

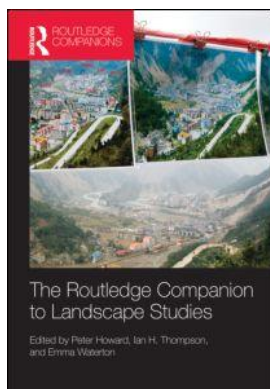
This article was downloaded by: 10.3.97.143

On: 30 Sep 2023

Access details: *subscription number*

Publisher: *Routledge*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: 5 Howick Place, London SW1P 1WG, UK



## **The Routledge Companion to Landscape Studies**

Peter Howard, Ian Thompson, Emma Waterton

### **An ontology of landscape design**

Publication details

<https://www.routledgehandbooks.com/doi/10.4324/9780203096925.ch30>

Susan Herrington

**Published online on: 06 Dec 2012**

**How to cite :-** Susan Herrington. 06 Dec 2012, *An ontology of landscape design from: The Routledge Companion to Landscape Studies* Routledge

Accessed on: 30 Sep 2023

<https://www.routledgehandbooks.com/doi/10.4324/9780203096925.ch30>

**PLEASE SCROLL DOWN FOR DOCUMENT**

Full terms and conditions of use: <https://www.routledgehandbooks.com/legal-notices/terms>

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

# Design and planning for landscape

---



# An ontology of landscape design

*Susan Herrington*

UNIVERSITY OF BRITISH COLUMBIA

---

## What makes it landscape design?

What makes something a landscape design? Answering this ontological question reveals an auspicious moment in the history of landscape architecture and Western aesthetics. During the eighteenth century key features of landscape design emerged – that it was a category of artistic practice in its own right (not to be confused with architecture or manual gardening), it demanded creative vision beyond practical skills, and that it was conceived through drawing or other representational means. In part this development can be attributed to philosophers in Germany, France, and England who included landscapes and gardens in their speculations on the nature of art. In fact, in 1790 Immanuel Kant added the practice of landscape gardening to the modern system of arts, a genealogy of the fine arts that philosophers and art critics struggled to define between 1680 and 1830 (Shiner 2001, 148). Kant's division of the fine arts sought to distinguish art from craft by classifying it as a product of imaginative genius, elevated from the acts of manual labour, and with a purpose to spark our aesthetic appreciation.

Moreover, it is not surprising that Kant's addition is predated by the appearance of designers, such as William Kent (1685–1748), who were increasingly distanced from the toils of manual gardening. Kent did not possess a great deal of horticultural knowledge; rather his genius emerged through the process of drawing and a careful handling of a landscape's formal properties. This is evidenced by one of his most effusive proponents, Horace Walpole. In Walpole's portrayal of Kent he surmises 'the pencil of his imagination beflowed all the arts of landscape on the scenes he handled. The great principles on which he worked were perspective, and light and shade' (Walpole 1894: 57). Thus, we can call something landscape design when it is a landscape that has been intentionally arranged using the imagination and with some form of representation – and this sense of the term owes much to these developments in the eighteenth century.

This is not to say that those engaged in the manual practice of gardening have not contributed knowledge to landscape design. During the nineteenth century the Irish gardener William Robinson introduced concepts, such as the 'wild garden', that were immensely popular with landscape designers (Robinson 1994). Likewise, small-scale gardens also contributed ideas to landscape design. John Dixon Hunt (2000: 11) argues that gardens function as the poetry of landscapes. They can provide an experimental space where conventions of landscape design can be tested and questioned. For example, during the twentieth century Gilles Clement (2006) urged landscape designers to notice the movement of plant material in the garden, over their fixed placement in specific locations. Indeed, Clement's observations of the way plants move by

themselves in the garden prompted us to appreciate the subtle and sometimes disquieting narratives of survival that they make visible in their struggle for air, light, water and space.

With the professionalization of landscape architecture in the twentieth century, landscape design became more codified as educational programs, apprenticeship requirements, and licensing emerged to regulate practice. The act of design continued to be conveyed through two- or three-dimensional mediums, while design processes, such as site analysis, became more systematized as they were influenced by the natural and social sciences. Regardless of these developments, a continual problem facing those designing landscapes has been its status as an art, particularly given that designs were increasingly commissioned for public clients. Consider Fredrick Law Olmsted, who is thought to be the founder of landscape architecture in the United States. He struggled to have his artistic genius recognized, eventually quitting his position at Central Park with a letter of resignation entitled *The Spoils of the Park: With a Few Leaves from the Deep-laden Note-books of 'A wholly Unpractical Man'* (Olmsted 1882).

