Landscape Research
Publication details, including instructions for authors and subscription information:
http://www.informaworld.com/smpp/title~content=t713437121

Riparian anomie: Reflections on the Los Angeles River

Matthew Gandy[a]
[a] Department of Geography, University College London, UK

To cite this Article Gandy, Matthew(2006) 'Riparian anomie: Reflections on the Los Angeles River', Landscape Research, 31: 2, 135 — 145
To link to this Article: DOI: 10.1080/01426390600638471
URL: http://dx.doi.org/10.1080/01426390600638471

Landscape Research,
Vol. 31, No. 2, 135–145, April 2006

Riparian Anomie: Reflections on the Los Angeles River

MATTHEW GANDY
Department of Geography, University College London, UK

ABSTRACT *This paper explores the highly urbanized landscape of the Los Angeles River. Direct encounters with the contemporary river are combined with an historical exploration of some of the developments associated with its transformation into a 51-mile concrete drainage channel. It is suggested that the current landscape of the Los Angeles River not only reveals much about the complex relations between nature and culture in southern California but also illustrates how the contemporary city is marked by a schism between technical conceptions of water control and new attempts to combine river management with wider social and ecological objectives.*

KEY WORDS: Water, landscape, modernity, urban infrastructure, Los Angeles

Introduction

> The shadows crossing on the concrete below
> In a wry design of pediments like sentinels
> Invite my meditation on the fate
> Of these Spanish borderlands and their wild streams—delivered
> By the fractures of history into
> The hands and mechanized channels of
> Politics and the Army's corps of engineers ...
>
> L.A. Murillo, *Macy Street Bridge*[1]

I step out of my apartment in West Los Angeles and into glaring sunlight broken by the jagged shadows of palm trees. I climb into my rented car and head a couple of blocks north to join the Santa Monica Boulevard. I can feel the heat of the leather seats on my legs as I adjust the rear-view mirror. I turn on the radio and join the slip lane for the southbound 405 San Diego Freeway. As Reyner Banham once observed, the real separation between private and public space occurs not on one's doorstep in Los Angeles, but at the intersection between the street-level city and its vast freeway network.[2] In a matter of seconds I have joined a metal swarm headed in the direction of LAX airport and the southern suburbs. I have gone in search of the Los Angeles River.

Correspondence Address: Matthew Gandy, Department of Geography, University College London, 26 Bedford Way, London WC1H 0AP, UK. Email: m.gandy@ucl.ac.uk

ISSN 0142-6397 Print/1469-9710 Online/06/020135-11 © 2006 Landscape Research Group Ltd
DOI: 10.1080/01426390600638471

Few Angelinos can trace the 51-mile course of the river as it snakes its way from Canoga Park in the north down to the suburbs of Long Beach in the south: the river is little more than a concrete conduit hidden within the heart of the city that is easily ignored or overlooked. Buildings face away, billboards obscure its location, and its channel is mostly inaccessible behind miles of concrete levees. The placid blue haze belies sudden downpours in the city's mountainous catchment area that can produce dramatic and sometimes deadly flash floods: these torrents of storm water transform the dry channel into a fierce surge of hydrological power that threatens to sweep anything in its path into the Pacific Ocean.

In this brief essay I wish to explore two facets of the Los Angeles River. I begin by sketching some of the historical and strategic antecedents to the 'canalization' of the original river. The changing use of the river is placed within a context of increasing flood damage to the growing city and the pre-eminent role of real-estate interests within the city's political arena. I then explore the contemporary meaning of this concrete landscape and consider ways in which the river has become symbolic of the city itself. Simplistic distinctions between the 'modern' and the 'post-modern' are rejected in favour of a multi-layered interpretation of urban technological landscapes. I conclude with a consideration of the current tensions between different responses to renewed flood dangers and the possibility of a shift away from narrowly technical conceptions of the river's role within the Los Angeles metropolitan region.

