

2 Precursors

In this chapter, the design of narrative environments is discussed as a transdisciplinary practice that draws together thinking and skills from many different sources. Its collaborative methods challenge deep-seated assumptions about hierarchies and boundaries in art and design. Art and design education have been shaped, in part, by the nineteenth-century *Beaux Arts* tradition in which fine art and architecture were granted the highest status. During the twentieth century, architecture consolidated its status by establishing its own institutions to safeguard and promote the profession. By contrast, design, even though it had been granted some legitimacy by the Arts and Crafts movement and the Bauhaus, was still confined in the mid-twentieth century to the status of commercial and applied art, and thus as secondary to fine art and architecture. However, more recently, design has shown that it is not just a technical practice driven by aesthetics and the market but rather is a principled practice that aims to shape a better world. The design of narrative environments espouses such broader socio-political and environmental goals and aims to consolidate and provide a coherent framework to address them. In seeking to flatten traditional hierarchies, the design of narrative environments embraces art and architecture but gives them the same status as other design disciplines, including communication design, scenography, product design and interaction design. It also adds to the mix by introducing writing, interpretation and curation. It combines aspects of different design disciplines which may in themselves be weighted more towards one of the nodes in the tripartite model. However, the design of narrative environments draws them into a vital and reciprocal network that supports critical and socially-engaged design. Although this may seem a new approach, the historical precursors of narrative environments are described below to show how script, space, objects, symbols and signs have been used to create sacred spaces, landscape narratives, amusement parks, world fairs, live action role playing, exhibition design, narrative architecture, retail and brand experiences, social innovation, critical and speculative design and design fiction. The range shows the versatility of the design of narrative environments as a newly established practice.

Design Practice Sources

As a multidisciplinary practice, the design of narrative environments draws skills and principles from several fields (Figure 2.1). From urban design and architecture, the design of narrative environments incorporates analytical skills and the ability to envisage forms and spaces that the human body can enter and pass through. Architectural scale can be used to express the divine, take steeples, domes and minarets, for example, or power and authority, as evident in the dimensions of government buildings, museums and law courts, which reach heights several times that of the human body. Expressive

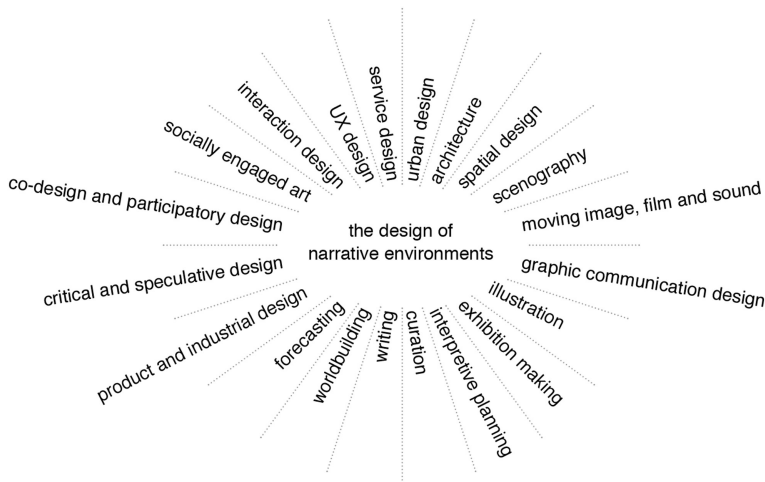


Figure 2.1 The network of disciplines that contribute to the design of narrative environments.

use of scale also requires an understanding of the relationship of the smaller parts to the whole, including zones, spaces, and their respective functions and details. Abstract organisational logic and sense of purpose are combined with physical structure and tectonics, building morphology, spatial dimensions, volumes and planes. Architecture involves an orchestration of adjacency, proximity and distance, levels, surfaces qualities and materiality. As spaces for people to visit and dwell, there are also concerns for air quality, temperature, sound, light conditions and atmosphere. These are all important to the design of narrative environments. Given human movement, machine movement, movement of sound, air and heat, there is a focus on thresholds, boundaries and means of orientation such as axes, landmarks and sightlines. Furthermore, architects take into account the relationship of buildings to their immediate environment plus their geographic and historical context. Urban design and architecture share a concern for flow, capacity and practical functionality as well for the social and economic impact of any changes to the built environment. Spatial or interior design is a closely related profession, traditionally concerned with the fit out and zoning of spaces once built, such as layout, materiality, lighting and atmosphere. More recently, however, it has taken a larger view, incorporating the design of physical aspects of external spaces, exhibition spaces and other public spaces.

While the design of narrative environments incorporates many of these approaches, it differs from urban design, architecture and spatial design for several reasons. Mainstream urban design, architecture and spatial design focus on functionality and production specification within specific legal, policy and commercial contexts. In terms of the tripartite network model, architecture, urban design and spatial design reside in the environmental node, defining it as an instrumental domain providing utility for the assumed inhabitant. However, these spatial disciplines do not explicitly engage with the social practices that they may reproduce or reinforce. Architecture, urban design and spatial design can create powerful visual impact, referencing past styles, but these are not typically regarded as communicating content or narrative, even while they may set up resonant metaphors. Urban design, architecture and spatial design usually anticipate content arising from

human activity once the design is inhabited. In contrast, designers of narrative environments understand the spaces and structures to constitute particular behaviours that express key values shaping experience and playing a part in narratives. Urban design, architecture and spatial design are conventionally resolved as technical diagrams within specific traditions of architectural notation such as ground plans, elevations, axiomatic diagrams, cross sections, 3D renderings, fly-throughs or detailed illustrations or computer generated visualisations, physical or digital models of buildings or city quarters and sample materials boards. This range of outputs is, to an extent, prescribed by professional licensing bodies. The products of these disciplines typically represent structure and functionality but do not express time-based, content-driven, user experiences. These experiences are expressed in the design of narrative environments through storyboards developed from the perspective of the visitor or inhabitant. While elements of urban design, architecture and spatial design provide an important structural dimension of the design of narrative environments, other disciplines are also essential to incorporate visitor or inhabitant experience and narrative content.

