7 Immersion

Worlds and actions can be evoked so powerfully by literature that people conjure up the scenes in their imaginations. In bringing all bodily senses to bear, narrative environments ignite people's narrative imaginations and the construction of storyworlds in a different way. This chapter explores the notion of immersion in narrative environments as an extension of the term engagement. Engagement, as discussed in the last chapter, involves absorption, which is taken to relate to intense, conscious, cognitive attention and the maintenance of interest, often through physical interaction in combination with the heightening of emotions elicited by implicit communications in the environment. Immersion is taken to refer to the often non-conscious, persistent, ambient sensory experiences, which create a sense of being surrounded by, or wrapped in, a space which fosters people's bonds to that place as a seemingly self-contained world.

Although the term 'immersion' has become overused, it is worth exploring its significance, while identifying the particular qualities of immersion that can produce critical and transformative experiences. In some circumstances, immersive experiences can amount to little more than cheap thrills, for example, a roller coaster ride. The design of narrative environments, however, conceives of more profound kinds of immersion, in particular, critical immersion designed to combine surrounding visceral world-like experiences, emotional engagement, cognitive absorption and insightful reflection to make powerful, meaningful and memorable experiences. Following the logic of deictic shift, narrative environments can lead people away from everyday mundane narratives by using sensory stimulation to interweave fact and fiction, enabling them to be inside, yet also reflecting upon, their everyday reality. The paradox, and the attraction for designers, is that heightened physical awareness, which emphasises the present and current place of being, can also transport people to imaginary places.

The word immersion is derived from a Latin term *immergere*, meaning to dip into a fluid. When fully immersed in the ocean, for example, sound is reduced, every part of your skin is in physical contact with water and you are suspended in its voluminous body. Gravity seems to be overcome, suggesting some of the physical rules of the world are in abeyance. Visual horizons become distorted and the world, like an ocean, seems infinitely extendable. In the 1990s, these kinds of qualities evoked by the word immersion gradually became synonymous with digital experiences and a certain euphoria about the possibilities of VR. Artist Char Davies (1998) describes digital immersion as the transformation of the physical self when enveloped by an artificial media environment. She uses the scuba diver as a metaphor for digital immersion in her *Osmose* in 1995, in which visitors put on VR headsets and motion-tracking equipment. Visitors found they could glide through, or hover between, zones of layered textures and flowing, abstract representations of plants and water. In the last 25 years, VR has advanced, notably in the

computer games industry and military training, and is being used by artists and designers. The notion of immersion has seeped from the digital sphere into the physical sphere to describe experiences which may or may not involve digital technologies. Immersion is no longer used solely to refer to VR.

Immersive Experience

How does immersive experience differ from our everyday experience, given that people are already immersed in their familiar surroundings and engaged with the stories unfolding within and around them? Peter Sloterdijk (2006) offers one way of understanding different senses of immersion. Starting from a discussion of technological synthetic immersion, he argues that people are always immersed in an envelope of some kind in their daily lives. He interprets Heidegger's (1996) idea of being thrown into the world as being thrown into a particular envelope with particular material, spatial and narrative qualities. He argues that we cannot exist without being in an envelope: "Being-in designed spaces constitutes our fundamental condition" (Sloterdijk 2006: 109). He uses house building, city building and empire building as examples of different scales of spatial and narrative envelopes. He argues that people take on the founding narrative, for example of empire, to make sense of their immersion in the envelope and in that way, take part in its history, with history itself understood as an immersive environment. Sloterdijk (2006) reflects on the experiences of Soviet and Nazi totalitarianism as experiments in the construction of large-scale envelopes or immersive worlds. These envelopes are spatial, structural, narrative and political at the same time, which he calls, "an architectonics of grand political forms, in whose construction military, diplomatic and psycho-semantic (or religious) functions all participate" (Sloterdijk 2006: 105). People may be aware of their immediate surrounding but only partially conscious of the larger-scale envelopes and the narratives they infer. They may take a deliberate decision to immerse themselves in different envelopes to gain critical distance on their position. Sloterdijk's thought expands the notion of immersion beyond the physical to include the social and the political.

Critical narrative environments aim to heighten awareness of being both in a narrative and in an environment simultaneously. They do not aspire to total immersion. According to academic Mark Wigley (2016), in a discussion of immersion in museums, if we are totally immersed, like a fish in water, we would not perceive the environment, we would just take it for granted. We only become aware of the environmental conditions in which we are immersed when they become problematic. Bruno Latour (1993) makes a similar point when discussing what modernism takes for granted, particularly the environmental dependencies it fails to acknowledge. Hence, designers of narrative environments need to withhold or skew elements of immersion to make people aware of the particular medium in which they are immersed. For example, in Conical Intersect, Paris 1975, Gordon Matta-Clark cuts away sections of a building which undoes the envelope of the walls in a radical way, placing the viewer in a completely different relationship to the room, to the building and to the city. This reaffirms Sloterdijk who says total immersion, as a method, unframes images and vistas, dissolving the boundaries between pictoriality and environment (Parsons 2016). By contrast, in narrative environments, people physically enter and take an active part in a specific world as an immersive experience, while aware of their conditional dependencies, rather than being a disembodied viewer. The environment calls for situated awareness (Endsley 1995) or consciousness of the environment, comprehended through the whole body and all of the senses, as a dynamic relation to

the environmental context. By being corporeally present in a specific place, people are implicated or entangled in a narrative environment.