Moreover, the physical material of landscapes confused matters regarding its status as something designed. Landscapes often contain and are subject to natural processes that change the designer's original plan. There are also landscape designers who intentionally seek to obscure the human act of design. These concerns deepened with the development of modern landscape architecture in the twentieth century. Borrowing many of its tenets from modern architecture, which distrusted allusion and stressed honesty of expression and truth of materials, modern landscape architects considered how their work could be a true evocation of modern times. This thinking is evident in the writing by one of its earliest proponents, Christopher Tunnard. For Tunnard (1948), gardens and landscapes that appeared to be the act of natural processes were not only old fashioned, but also deceiving. In his appraisal of the work of Swedish Garden Architects at the First International Congress of Garden Architects in Paris in 1937, he chided this Association for clinging to a romantic conception of nature when they suggested that planting should 'give the impression that they have grown there spontaneously' (ibid.: 77). Tunnard cautioned, 'the imitation of nature is a long perpetuated fraud' (ibid.: 80).

Over the course of the twentieth century the extent to which designers thought that people should recognize a landscape as *designed* varied wildly. Ian McHarg argued that design must take its cues from the natural sciences and thus mimic natural processes; an idea that captivated many landscape architects. On the other hand, Martha Schwartz built her career on the premise that people should know that landscapes are designed and they should not confuse them with nature. Alternatively, Sir Geoffrey Jellicoe posited that people should be aware of a landscape's design through their subconscious. Studying the psychology of Carl Jung and Taoism, Jellicoe sought to 'sublimate' his design work by 'inserting within it an invisible idea that only the subconscious could comprehend' (Jellicoe 1983: 124). Likewise, with the work of J.B. Jackson (1984) there was also a belief that studying vernacular landscapes, which are created by non-designers and have accrued over time, would be useful to landscape designers because they might reveal people's unaware needs and desires.

### **Explanatory, normative, and resistant theories in landscape design**

Conceptual thinking about landscape design has always borrowed from a range of disciplines – geography, psychology, natural sciences – to name a few. Three types of theory – explanatory, normative, and resistant – characterize this borrowing and its integration with design. These theories subscribe to different value judgements and in turn they highlight both acceding and competing beliefs about its merits. Of course these categories overlap, but what is important

here is to tease out the underlying justifications for certain design approaches because they are powerful motivators for those designing landscapes.

### *Explanatory*

Explanatory theories explain why something is the way it is and while they are often employed to assess landscape design, they also feature in the design process. Classic examples are evolutionary theories, such as Jay Appleton's concept of 'prospect and refuge,' which links our contemporary movement in space with our hunter-gatherer past. His theory implied that we seek prospects in a landscape in order to see any imminent threats, and we look for refuge to hide from them. Together, landscapes that offer prospect refuge are places where we can see without being seen, undoubtedly important for survival. Appleton's theory has been used to evaluate landscapes, particularly where safety is paramount. However, it is frequently used in the design of resort landscapes or for therapeutic purposes. For instance, a 'dementia-sensitive' landscape was built in New South Wales, Australia, for elderly residents. The designer incorporated ideas from prospect/refuge theory by creating an elevated picnic area that affords prospect, but is also sheltered to provide refuge.

Typological classifications are another explanatory theory that facilitate the design process by defining a set number of variables to design with. Primarily borrowed from the identification and assessment of characteristics in landscape planning, landscape typologies help classify landscapes that share common traits. For example, William R. Moorish (1996), in *Civilizing Terrains: Mountains, Mounds and Mesas*, illustrated numerous landscape archetypes in order to build a vocabulary of universal types that link geological formations with contemporary spatial patterns. This kind of descriptive typology has also been used in the process of landscape design. Robert Dorgan, for example, created a series of small-scale wooden blocks of quarter-acre lots that represented different rural landscape types, such as an orchard, and he used these blocks with children to design landscapes (Figure 30.1).