From scenography, the design of narrative environments borrows an understanding of the unfolding of experience through clearly articulated zones of action and planned temporal sequences. This is the realm of ritual and techniques of performance that acknowledge other people's presence in a space as key to mood and action in any unfolding story. Scenography also brings a vast array of techniques in lighting, film projection and costume that immerse visitors in a fictional world. Scenography is concerned with transmitting meanings and narrative through relationships among acting, scripting and communication of symbolic meanings through the elements of the set. Both scenography and the design of narrative environments focus on how audiences become engaged, how that engagement is sustained over time and how audiences grasp and understand content. A scenographer typically produces scenic paintings and props as well as sound and light effects. The temporal nature of performance affects the choice of materials, using lightweight disposable supplies that are not necessarily handled by the audience. Scenography, like the design of narrative environments, appeals through sensory, intellectual and emotional means. However, it differs from the design of narrative environments in that it produces predominantly temporary performances, whereas narrative environments persist, in some cases for hundreds of years.

From graphic communication design, the design of narrative environments takes a concern for naming, informing, engaging, warning and persuading through static and animated text, illustration, moving image, film and sound. The visual logic of graphic design, based on information hierarchy and analogy, functions on a surface. Graphics occupies 'flatland', as information designer Edward Tufte (1983) puts it. Nevertheless, in many ways, the principles of graphic language correspond to the principles of spatial language. Hierarchy is produced through scale and positioning. Headlines are bigger than, and set above, body text, just as front doors are larger than surrounding architectural features and are often elevated with steps leading up to them. Books, posters and websites are arranged on underlying grids to give coherent visual sequences, using rhythms and repetition, just as, for example, built cloisters or arcades do. Graphics also uses juxtaposition, contrast, gaps, clustering and framing to emphasise, align, surprise and sometimes unsettle viewers, while relating the parts to the whole, just as spatial designers and scenographers do. Graphic designers, illustrators, film makers and sound designers also work especially with connotation. In other words, they use the evocative qualities of colour, light, form, sound and recognisable objects and places to evoke supplementary meanings. Particularly clever and resonant combinations are described sometimes as wit

or poetic expression, while associative metaphor or deliberate symbolic disruption of norms is core to graphics. Graphic designers recognise a typeface, for example, not only for its formal qualities but also for its associations that enrich and embody messages, just as specific choices of materials in architecture communicate through sensory means and association. A key difference between architecture and graphics is that graphics is about explicit communication and legibility, while architectural communication is often much more implicit. In terms of the tripartite narrative environments network, graphics emphasises the people and narrative discourse relationship. The important difference between communication design and the design of narrative environments is that the graphics in narrative environments are interwoven with the spatial context to articulate the experiential flow of content through space over time, drawing the environmental and the narrative nodes together.

The design of narrative environments also integrates skills from the world of museology, because one manifestation of the design of narrative environments is exhibition-making. Museologists are those who are concerned with any aspect of museums and other informal learning-based organisations such as zoos, parks, heritage sites and science centres. Curation, writing, interpretive planning and management are vital to exhibition making. The curator cares for the collection, is a subject expert and often proposes the exhibition topic and key messages. Interpretive planners and interpretation managers help to create a story as a vehicle to communicate topic and key messages to the target audience. They produce a written narrative, an interpretive plan which acts as the organising principle and guide sometimes for architecture, often for exhibition development, marketing and management of audiences. This means interpretive planners and managers need to understand the goals and mission of their client and their client's business model. Interpretive planners and managers are required to analyse diverse kinds of content. They need to understand what audiences already know and what audiences want to know, in order to synthesise the different dimensions and create a relevant storyline. A full narrative environment requires input from curators, designers and specialist suppliers in considering the best ways to communicate and engage audiences by, for example, using objects, images, maps, text and signage, film, sound, interactives and immersive digital media. The interpretation needs to include a sense of who is speaking and hence the tone of voice of the exhibition or environment. Interpretive planners and managers also suggest how museums, parks or neighbourhoods might measure the success of the design through, for example, footfall, dwell time, press coverage, knowledge gained by visitors or new perceptions of the organisation or area.

From product and industrial design, the design of narrative environments incorporates the knowledge of materials, production techniques, bodily and emotional interaction with objects and their symbolic values. Product designers have focused on user experience since the development of human-centred design in the 1980s, an approach in which design decisions are driven by an empathy with the people for whom you are designing. Product designers are also interested in narrative. Researcher Silvia Grimaldi (2015) explores domestic objects' ability to tell stories, in other words, their potential to elicit narrative responses from users, and how the narrativity of film discourse can be integrated into products. Grimaldi argues that objects can be designed to provoke personal narratives and that doing so adds to their technical, functional or aesthetic value. Her work belongs to the critical and speculative approaches (Malpass 2017) that have been developed in product and interaction design in the last 20 years. Critical design is generally that which goes beyond market-driven problem-solving and provokes critical reflection on the socio-political context of design. Speculative approaches

(Dunne and Raby 2014) are future-focused explorations of how forecasting research may play out in the everyday. In the UK, Tony Dunne (1999) pioneered critical practice and speculative design practice. His work raises issues of environmental sustainability, privacy and identity, using satire and recontextualisation to disrupt normative readings and prompt critical thinking in audiences. Although it shares an interest in critical approaches to design, the design of narrative environments differs from product design in that it focuses on the relationships of objects to space and to human interaction, demonstrating a greater emphasis on the environmental node in the three-part network.

Speculative designers Eva Knutz, Thomas Markussen and Poul Rind Christensen (2014) deploy design fiction (Bleeker 2009; DiSalvo 2012; Grand and Weidmer 2010) as a research method to develop new products. Design fiction envisages speculative and provocative ‘what if’ futures populated by fictional personas. The resulting scenarios give rise to radical new products and services. For example, the Kolding team set a student brief in 2013 starting from Kaspar Nielson’s novel *Civil War in Denmark*, which itself is set in the future. They asked students to immerse themselves in that fictional world in order to envisage objects and interactions appropriate to that world. In this case, the students produced a proposition, ‘Recycling Humans’, that challenges current moral and ethical norms by envisaging ways of recycling dead human bodies, victims of war, to make garments and artefacts in an era of scarcity. These fictions were materialised through products. Had they been spatially materialised, they would become narrative environments.