If bodily immersion can lead to imagining, such imagining can become a revealing, transformative experience that enables people to uncover hitherto veiled or contradictory dimensions of their worlds. An example is a mischievous installation called 'Musings on a Glass Box' at the Fondation Cartier in Paris in 2015 by American architects Diller Scofidio + Renfro (Rosenfield 2014). Their intervention was a comment on the iconic glass and steel Fondation building commissioned from world-renowned architect Jean Nouvel in the 1990s. Nouvel's building expressed a key principle of modernism: to dissolve walls and link the exterior to the interior. However, that proved problematic to artists and curators because of the resulting lack of wall space on which to hang artwork. In order to bring this limitation to attention and to exploit it playfully, Diller Scofidio + Renfro staged an apparent leak from the ceiling, which was a visual symbol of the building's dysfunctionality as a museum space. The droplets of water from the leak fell into a robotic red bucket scuttling around in one gallery to collect the drops. In a second adjacent gallery, Diller Scofidio + Renfro designed and installed a large LED screen that hung horizontally, about a metre above the floor. The screen showed a grid that visually echoed the structural grid of the building's ceiling. Viewers on movable flat beds slid underneath the LED screen, as if they were lying in the bucket, under the surface of the water looking up at the ceiling. As each drop of water fell into the bucket, the grid on the screen rippled, magnifying and multiplying the effect of the drop and dissolving the solidity and certainty of the modernist ceiling structure as it swayed back and forth on the screen. Sensors engaged further ethereal surround sound, a choral piece accompanied by musical instruments composed for the installation. Video simultaneously appeared on the glazed walls. The banal event of the water dropping, as a symbol of the building as flawed, was dramatised, turning the familiar into monstrous, provoking questions about the meaning and value of the space and how it is perceived. This brings a new resonance to the Lefebvrian notion of the social production of space through resistance to the building's assumptions about its own magnitude and significance and its power to determine what the space means. Diller Scofidio + Renfro made explicit the clash between any exhibit that appears in the space and the architecture itself. This installation is an example that illustrates the way space is replete with struggle over meaning. In this case, an immersive narrative environment can be seen to use the physical qualities of the real world to create storyworlds in people's minds that, in turn, produce a critical relationship to the everyday world.

Like humour, critical positioning, such as described above, places the audience doubly: as museum visitors becoming aware for themselves that the museum is flawed and as sensors in the bucket registering the flaw, inducing a comic contrast. Feeling simultaneously *inside* the museum and the bucket, *surrounded* by the building and the exhibit and *present* at the moment of the drop are all key to the experience. Immersion seems to promise a sense of undifferentiated wholly being there, following an aesthetic of the sublime where visitors are awed by a wonderful world to which they are fully subjected and have no option but to surrender. However, the design of narrative environments examines and exploits the recognition that such experiences are woven together through careful multimodal and multisensory layering. Narrative environments are not aiming to produce either pure spectacle or exaltation. They are deliberately designed spaces that offer an experience of being inside, surrounded by, close to and present to particular content while enabling or provoking a standing apart from that content, to reflect on how the sense of immersion is constructed. This means that in critical narrative environments

people are never fully present, in the sense of being totally submerged in a preconceived world in the form of a complete, enclosed, mesmeric environment-experience.

A sense of immersion is developed not only through being in a wrapped-around physical or digital environment but also by being with other people, for example, being immersed within a crowd or in a conversation. This sense of immersion is discussed through the phenomenological concept of the intercorporeal which grounds subject-to-subject relations, or intersubjectivity, and subject–object relations. These ideas are elaborated in both the literature of phenomenology, for example in the work of Thomas Csordas (2008), and psychoanalysis, as for example in the work of Jacques Lacan (1977) who interprets the research of Melanie Klein and Donald Winnicott.

In the everyday, immersion in the intercorporeal is taken for granted. The everyday implies an undifferentiated state, the unquestioned and unquestionable familiar. In critical narrative environments, people consciously choose to be immersed and can surrender or distance themselves, questioning what they see and feel. In this way, audiences come to their own thoughts that are not fully determined by the narrative. Critical distance is advocated by Berthold Brecht (1978) in his epic theatre, in which dramatic illusion, or suspension of disbelief, is established only to be disrupted by various techniques, for example, when the characters break with the dramatic construct to address and acknowledge the audience directly. This breaks the fourth wall, the imaginary screen across the front of the stage which separates the world of the audience from the world of the actors. Rather than presenting an entertaining, self-contained fictional world, the Brechtian didactic points out to the audience that the action on stage has direct implications for their lived world, forcing them to reflect on the meaning of the action on stage for their own actions. In these situations, audiences pivot back and forth between immersion in illusion and conscious critical reflection on their immersion in their own 'reality'. In critical narrative environments, audiences have already penetrated the fourth wall. They do not abandon themselves wholly to whatever level of illusion is being presented, partly because they are always perceiving as a body in motion and partly because critical narrative environments ask people to reflect on their perceptions.

A sense of presence is also important in discussing immersion. Rhetorical techniques in such media as language, sound, photography, painting and spatial design can produce a vivid and palpable sense of being present. Indeed, the choice of media is crucial to how quickly a sense of presence is conveyed. For example, Perelman and Olbrechts-Tyteca (1969: 117) note that certain masters of rhetoric, with a liking for quick results, advocate the use of concrete objects to move an audience. The example they cite is the bloody tunic of Caesar that Anthony waves in front of the Roman populace to add a strong sense of presence to his argument. Presence is used not just as a display but is part of a persuasive practice making a case for what is real or true. As Perelman and Olbrechts-Tyteca (1969: 118) say, "Presence, and efforts to increase the feeling of presence, must hence not be confused with fidelity to reality".

Professor of theatre and performance Andy Lavender describes how a sense of presence in a fictional world has been pioneered over the years by theme park designers. They offer mass market immersion in scenic 'scapes', consumer-centred experiences that evoke pleasurable sensation, stirring memories and stimulating sentimentality. In contrast to critical narrative environments, the purpose is not to promote critical thinking but rather to enter the fictional world more fully through rides, exhibitions and performances, stunts and technological wizardry. Lavender (2016) argues that, above all, theme parks provide experiences of encounter. Members of the public are put on stage.