Extinguishing Nature: An Historical Interlude

The contemporary Los Angeles River bears little relation to the kind of complex semi-arid landscapes encountered by early settlers yet the need to adapt to the unpredictable hydrological characteristics of the region has marked every phase of human occupancy. The original Pueblo de los Angeles was established by Spanish colonial authorities near to what is now the Los Angeles River in 1781 and involved the gradual erasure of Gabrielino Indian villages, whose inhabitants had also based their living on fishing and other activities near the river. The Spanish settlers used delta waters for irrigation canals or *zanjas* that stretched from the Santa Monica shore to San Bernardino in the east. By the late 19th century, however, the polluted *zanjas* were the focus of demands for their closure and replacement with safer piped water supplies.[3] The city's first water commissioner or *zanjero* had been hired in 1854 to oversee the use of the river ditches for irrigation—the last of which were closed down in 1904—but the allocation of water rights had proved very problematic. The Spanish legal emphasis on public ownership of water resources was ideally suited to equitable use of water in arid conditions but this conflicted with growing commercial interests in water provision. In 1868, after extensive lobbying, the city leased out Los Angeles's water rights to a private company, which then transferred its rights to a subsidiary, in an ill-fated arrangement that proved incapable of providing adequate supplies to the fast-growing city. In an echo of contemporary concerns over water privatization the company was accused of charging exorbitant rates and siphoning off profits to its stockholders, rather than making adequate investments in the improvement of the city's water supply system. In 1902 Los Angeles eventually regained control of its water in the wake of growing public hostility to the so-called 'water ring' and their nefarious practices.[4] The Los Angeles

River was still used at this time for irrigation and the supply of aquifers for drinking-water wells, but with the completion of the 233-mile Los Angeles Aqueduct in 1913, linking Los Angeles with more distant water sources in the Owens Valley, the city was no longer dependent on the river for its water supply.

Now that the Los Angeles River had a starkly diminished role in the social and economic life of the city, its place within the rapidly changing urban landscape featured more prominently within public debate. The original landscape of the river was derived from the complex mosaic-like structure of its floodplain with woods, meadows and shallow braided streams typical of the semi-arid landscapes of the American South West. William Mulholland, for example, the engineer for the Los Angeles Aqueduct, remarked that the original river was a ''beautiful, limpid little stream with willows on its banks'', yet this ostensibly picturesque landscape belied complex technical and political challenges.[5] The Los Angeles River had long been a dominant feature in the gradually evolving metropolitan landscape: Edward Ord's plan of 1849, for example, clearly shows the river—still without any bridges—as a dividing line between cultivated lands and early road networks to the west and an expanse of largely uncultivated lands to the east.[6] The emerging dilemma for 20th-century Los Angeles was whether to incorporate this fragment of 'wild nature' within the growing city or to transform the river's floodplain to enable further urban development. The ambitious Olmsted – Bartholomew plan for the city, produced at the height of the Depression in 1930, invoked a pivotal role for the river within the 'green plan' for the Los Angeles metropolitan region. Olmsted and Bartholomew opposed the mooted concretization of the river and urged the use of flood-risk land to create a new system of parks for the city: ''Such land would have to be acquired only once'', they argued, ''yet would serve a double purpose—flood-control use and park use—not conflicting but positively benefiting each other''.[7] They recognized that tax revenues were being consistently devoted to infrastructure projects that underpinned the continued expansion of the urban fringe rather than improving conditions within the existing city. If implemented the plan would have brought the greatest benefits to the working-class communities in the south of the city with least access to parks and open spaces. Yet the realization of the Olmsted – Bartholomew strategic vision would have involved removing swathes of land from the city's burgeoning real-estate market and the scheme was ultimately quashed by the city's political and business elites.[8] The report's publication only five months after the stock-market crash that heralded the Great Depression and the downturn of the regional economy further marginalized a scheme whose expenditure was focused principally on real-estate acquisition rather than labour-intensive public works.[9]