In Los Angeles, designer and professor Alex McDowell produces future world narratives. McDowell established the World Building Media Lab (WbML) (2012–2018) which allows scientists, storytellers, artists, programmers and conceptual thinkers to create future scenarios on urgent issues, such as rapid urbanisation, environmental sustainability and the worldwide refugee crisis. The WbML describes its method as developing a world from which threads of narrative logic emerge. The WbML produces immersive physical environments, film and virtual realities, while contributing to the development of new business models, policies and patentable technologies. This practice aligns closely with the design of narrative environments which also produces ‘what if’ future scenarios and objects, such as the scenarios created by MA Narrative Environments students in collaboration with Arup Foresight and Innovation.

The narrative environments programme shares some features with service design, which emerged in the 1990s as an ‘interdisciplinary, collaborative and holistic field of design’ (Prendiville 2016). Service design was, in some ways, a response to the burgeoning service economy but it was also an opportunity to shift systems of production and consumption towards environmental and social sustainability. Service design deliberately steers the focus of design from being about the development of material artefacts to the design of interactions between service providers and consumers (Service Design Network 2017). It looks for inventiveness and creativity among ‘ordinary people’ to solve daily life problems related to such themes as housing, food, ageing, transport and work, and develops collaborative services and business models helping to shape new forms of community and new ideas of locality. It is concerned with improving the quality and delivery of services, such as transportation, banking and health services, that weave socio-technical structures and power relations into everyday life. Services are understood as a time-based physical and emotional interaction with objects, places and information (Sangiorgi 2009). Service designers map stakeholder and customer journey maps, fictional personas and storyboards showing touch points, that is, where and when the user comes into contact with or is reminded of the service or brand. Service designers use

collaborative workshops with users and stakeholders as a way to democratise information-gathering and decision-making. They also prototype and test services using an iterative design process. There has been widespread adoption of service design among both commercial and public sector organisations. Many design techniques used in service design are also used in the design of narrative environments. The main difference is that service design propositions tend to resolve as diagrams of systems and products, whereas narrative environments resolve as narrative spatial experiences, emphasising both the narrative and the environmental nodes in the tripartite network.

From interaction design, the narrative environments incorporate a concern for seeing the world through the eyes of the user and inviting dialogue and participation. Interaction design developed in 1990s, emerging from the sphere of computing. As a result, interaction design is often considered a screen-based practice that enables human interaction with machines to be more user-friendly, intuitive and pleasurable. The internet of things, however, has opened the door to interacting verbally with smart objects, such as Amazon's Alexa. The design of narrative environments acknowledges that the physical environment can be seen as an interface, and includes the making of computer-enabled environments. User experience design (UX) has evolved from interaction design. It is particularly relevant to the design of narrative environments because UX designers use scenarios and storyboards to envision experience, opening productive questions concerning the relationship between digital 'materiality' and other kinds of material environments. They focus on people as their primary frame of reference and explore how to achieve high levels of engagement and satisfaction from a product service or space. Like the design of narrative environments, UX designers may collaborate with non-designers, such as sociologists, psychologists and data analysts, iteratively testing their ideas on their anticipated users. The designers of narrative environments differ from UX designers in their specific focus on the potential for the combination of narrative discourse and embodied perception in a physical environment.

The design of narrative environments also practises co-design or participatory design, where designers develop propositions in partnership with the people for whom they are designing. The word co-design first appears in the UK (Sanders and Stappers 2008) in 1971 but the practice gathered pace around the millennium and is being widely adopted and developed by many design disciplines. Co-design implies sharing authority in decision-making. The user assumes the role of expert in their area of experience and designers work within a plural context negotiating with others' positions. In architecture, peer-to-peer urbanism or participatory urban activism developed in Scandinavia, the USA and Europe (Krivý and Kaminer 2013) to overcome traditional architectural consultation processes, perceived as top-down tokenism. Co-design or participatory design techniques are frequently used when working on complex social innovation projects where citizen expertise is vital to developing propositions and where co-ownership with inhabitants is key to maintaining new systems that aim to sustain communities or overcome social divides in harsh conditions. Such designers not only need strong research skills, lateral and creative thinking but also strategic planning and mediation skills. Some art practices also apply participatory practice, particularly in issue-based, socially engaged projects. The critical and inventive approach of fine art overlaps with the design of narrative environments. However, socially-engaged art is not necessarily narrative. In fact, artists often raise questions rather than tell stories. Socially engaged art research does not systematically integrate skills and processes from architecture, performance, graphics, product design and interaction design. Art tends to be rooted in the individual artist's preoccupations.

In summary, twentieth-century design disciplines differentiated themselves on the basis of discourses and practices involving specific materials, media and technical processes related to particular industries. So, for example, architecture pursued design for construction using drawing, working with wood, stone, glass, metal and cement and exploring tectonics, the art of framing construction; while graphic design emerged as the articulation of word and image on printed matter and produced design for the publishing and advertising industries, amongst others. By contrast, more recent holistic approaches, such as service design and the design of narrative environments, add temporal, spatial, user-centred and action-based dimensions, while relying on multidisciplinary practice to open to the outside world beyond professional conventions. As such, the design of narrative environments does not have a defined subject matter but can apply its processes to the subject at hand through the tripartite network, situating the design in terms of narrative discourse, demographics and place. It becomes relevant to a much broader range of industries and cultural, commercial and social enterprises. That is not to say that the traditional design skills are outmoded. Multidisciplinary teams require specific expertise in a wide range of material skills and knowledge to create effective propositions. However, in the design of narrative environments technical skills are reframed, treated less hierarchically and in a less predetermined order.

Narrative Environments *Avant La Lettre*

Historical precursors of narrative environments are numerous. Although not conceived as narrative environments, they demonstrate the integral interweaving of story, space and people. They can be understood as spaces that fulfil a range of purposes from the expression of the sacred; of political power; of conventional values; of commercial, educational and social practices; and of critical commentary and protest. Figure 2.2 shows a genealogy with examples named or discussed in the book.