### *Normative*

Normative theories are based on what *should* be and they feature heavily in discourse regarding landscape design. That landscape design should accommodate functions is a traditional example of a normative theory and it was given great weight in modern landscape designs of the twentieth century. Norman T. Newton proposed the most comprehensive account of how functions should be addressed in landscape design. According to Newton 'functions' can be broken down into two categories, Natural and Assigned. Natural Functions are biological, such as plants filtering water, or mathematical, such as the changing angles of the sun, and they operate without human intervention (Newton 1951: 113). Assigned Functions involve conscious human intent, where 'we assert our stature as designers' (ibid.: 122) and he divides these into use-functions, such as the concrete patio which is big enough for a table and chairs, and affective functions, such as appreciating the scoring required to prevent cracks in a concrete patio as beautiful.

Preference theories are founded on the belief that landscape designers should know people's penchants for certain scenes and satisfy these likings in their design responses. Many preference theories borrow from ideas forged in environmental psychology, which often enlists evolutionary theories to explain preferences. For example, landscape designers relying on preference theories often argue that we innately prefer certain landscapes because they recall an ecosystem that contributed to our prehistoric survival. For example, the savannah is commonly invoked as a landscape that people prefer because the sparsely treed grassland ecosystem allows for prospect

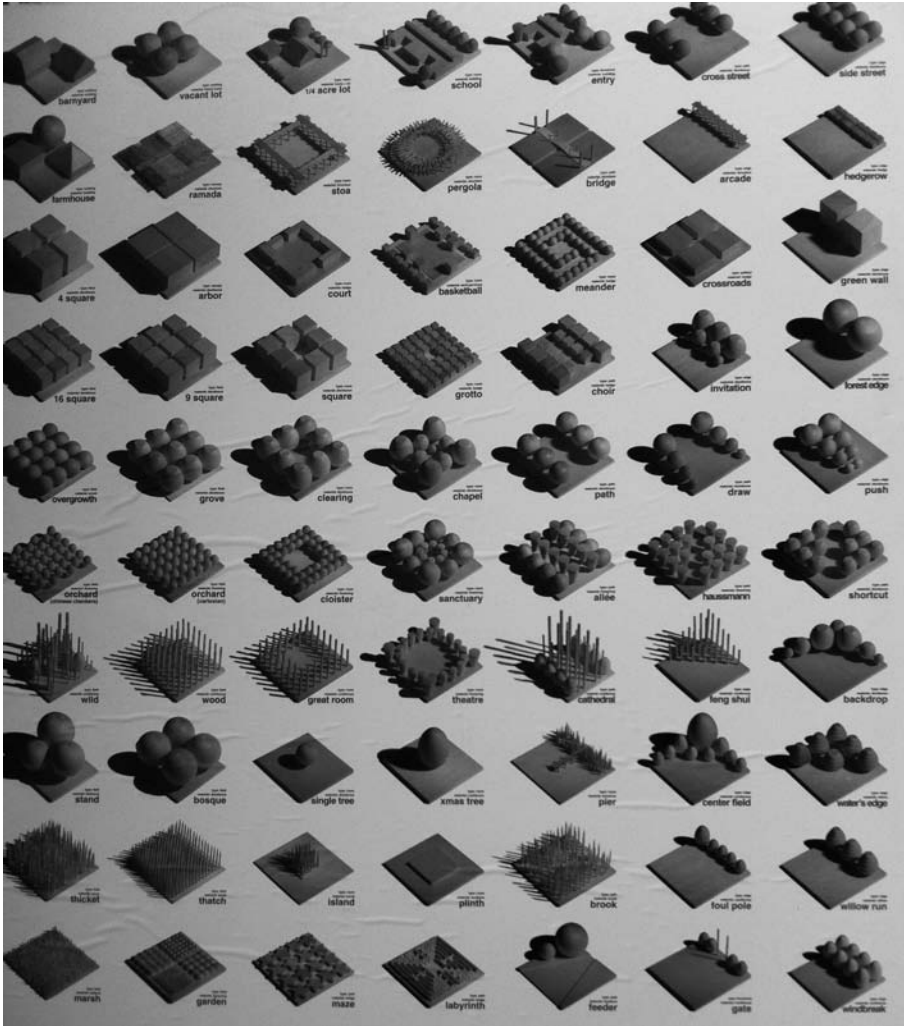


Figure 30.1 Typological classification of landscape types for designing with children by Robert Dorgan for the 13-acres competition, 2002. (Photo: author)

and refuge (Orians and Heerwagen 1992). While much of the research in environmental psychology uses two-dimensional images to gain insights on three-dimensional landscapes, and its critics charge that it omits cultural influences, designs that evoke a savannah-like image have been imported into places as diverse as urban plazas and residential lawns (Kaplan et al. 1998).