The decisive issue proved to be the volatility of the river itself: in its original form the river was characterized by multiple channels spread over a typical 'wash' landscape, but with increasing development within the river's large floodplain the homeostatic capabilities of the river system to cope with variations in rainfall became increasingly constrained.[10] Major floods took place in 1886, 1914, 1934 and, most notably, in 1938 when 45 people lost their lives. In the wake of the 1914 flood there was growing momentum for a radical solution to the flooding problem and in the following year the Los Angeles Flood Control District was set up, which favoured an ambitious technical solution to the problem. The notion of river canalization, so that

flood control could be achieved with minimal loss of land for development, was pressed for by the major floodplain landowners such as the Southern Pacific Railroad, who resisted the implementation of any 'hazard ordinance' or other planning interventions that might limit their use of plots within the river's extensive natural floodplain.[11] The unpredictable flow of the river had for many years disrupted riverside development and created a zone of environmental uncertainty that conflicted with real-estate interests and the needs of existing property owners. From 1935 onwards the city set about modifying the channel of the river with new banks, levees and drainage channels with newly approved funds under the Works Progress Administration (WPA) set up by the Roosevelt administration. It was the devastating flood of March 1938, however, that galvanized the need for a more ambitious approach to flood control, and in 1941 Congress eventually provided approval for the Army Corps of Engineers to construct a 51-mile-long concrete channel in place of the original river. This vast programme of public works was initiated under the aegis of the New Deal, with the promise of job creation for the city's unemployed in an ironic convergence with the real-estate-backed demands for the river's flood plain to be controlled. The project took over 20 years to complete, deployed over 10 000 workers and used some three million barrels of concrete. The original Los Angeles River was converted into an immense flood-control system with no other purpose than the effective removal of storm water from the city. Even the word 'river' itself appears to lose its veracity: in amendments to the city's 1965 Master Plan, for example, what was once the site of the Los Angeles River is merely referred to as a series of ''open flood control channels'' in a process of historical erasure through technological transformation.[12]

The expansion of the freeway system in the 1940s marked a new phase in the hiding of the river and the eradication of a river-based geometry within the structure of the city. The concrete channel itself increasingly resembled some kind of empty freeway: in 1948 the Western Asphalt Association even suggested that the river be turned into a freeway in a further step towards the creation of the city's distinctive car-dominated landscape (an idea that was also mooted again in the 1970s). But the creation of what Reyner Banham termed 'autopia' held more complex environmental implications than he and many other urbanists had anticipated: the increasing conversion of the city's surface into roads and parking lots served to exaggerate the potential impact of sudden downpours by directing runoff straight into the city's simplified network of concrete channels in a matter of minutes. By the late 1970s the spectre of deadly floods had re-emerged: flash floods in 1978, 1980 and 1983 had left over 30 people dead and exposed the fragility of the existing system. The marked increases in flood-water levels since the 1970s led to proposals by the US Army Corps of Engineers, who retained responsibility for flood control in Los Angeles County, to raise the height of the existing channels. Their 1987 report indicated a potential return to the devastating floods of the 1930s and demanded a new programme of public works to enhance the capacity of the city's flood defences.[13] In contrast, the Los Angeles River Master Plan of 1996, instituted by the Los Angeles County's Department of Public Works, indicated greater critical scrutiny of the technical logic behind further 'concretization' and sought to accommodate wider interests in the future of the Los Angeles River than the need for improved flood control.[14] The prospects for a continuation of the technical

paradigm established in the 1930s have also been challenged by a more inclusive ecological vision for the whole metropolitan region, epitomized by the Southern California Institute of Architecture's call for the creation of a democratically controlled Los Angeles River Valley Authority. The difficulty, however, is that whilst more scenic tributaries of the Los Angeles River such as the Arroyo Seco can be brought back into 'public consciousness', the rest of the river system remains dominated by a landscape of concrete brutalism and public neglect.[15] These largely deserted and marginalized landscapes have over time become reflective of the city itself in the face of new patterns of poverty and social neglect. So unknown had the landscapes of the Los Angeles River become, that in the autumn of 1985 the journalist Dick Roraback undertook an 'exploration' of the river for the *Los Angeles Times*, tracing its course from Long Beach up to its 'hidden' source in the Simi Hills of Ventura County.[16] In the next section I continue my own exploration of the river; whilst not following the route of Roraback, I shall nonetheless seek to interpret these intriguing landscapes as an integral, if overlooked, dimension to the city.