Sacred places are environments that combine script, sound, image, light, music and architecture. From the towers of Angkor Wat in Cambodia to the cathedrals of Western Europe, they are some of the most historic precursors of narrative environments. St John's Cathedral in Valetta, Malta, for example, is one of the world's most significant Baroque churches. St John's Cathedral is an architectural metaphor for the Order of the Knights of St John, who built it between 1573 and 1578. The plain post-siege facade suggests the knights' military pragmatism, while inside the lavish gilded vaults, polychrome marble floors and fresco ceilings evoke the power and wealth of the Order. Stories of the Bible and the Saints are communicated through huge paintings, alongside inlaid floor mosaic showing angels and skeletons. The Cathedral works on at least three levels. Firstly, it expresses the Christian story. This story also spills out onto the streets of Valetta in a more populist form, as parades, fiestas and processions with effigies. At a second level, the Cathedral provides a strand in the history and identity of Malta. At a third level, the Cathedral contributes to an international history of art, because the oratory houses several paintings by the renowned sixteenth-century painter Caravaggio. Further levels could be added concerning the preconditions for the emergence of capitalism and the modern world. The connections and layers of all these stories are most strongly defined by the narrative node, the biblical narratives that position the human subjects and develop spatial languages that encode theological and emerging power relations.

On the other side of the world, in Hong Kong, the Chi Lin nunnery and park in Diamond Hills, Kowloon, immerses you in a different tradition, Buddhism. Nevertheless,

The sacred <i>places of wonder that tell sacred stories</i>		Angkor Wat, Cambodia	St John's Cathedral, Valletta, Malta The festival of Ganesh Chaturthi, Pune, India	Chi Lin Nunnery and park, Kowloon, HK Villa Savoye, Poissy, France	
The political <i>places designed to impress and tell stories of power</i>	The Ishtar Gate, Babylon	The Arch of Titus, Rome, Italy	Temple of Ancient Virtue, The Elysian Fields, Stowe, UK		Skopje city centre, North Macedonia
The conventional <i>places that express or enable people to enact deeply held value systems using narrative</i>			Bournville Village, UK	Cazenovia, New York, USA Kentlands, Maryland, USA	ReGen village, Netherlands
The commercial <i>commercial places that use narrative to provide an escape to fictional worlds</i>			Steeplechase Park, Coney Island, USA	Luxor, Las Vegas, USA Huis Ten Bosch, Nagasaki, Japan	Sky City, Hangzhou, China Helmut Lang Hollywood store, LA, USA
The educational <i>places that primarily tell stories to educate</i>			The Great Exhibition, London, UK Futurama exhibit, New York World's Fair, USA	US Holocaust Memorial Museum, Washington, USA Play Zone, Millennium Dome, London, UK	The Blur Building, Swiss EXPO, Switzerland The Seed Cathedral, Shanghai EXPO, China
The social <i>places that primarily tell stories to increase sociability</i>			Pfaueninsel Park, Berlin, Germany		Granary Square, London, UK Musical Shadows, Mesa, USA
The critical <i>places that primarily tell stories to critique normative values and market driven value systems</i>				Stalker/ Osservatorio Nomade collective walking, Italy	Giants: Border Mexico, Tecate, Mexico–USA Extinction Rebellion, multiple sites worldwide
	6c.BC–5c.	6c.–14c.	15c.–19c.	20c.	21c.

Figure 2.2 Genealogies of narrative environments.

the three-node network can still be seen to be at play as Buddhist narratives run through the temple design. The temple was renovated in the 1990s in the style of the Tang Dynasty. There are 16 halls in total inside the temple, and it is approached through a traditional Chinese garden. The entry and passage into the Buddhist temples is a sequence of gateways and courtyards that pace the experience as they lead you to the centre as a sanctuary. Each courtyard houses sculptures, for example, the Sakyamuni Buddha, the goddess of mercy, Guanyin and the Bodisattvas, which are made of gold, clay and wood. Each space is a scenographic tableaux of symbolic narratives communicated through path surfaces, vistas, carvings, sculptures and rituals (Barrie 2010).

Moving to India, the festival of Ganesh Chaturthi, which originated in Pune, demonstrates how whole cities can be temporarily but utterly transformed into narrative environments. The festival lasts 10 days. On the first day, families bring home the idol of Lord Ganesha. There are parties and, over the following days, rituals are carried out in his name. On the last day, crowds fill the streets and block all other movement as the idol is paraded in public. Loud music, dancing and coloured smoke marks the approaching culmination of the festival, when the effigy is tipped into the river Ganges. The immersion is called ‘Ganesh Visarjan’, and it is believed the Ganges carries Lord Ganesha back home to his parents Lord Shiva and Goddess Parvati who live in the Himalayas. Hinduism is rich with festivals that enact the stories of the religion. Each festival has particular rituals, traditions, songs, foods and clothes. There are also gender-specific ceremonies. All of these communicate complex interconnected layers of narrative. Space and time come together in unique ways in a purposefully constructed narrative environment. The Russian literary theorist Mikhail Bakhtin coined the term ‘chronotope’, a combination of *chronos* meaning time and *topos* meaning space, to express this merging of time, space and event: “space becomes charged and responsive to the movement of time, plot and history” (Bakhtin 1981: 84). This underpins the time-space experiences of such events as rituals, festivals, processions and journeys, confirming the three-node network. It informs our perception of landscapes, cityscapes and buildings that become temporal-spatial and narrative events for believers.

Narrative religious and political rituals weave together the architectural form, the moving body and the unfolding stories into a cohesive narrative environment, for example, the Ishtar Gate which was the eighth gate to the inner city of Babylon. It was built circa 575 BCE by order of King Nebuchadnezzar II. The design of the gates is layered so that the opening gradually reduces in size, visually drawing you in and attracting you into the space. The brick walls are covered in a blue glaze representing lapis lazuli, a deep-blue semi-precious stone that was highly prized in antiquity. The Processional Way, which was lined with walls showing lions, bulls, dragons and flowers, symbolised the Goddess Ishtar. The gate itself depicts the gods and goddesses Ishtar, Adad and Marduk. Such processional urban design persists to the present day. Large broad roads are designed as festival routes and military parades. Take the Mall in Washington, Pall Mall in London or Red Square in Moscow. These forms can spring to life as narrative environments when they are animated by people with a common purpose. Their narrative can also be transformed if they become places of protest or riot (Kaika and Karaliotis 2014).