Universal design or accessible design is another normative theory. It posits that a landscape’s design should accommodate as many types of people as possible, with special emphasis on designing landscapes that are accessible to people with limited mobility. It is forged from one of the most powerful ideals in Western thought since the Enlightenment – that of natural right and the moral assumption that there is and should be equality among all human beings. Given its connection to rights, the instruments of justice have been used to reveal inequalities in designed landscapes. The European Union recently moved to eliminate inequalities as a response to the United Nations Convention on the Rights of Persons with Disabilities. In the

United States, the 1990 Americans with Disabilities Act (ADA) prohibited discrimination on the basis of disability, and specifically noted equal access to new public accommodations and commercial facilities as a mandate. This led to a spate of state and local regulations that mandated ADA compliance in parks, public gardens, schoolyards, campuses, urban plazas, and other environments that fall under the category of landscape design.

Design with nature, as espoused by Ian McHarg, stresses that landscape designers should design in the same way that nature designs. This normative theory implies that if landscape designers employed ideas from scientific theories, such as Darwin's natural selection, in their design methodology the resulting landscape would evoke a natural condition – a state without human intervention, greed, pollution, or anthropocentric sentiments. Unfortunately, some of McHarg's theories were built on a rather shaky understanding of nature and science (Herrington 2010). For example, many things in the world that are the result of natural selection, the beautiful symmetry of a butterfly, *appear* to have been intentionally designed by an intelligent being, but they are not. According to Richard Dawkins (1996: 21), 'Natural selection is the blind watchmaker, blind because it does not see ahead, does not plan consequences, has no purpose in view'. Thus, basing a conception of landscape design on an illusion of design poses problems for those who really want to base their designs on science. Nonetheless McHarg's charge that we must design with nature was hugely popular and placed landscape design and planning at the forefront of the environmental movement in the 1970s. Importantly, McHarg's theories also laid the groundwork for the normative theory of sustainability.

Given landscape designers' work with natural elements and ecological systems, sustainability has been a compelling dictate for many. While the exact definition of sustainability remains elusive and variable among different groups, landscape architects were early adapters of its language and missions; often citing the UN's 1987 Brundtland Report and Agenda 21, the Rio Declaration on Environment and Development. Ecological and social sustainability also became a core objective of the International Federation of Landscape Architects (IFLA). When these directives were conjoined with an awareness of global warming, every move in the process of landscape design became value laden as it related to enhancing sustainability at local and global levels. As a consequence, numerous performance standards and assessment packages were developed to measure sustainability in landscape design. Movements such as Landscape Urbanism were keen to exploit this association between landscape and ecology, galvanizing architects as well in the sustainability cause. At the same time enthusiasm for sustainability also prompted the formation of numerous subgroups among landscape designers, such as xeriscape associations, each pledging to promote sustainability.

### *Resistance*

Resistance is a type of theory that challenges the status quo. The philosopher John Dewey thought that resistance was crucial to our experiences with art because it challenges what we believe. For Dewey (1958: 60), if our beliefs are never tested and evaluated our 'appreciation is transient and overweighted with sentiment' and 'can lack significant meaning'. Landscapes that are considered avant-garde are a type of resistant theory. Avant-garde landscapes defy conventions in the practice of design and seek to challenge people's conceptions of landscape design. So it's not surprising to find resistance in garden design, particularly at festivals and garden shows, such as Les Jardins de Métis in Quebec, Canada, where visitors are confronted with temporary gardens that use unusual materials to expand what a garden can be (Figure 30.2).