Concealed Landscapes: Some Thoughts on Arrival

A few miles south of LAX airport the San Diego freeway begins to veer east towards Carson. The landscape becomes more disordered and is peppered with light industrial units and patches of waste ground. For a while the freeway is accompanied to the left by a waterway named the Dominguez Channel—a rather forlorn stretch of water largely obscured by billboards and embankments. At the intersection with the northbound Long Beach Freeway I head north another mile to reach the exit for the Del Amo Boulevard—a dusty two-lane highway that traverses the Los Angeles River. I take the road east over the bridge and park my car in a small suburban street: the modest bungalows belie a low-income neighbourhood, despite the proximity of the grand-sounding Virginia Country Club. I retrace my route on foot towards the bridge, noticing the gradual thinning out of buildings and complete absence of pedestrians. As I begin to walk back across the bridge I am astonished to notice horse manure scattered about the pedestrian footway: it is the sharp smell that first catches my attention. I pause in the middle of the bridge and take in the dramatic view: I am standing above the vast concrete channel of the Los Angeles River. I continue to the other side of the bridge and find a gravel track leading down to the water's edge (Figure 1). I am struck by how wide and shallow the channel is: the sluggish water is scarcely a couple of feet deep—the bright green algae, glittering in the sunlight, provide a striking contrast with crests of white foam. An abandoned sneaker is perched regally on the dry bank among twigs, leaves and other non-organic detritus. On the other side of the bank is an assemblage of shacks and rudimentary paddocks—the home of the horses—and chickens can be seen running around neatly arranged vegetable plots. Towering over this informal settlement is a huge billboard exhorting passing motorists to shop—the specific brand or product is unclear. These billboards are designed to be seen from the window of a moving car and do not invite motorists to interrupt their journeys: they provide a hieroglyphics of consumption to be etched into the weary consciousness of the city. Set further back from the giant billboards is a line of pylons, every second one so vast that it must be supported by a curious double structure so that the skyline resembles a giant

Figure 1. The Los Angeles River at Carson, March 2002. *Source:* Photo by Matthew Gandy.

spider's web suspended across the tributary channels of the river (Figure 2). The landscape is visually arresting but also perplexing: many of the features appear incongruous, as if they exist independently of one another. Despite the constant drone of traffic, there is an extensive presence of nature manifested in the lush banks of grasses, rushes and other plants that have colonized parts of the concrete levees and the extensive networks of muddy hollows and adjacent water courses in a partial return to nature that some engineers fear may reduce the capacity of the system to cope with future storms. The landscape is not 'beautiful', still less designed in any conventional sense, and yet it presents a revealing tableau quite different from more familiar facets of the Los Angeles cityscape.

Networks of urban infrastructure do not simply create modern cities, they also create their own distinctive spaces or landscapes within the fabric of the city. The post-industrial metropolis is littered with examples of what the historian Antoine Picon terms 'anxious landscapes'—places bearing the imprint of past phases of productive activity or the remnants of previous rounds of investment in the built environment, yet somehow lost or hidden within the contemporary city.[17] What is striking about the canalized Los Angeles River—despite its state of neglect and dilapidation—is its continuing centrality to the city's network of urban infrastructure. In many respects these engineered landscapes present an eerie doppelgänger to modernist architecture elsewhere within the city. The historian Kevin Starr misleadingly suggests that the river has not been lost, but "transmogrified, like Los Angeles itself, into a post-modernist construction of symbolic engineering".[18] Yet the city's system of engineered water channels does not

Figure 2. Riparian landscape, looking south from Carson, Los Angeles, March 2002. *Source:* Photo by Matthew Gandy.

correspond to any neat distinction between the modern and the post-modern. The term 'post-modern' has in any case been largely 'cannibalized' within the discourses of the modern, despite the critical role of Los Angeles as an architectural and intellectual epicentre for many dimensions to post-modern urbanism in the 1980s.[19] The landscape is not a post-modern 'simulacrum' à la Baudrillard, but a quintessentially utilitarian space comprised of successive layers of human activity. We can observe an intense interaction here between different structures, so that the technocratic vision of the Army Corps of Engineers is combined with highways, pylons and other technological networks. These urban landscapes seem oddly compelling because they reveal the materiality of the city as a functional metropolis. We encounter a late-modern manifestation of the technological sublime where the scale of human artifice is revealed in the form of a Loosian 'pure urbanism' devoid of embellishment or ornament.