Political narratives can be embedded in the city and the landscape. Adam Scott, co-founder of FreeState, a London-based design company that specialises in narrative experience master planning, cites Stowe Gardens in Buckinghamshire, England, as an inspirational example. In the eighteenth century, the influential Lord Cobham commissioned the gardens which were designed by landscape architect William Kent as a spatial

narrative. Stowe Gardens articulate an argument for a new political order based on classical ideals of freedom. Kent added hills, valleys, lakes, temples, ruins, monuments and statues that formed trails depicting, for example, stories of vice, virtue, love, lust and sea-faring. In one section, the Elysian Fields, a Temple of Ancient Virtue looks across to a Temple of British Worthies built in the newly fashionable Palladian style, equating famous English figures with classical poets and scholars. Cobham also employed a hermit as a performer to complete the narrative. Kent commissioned a special book for Stowe Gardens, possibly the first ever guide book, which featured two characters, one a pragmatist and the other a poet. This book was given to Cobham's guests, the richest and most influential men in England, if not the world, at that time. As visitors strolled through the gardens, landscape, sculptures and architecture, the book evoked the political struggles of the eighteenth century to prompt debate.

A rich history of parks and landscapes designed as spatial narratives can be delineated. American academics Matthew Potteiger and Jamie Purington discuss these phenomena in some detail in their book *Landscape Narratives* (1998). Potteiger and Purington fold together literary theory, cultural geography and visual art to create a framework for understanding the design of landscape narratives. They critique new regionalism and neo-traditionalism in the USA such as can be found in Cazenovia, New York. Cazenovia constructs its narrative of resistance to the homogenising effects of mass production, controlled by long-distance capital, but it does so through nostalgia. Bournville in the UK, designed in the nineteenth century to look like a medieval village as a reaction to industrialisation, might also be critiqued as nostalgic. Potteiger and Purington go on to discuss Kentlands, Maryland, which was planned and built in the latter half of the twentieth century to look like a traditional rural American town. Kentlands was modelled on towns such as Cazenovia. The developers wrote a town charter, established a town newspaper and town parade to assert its fictional history. They even created brochures that featured an old estate and pictured children in period dress. Potteiger and Purington argue that the design professionals and corporate developers built Kentlands as a replica that plays on sentimentality and, as such, is a closed narrative. Potteiger and Purington, in analysing open and closed narratives, suggest that open narratives are indeterminate, public, participatory, layered with multiple temporalities and interpreted somewhat differently by different users. Closed narratives, alternatively, are determined, private, commodified, use selected time frames and are controlled by authors. Current initiatives of civic environments such as ReGen Villages in the Netherlands have strong narratives. The first high-tech eco village “will collect and store its own water and energy, grow its own food, and process much of its own waste. Also: no cars” (Peters 2018). Although focused, this narrative is not closed; it is open to the ongoing economic, ecological and social context.

In a more explicitly commercial context, moving away from civic environments, Norman Klein (2004) introduces the notion of scripted spaces. Klein traces a history of lavish spectacle, optical illusion, cinematic effects and the engineering of the real using shocks, surprises, fakery, applying narrative collage to the service of powerful entities which seduce us with appealing myths. By analysing the Luxor in Las Vegas, Brian Lonsway (2009) discusses the spatial articulation and materialisation of fictionalised history, mixed with the functions of a resort hotel. He explores how this requires collaboration among developers, architects, film makers and ride designers. Lonsway also discusses Huis Ten Bosch, a public park in Kyushu, Japan, modelled on Dutch architecture and social practices, suggesting that it is a type of theme park that builds on the tradition of tourist villages to represent otherness or foreignness. He locates it “somewhere

between the western models of world fairs, living history museums and theme parks” (Lonsway 2009: 88). In terms of the visitor experience, these environments are more temporary than the civic; the duration relates to the financial contract made between the visitor and the park operator.

The last 10 years have seen an acceleration in whole-town themed environments. Take for example, Sky City, a replica of Paris on the outskirts of Hangzhou, China, with an Eiffel Tower, Champs-Élysées and Haussmann-style apartments, or Liaoning’s Holland Village, also in China, which installed windmills and canals to replicate The Hague. This is happening all over the world. For example, in the pedestrian resort village of Mont Tremblant in Canada, developed by Intrawest, the architecture is reminiscent of old Quebec while also evoking traditional German and Swiss styles. Like Disney, Mont Tremblant village is expertly staged and managed. Care is taken that you always feel safe and it is a very successful enterprise. Within the range of narrative environments, these resorts cite previous styles and eras but not with any critical intention.

The interlinking of narrative and space in the Disney phenomenon has been discussed by others at length (Vanderbilt 1999). The layout, with a central motif or ‘honey pot’, attracts people to the centre and avenues reaching outwards prevent visitors from feeling lost. Events are timed approximately every half hour to attract and distract people. Staff are always moving towards visitors to offer a helping hand. The slightly smaller-than-life-size scale of the buildings intimates that people have entered a fictionalised, out-of-the-ordinary world. It is comfortable, safe and entertaining. While the experience is clearly packaged, nevertheless, its popularity indicates that it is engaging, despite the expense and the long queues which introduce a certain frustration and exhaustion. From the point of view of the design of narrative environments, the questions that arise concern what sustains Disney’s continuing success: Is it, for example, that Disney’s stories, being rooted in children’s literature, are moral tales in which evil is always defeated and good always triumphs, asserting moral certainty in an uncertain world?

Disney exploits, while sanitising, the Bakhtinian notion of the carnivalesque. Mikhail Bakhtin (1968) discusses the medieval European tradition of the carnivalesque, suggesting it was a ritual spectacle where common people could experience a world which opposed official truths upheld by the church and the feudal lords. Hierarchies, norms and prohibitions were suspended through satire and parody. Kings became fools. You could laugh at authorities and ritually subvert everyday norms. Bakhtin argued the carnival offered renewal and revival. Something of the same spirit persists in early amusement parks such as Luna Park, Dreamland and Steeplechase Park on Coney Island, New York. Coney Island projected a world of exotic otherness, freeing people to behave in non-conventional ways. In its heyday, in the late nineteenth and early twentieth century, Coney Island offered thrilling rollercoaster rides and exotic and voyeuristic freak shows. In 1885, James Lafferty built the ‘Elephant Hotel’, a 122-foot-tall animal with tin skin and glass eyes that straddled the beach like a Colossus of Brooklyn. The hind legs hid the staircase to the torso’s 31 rooms and ocean views. It was known for its hedonism. Coney Island was a place where people could transgress conventional mores. While being a kind of narrative environment, Coney Island’s relationship to the everyday was more one of escapism rather than of reflection.

