble-paneled corridors extending through whole blocks of buildings, whose owners have joined together for such enterprises. Linking both sides of these corridors, which get their light from above, are the most elegant shops, so that the arcade is a city, a world in miniature, in which customers will find everything they need." The arcades

offered not only consumer goods, but also a place to wander throughout the day or to take refuge from the rain. The arcades were, for Benjamin, a magical and mysterious collective dreamscape – an "intoxicating site of the phantasmagoric, the kaleidoscopic and the cacophonous" (Leach 1997: 24).

Benjamin describes a number of characters in The Arcades Project, for example: the gambler; the collector; and the prostitute. He views each 'type' as a hero or heroine, who while swept up in the tide of capitalism, also gives voice to the fragmented and fleeting passage of modern life. One figure of particular note is the flâneur, a distinguished fellow who roams the arcades and delights in observing the crowd. Despite his desire to be immersed in the crows the flâneur's demeanour keeps him distanced from the crowd.. He is immersed yet detached. As a roving spectator the flâneur revels in the urban scene, and the sensory delights it has to offer. In his view, the arcades are an 'open' terrain, a supreme milieu of modernism, down which to stroll, and absorb the sensual pleasures of its dream-like montage.

The flâneur's view is typical of a bourgeois male of this period, at liberty to roam and gaze freely, and to take on the role of an urban nomad or a wandering voyeur. As Pollock notes:

> The flâneur symbolizes the privilege or freedom to move about the public arenas of the city observing but never interacting, consuming the sights through a controlling but rarely acknowledged gaze, directed as much at other people as at the goods for sale. The flâneur embodies the gaze of modernity which is both covetous and erotic. (Pollock 1988: 67)

There was, hoever, a more ruinous side to the industrial project, which the flâneur did not experience. Benjamin describes the arcades as the manifestation of a 'two-faced' or 'dialectical' history. He writes that, "…abject poverty and insolent luxury enter into the most contradictory communication; the commodity intermingles and interbreeds as promiscuously as images in the most tangled of dreams" (Benjamin 1999: 827). In Paris during the nineteenth century, the 'other face' was that of the working class, whose families were increasingly forced into the suburbs, often the result of 'beautifying' or 'renewal' projects of the city streets.

In the mid-nineteenth-century the civic planner, Georges Eugène Haussmann, was hired by Napoleon III to 'modernize' Paris. It was a task that in Haussmann's view required the suppression of an increasingly restless working class, which he described as a "rootless urban population…" (Benjamin 1999: 12). To curb insurrections and eliminate

the construction of barricades by these individuals, Haussmann ordered the destruction of Paris' narrow streets in favour of wide boulevards. Benjamin notes the utility of these paved and widened streets to move troops directly from the barracks to the workers' district, or to various neighbourhoods in the city. The boulevards destroyed the small neighbourhoods of the working class and alienated them from urban space. Benjamin quotes from L'Ouvrier devant la société (Paris, 1868):

> Hundreds of thousands of families, who work in the center of the capital, sleep in the outskirts. This movement resembles the tide: in the morning the workers stream into Paris, and in the evening the same wave of people flows out. It is a melancholy image. (Benjamin 1999: 137)

The daily migration of the proletariat was a product of Paris' massive change during this period. The industrialization of production was in full effect and had instilled a sense of 'modern' life in its populace. The conditions of this life, however, were far from stable. In one sense, the accession of capital production had set in motion a roving populace: members of both the bourgeoisie and the proletariat, who were swept up in a constellation of work, power, and capital, in a city bent on speed and change. The massive population growth, and increase in traffic, were but two pieces of evidence that marked, for Baudelaire the novel state of modernity, which he described as "the ephemeral, the fugitive, the contingent, the half of art whose other half is the eternal, the immutable" (Baudelaire 1986: 130). Paris had become a kinetic reality defined by movement and flux.

Favelas in Rio

A salient feature of most major cities is the existence of squatter housing or 'shantytowns'. These settlements entail makeshift construction from scrap materials, such as corrugated metal, plywood, bricks and plastic. Shantytowns are often located on illegally occupied land, either in run down areas of the city or at its peripheries, and often lack basic amenities, electricity and running water.