Some landscape architects have made resistance a central feature of their work. Claude Cormier, for example, seeks to make connections between landscapes and culture that are often





*Figure 30.2* Hip Hop garden by Susan Herrington at Les Jardins de Métis in Quebec Canada, 2005. (Photo: Louise Tanguay)

overlooked by sentimental views of landscapes. Time-honoured definitions of landscapes hold that they are remote scenes; however, they are also visceral and commercial, thus, driven by market demands and acts of consumption. In Cormier's design for Lipstick Forest at the Montreal Convention Center, he created a grove of giant tree trunks rendered in resin to mimic the forms of trees in a nearby park. Referring to the Montreal Lipstick Kiss logo, the trunks were painted glossy shades of pink. Collapsing two seemingly distant phenomena, the dignified beauty of trees with the allusive marketing of cosmetics, and the viscous qualities of resin with that of lipstick, Lipstick Forest reveals that landscapes are not merely the distant pleasures of sight, but also are subject to as much niche-marketing as lipstick.

Participatory design can also fall under the theory of resistance. During the 1960s many landscape architects challenged the autocratic nature of design itself and the legitimacy of a genius artist. They sought to make the process more democratic, particularly for disenfranchised people. Invoking the normative theory that designers should know what people prefer and satisfy these likings in the design, they attempted to integrate non-designers into the design process in a myriad of ways, such as group drawings, mapmaking, and model building. To gain insights from the public at large they enlisted methods borrowed from planning like mailed questionnaires and focused interviews. Landscape designers have also imported consensus approaches, such as the Delphi method, in which several rounds of questions are given to a focus group (see Turoff and Linstone, 2002). Participants in the group respond by using index cards, which are then shared. By using written instead of vocal responses, views are more anonymous; limiting the influence that personality and social dynamics play in shaping decision-making. Another approach, popular in the United Kingdom, has been Planning for Real where community members build a model of their local landscape as the starting point for a participatory design process.

## Evaluations of designed landscapes

In addition to this conceptual thinking in the process of landscape design, designed landscapes have also been evaluated for their significance, use, and value to society. Like the design process, assessments have borrowed from other disciplines, such as philosophy, art history, cultural studies, and the social and natural sciences. Interestingly much of this work has been instigated by people from these disciplines rather than by landscape designers themselves.

### *Philosophy*

Returning to the eighteenth century in England, landscapes were part of the philosophical discourse concerning aesthetic appreciation. A key object of appreciation was taste and during this time taste was thought to be variable and dependent upon cultural exposure, such as participating in the Grand Tour. Thus, a person's memory became key in the cultivation of taste and landscapes were often judged for their ability to invoke the past for aesthetic experience. Also, by modelling philosophical judgements of art, many aspects of landscape designs previously considered undesirable could now be prized for their ugly, melancholy, and even grotesque attributes (Osborne 1970: 869). In fact ruins, classical and vernacular, featured heavily in the landscape designs from this period because they were thought to spark associations with the past. Unfortunately, the subsequent centuries saw a 'decline of landscape as a paradigm object of appreciation' (Carlson 2005: 542). Philosophical evaluations of landscapes in the twentieth century fell under the umbrella of 'environmental aesthetics,' which for Allen Carlson includes not only natural environments, but also our 'various human-influenced and human constructed environments.' (ibid.: 541). Nonetheless, there are some philosophers, such as Stephanie Ross (1998), who have been speculating on the nature of our aesthetic engagement with gardens and land art.



Figure 30.3 Villa Lante, Bagnaia, Italy, 2010. (Photo: Susan Herrington)

### Art history

Evaluations of landscape design were also of interests to art historians. Art history, which developed as an academic discipline in the nineteenth century, sought to bring a scientific rigor to the study of artworks from the past. Art historical practices relied on comparing works of a similar kind as an indication of their formal qualities, style, and national origin. Marie Luise Gothein was an early adapter of this method. In her seminal work of 1913, *History of Garden Art* (Gothein 1928) she applied art historical analyses to gardens and landscapes from ancient times to the nineteenth century. By using the framework of art history she was able to align the evolution of landscape design with the development of stylistic categories, cultural expressions, and nationhood that mirrored the art historical canon. Gothein selected examples to serve as models for these groupings. For example, in her chapter on the Italian Renaissance and Baroque, she states that Villa Lante, ‘stands next to the Villa d’Este in Tivoli in expressing the true spirit of this period’ (ibid.: 268, Figure 30.3), a status it still enjoys today. In using this method, she also evaluated the significance and relative artistic value of landscape designs compared to others of comparable styles, time periods, and location. Years later, Newton published *Design on the Land* (Newton 1971), which loosely follows Gothein’s narrative structure. However, undoubtedly influenced by Siegfried Giedion’s *Space, Time, and Architecture* (Giedion 2008), Newton clothes this structure with detailed accounts of the spatial import of landscape design from history, and the contribution of design to his spatial experience, an important currency in modern landscape architecture. In his eight-page account of Villa Lante he marvels at the ‘handling of space in a wonderfully comfortable rhythmic sequence from level to level,’ ‘the imaginative water treatments’ and ‘detailed, excellence of scale’ (Newton 1971: 106–7). Sir Geoffrey and Susan Jellicoe also contributed significantly to this evaluative process in *The Landscape of Man* (Jellicoe and Jellicoe 1975).