The peculiar landscape of the river channel—its apparent emptiness and artificiality—reinforces a general perception that everything in Los Angeles has been artificially constructed. This concrete channel has also become part of the cinematic legacy of the city, whether in gritty representations of criminal underworlds as in *Point Blank* (1967) or *To live and die in L. A.* (1985), or alternatively used to present a dystopian future world invaded by giant insects in *Them* (1954) or murderous cyborgs in *Terminator 2* (1991).[20] The overwhelming sense is one of foreboding, as if the city's hidden river serves as a repository of urban malaise interconnecting with neo-noir evocations of political intrigue. The creation

of a 'tent city' on the river's banks in an effort to hide the homeless during the 1984 Los Angeles Olympics reinforces the perception of the river as a marginalized landscape to be eradicated from the public imagination, but it is also an ironic recognition of the river's long-standing role as a refuge for marginal or displaced peoples including gypsies, South American transvestites and other outsiders.[21] The control of lands in the vicinity of the Los Angeles River has also remained a focus of political contestation: in the 1980s, for example, a grassroots environmental justice organization called the Mothers of East Los Angeles mounted a concerted campaign against polluting and health-threatening land uses near to poor and predominantly Latino or African-American residential neighbourhoods.[22] And in the last five years there has been a major planning dispute over an industrial park near to the city's Chinatown for which no environmental impact study had been undertaken.[23] The landscapes of the Los Angeles River remain a contested zone where some of the city's poorest communities must contend with blighted and polluted landscapes that appear to be both literally and metaphorically disconnected from the rest of the city. With the renewed threat of flooding, these marginal spaces have once again become part of a wider debate over the future of the metropolitan region and attempts to re-integrate nature within the fabric of the city. Yet this latest phase in the history of the Los Angeles River is marked by a duality between two 'expert' visions: an environmentalist pre-occupation with 'ecological restoration' and a technical concern with the modernization of the city's floodplains. The meaning of the concrete river as a lived space within the city is largely lost within the cultural and historical amnesia of both environmentalist and engineering discourses. The poet Luis J. Rodriguez reminds us that the bleak landscapes of the 'concrete river' are both a place of collective memory and also a powerful metaphor for the abstractions of power that have wrought such injustice upon the city's poor.[24] To erase all trace of these landscapes is to ignore the 'ordinary city' that lies concealed behind the dominant cultural and political narratives of urban change. The imposition of an 'ecological simulacrum' in the place of the concrete river, as part of a wider agenda of ecological restoration, raises its own sets of social and cultural assumptions that are invariably cloaked—like the City Beautiful movement of the past—beneath rhetorical claims to present the public interest. Yet the degree to which marginalized communities in the vicinity of the river have been integrated into the planning process rather than merely co-opted into a pre-determined ecological vision is rarely considered.

Conclusions

The Los Angeles River presents something of an anomaly: as a non-navigable river it appears to disrupt established conjunctions between nature and modernity in the American imagination, yet its canalization has played a decisive role in the development of Los Angeles.[25] These ostensibly incongruous landscapes reveal more about the underlying dynamics of the city than many more familiar representations in cinema or popular culture. Far from being 'empty', these complex technological landscapes provide insights into how the modern city of Los Angeles has emerged out of a precarious relationship between nature and culture.[26] Since the 1980s, the use and meaning of the Los Angeles River has become a focal point for contrasting

conceptions of the role of nature in southern California. The river has become closely entwined in attempts to develop an environmentalist vision for the region in which aspects of the city's original landscapes and ecosystems are recreated: in 1986, for example, the Friends of the Los Angeles River (FoLAR) was founded with the aim of restoring a natural river along its entire course, and in 1990 the political salience of the river was marked by Mayor Tom Bradley's decision to set up the Los Angeles River Task Force to investigate future planning options. The approval of a parks referendum by California voters in 2000 has opened up possibilities for combining more ecologically innovative approaches to flood control with expanded access to parks and green space, yet the long-standing problems of metropolitan fragmentation continue to militate against co-ordinated planning strategies for the river, as evidenced by the 1999 failure of a bill in the California legislature to create a Los Angeles and San Gabriel Rivers Conservancy.[27]