In Rio de Janeiro, a shantytown is known as a 'favela', a name that originated from a settlement on the Morro de Favela hillside. While the favelas in Rio and the arcades in Paris are vast-

ly different, they were (and are) not entirely independent urban phenomena. Connections existed between the consumer culture that was thriving in 19th-century Paris, dependent on the import of overseas goods (Featherstone 1995: 151), which in the case of Brazilian crops such as sugar, coffee and cotton, were based on slave labour. In the last two decades of the nineteenth century, the abolition of slavery forced many black immigrants to seek work in urban areas, which lead to the establishment of favelas (Oliveira 1996).

While favelas have become a permanent feature of the urban fabric in Rio, the buildings are often short lived. The dwellings are makeshift, constructed from a variety of secondary materials, and as a result, are more easily dismantled easier than their sturdier counterparts in the urban core. In fact, the dismantling of the favelas has not been uncommon, due to the reactions of Rio authorities, which have varied considerably between eradication efforts and new housing projects (Barke *et al.* 2001).

Despite a lack of infrastructure and a high incidence of poverty and crime, the favelas are a hotbed of Afro-Brazilian culture. Many of Brazil's cultural forms find their origins in the favelas, and involve an emotive, motile and visceral expression of the human body. The boys of the favelas for instance are often engaged in football (soccer), and play with dreams of stardom or for the simple pleasures of sport. They play in the streets and knock the ball against buildings and through narrow corridors – which is often noted as the reason for the advanced dribbling skills of Brazilian soccer players!

The evolution of salsa music and dance also has a distinct relationship with the space of the favelas. *Barke et al.* note that:

> Early political protest against poverty and marginalisation was expressed and transmuted into the samba… The themes pursued in such songs are concerned with life in the favelas, lack of infrastructural services and the collective suffering of the squatter settlements. (*Barke et al.* 2001: 260-261)

In his discussion of Capoeira, Lewis characterizes it as "…an acrobatic, Afro-Brazilian martial game, played in a circle with musical accompaniment, in which two players try to take each other down, or otherwise dominate each other, while demonstrating mastery of movement" (Lewis 1995: 222). Capoeira, which has been described as the synthesis of fighting, dance and music into a distinct cultural expression, was not simply an effort of black slaves to evade oppression by their white masters, but was rather the embodiment of a general tendency to reclaim or conquer "space through culture" (Capoeira 2002: 140). Capoeira was particularly essential in the promoting community cohesion during the transition phase (and continued oppression) that followed the abolition of slavery in Brazil.

Baiocchi (2002) discusses the relations between Rio and its

favelas, noting the perceptions of the elite and reformers on the one hand, and the innovative culture and unique experiences of its inhabitants on the other. He describes the favelas as places of movement – whether social and political movements (e.g. the "popular pro-democracy movement"), cultural or athletic (e.g. samba, carnaval, capoeira, soccer), or the movement of groups such as migrating families or crime syndicates. Baiocchi highlights the tension between Rio and its shantytowns as follows:

> Rio de Janeiro in the late 1970s was characterized by its discursive construction as besieged and surrounded on all sides by 'belts of poverty' or 'belts of insecurity.' Against a vision of specific places in the city for the poor, as in Haussmann's plan for Paris, this was a vision of the city choked by these belts, with its poor circulating alarmingly freely throughout it. The movement of the poor into certain areas of the city posed the question of their 'proper place,' of where the poor ought to live and circulate, and of their place in society at large. (Baiocchi 2002: 9-10)

A major influence on movement through the favelas – of people resources and drugs – are gangs. As Baiocchi notes, views of the cause of delinquency in Rio are controversial. One view of the raw violence of favela life is offered in the film "City of God" – through the eyes of its narrator Rocket. The film tells a true story of gang life in Rio's slums. This movie is based on a book of the same title by Paulo Lins. Lin's book traces the evolution of a housing project in the 1960's into one of the most notorious and violent places in Brazil. Rocket, a poor black child who is too frightened to pursue the violent gang life (the road most often traveled by his peers), finds redemption by becoming a professional photographer. Rocket offers a powerful lens through which to view the abject conditions of favela life. Director Fernando Meirelles (2002) noted that the "City of God" is not only about a Brazilian issue, but one that involves the whole world… Of the opulence of the first world, a world that is no longer able to see the third or fourth world, on the other side, or deep down in the abyss."
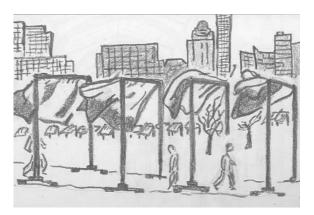
Favalas and the people who live in them provide an image of temporality - shifting territories, migrations, dance, crime, - and the makeshift dwellings within which people reside. Passage through the variegated and heterogeneous terrain of the favelas is an itinerant affair. Given the complex and often contradictory character of Rio's urban topography, the favelas are not easily described. As O'Hare *et al.* remind us:

> …the spatial and temporal manner in which Rio's favelas have evolved defy most attempts at convenient generalisation. Rather do we seek to present the favelas as a dynamic phenomenon that is constantly changing both within itself and in its relationship to the specific character of Rio's urban structure. In this light, a nomadic approach offers only one among many ways to understand life in the favelas.
> (O'Hare *et al.* 2002: 25)

Membranes in New York

Membrane structures are an enduring solution to the need for human dwelling. The use of animal hides and poles to create shelter in the form of tents dates back millennia, and has evolved amongst nomadic tribes in disparate regions of the globe. In metropolitan regions today, there is a renewed interest in tensile design, due to the need for transportable buildings and flexible organization of urban space. Frei Otto is regarded as a seminal figure in modern architecture, for his vanguard ideas of textile and tensile forms. His work on the German Pavilion at the Expo '67 in Montreal and the Stadium for the 1972 Olympics in Munich, are two prominent structures which have influenced modern tensile forms.

What distinguishes membrane designs of the last forty years from their predecessors is the scale of the projects and the efficiency with which they are achieved. Wide-span membrane structures, as a result, are capable of transforming the urban landscape in substantial ways. The result is the introduction of a 'nomadic spatiality' into the city. The Carlos Moseley Music Pavilion designed by Future Tents Limited (FTL) is a prime example. FTL was commissioned to design a portable venue for the Metropolitan Opera and the New York Philharmonic, capable of being erected and disassembled with minimal effort, and without harming the sites (green spaces such as Central Park). Their innovative solution involved the integration of crane technologies into the trailer beds of transport trucks, which in turn, also became part of the final structure. Upon completion, the stage included a "tripod like truss system, a tensile canopy, a folding stage, and a series of collapsible amplification towers" (Kronenburg 1996: 80). The portable and temporal elements of the venue (including the circulation of bodies and the music itself) offered a unique 'interplay' between nomadic and permanent features of the city.

FTL has also designed membrane structures – such as the World Financial Center and Staten Island ferry terminals – that are embedded in the dominant urban topography of New York; namely, concrete and large rectilinear buildings. Transport terminals designed to provide a creative place of shelter for transient citizens or tourists of New York, represent a nomadic feature of urban space. Of course, FTL would prefer to see membrane designs recreate the city more ambitiously, perhaps in the form of 'fabric skyscrapers'. This new type of infrastructure would entail lightweight, flexible components, comprised of scaffolding and a curtain wall. In discussing the proposal, Dalland writes:

> We believe that a building's skin should be made of multiple, lightweight, flexible, doubly curved membranes stressed in tension with as many membranes as are necessary for a particular site and function; each membrane performing a different task – structure, thermal insulation, waterproofing, etc. (Gans 2003: 129)

Membrane and fabric designs however, need not envelop wide expanses of space in order to affect or enhance urban movement. 'The Gates', a recent installation in New York's Central Park by Christo and Jeanne-Claude, demonstrates a completely novel approach to the movement of bodies (and art) in the city. On February 12, 2005, the exhibition was opened to the public. The project consisted of 7500 individual gates, 16 feet tall and varying in width from 5 to 6 inches to 18 feet. Suspended from the horizontal top part of each gate was a free hanging, saffron-coloured fabric panel (Christo and Jeanne-Claude 2005). In total the exhibition spanned 23 miles of Central Park's walkways.

'The Gates' struck an emotional chord with the inhabitants of New York and inspired millions of people to absorb the visual feast and wander through the Park. In the way a nomadic camp might be fixed one day and then gone the next, the 'The Gates' exhibition – 16 days after its inception – was removed. What is left now are lasting impressions and a plan to recycle the component parts. Mooney writes in the *New York Times*:

> The gates they held up a few days earlier were gone, as workers moved from north to south removing the structures. It has been said that the real impact of the work of Christo and Jeanne-Claude comes after it is gone, and indeed the Meer seemed quiet in the absence of all that happy foot traffic." While the installation lacked an element of shelter, it carried distinctly nomadic connotations of peripatetic movement – 'all that happy foot traffic' – through an open terrain. (Mooney March 07, 2005)