As people stroll around the theme park, they expect characters to pop up and provide magic moments to record. The photos act as tangible proof of co-existence in the fictional world. The spectator is incorporated and becomes the subject around which the theme park is choreographed.

The relationship between presence, non-critical and critical immersion can usefully be understood from the point of view of the design of narrative environments in the following three ways. First is the empirical and positivistic understanding of being in the presence of an object, as in daily life, where the object is simply there. It can be observed and contemplated for its aesthetics, valued for its utility or taken as evidence or data. This is immersion in a presumed universal reality where context and environment are taken for granted. Second is non-critical immersion where people perceive objects to be part of an argument about the nature of reality, for example, an object on display in a museum where the context and environment cannot be taken for granted. Museum goers are aware that the museum is designed to encourage them to go on a quest for meaning. This forms part of the social practice of museum going. Third is critical immersion where people are not only interpreting objects but also questioning the context and environment, for example, questioning the narrative of a city redevelopment and asking themselves how that impacts on their own responsibilities and ambitions with their related ethical, legal or political dilemmas.

The Museum of the Future, Dubai

Critical immersive spaces have been developed for educational narrative environments in, for example, the Museum of the Future, Dubai. Noah Raford, Futurist in Chief for the Dubai government and Acting Executive Director of Museum of the Future, firmly believes that immersive storytelling captures people's imaginations in a far more compelling way than the traditional display of objects and labels. This has been proven by his experience of the development of the Museum of the Future. The first iteration of what was to become the Museum of the Future came about when Raford was working in the foresight and innovation team in the UAE Prime Minister's Office. The UAE Minister of Cabinet Affairs, now Minister of Cabinet Affairs and the Future, asked him to develop an exhibition on the future of government services including education, healthcare and security. The idea was for it to be a relatively traditional showcase of new technologies that could be important in the future. However, through his background in design and his PhD at MIT, Raford was part of an emerging group of practitioners who were fusing experiential design with foresight and scenario planning. The traditional discipline of foresight involves researching possible futures and developing a range of future scenarios. The discipline originated in the 1960s from a variety of sources, but was most often practised in either quantitative, analytical, operations research and military planning environments or in more corporate strategy fields. At best, these exercises would result in PowerPoint presentations or long text-based documents. Working with his contemporaries, Raford envisaged a far better way to engage the public in the future.

To create the first Museum of the Future, Raford invited two colleagues to help him envision the approach: Dan Hill, who, at the time, was CEO of Fabrica, Benetton's design research think tank in Italy and Matt Cottom, co-founder of the international experience design firm Tellart. He then assembled a team of the most interesting practitioners working at the time, including Stuart Candy and Jake Dunagan, two leaders in the technique of experiential futures (Candy and Dunagan 2016), Anab Jain and Jon Ardern from Superflux, among others.

Experiential futures aim to use design to create, iterate and explore future worlds and communicate them through tangible and emotional experiences. Instead of reports, the approach produces graphics, videos, scenography, set design and speculative industrial design, building full-scale, walk-in narrative experiences of possible future worlds. The goal is to enable those people who encounter the multisensory environment to develop insights about the worlds created and to imagine further objects, diverse situations, related systems or experiences that the future world may bring.

Raford was inspired by artist and technologist Julian Bleeker, of Near Future Laboratory, who developed and advocates the concept of design fiction, a term first coined by Bruce Stirling in 2005 when he was developing the concept of diegetic prototypes, objects that notionally have fallen from a future world and which suggest systems and experiences in that world. Bleeker (2009) argues that by combining design, science fact and science fiction, future worlds can be envisaged and partially materialised. He noticed *Star Trek* fans were already creating objects based on future worlds. He suggested design fictions developed by multidisciplinary teams could quite quickly and cheaply combine science trajectories, foresight, design thinking and speculation to visualise 'what if' scenarios that encompass the impact of new technologies on the everyday. Raford found he was in the fortunate position of being able to bring these cutting edge creative practitioners together for the first time and to explore this approach at a scale never before possible.

The result was a three-day pop-up exhibition at a Davos-style event in Dubai in 2014 called the Government Summit. It became hugely successful and set the template for an annual event, which has now run for seven years in a row, establishing the case for a permanent Museum of the Future, scheduled to open in 2020. Delegates at the Summit were ushered through a little black door in a big white wall, with no explanatory signage, where they moved through a series of rooms about the future of border control, education, healthcare and other services. For example, after entering through the door to the experience, visitors found themselves in a dark corridor being welcomed by someone with a tray of hand towels. Each guest was given a cool, moist towel, which is a traditional Arabic gesture of welcome. Looking down the corridor, visitors could see a psychedelic tunnel of lights and a scanned representation of themselves at the very end. As they walked down the corridor, the lights and the sound responded to them, suggesting they were being scanned. Signage on the floor also indicated that their travel history and baggage were being tracked and monitored and that this was a border control experience. At the end of the corridor visitors were met by a friendly smiling person who took the hand towel and dropped it into a scanner clearly scanning visitors for infectious diseases. The goal was to reimagine the experience of arriving in a new country, using contemporary technologies to transform it from an intimidating, bureaucratic interrogation to a warm and welcoming experience. It was only at the end that it was revealed to the visitors that they were experiencing a vision of the future of travel arrivals.