After the Second World War, competition from other leisure experiences reduced the appeal of Coney Island. The last section to close was Steeplechase Park in 1964. It was the end of an era for Coney Island but narrative-led leisure experiences are still in demand. For example, Secret Cinema offers spatialised cinematic experiences, combining film screenings with interactive performances in found settings that evoke the film

that provides the theme. Screenings are set up almost like a game with strict rules of play. Ticket holders must keep the destination secret; they are not told the name of the film they will eventually see; they must dress up in a code prescribed by Secret Cinema. On arrival, the audience explore the site, read the multiple strands of narrative through the architecture, objects, images and performances which reflect modes of film construction (Atkinson and Kennedy 2016). Finally, they are ushered into a space to watch the film.

In recent years, several ludic narratives have been spatialised, such as, notoriously, Pokemon Go. Live action role playing (LARP) has also emerged, where people don costumes and physically perform characters' actions in narrative games that can last for several days. This is an interesting extension of digital game playing and improvisational theatre. In this kind of narrative environment, the screen and the script dominate the visitor experience.

At the same time that Coney Island was emerging, spatial narrative was also developing through world fairs. The first was the Great Exhibition in London in 1851, which brought trade and industry to the masses in a celebration of 100 years of the industrial revolution. It was advertised as an opportunity to see the world for a shilling. It was hugely successful and since then numerous world fairs and expos have set out to celebrate the achievements of nations. World fairs have provided opportunity to experiment with the design of novel buildings and provide extraordinary new spectacles. The Eiffel Tower was part of the 1889 World's Fair. The Futurama exhibit at the 1939 New York World's Fair is one of the most renowned examples. It was designed by the industrial designer and theatre set designer Norman Bel Geddes. Visitors were moved in their rows of seats over a huge diorama of a fictional section of the USA. Arthur Herman (2012: 58) explains that the exhibit

was designed with a stunning array of miniature highways, towns, 500,000 individually designed homes, 50,000 miniature vehicles, waterways, and a million miniature trees of diverse species. These elements of the diorama gradually become larger as the visitors, seated in chairs overhead, moved through the exhibit, until the cars and other elements of the exhibit became life-size.

Other remarkable and innovative narrative structures built for expos include Diller and Scofidio's Blur building at the Swiss Expo in 2002 and the Seed Cathedral by Thomas Heatherwick at the Shanghai Expo in 2010. The Blur building was an open pipe structure that sat in Lake Neuchâtel. Pumps circulated lake water through the pipes. Sprays on the pipes released mist. It looked like a cloud sitting on the lake. It was a most evocative structure. Visitors could walk to it across a bridge and venture inside, dressed in plastic raincoats, to find a water bar. The Seed Cathedral, 20 metres high, was made from 60,000 transparent fibre optic rods, each containing one or more seeds at its tip. It was a poetic expression of Kew Royal Botanic Gardens' Millennium Seed Bank Project and evoked the main theme of the expo: nature and the city. This kind of narrative environment aims to inform but also promote specific nations. They have a social, political and economic purpose.

Public museums also emerged in the eighteenth and nineteenth centuries. Their original mission was to educate and civilise the public. Tony Bennett (1995) discusses how museums were seen, in the nineteenth century, as having a transformational educational role, albeit from a paternalistic, monocultural perspective. They communicated a singular view of what was thought to be universal and timeless truth through the systematic display of objects. Imposing museum architecture was designed and built to symbolise

material certainty and authority. Mark O'Neill (2008) argues that historical research into the development of museums reveals a long-standing conflict between museums as instruments of social reform and museums as defenders of traditional values and hierarchies. He writes that, in the late nineteenth century, museums became detached from their foundations as instruments of social change and entered a long period when they catered only for an educated few. Large museums housed collections in dark, imposing Victorian buildings, such as the Victoria and Albert Museum in London, often with taxonomic displays arranged in vitrines in somewhat gloomy halls dimly lit by glass skylights. For much of the twentieth century, many museums focused on the conservation and display of what were considered by expert curators to be important objects. It was not until the mid-twentieth century that museums started to change, instead focusing more on their visitors' needs and what this meant for the design of the space.

The forerunners of this change include the Bauhaus, where the white cube minimalist feel in exhibitions was developed in the 1920s. Famously adopted by Alfred Barr, Director of the Museum of Modern Art in New York, the white walls and geometric spaces eradicate site-specific references and the curator and artist step in to hang the art with generous space between each exhibit and carefully considered sight lines. However, the aesthetic quality of such spaces quickly became associated with good taste and was appropriated by up-market stores, who often display goods as art objects. Elitism was sustained, indeed expanded, in retail environments. These narrative environments illustrate how forms devised for one purpose are borrowed and applied in other contexts for quite different purposes.

In the late 1990s, story-driven exhibition-making in museums became firmly established. At this time, there was a growing concern among museologists that museums should do more to communicate to wider audiences and be much more inclusive (Sandell 1998). Exhibition design, formerly undertaken by in-house teams, was becoming more often outsourced (Gurian 2014). As a result, exhibition design companies began to spring up in Europe and America. American designer Ralph Appelbaum critiqued what he described as the old-style display of objects ranged along the perimeter of a great hall. He argued that the objects needed to be linked together and framed as a serial experience so that visitors could relate objects to each other and learn about their context through the display of contextualising material, such as image or film. Appelbaum argued furthermore that narrative experiences would engage visitors on an emotional level and appeal to wider audiences. His company went on to design the exhibition of the world-renowned Holocaust Museum in Washington.

Storytelling became increasingly important in exhibition design in the UK and the USA in the 1990s, when the role of interpretation manager emerged alongside the closely related practice of interpretive design. The term interpretive design superseded exhibition design for some years because exhibition design was considered too narrow a term, as it suggested simply specifying the dimensions and production processes for plinths, lighting and functional spatial layout. Interpretive design, by contrast, included the practice of researching and developing an overall story-led design concept which then requires additional materials, such as film, graphics and interactives, to contextualise the objects on display and engage a broad range of audiences through storytelling rather than simply display of collections. Interpretive design is a conceptual, user-centred, creative practice. Thus, design claimed storytelling as a new territory, which moved it beyond being a purely technical practice.