These recent developments present an implicit challenge to existing conceptions of space, mobility and social interaction within Los Angeles and are suggestive of a new kind of synthesis between nature and culture in the public imagination.[28] Yet the 'rediscovery' of the river as an ecological facet of the city may in part be the paradoxical outcome of the success of the river channel in controlling the danger of flooding, so that this fragment of urban nature is no longer threatening but 'domesticated' and amenable to new forms of cultural appropriation. The fragility of any new consensus in relation to river management depends in large part on how necessary improvements and modifications in flood defences can be combined with wider social and ecological objectives. Recent concerns with intensifying flood risk and the impact of El Niño events, for example, have raised suspicions that the river faces a 'social construction of risk' as a discursive strategy on the part of the US Army Corps of Engineers and their allies to keep control of regional water planning and maintain their technical hegemony. The inadequacies of existing flood defences to cope with future conditions and spiralling insurance premiums for low-cost housing near the river have also exposed tensions between the exigencies of flood control and alternative visions for the city. In the late 1990s, for example, modifications to the concrete levees introduced by the Army Corps of Engineers in order to improve the city's flood defences were subject to extensive legal challenges by a range of environmentalist organizations. In essence, it would be difficult to claim either that there is a clear consensus over the future of the Los Angeles River or that there has yet been a major shift in the political dynamics of urban planning in the metropolitan region. The power of property owners and real-estate interests in partnership with engineering orthodoxy remains a formidable obstacle to different ways of conceptualizing nature and public space within the city.

Notes

1 L. A. Murillo (1999) *Verses from the Poet to the River of Los Angeles Poriuncula: Three Fragments* (Los Angeles, CA: Patrick Reagh).

2 Reyner Banham (1971) *Los Angeles: The Architecture of the Four Ecologies* (London: Allen Lane).

3 Marc Gregory Blake (1990) A study of the Los Angeles River, Unpublished MA Dissertation, University of California, Los Angeles; Blake Gumprecht (1999) *The Los Angeles River: Its Life, Death and Possible Rebirth* (Baltimore, MD: Johns Hopkins University Press); and Patt Morrison & Mark Lamonica (2001) *Río LA: Tales from the Los Angeles River* (Santa Monica, CA: Angel City Press).