### Social and natural sciences

The evaluation of landscape design has also been influenced by the social sciences and natural sciences. Evaluations from the social sciences often pillory assumptions made by landscape designers regarding how people really use a landscape design. For example, William Whyte’s (2008) classic study, *The Social Life of Small Urban Spaces*, examined how people actually used outdoor public spaces. With direct observations and videotaping, he and his team performed an exhaustive study of the detailed behaviours of humans in the urban landscapes of New York City. The findings from this study, such as the fact that people enjoy sitting and watching other people, greatly influenced the design of urban landscapes throughout North America. Whyte’s study also inspired the Project for Public Spaces (PPS) a non-profit planning and design organization. PPS has developed an on-line opportunity to post evaluations of designed landscapes. People can promote landscapes and other environments to the category of Great Public Spaces or the Hall of Shame. While the actual criteria are not clear, this form of assessment has clearly taken advantage of the power of the Internet as part of evaluation.

With the development of sustainability, scientists and engineers have attempted to objectively identify the ecological performance of designed landscapes. Consider the rooftop landscape on top of Library Square in Vancouver. Designed by Cornelia Hahn Oberlander, she intended to create a beautiful visual pattern to be seen from the surrounding office towers and she also sought to reduce the storm-water runoff of the building. Her landscape was composed of 16,000 blue and green fescue grass plugs in a meandering swath (Figure 30.4). The blue fescue refers to the nearby Fraser River and outlying bands of the green fescue reference the River’s alluvial grasslands. A third band was composed of 26,000 kinnikinnick ground cover plants



Figure 30.4 Rooftop landscape by Cornelia Hahn Oberlander, Vancouver, Canada, 2011. (Photo: Susan Herrington)

representing higher ground (Scott 2007: 88). The plants provided a tapestry of color and texture that can be seen from the surrounding towers – and it also reduced runoff. From 2003 to 2004 engineers and Public Works and Government Services Canada monitored the runoff from Oberlander’s rooftop landscape and found a 48 per cent reduction in runoff volume and a reduction of peak flows during summer storm events’ (quoted in Velazquez 2008).

### *Cultural studies*

During the 1980s designed landscapes received an unprecedented level of critique from cultural geographers and other academics in the humanities. This was significant as they brought methods such as Marx’s historical materialism and Freud’s notion of sublimation into their interpretations of landscapes. Since landscape designs have often been the product of patronage and have served to symbolize nature, they provided a rich subject for scholars who sought to uncover their role in maintaining, elaborating, and concealing power, particularly as it related to class interests and colonial dominance. Denis Cosgrove, for example, helped forge the burgeoning field of new cultural geography by employing Marxist analyses, and designed landscapes feature heavily in his writings. Consider Cosgrove’s interpretation of Victorian gardens as an expression of colonial power: ‘Park and garden represented not so much control over land as control over the very process of nature, a control which reached its clearest expression in the ultimate “gardenesque,” the Victorian conservatory which displayed the green and blossoming treasures of colonial territories’ (Cosgrove 1998: 236). Thus, with Marxist influences the beautiful Cape cowslip in a Victorian garden, a plant introduced from Cape of Good Hope, was no longer a flower to be appreciated simply for its pretty yellow bell-shaped blossoms, but as one of the exploits of colonialism, serving as a sign of its far-reaching power and control.