The 1990s also saw the emergence of new digital technologies that expanded the palette of exhibition design so that sound, image, film and internet connectivity could be

used together to enhance the sensory dimensions of exhibitions. In the UK, Land Design Studio led the way in applying digital media in exhibitions. Co-founder and Co-director of Land Design Studio, Peter Higgins, cites the Festival of Britain, 1951, as a key moment in the development of narrative space because it established a method which brought together script writers to work with a designer, James Gardner, and an architect, Sir Hugh Casson. Another inspirational precedent that Higgins identifies is the Fun Palace designed by the influential architect Cedric Price and the renowned theatre director Joan Littlewood. Price (quoted in Matthews 2007: 73) noted that,

Its form and structure, resembling a large shipyard in which enclosures such as theatres, cinemas, restaurants, workshops, rally areas, can be assembled, moved, rearranged and scrapped continuously.

The Fun Palace was seminal in its combination of media and flexible architecture. In the mid-1990s, Higgins visited Ars Electronica in Austria and ZKM Center for Art and Media in Germany, both centres of digital innovation, and the result was Land Design Studio's groundbreaking visitor experience, the Play Zone, in the Millennium Dome. The story-based interactives brought artists and designers from all over the world and set the bar for the content-driven interactive exhibitions that followed. Among the leading exemplars is Atelier Brückner, a distinguished exhibition design company set up in the 1990s in Germany, who specialise in immersive, scenographic experiences. Studio Azzurro in Italy has also developed a strongly poetic application of digital media in exhibition design. Kossmanndejong in the Netherlands is greatly admired both for its design and its publications, for example, *Narrative Space: On the art of Exhibiting* (Kossmann, Mulder and Oudsten 2012). Other notable exhibition design companies in the Netherlands are Tellart, Opera and Tinker IT. Duncan McCauley in Germany is another pioneering exhibition design company that specialises in synthesising film and architecture. Casson Mann, Metaphor, MET and Event Communications are all eminent exhibition design companies in the UK with remarkable track records for using multi-modal forms to unfold stories in space.

Marie Laure Ryan (2016) examines exhibitions as spatial narratives, but also text, inscriptions and historical markers and trails in the environment. She extends her study of spatialised narrative to include place names and road signs, creating useful categories and classifications. Guided walks are another popular form of spatial narrative, not unlike oral histories, in that they depend on the guide to be an expert performer, an environmental interlocutor. Precedents for walking as poetic spatial narrative include Aboriginal Australians who, Bruce Chatwin (1987) explains, sing chants as they move through the landscape. The song lines establish location, each landmark being assigned a particular chant, so, through performance, Aboriginal Australians continuously enact a relationship with the surrounding environment. The chants are passed down through the generations.

Architects have also explored narrative. Although narrative in architecture has a long history, going back, for example, to '*architecture parlante*', speaking architecture, in fifteenth-century Europe, with Francesco Colonna's *Hypnerotomachia Poliphili* (Leon Van Schaik, 1985), a novel in which the main characters are buildings, it was largely marginalised in the twentieth century. However, there are some exceptions. For example, Aldo Rossi, drawing an analogy between urban design and theatre, was interested in how memory is embedded in built forms (Livesey 1994: 115–121). John Hejduk described how characters become buildings in the architectural process

(Vilder 1994: 209). Jonathan Hale (2017) describes some buildings as actively telling their own story of construction and history, for example, the way steps on stairways are worn away by use over the years. Jennifer Bloomer (1993), who is interested in the relationship between architecture and text, argues that architecture can tell a story. German architect Bernhard Franken conceives of the narrative and communicational powers of architecture (Morgan 2008). Architects interested in narrative often look to the work of American architect Bernhard Tschumi (1995), who produced influential reflections on sequential, experiential space in *Manhattan Transcripts* in which he challenges convention by arguing that action and event should be considered as part of architectural discourse. He translates devices such as plotting, foreshadowing and fading into architectural form.

Tschumi taught at the Architectural Association in London in the 1970s, and his ideas were developed by his students. They formed a movement called Narrative Architecture Today (NATO). As documented by Claire Jamieson (2017), the work was a celebration of the abject, an aesthetic of entropy and a do-it-yourself provisionality. One of the NATO members, Carlos Villanueva Brandt, traces a trajectory from Situationism to NATO, explaining how he and fellow architect, Mark Prizeman, worked in the 1970s with the grittiness of the streets, found their way into abandoned warehouses, made films and objects mixing low culture and high culture in the spirit of punk. They rejected the intellectual world of architectural discourse in favour of the implicit narratives in the city that they remixed as acts of '*détournement*', turning ordinary things that had an allusive story into provocative objects, films, paintings and manifestos. In the Gamma City exhibition in London in 1984, the group showed objects that had animal qualities, for example, a mosquito chair, dog towers and wolf housing, where people lived like wolves. They maintained their narratives were open ended; people could interpret as they wish. They saw their work as an architectural equivalent to the novel *Ulysses* by James Joyce. It was Nigel Coates (2012) who coined the name NATO. Coates was interested in narrative as myth and used classical references to make overt metaphors working within architecture and fashion. He conceived the city not as layers of planning, but layers of narrative, and maintained that architecture cannot help but express the cultural eco-systems that make cities. Coates argues that architectural design evokes personal experience and collective political and social values. Sophia Psarra (2009), architect and academic, examines spatial experience and meaning, arguing that "architecture carries meaning through the arrangement of spaces, social purposes and cultural meanings with which it is invested" (2009: 1).

Narrative architecture and urban planning have also been addressed by other architects and theorists. Sociologist Richard Sennett (1990), for example, makes an argument for a concept of narrative space. Sennett explains he is seeking a humane urban design and he refers to Bakhtin's chronotope, the inseparability of time and space, stating that the urban environment needs to be designed to allow for events to begin and unfold. In his vivid description of Manhattan, he asks how planners can make room for the narrative qualities of ambiguity and surprise. He advocates the design of weak borders rather than strong walls, so that spaces can be appropriated and used by different groups at different times. He critiques functional disaggregation which, he suggests, originates in the garden city movement. However, rather than creating peaceful pleasant spaces, Sennett argues, the movement created sealed communities where people are diminished in their development. In his view, planners should lift fixed zoning regulations, allowing activities and encounters in spaces which "are simple enough to permit constant alteration" (1990: 191–196). He describes these as displacements and argues, by analogy from

fiction, that a narrative of place emerges as these displacements are advanced, resisted and negotiated. Urban theorists such as Mark C. Childs (2008), Leone Sandercock (2011) and Matthew Carmona (2015) have reiterated that stories and storytelling can inform and condition the design of places in multiple ways. The relationships articulated by the three-node narrative environment network model, with different configurations and different emphases, can be seen in all of these architectural and urban design examples above.