The ritualistic border experience was also intended to slightly disorientate people. This disorientation borrows from immersive theatre and the work of anthropologist Victor Turner (1969), who says disorientation takes participants into a liminal space which causes them to question what is real and what is not. From this border experience, visitors were led to an even more puzzling space, a large bathroom where the only clue was a sign that said 'Healthcare of the Future'. Instead of a hospital or a clinic, visitors discovered four mirrors, each with sinks and no instructions about what they should do. The visitors had to work out what to do next, which was part of the principle of the design. The approach prompted them to build a sense of their own narrative and interpretation of what was happening around them, increasing 'buy-in' and emotional

resonance. Those arriving later in the space saw others interacting with the mirrors and sinks and followed suit. Although the mirrors looked like regular bathroom mirrors, they were actually 'magic mirrors' that were activated when approached. They provided a short interactive experience which both welcomed visitors while offering a check-up from an AI doctor. Although interactive, the mirror was not actually scanning people's health in any way. Instead, it acted as a convincing simulation to demonstrate how AI personal assistants, sensors and ubiquitous computing could transform healthcare, performing many of the tasks of a doctor or clinic invisibly and effortlessly in your own home. One narrative loop of the mirrors, for example, observed that, "you've been travelling quite a lot, two of your colleagues had colds at the office and so your chance of getting a flu is 15% higher today. Should I put more vitamin C in your breakfast?" After engaging with the mirrors, visitors could interact with other objects around the bathroom, showing how such an integrated, home health care system might become a part of daily life.

The first Museum of the Future experience was quite successful. Not only did people say they enjoyed it, but the design team did not have to provide laborious explanations of policy on AI and how preventative medicine in the public health care system might be implemented. People understood both the opportunities and challenges instantly and viscerally by interacting in the world of the story. One of the more surprising but powerful lessons was the importance of small design details, such as the small mirror plate which, when touched, glowed blue. The glow was a narrative device to help communicate the fact that the plate was not only a mirror but also a health-check device, demonstrating that in the future people would get a daily diagnosis from their AI doctor as they were going about their morning routines. This simple, physical act dramatised the concept of giving permission to share such sensitive data, prompting a deep dialogue among visitors about healthcare policy and data privacy. Numerous visitors asked whether their data was actually being scanned and, if so, where this information was going. Even though they were told it was not real, many visitors reported a sense of anxiety related to scanning and data gathering. This reaction highlights the power of an immersive approach which, in this case, helped Raford and his team to provoke an intense conversation among visitors about the positive potentials of such approaches and also the crucial social concerns they raise.

Raford thinks that the immersive futures approach is even more important in the present media communications climate. He observes that we are constantly assaulted by imagery and advertising in today's media-saturated age and it is often impossible to tell what is authentic or what is trying to influence us. Much of our experience is mediated by our mobile phones. As a result, a direct physical immersive experience, where important questions are implicit in the narrative, is a rare treat. This kind of fulfilling experience creates an exceptional opportunity to open a dialogue that people might otherwise be too cynical or anxious to engage with. He thinks that using the visitor's body in an exhibition in this way, calling on real-world experience to get people to interact, is quite uncommon. He sees it as a form of constructivist learning. For Raford, these environments are ways of interacting and creating our narrative of the world together through experience and discussion.

> The future is unmade. It is first a conversation about ourselves, today; what's possible, what we fear, what we desire, but we only can make the future by engaging with it.
>
> (Raford 2018)

The goal of the new, permanent Museum of the Future is to scale up the approach developed by Raford and his team to a full-time, constantly changing, massively immersive experience, in order to create a global conversation about the future and develop means to envision and test aspirational technologies and policies for the UAE Government.

Although clearly profoundly effective, there are some obstacles to using an immersive, experiential strategy, Raford observes. The scale has to be large enough that people can enter and move around it, which requires considerable resources to execute properly. The number of people you can reach is also smaller than the audience size of a movie release, for example. He and his team are currently experimenting with how they might use broadcast formats like film, virtual reality or games engines to offer a version of the Museum of the Future to a larger audience without them having to be physically present.

He suggests the current isolating quality of the virtual reality experience will soon be overcome in the transition towards social virtual reality. However, he suspects virtual reality will not replace immersive physical experiences. He thinks more experiences, such as escape rooms and other story-like games, will be developed. These games provide cognitive absorption and emotional and physical immersion, prompting participants to act and interact.

Overall, Raford believes immersive narrative environments are not only an effective way of creating remarkable experiences, but also activate visitors. He sees this as potent and timely given today's political context where so many of us, he says, feel anxious and disengaged, cut out of the halls of power, without agency to shape the unfolding of the world around us. He explains that the Museum of the Future aims to produce an environment where people can reacquire a sense of agency in their lives and become actively involved in affecting the future. They are not just learning about the future, as if it was already set in stone, but will be actively developing the potential to change the future through their behaviour. This message is supported by the larger activities of the Dubai Future Foundation, which is the parent company for the Museum of the Future and an important part of the Dubai government's policy and investment apparatus. The Dubai government is investing not just in an entertainment centre but also prototyping a more effective way of drawing people into vital conversations about their future in order to create better policy. Raford says the entire Future Foundation is therefore a kind of armature, taking conversations out of the museum and making them real in the world. This combination of powerful immersive experiences and action-oriented policy-making is unusual and Dubai is a key leader in this area.

Worldbuilding

This initiative in Dubai could be seen as an example of 'worldbuilding' (von Stackelberg and McDowell 2015). Worldbuilding, in this context, is understood as part of the process of writing novels, video-game development, role playing games and creating design fictions. It is also used in foresight scenario-building. The author or authorial team research and synthesise numerous factors to develop an imaginary world, sometimes a whole fictional universe. A coherent logic is developed encompassing spatial relationships and geographies; histories and social conventions; materials and technologies; economic, political and legal systems; and cultural conventions and metaphors. The logic is partly constructed through a collaborative sense-making process (Raltonen and Barth, 2005), whereby imaginary future worlds are developed by multidisciplinary teams examining, discussing and aligning past, present and future circumstances. Teams may consist

of designers, storytellers, scientists and technologists and experts in the humanities. The envisioned world is then populated by particular people or personas, that is, invented characters who are given individual traits that shape their needs, desires and behaviours. Personas are used as agents who further develop the constructed world through their behavioural repertoires. Worldbuilding can produce multiple layers of backstories that can be fleshed out and revised while developing specific characters, events and messages. The process provides a contextual framework that is rich in possibilities.