In a similar vein, Freud's notion of sublimation has been employed in evaluations of landscapes and gardens. Sublimation is a process where unconscious or repressed desires, often sexual in nature, are translated into more socially acceptable forms of cultural expression. These expressions can take the form of dreams, allegories, art, or even designed landscapes. As in Marxist thought, much emphasis is placed on uncovering hidden connotations of the designed landscapes and the deeper intent of the designer. Dean MacCannell writes how walkways in a landscape are more than what they appear. In his description of formal gardens, he notes "The first type of power appears in landscape design in the form of walkways ... It does not merely represent power, it is power; it splits the landscape, keeping apart the elements on either side, and assumes full directive power over those who follow it. It is also called a 'drive.' The *grande route*, or superhighway, goes on endlessly like a dream of phallic omnipotence" (MacCannell 1990: 94). In this sense, the straight walk becomes an encoded form of sexual power – of the designer or the owner. According to Freud, this type of cultural expression is necessary because if everyone acted on their desires and wants, instead of sublimating them, they would threaten established social orders (Harrington 2004: 138).

Once landscapes were subjected to these cultural analyses, they became accomplices to a host of hegemonic practices related to class, gender, race, ethnicity, and human rights. For example, racial relationships in society are characterized by prejudice, segregation, and marginalization. Since these relationships are spatial and territorial, landscapes have often helped maintain and elaborate disparities in these relationships. Much of this scholarship has concerned housing patterns in US cities, such as Los Angeles (Harris 2007), but landscape's supporting role in maintaining power relations has been identified in places of work, entertainment and leisure. Consider the US playground movement, which began in the late nineteenth century. Early playgrounds offer a wealth of knowledge regarding, class, ethnicity, human rights, race, and gender. Regarding class, many of these spaces were created by the upper class to help and improve the lower classes, which included children from immigrant families. In cities like Boston, playgrounds were viewed as spaces where competing ethnic groups might reconcile their difference through play (Cavallo 1981). Moreover, playgrounds were deemed essential to protecting children's rights to play and develop physically and socially – an extension of their moral rights (Herrington 2011). As playgrounds were created throughout the country in the early twentieth century, many of these spaces were segregated racially, with playgrounds for non-African American children and separate playgrounds for African Americans. Lastly, while male landscape architects, such as the Olmsted Brothers, have often been credited with designing some of the first playgrounds in the United States, many early urban playgrounds were made possible by women's organizations (Spencer-Wood 1994).

## Back to philosophy

In conclusion, promising approaches to evaluating landscape design involve the revival of their role in aesthetic appreciation. During the past two decades, the sub-field of aesthetics has grown rapidly within philosophy (Gaut and Lopes 2005) and there has been interest in applying theories of aesthetic appreciation to contemporary, designed environments (Berleant and Carlson 2007). For example, an appreciation of ruins continues to play a role in the growing interest in post-industrial landscapes. In the 1990s Peter Latz + Partners' design for a 200-hectare park, Duisburg North, integrated *as part of their design* the abandoned railway scaffolding, blast furnaces, and foundry walls of the defunct Thyssen steel factory, which occupied the existing site. Treading upon the aesthetic category of the picturesque, which values subjective interpretations over objective standards of beauty, these industrial remnants spark our memory and enhance

our appreciation of the park. Indeed, Duisburg North demonstrates that the structures of the industrial age are now distant enough in time and memory to serve as ruins (Herrington 2009).