4 William L. Kahrl (1982) Water and Power: The Controversy over Los Angeles' Water Supply in the Owens Valley (Berkeley, CA: University of California Press); and John Walton (1992) Western Times and Water Wars: State, Culture, and Rebellion in California (Berkeley, CA: University of California Press).
5 William Mulholland, cited in Morrison & Lamonica, *Río LA*, p. 57.
6 Gumprecht, *The Los Angeles River*.
7 Olmsted Brothers & Bartholomew and Associates (1930) *Parks, Playgrounds and Beaches for the Los Angeles Region*, p. 16. A report submitted to the Citizen's Committee on Parks, Playgrounds and Beaches (Los Angeles, CA: Citizens' Committee). A facsimile of the original report is reproduced in Greg Hise & William Deverell (2000) *Eden by Design: The 1930 Olmsted–Bartholomew Plan for the Los Angeles Region* (Berkeley, CA: University of California Press).
8 Mike Davis (1996) How Eden lost its garden: a political history of the Los Angeles Landscape, in: Allen J. Scott & E. Soja (Eds) *The City: Los Angeles and Urban Theory at the End of the Twentieth Century*, pp. 160–185 (Berkeley, CA: University of California Press); and Greg Hise & William Deverell, Private power, public space, in: *Eden by design*, pp. 1–63.
9 Gumprecht, *The Los Angeles River*; and Leonard Leader (1991) *Los Angeles and the Great Depression* (New York: Garland Publishing).
10 See Anton Wagner (1935) *Los Angeles: Werden, Leben und Gestalt der Zweimillionenstadt in Südkalifornien* (Leipzig: Bibliographisches Institut).
11 Davis, 'How Eden lost its garden'.
12 Los Angeles County (1968) *Drainage Plan: An Element of the Master Plan of the City of Los Angeles* (Los Angeles, CA: Department of City Planning and the Department of Public Works Engineering Bureau).
13 See US Army Corps of Engineers (1992) *Los Angeles County Drainage Area Review: Final Feasibility Study Interim Report and Environmental Impact Assessment* (Los Angeles, CA).
14 Los Angeles County (1996) *Los Angeles River Master Plan* (Los Angeles, CA: Los Angeles County, Departments of Public Works, Parks and Recreation, Regional Planning).
15 Gene Desfor & Roger Keil (1999) Every river tells a story: the Don River (Toronto) and the Los Angeles River (Los Angeles) as articulating landscapes of urban ecology, paper presented to the conference Sustainability, Risk and Nature: The Political Ecology of Water in Advanced Societies, University of Oxford, 17–19 April; and Southern California Institute of Architecture (1990) *Recreating a River: A Prescription for Los Angeles* (Los Angeles, CA: Southern California Institute of Architecture).
16 See, for example, Dick Roraback (1985) Up a lazy river, seeking the source, *Los Angeles Times*, 20 October. See also the discussion of Roraback's project in Gumprecht, *The Los Angeles River*.
17 Antoine Picon (2000) Anxious landscapes: from the ruin to rust, *Grey Room*, 1, pp. 64–83. See also Elisabeth Heidenreich (2004) *Fließräume: die Vernetzung von Natur, Raum und Gesellschaft seit dem 19. Jahrhundert* (Frankfurt: Campus).
18 Kevin Starr, Foreword, in Morrison & Lamonica, *Río LA*, pp. 16–17.
19 See Perry Anderson (1998) *The Origins of Postmodernity* (London: Verso); Michael Dear & Stephen Flusty (1998) Postmodern urbanism, *Annals of the Association of American Geographers*, 88, pp. 50–73; and Edward W. Soja (1995) Postmodern urbanization: the six restructurings of Los Angeles, in: Sophie Watson & Katherine Gibson (Eds) *Postmodern Cities and Spaces*, pp. 125–137 (Oxford: Blackwell).
20 See Thom Andersen's revealing documentary *Los Angeles Plays Itself* (2004), where he explores different ways in which the landscape of Los Angeles has been depicted and also distorted in popular culture.
21 Blake, A study of the Los Angeles River; and Morrison & Lamonica, *Río LA*.
22 Roger Keil (1998) *Los Angeles: Globalization, Urbanization and Social Struggles* (New York: Wiley); and Laura Pulido (1996) *Environmentalism and Economic Justice: Two CHICANO Struggles in the South West* (Tucson, AZ: University of Arizona Press).
23 Gumprecht, *The Los Angeles River*.
24 Luis J. Rodriguez (1991) *The Concrete River* (Willimantic, CT: Curbstone Press). See also Stephen Flusty (2000) Thrashing downtown: play as resistance to the spatial and representational regulation of Los Angeles, *Cities*, 17, pp. 149–158; Julian Murphet (2001) *Literature and Race in Los Angeles* (Cambridge: Cambridge University Press); Kim Sorvig (2002) Abstract and concrete: in Los Angeles, a

park creates an abstraction of an abused river, *Landscape Architecture*, 92(5) pp. 34–40; and Camilo José Vergara (1997) In praise of concrete: the LA River, *Metropolis*, 16(8), pp. 27–31.

25 Tim Barringer (2002), lecture given to the Tate Britain, London, 19 April.

26 Mike Davis (1998) *Ecology of Fear: Los Angeles and the Imagination of Disaster* (New York: Metropolitan Books).

27 Gumprecht, *The Los Angeles River*. See also Jared Orsi (2005) Flood control engineering in the urban ecosystem, in: William Deverell & Greg Hise (Eds) *Land of Sunshine: An Environmental History of Metropolitan Los Angeles*, pp. 135–151 (Pittsburgh, PA: University of Pittsburgh Press).

28 See, for example, W. L. Graf (2002) Damage control: restoring the physical integrity of America's rivers, *Annals of the Association of American Geographers*, 91, pp. 1–27; and Jennifer Wolch (2002) Anima urbis, *Progress in Human Geography*, 26, pp. 721–742.