One of the pioneers in this field is Alex McDowell of the USC School of Cinematic Arts in Los Angeles who, in 2008, founded the World Building Institute. McDowell is renowned for the production design of films such as *The Crow* (1994), *Fight Club* (1999) and *Minority Report* (2002). McDowell (2016) explains that for *Minority Report*, Stephen Spielberg asked him to develop a fictional world without a script. This world needed to be a feasible future reality not a science fiction. It needed to be a world that people could recognise but that was clearly in the future. Linear narratives then emerged from the dramatic conflicts in that world. "World building is understanding the world deeply enough so that stories spring almost effortlessly from that base world" (McDowell 2016). He sees the base world as a horizontal slice into which storytellers can delve to query problems and create new stories. He emphasises that base worlds are highly volatile and complex and they can produce multiple narratives. For example, at the 2014 Science of Fiction Festival, run by the World Building Institute, 300 participants wrote 1,000 stories in 2.5 hours derived from a city called Rilao, set on a fictional archipelago in the Pacific Ocean, with aspects of both Los Angeles and Rio de Janeiro. It was used to imagine the impacts of a nation-wide plague and also new architectural approaches to the challenges of overpopulation. As well as narratives, Rilao was used to create future foods and to prototype future objects.

McDowell makes the point that worldbuilding can be used for developing linear film. However, it is also very appropriate for mixed reality and virtual reality worlds. In addition, it can be used for interactive games where multiple players take different trajectories, generating or experiencing different stories that emerge from the logic of the world. The important innovation is that these worlds can offer multiple non-linear story experiences and fully digital virtual worlds, such as McDowell's *Leviathan* project.

Films can impact the real world, for example, *Minority Report* generated more than 100 patents for new technologies based on those imagined in the film, such as gesture controls for computers and self-driving cars. However, McDowell thinks that worldbuilding may have more potential than film to impact the world directly, addressing such challenges as climate change and urbanisation. To substantiate this contention, he worked with the Al-Baydha Foundation to assist an impoverished Bedouin village in Saudi Arabia which was seeking to reverse desertification. Together with local residents, he and his team built a scenario of a possible future village. They developed a VR model of how they imagined sustainable architecture, sustainable agriculture and new irrigation systems would work. The government was persuaded to grant the land use by the arguments conveyed through the VR model. Observations derived from worldbuilding can identify problems and opportunities that might be missed by traditional top-down government-led or aid organisation-led initiatives. Immersive narrative environments, as well as being tangible places, can also be a powerful mode of argumentation. The tripartite model of the design of narrative environments can be seen as a rudimentary frame from which such worldbuilding can begin, gradually becoming more complex as the nodal points themselves become more detailed network models and new deictic centres for understanding the emerging worlds are established.

Fair Enough: The Russian Pavilion for the Venice Architecture Biennale 2014

International writer, curator and designer Brendan McGetrick has explored how irony can be deployed through immersive narrative environments, specifically in *Fair Enough*, an exhibition held in the Russian pavilion for the Venice Architecture Biennale 2014 which he co-curated with Anton Kalgaev and Dasha Paramonova. That year, architect Rem Koolhaas, the overall Biennale Director, challenged all the national pavilions to respond to a single concept. He argued that, over the course of the past century, 1914–2014, nationally distinct and recognisable architectural styles had turned into a generic, universal modernism, as demonstrated by, for example, the near indistinguishable character of the new business districts of London, New York, Shanghai and Moscow. Koolhaas sought responses to this premise by inviting each participating nation to tell the story of the last century of their architecture. McGetrick and his co-curators reflected that, although there was some truth to the assertion, distinct national architectural styles nevertheless persisted in Russia and elsewhere. Rather than using the exhibition to prove or disprove Koolhaas's claim, they decided to engage the architect's theory through the show's form. In order to provide a context for the past century of globalised modern architecture, McGetrick and his collaborators transformed the Russian national pavilion into a simulated trade fair where Russian architectural styles and concepts from the last 100 years were packaged, branded and sold as viable responses to contemporary desires and needs. Through its form as much as its content, the exhibition argued that the universal modern aesthetic that Koolhaas identified is enabled and disseminated through global commercial gatherings, especially expos and trade fairs (see Plates 7 and 8). It is at these events that the architectural standardisation in style, materials, business plans and engineering techniques is established and spread. The most influential architecture and engineering firms are now vast, multinational corporations so, for example, when a certain kind of curtain wall or technological break-through is developed, it is quickly disseminated across the world (Figure 7.1).

The curators designed their trade fair to be entirely believable. They took an earlier twentieth-century Venetian pavilion and put a drop ceiling into it and filled it with anonymous mass produced booths. They took 20 Russian architectural ideas from the last 100 years, updated them to show how they would be relevant to contemporary problems and then presented them as if they were for sale as products and services. Each idea had its own booth and corporate identity, making the exhibition also a commentary on the commercial language in which architecture and design are now most often expressed and advocated. The show was ironic or tongue-in-cheek but it was also sincere in that the curators selected the projects they thought had genuine value and identified problems that really mattered.