## References

- Berleant, A. and Carlson, A. (2007) *The Aesthetics of Human Environments*, Peterborough, Ontario: Broadview Press
- Carlson, A. (2005) 'Environmental Aesthetics,' in Gaut, B. and Lopes, D. (eds) *The Routledge Companion to Aesthetics*, London: Routledge, pp. 541–55
- Cavallo, D. (1981), *Muscles and Morals: Organized Playgrounds and Urban Reform, 1880–1920*, Philadelphia, PA: University of Pennsylvania Press
- Clement, G. (2006) *Le Jardin en mouvement, de la Vallée au champ via le parc Andre-Citroen*, 5th edn, Paris: Sens et Tonka
- Cosgrove, D.E. (1998) *Social Formation and Symbolic Landscape*, new edn, with a new introduction, Madison, WI, and London: University of Wisconsin Press
- Dawkins, R. (1996) *The Blind Watchmaker: Why Evidence of Evolution Reveals a Universe Without Design*, New York: Norton
- Dewey, J. (1958) *Art and Experience*, New York: G.P. Putnam's Sons
- Gaut, B. and Lopes, D. (2005) *The Routledge Companion to Aesthetics*, London and New York: Routledge
- Giedion, S. (2008) *Space, Time and Architecture: The Growth of a New Tradition*, 5th rev. edn, Cambridge, MA: Harvard University Press
- Gothein, M.L. (1928) *A History of Garden Art*, W. P. Wright (ed.), L. Archer-Hind (trans.), 2 vols, 3rd edn, London: J.M. Dent
- Harrington, A. (2004) *Art and Social Theory*, Cambridge: Polity Press
- Harris, D. (2007) 'Race, Space, and the Destabilization of Practice' *Landscape Journal*, 26(1): 1–9
- Herrington, S. (2009) *On Landscapes*, New York and London: Routledge
- (2010) 'The Nature of Ian McHarg's Science', *Landscape Journal* 29(1): 1–20
- (2011) 'Rights of Passage – Rites to Play: Landscapes for Children at the Turn of the Centuries', in Egoz, S., Makhzoumi, J. and Pungetti, G. (eds) *The Right to Landscape*, London: Ashgate
- Hunt, J.D. (2000) *Greater Perfection: The Practice of Garden Theory*, Philadelphia, PA: University of Pennsylvania
- Jackson, J.B. (1984) *Discovering the Vernacular Landscape*, New Haven, CT: Yale University Press
- Jellicoe, G. (1983) *The Guelph Lectures on Landscape Design*, Guelph, Ontario: University of Guelph
- and Jellicoe, S. (1975) *The Landscape of Man: Shaping the Environment from Prehistory to the Present Day*, New York: Viking Press
- Kaplan, R., Kaplan, S. and Ryan, R.L. (1998) *With People in Mind: Design and Management of Everyday Nature*, Washington, DC: Island Press
- MacCannell, D. (1990) 'Landscaping the Unconsciousness', in Francis, M. and Hester, Jr, R.T. (eds) *The Meaning of Gardens: Idea, Place, and Action*, Cambridge, MA: MIT Press, pp. 94–119
- Moorish, W.R. (1996) *Civilizing Terrains: Mountains, Mounds and Mesas*, 2nd edn, San Francisco, CA: William Stout Books
- Newton, N.T. (1951) *Approach to Design*, Cambridge, MA: Addison-Wesley Press
- (1971) *Design on the Land: The Development of Landscape Architecture*, Cambridge, MA: Belknap Press of Harvard University Press
- Olmsted, F. (1882) 'The Spoils of the Park: With a Few Leaves from the Deep-laden Note-books of "A wholly Unpractical Man"', in Fein, A. (ed.) *Landscape into Cityscape: Frederick Law Olmsted's Plans for a Greater New York City*, New York: Van Nostrand Reinhold, 1981, pp 384–90
- Orians, G.H. and Heerwagen, J.H. (1992) 'Evolved Responses to Landscapes', in Barkow, J. H., Cosmides, L. and Tooby, J. (eds) *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, New York: Oxford, pp. 555–79
- Osborne, H. (1970) *The Oxford Companion to Art*, Oxford: Clarendon Press
- Robinson, W. (1994 [1870]) *The Wild Garden*, 5th edn, Portland, OR: Sagapress
- Ross, S. (1998) *What Gardens Mean*, Chicago, IL: University of Chicago Press
- Shiner, L. (2001) *The Invention of Art: A Cultural History*, Chicago, IL: University of Chicago Press
- Spencer-Wood, S. (1994), 'Turn of the Century Women's Organizations, Urban Design, and the Origin of the American Playground Movement', *Landscape Journal*, 13.1: 125–37
- Tunnard, C. (1948) *Gardens in the Modern Landscape*, 2nd edn, London: London Architectural Press
- Turoff, M. and Linstone, H. (2002) 'The Delphi Method: Techniques and Applications', available at <http://is.njit.edu/pubs/delphibook/> (accessed 26 November 2011)
- Velazquez, L.S. (2008) 'Vancouver Public Library (Library Square Building)', in the Greenroof Projects Database, available at <http://www.greenroofs.com/projects/pview.php?id=29> (accessed 23 May 2012)
- Walpole, H. (1894) 'Essay on Modern Gardening', available at <http://www.archive.org/stream/essayonmodernnga00walpgoog#pagewb>/n98/mode/2up/p.57> (accessed 18 May 2011)
- Whyte, W.H. (1980) *The Social Life of Small Urban Spaces*, New York: Project for Public Spaces Inc