Membrane designs such as the Carlos Moseley Music Pavilion,

the World Financial Center and Staten Island Ferry terminals, and 'The Gates' demonstrate a unique response to urban space and place. They instill an explicit temporality into built form – an element that is missing from monumental projects. The temporal dimension and the close relation with transport, music and the arts suggest a type of 'composition' or 'choreography' of space. The London based choreographer Carol Brown is intrigued with this idea. Commenting on the work of architect Daniel Libeskind, she states that "The architects of the future will be the choreographers of the city" (Brown 2002: 12). Brown's aim though, is quite the reverse: to explore what it means for a dancer to 'behave like a builder.' Further, Brown seeks to re-imagine the body in space and to explore its boundaries relative to structural and virtual spaces. "As a choreographer" she suggests, "this involves exploring bodily movement in terms of planes, rotations, convolutions, inflections and torsions, binding the choreography into the built environment at the level of a subtle mechanics. Space, no longer a container for the body, becomes enfolded, amplifying the bodily realm into a kind of kinetic architecture" (Brown 2002: 12).

A significant difference between tensile-membrane designs and their compression-based counterparts is determined by their effect on embodied perception. This is evident most clearly in the contrasts between lightness and weight, and between open and closed space. Indeed the 'choreography' of membrane space – often involving curvilinear folds and precocious hints of boundary zones and liminality – elicits an empathetic response from the body. Beesley draws attention to this idea in the work of 19th-century German philosopher Robert Vischer, who writes:

> We seem to perceive hints and traces of attitudes, of emotions - a secret, scarcely suppressed twitching of the limbs, a timorous yearning, a gesturing, and a stammering… [W]e thus have the wonderful ability to project and incorporate our own physical form into an objective form… I project my own life into the lifeless form… I am mysteriously transplanted and magically transformed into this Other. (Beesley 2004)

The experience of the body in, or in relation to structures, can be characterized in a similar way. Tensile-membrane systems in particular, offer a distinct opportunity for 'empathetic' response. They are typically folded, stretched over cables, or spread over a skeletal frame, in ways that replicate forces and forms in nature. Frei Otto's works in tensile architecture, particularly his use of soap bubbles and spider webs, are effective analogies to nature in built space. It is a natural extension of living through the body then – an organic system of skin and bones, which is subject to the same physical constraints – to translate a 'body' in built forms.

Transformation, or becoming 'other' occupies the work of French philosophers Gilles Deleuze and Félix Guattari. The potential of 'becoming nomad' is explicit in their discussions of

striated space, for instance, New York's street system and high-rises, and smooth space: "There is…a significant difference between the spaces: sedentary space is striated, by walls, enclosures and roads between enclosures, while nomad space is smooth, marked only by 'traits' that are effaced and displaced with the trajectory" (1986: 51). Nomadic movement, in the formulation of Deleuze and Guattari, entails a trajectory, a vector or a path, and avoids the stasis of fixed centres or points. Wide span membrane designs (or the fluid movements of hanging fabric for that matter) are the architectural equivalent of a smooth and open terrain: architecture as topography on which the vectors of their tensile dynamics take flight. The experience of structural or fabric membranes recalls a similar motion – of the fold or the arc – and the empathetic eye traces the vector of a 'spatial' flight. The regimented grid of New York dissipates in favour of temporal, fluid space.

Conclusion

This paper has discussed three urban phenomena in the modern city, including the arcades of Paris, the favelas in Rio and membrane designs in New York. The aim has been to discuss the embodied experience of these urban structures and spaces as nomadic phenomena, which I have identified in terms of transience, temporality, portability, movement, and motility, territories, flux and smooth and fluid space. The question remains whether a nomadic account offers an effective means to understand the metropolis. Is the modern city nomadic? Relative to interim cities for World Fairs or for events such as the 'Burning Man Festival' in Nevada, the metropolis doesn't come close. And of course, the city won't stand up and walk away any time soon, as Archigram fantasies depict. The metropolis, under its massive weight, somehow seems in a state of immutable stasis.

Considered in another light, however – in terms of the 'permanence' of its movement – the nomadic city is plausible. If we move beyond the dominant spatial discourse of the city into the temporal discourse of movement, we witness the metropolis as a kinetic reality in itself - motile bodies and shifting territories, mobile structures and tensile geometries, dynamic motion and continuous flux, - these offer the origins of understanding a nomadic city. The city is not nomadic in its entirety. But the way bodies and forces translate themselves in space can be characterized as such. Finally, by conceiving the city as a fluid 'cityscape' or as an urban topography in an animated state of variation and flux, we are able to better understand the embodied experiences of a nomadic city – of a 'nomadicity'.

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