> Humour is a tool for delivering uncomfortable truths in an entertaining way and, especially at the event like an architecture biennale, a little bit of humour goes a very long way. So, I think you can and should be funny, but that only works if you're dead serious about your message and why it matters.
>
> (McGetrick 2018)

The show was not postmodernist cynicism. The curators believed that many Soviet architectural ideas remain valuable, even though they have been discarded. The initial architectural projects may have failed or been abandoned in the Soviet Union, but the

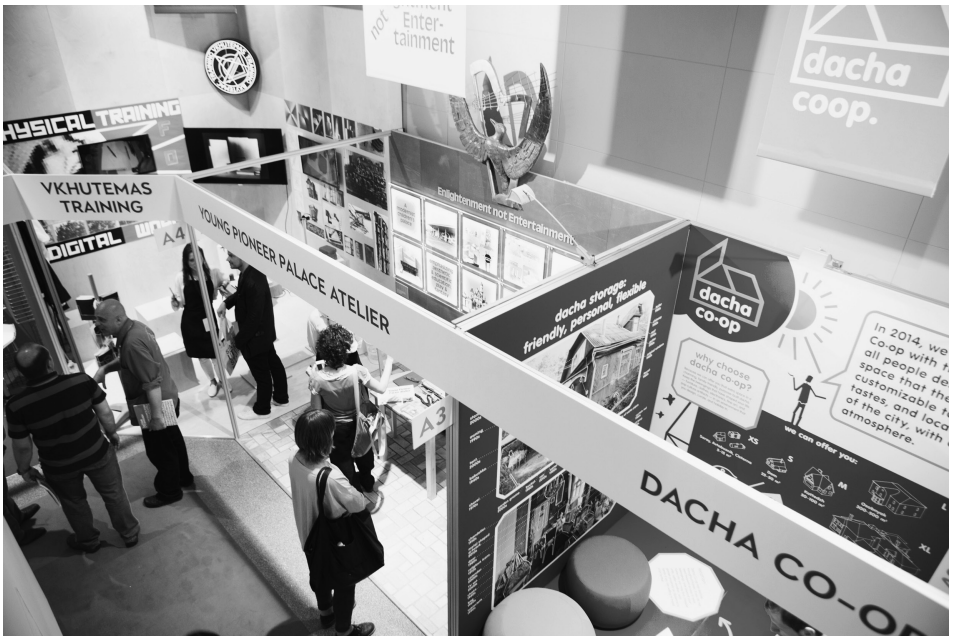

Figure 7.1 Russian pavilion opening, Venice Architecture Biennale, 2014.

curators wanted to show that the central impulse behind them remains valid and that they could have a new life. For example, communal apartments, designed right after the revolution by some of the most radical architects of the day, created prototypes of communal living, liberating women from having to cook, rethinking how family and interpersonal relationships could work. The curators took as their example the avant-garde, constructivist Narkomfin Building in Moscow, a revered project among modern architects that is now in a state of ruin. They proposed that it is still a radical design that can provide a model for some of the defining typologies of our time, including co-working and co-living spaces, experimental schools and even prisons.

The curators created original companies for all of these ideas. They invented names, slogans, merchandise and pamphlets, in order to deliver real architectural information. They gave the architecture a corporate language, making a comment on the commercial dimensions of architecture but also critiquing the Venice Biennale itself which puts on a veneer of sophistication but is, for many, a self-promotional event. McGetrick and his co-curators undertook a huge amount of research including numerous interviews with experts in order to develop the project concept and translate it into a corporate format. All the 'corporate' materials were distributed in the trade fair cubicles. At the opening, each cubicle was occupied by academics masquerading as sales people. They pretended, for example, to sell services such as El Lissitzky enterprises. They were, in fact, experts on those architectural styles who could answer visitors' questions in impressive depth. This was just one way of communicating the content. The curators installed multiple layers of communication. There were large signs for the most superficial engagement, slogans for one level lower, handouts and materials in the booths for next level down and finally the 'sales person' to facilitate conversation and debate at a deeper level. Many visitors

Figure 7.2 Communist architecture training booth, Russian pavilion, Venice Architecture Biennale, 2014.

took it to be a real trade fair. This may suggest that people, especially at that time, during the height of the Crimea invasion, had such an ungenerous opinion of Russia that they assumed the Russians had sold their pavilion to a commercial trade fair organisation. The fact that visitors believed that *Fair Enough* was a straight trade fair was borne out by, for example, the overwhelming, non-ironic response to one booth which masqueraded as a tourist agency, called Archipelago Tours. It appeared to offer world tours solely based on the works that Soviet architects built in places like Mongolia, Vietnam and Cuba. During the first week of the Biennale alone, the booth's 'sales rep' collected over 100 email addresses from people who wanted to go on these tours (Figure 7.2).

McGetrick describes *Fair Enough* as a totally immersive experience that delivered much more than a book or a website could, because it provided a fourth dimension in which visitors could actually enter and cultivate social interactions in the world of the story. It was a parallel universe, a complete, designed environment that was entirely geared towards communicating content and establishing a specific atmosphere in order to make a larger point about the state of Russian architecture and capitalism. "The project was played completely straight, never winking" (McGetrick 2018). Controversially, the curators even added hostesses in short skirts which offended some visitors but women dressed like this are typical of the Russian environment and the curators decided that they were needed for the complete veracity of their narrative environment. Some people were annoyed but McGetrick believes it is acceptable to be misunderstood as long as you are sure you have fulfilled your intentions. In this case, the curators' intention was

to provoke and to destabilise the narrative sustaining the Biennale's flattering self-image. In pursuit of this, they willingly accepted that visitors come with different needs and aspirations and they would not be able to please them all with the proposed deictic shift.

Edible Stories

Immersive narratives can also take the form of sensory leisure experiences, such as the dining events designed by Chloe Morris who founded Edible Stories in 2012 when she graduated from MA Narrative Environments at Central Saint Martins. Morris was interested in food, interiors and stories. She had a background in interior and product design and wanted to combine all her skills and interests. Over the years she has developed her design process but her starting points have remained the same. She either begins with a story and chooses an appropriate space or she finds an extraordinary space that evokes a story. She launched Edible Stories by developing self-generated projects. Then she found herself being commissioned by private clients who have personal stories or favourite childhood memories they wanted her to communicate through an event. She also went on to work with corporate clients to tell brand stories.