Several design-led architectural practices use forms of narrative in their work, for example, Sarah Featherstone of the London-based practice, Featherstone Young. At the start of the design process, Featherstone draws inspiration from small-scale spatial clues that connect to the past and to the use and feel of the space. This might be washing hanging on the line at street level, showing how a public space, which is assumed to be unsafe, turns out to be an extension of the home. Featherstone explains that clues accumulate and reveal the events and stories of people's lives. Responding as an architect to these clues, even in small ways, can completely transform a space. For example, in Wrexham, Wales, where she was commissioned to design a new art gallery in a former car park, she noticed that the building could function as a shortcut between the centre of the town and the shopping centres on the outskirts of the town. She framed the entrances on each side and placed the gallery on the path of the shortcut. She also designed what she calls 'baggy space' (Featherstone and Marsh 2018), in other words, space for people to do what they want, such as meet, hold workshops or have birthday parties. She is designing non-controlled environments where individuals' stories can be played out, much as Sennett called for.

By contrast, control is highly valued in brand and retail environments. Customer journeys are envisaged and planned as engaging sequential experiences. Christian Mikunda (2004) suggests marketers have created a third space, in addition to home and work, where every habit relates to sales and consumption, whether that be consuming landmark architecture or encouraging strolling to discover merchandise and services. Mikunda talks about designers creating concept lines with 'brain scripts', which play on people's media literacy or the stories they already know. These are used to draw people onto routes with clear axes, hubs, mnemonic points and districts that, while establishing a cognitive map, also arouse people's curiosity and desire. Recent large-scale experiential design for retail includes Madrid Xanadu, designed by Kiku Obata & Company, which contains Europe's largest indoor snow sports facility, or the Fashion Catwalk in The Dubai Mall which consists of five, 7-metre diameter rings, each 0.5 metres high. The rings hold full-colour video LEDs and move up and down and can be choreographed with live video feeds and music.

This sector produces immersive narrative brand experiences for multinationals, such as Ford, Volkswagen, Samsung and Guinness, but also reaches into other spaces, such as hospitals. For example, in 2016, at the Juliana Children's Hospital in The Hague, Tinker Imagineers was contracted to add an experiential layer to the existing clinical design. The company created an 'adventure journey' with an overall narrative for the patients. Games, play sets, interactives, drawings and puppets were installed to surprise, distract or relax the children. Other examples of thematic experiential architecture include the Hyundai Card Music Library + Understage experience in Seoul, South Korea, designed in 2016 by Gensler and an immersive environment for the Wushang Zhongyan Mall International Cinema in Wuhan, China, designed in 2015 by One Plus Partnership. Visualising scenes from movies like *Independence Day* and *The Day After Tomorrow*, One Plus Partnership created scenes that could easily convince theatre-goers they had

walked into a real film setting. In Kyoto in 2015, Glamorous Co. Ltd. developed a forest of lanterns concept for Randen Arashiyama Station. In 2015, Heine Jones created a family of interpretive sculptures for the multicultural city of Dandenong, Australia, to celebrate the city's common language, English.

This brings us back to placemaking and place branding. It is worth revisiting as it is such a contentious area. On the one hand, placemaking is embraced by property developers as a profit-making venture, modernising and beautifying districts and attracting new, wealthy residents in line with what they describe as a narrative of place. The critique of this commercially driven gentrification is that financial profit is privileged over the well-being of existing citizens and often results in many local residents becoming marginalised and forced to move on. Commercially-driven placemaking can rob local residents of their social networks and situated ways of life, simultaneously effacing their histories. By contrast, 'placemaking', as understood by socially-engaged designers, is driven by joint efforts among all stakeholders or actors in an environment, including its citizens, artists, businesses, visitors and local government, to produce convivial places to live which support multiple narratives, an example being Participatory City in London's East End. Socially-engaged placemakers argue that they increase social cohesion, cultural, educational and economic opportunities; foster well-being and active civic engagement; and make the location unique and desirable to visit as well as environmentally sustainable. These kinds of narrative environments are powerful sites for discursive practice and social innovation, addressing all three nodes of the narrative environment network model.

The examples above show how spatial narrative, like other narratives, can be used as a route to spirituality, a commercial tool, a critical device and/or a means to create socially inclusive, creative environments. They show that the role of the designer can be that of guardian of traditional values, critical agent provocateur, entrepreneur and/or researcher, but also co-creator, as a story listener and a story teller (Austin 2016). Designers of narrative environments take part in the creation and re-creation of place. There are many different kinds of narrative environment but the programme at Central Saint Martins takes a critical and relational perspective, addressing matters of concern to support politically aware and socially motivated creators of stories, social interactions and human experience.

The emergence and legitimacy of a new practice needs to be seen in the context of existing practices and assumptions. It may seem that, by using the word narrative, the design of narrative environments seeks to place itself in the tradition of literary narrative and belles-lettres, and to take up a position in the cultural high ground. Equally, in drawing on literary studies, which borrows its legitimacy from the practice of literature, the design of narrative environments may seem to be situating itself as an academic discipline in the humanities. Further, in drawing on film studies, itself borrowing its legitimacy from the study of literature, the design of narrative environments may seem to be positioning itself in the academic realm of media studies. Rather, the design of narrative environments starts from the position that people are constantly engaged in interpreting their world and narrative plays a crucial role in this process of generating interpretations, understandings and knowledge as the basis for situated interaction. The design of narrative environments seeks to restore the recognition that narrative and environment are inseparable; and inseparable from the constitution of human subjectivity as an environmental phenomenon that narrativises itself. In as far as the study of literature, film, architecture and other design practices can contribute to understanding how narrative, environment and subjectivity interrelate in practice, they contribute to the design of

narrative environments. However, the legitimacy of the design of narrative environments does not lie in borrowing their academic authority, but in providing practical insights into how we do, and how we might live together, and how we might understand the processes of envioning and narrating upon which we depend.

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