Morris (2019) lets the food do the telling. She says it is the way guests interact with the food, the way that it is served and the way they consume it that tells the story. As a creative director, her first step is to research and develop a conceptual framework for the menu. The menu then acts as the structure for the storytelling, the design of the space, the timing and choreography of the unfolding experience. Each dish evokes a story section. As part of her development process she maps the dishes and the anticipated guests' actions against the story content. She makes mood boards and sketches of the environment and, based on those, she identifies exactly what elements need to go into the space.

Sometimes she needs to do a significant amount of research to develop the story. In 2014, she was commissioned to design and produce a brand experience to promote a Guatemalan rum for the Ron Zacapa brand. The rum is particularly fragrant because it is infused with herbs. She researched the rum production process, the environment, the history of the area and the local culture. She discovered the production included infusing the rum with 23 different herbs and the stages of the rum production were undertaken at different elevations in the landscape. The different elevations provided the story structure and logic for the menu. She found a dish that related, for example, to the sugar cane fields 350 metres above sea level and another that related to the oak barrels 2,300 metres above sea level. She also discovered a local tradition in which people tell stories in the dark and that the stories were said to bring light. All these factors inspired her design.

For the event, each of the 30 guests was picked up in taxis from their workplace. They listened to Guatemalan music as they were driven to the event venue and were offered a small rum taster en route to relax them and orientate them to the evening. On arrival, they were blindfolded and led into a darkened, fresh smelling space infused with Guatemalan herbs. They did not know where they were, whether they were above ground or underground. The space was very raw with a simple curved brick ceiling and brick walls. It evoked a house in the clouds, a setting from a traditional Guatemalan story. There was one big dining table constructed from plain wood fencing with a massive centrepiece made of herbs, earth and beeswax candles from Guatemala. All the materials were natural and produced an earthy smell. On arrival, guests took off their blindfold and lit a beeswax candle. The lights turned on and the story began. Morris invented a ritual that would emphasise the herbs which were an important differentiating factor for that particular rum. The client was cautious about any negative connotations

associated with the idea of a ritual but Morris explained that if the guests performed an action they would have a heightened memory of the evening as part of a shared experience. So, before the first dish was served, a brand ambassador explained that this rum was unique because of the infusion process and the guests were each invited to pick up a different herb and simultaneously clap with the herbs in their hands. They filled the space with the smell of the herbs. Being natural smells, they did not linger but worked together and created a warming atmosphere. Morris also got guests to light hay on their plate to connect the story, the location, the smell, the action, the taste and the sight of the food. The brand ambassador came in at the end with a summary and closed the evening by taking the guests out to reveal where they were: in an arch under Putney Bridge, London (Figure 7.3).

For Morris, the setting can be very minimal. It is the taste, smell, sound, interaction and the sequence of the food that carries the story and can be more evocative than a complex visual stage set. In fact, she thinks the set can get in the way of people's imaginations. She pays careful attention to selecting the style and material of the cutlery and crockery appropriate to the story. She has experimented with cutlery. For example, she has served a cocktail in a plate rather than in a glass and provided paint brushes as cutlery in her '50 Shades of Grey' experience because paint brushes suggested experimenting and this was relevant to the story. She never makes it awkward for people by designing too many unexpected or unusual elements that can disorient and confuse them. She occasionally uses text clues, for example, in her 'Alice in Wonderland' experience guests were served edible white roses and red syrup. On the syrup bottle it said, "painting the roses red". She says people will talk to each other naturally throughout the evening, or after one or two glasses of wine, so there is little need to set up artificial prompts to

Figure 7.3 Guests being blindfolded, the Ron Zacapa Reserva Limitada dining experience, London, Chloe Morris, 2014.

interaction. She only uses games when they are appropriate to the story so, for example, when she produced a 'Matilda' experience, which was all about magic and a school environment, she provided chalk boards, scrabble letters, paper and crayons. The guests loved it; they made drawings of the characters, competed in making the longest possible word with the letters given and used the elements of décor such as ribbons in their hair, men and women alike. They became performers. She had not planned for this but she was pleased people had so much fun. She wants people to completely let go of their outside cares. She finds people want to learn all about the details of the back story and this creates added meaning to the experience and becomes part of the draw. Morris's work is sensory and celebratory. Although it does not appear to be overtly critical, it could be taken as a critique of the limited ocularcentric sensuality and narrow functionalism of many aspects of everyday life.

Virtual Reality and Immersion

In the early 1990s, transmedial narratologist Marie-Laure Ryan (2015) introduced the concept of immersion into literary studies by describing mental engagement in experiential virtual worlds, such as digital games, as equivalent to mental engagement in the actual world. Since the 1990s, VR has been gathering pace, driven by the games industry, which is striving to overcome the flatness of the screen and enable players to enter and inhabit virtual three-dimensional worlds. While some postmodern theorists, such as Jay Bolter (2001), critiqued the development of fictional VR worlds, arguing that naive visitors are reduced to passive consumers, nevertheless artists and designers have found ways to use VR to develop critical consciousness.

'We Live in an Ocean of Air' at the Saatchi Gallery, London, December 2018–May 2019, is an exemplary use of VR and narrative. It aims to raise consciousness about forms of reciprocity between human and plant life. It was designed by Marshmallow Laser Feast in collaboration with artists Natan Sinigaglia and Mileece I'Anson. Visitors wore VR headsets, clip-on heart-rate monitors, breath sensors and body tracking technology. The experience followed a narrative arc. Firstly, the visitors' breath was manifested as tiny, moving, coloured bubbles. Using data from the heart monitors, visitors appeared to see blood pumping through their hands. As a consequence, visitors could see others in the experience as a mass of moving dots so that they did not bump into each other. As they stepped forward, they were confronted by a giant life-size Sequoia tree which was also releasing bubbles, drawing a parallel between human and plant life (see Plate 9). Visitors, despite possibly experiencing a momentary hesitation, could walk through the bark into the tree's trunk. Rain then appeared to fall, which released upward energy streams, represented as rippling and intertwining coloured lines (see Plate 10). As people moved through the tree, they could interact with the energy streams, by making hand and body gestures, causing them to undulate and temporarily alter direction. As the experience continued, visitors appeared to float up the 30-storey-high tree.

There were ambient sounds and smells released into the space to increase the sense of total physical immersion. 'We Live in an Ocean of Air' combined photographic representations of the tree with graphic illustrations of the breath and energy streams. Marshmallow Laser Feast tends to apply a simple convention of first having a one-to-one familiar environment and then abstracting it. They have found, through iterative user tests and internal tests, that this sequence makes it easier for people to engage with the unfamiliar aspects of the experience (Figure 7.4).

Figure 7.4 Immersed in foliage, virtual reality encounter, *We Live in an Ocean of Air*, London, Marshmallow Laser Feast, 2019.

Robin McNicholas, one of the founders and the Director of Marshmallow Laser Feast, describes their work as XR, which, he explains, is variously interpreted as extended reality, experiential reality or expanded reality. They install their VR experiences in civic spaces, at festivals, such as the Sundance Festival, USA, and in art galleries and museums across the world. McNicholas (2019) thinks the emerging experiential sector is a convergent medium that uses multiple tools and skills. His background is in film, TV, live music and animation. The company has designers and technologists who share similar interests but they also invite collaboration from experts from such diverse fields as neuroscience to pastry cuisine.

Shared sensibilities within Marshmallow Laser Feast inspire their ongoing research and development through which they are seeking ways to redress the predominant gender bias towards male tech users. They repurpose tools, rebalance and apply ideas that they think are important, such as the wonderment of the natural world. They believe it is important to take a positive and celebratory angle and that overt political messaging about climate change does not get any traction. They want to embrace technology that attracts people who are curious, that engages young people and uncorks wonderment. They are exploring volumetric capture in virtual environments; they re-appropriate architectural tools to scan trees, forests and different foliage, working with developers to make quite sterile scans come to life in virtual space. In their project Sweet Dreams, designed for Sundance, they used live, processional theatre, food, drink, sensory floors and kinetic sets. They say they are mindful of narrative and see it as a huge challenge

in the experiential context where dialogue, for example, can conflict with experiential sensory elements. McNicholas explains that much of the time visitors are slightly disoriented. They need time to understand the novel bodily experience of VR. He says the human ability to adapt to other forms of experience is underexplored and the possibilities are very exciting.

Marshmallow Laser Feast describes their pieces as embodied learning. Their research revealed that visitors found 'We Live in an Ocean of Air' an enchanting and calming experience. McNicholas says everything they make aspires to induce a sense of genuine empathy for the environment in which people are immersed. He emphasises the importance of 'on-boarding', in other words, setting visitor expectations before they enter the VR environment. He says people can then explore for themselves, with comfort, confidence and curiosity. This empowers and encourages them to discover more. He reflects that,

> In the age of distraction, it's slightly ironic that you have to put VR goggles on to focus the audience's undivided attention.
>
> (McNicholas 2019)

In other words, people need to be completely removed from the world in order to attend fully to the world (Figure 7.5). The danger with VR, of which Marshmallow Laser Feast is fully aware, may be that it seeks to replace people's imaginary storyworlds, over-writing them with highly sophisticated and compelling technological scripts. The overwhelming novelty may also leave little room for users to reflect on the relationship between this technological construct and the world in which they live. VR can trigger a sense of the sublime or awe which is beyond words and at the limit of experience, a situation that people go in to and come out of without learning anything. At worst, VR can be a packaging of the sublime and, as such, a technological equivalent to a certain kind of unreflective tourism.

Figure 7.5 Virtual reality encounter with streams of energy, *We Live in an Ocean of Air*, London, Marshmallow Laser Feast, 2019.

The examples above show narrative environments are about the lifeworld, even if they appear to immerse people in an illusory world. Immersive narrative environments highlight aspects of the lifeworld which are often overlooked or unseen. Immersive narrative environments may be humorous, entertaining and pleasurable but they are not seeking to distract people from the lifeworld, as a kind of escapism, but to engage with the lifeworld more fully. Narrative environments set out to encourage people to think relationally not discretely or positivistically. In recognising the double directedness of narrative environments, realised through the deictic shift that relates an illusory world to the lifeworld, the oscillatory or in-between status of narrative environments becomes apparent. They are tangible places, part of the world around us, and simultaneously symbolic constructs which make arguments about the world around us. A narrative environment is materially constructed, physically there, which people accept, but it is also presenting a hypothesis with which people may or may not choose to engage. If they do engage, people may accept or reject the hypothesis. In engaging with the argument, people are drawn into critical reflection about their lifeworld. The examples above exhibit the relational thinking needed to understand narrative environments as networks. Networks, as Latour argues, are simultaneously real, narrated and collective (Latour 2005: 6). In the tripartite narrative environments model, the real maps onto the environment node, the narrated maps onto narrative node and the collective maps onto the people node. The advantage of the tripartite network is that it allows people gradually to become aware of the densely interwoven contextual relationships in which they are embedded and, as the example of 'We Live in an Ocean of Air' shows, this may be especially important as people re-configure their understanding of their inter-relationships with other species and their environmental dependencies.

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