

Art Is Magic

The Conjuring and Mediated Deception of *The Paradise Institute* and Binaural Walks

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Magic and art are products of human connection with the universe, offering answers to questions of meaning and working in interstices between fiction and reality. Magic can and does permeate all forms of media and is depicted as both entertaining and dangerous, as shaping world views, and as practised by a vast array of individuals and groups across cultures. Creative practices in cinema, radio, and installation art suggest that deceptive illusions created through magic techniques can be an effective means of creating compelling and engaging media experiences. It is not surprising, then, that in contemporary art forms involving mixed media and mixed (or augmented) reality the study of magic can offer valuable insights into how technologies mediate audience experiences and how artists can manipulate audience perceptions.

Despite art often being described as 'magical' (Jones; [Charlesworth](#)), there is limited scholarly research applying the philosophical and socio-cultural construct of magic to contemporary art, leaving much to explore with regard to the intersections between magic and art. Scholars and artists have instead preferred to draw from more established bodies of theory in theatre and performance studies (Laurel), cinema (Marsh), and narrative (Murray). This article hones in on that

intersection by applying the understudied principles and techniques of magicians to the interpretation and analysis of artworks by Canadian artists Janet Cardiff and George Bures Miller. Making 'magic' here is not about the supernatural but refers to the refined practice of 'doing tricks', developed over thousands of years across many cultures.

The aim of this article therefore is to introduce the reader to two interactive artworks through the lens of magic. Through these examples, we demonstrate the direct correlations between the principles of illusion in magic and media-based illusions in art, inviting the recognition of common ground between the equally niche spheres of magicians and contemporary artists.

Cardiff and Miller are a well-known contemporary artist duo whose work exemplifies trends in audio-based performance work (Collins) and site specificity (Ross). However, their work is not generally analysed through the lens of magic. Here, we focus on it as 'mixed reality' art, specifically 'augmented reality' (in contrast to augmented virtuality), a concept that was defined by Milgram and Kishino as any case in which an otherwise real environment is 'augmented' by means of virtual (computer graphic) objects. Since the introduction of these terms—'mixed reality' and 'augmented reality'—technologies have made many

leaps across innumerable modes of media. Yet their distinction remains useful to categorise artworks and describe any mixed reality approaches that work towards “the existence of a combined pair of a real and virtual space”. In augmented reality, while “the visual as the dominant mode of perception and integration of real and virtual space” (Strauss, Fleischmann et al.), sound can be used for sensory immersion, and to play tricks on the minds of audiences. These distinctions are often critical in discussions of art, especially when “illusion plays a crucial role as it makes permeable the perceptual limit between the represented objects and the material spaces we inhabit” (Avram). Mixed reality artworks often make unique combinations of audio-visual elements, and sometimes activate other senses such as tactile and olfactory. In these works, artists use illusion to connect the embodied experience of the audience members to the electronically mediated experience of their design, which brings us back to magic.

Introduction to Conjuring and Deception

It is worthwhile to briefly visit the key principles of magic that most clearly tie together conjuring and mixed reality artworks: framing context, consistency, continuity, conviction, justification, surprise, and

disguise. These principles are routinely used in combination by magicians to deceive audiences and are commonly referred to under the umbrella term of 'misdirection', defined as "that which directs the audience towards the effect and away from the method" (Lamont and Wiseman 3).

Conjuring consists of "creating illusions of the impossible" (Nelms), which are comprised of a method (how the trick is achieved) and an effect (what the audience perceives). The principles that form the foundation of conjuring are centred on the creation of illusions in a theatrical context, either on stage or via close-up magic. Think of the famous genius pair of stage magicians [Penn & Teller](#) and their blockbuster magic competition television series [Fool Us](#). Now research has revealed how these techniques can also be examined in a broader context than entertainment and across many scholarly disciplines. This research has occurred within the fields of cognitive science (Macknik et al.; Macknik & Martinez-Conde; Macknik, Martinez-Conde, et al.), psychology (Polidoro; Tatler and Kuhn) and interaction design (de Jongh Hepworth; Marchak; Tognazzini). These investigations demonstrate the significance and value of techniques drawn from conjuring across various fields. Indeed, as Macknik states, "there are specific cases in which the magician's intuitive knowledge is superior to that of the neuroscientist" (Macknik, Mac King, et al.).

A successful magic trick requires the audience to experience the effect while unaware of the method (Lamont and Wiseman). Examining the creation of illusions in terms of method and effect is not only applicable to conjuring but also resonates with other forms of media that rely on suspension of disbelief. For example, in the context of cinema, the audience should be engaged with the content on the screen rather than the presentation apparatus. In virtual environments, the aim of the developer is also generally to ensure that the user experiences the effect (immersion in the virtual world) while suppressing awareness of the medium (method).

In conjuring, many approaches to deception rely on indirect reinforcement in which a situation is implied rather than stated. When magician and theorist Dariel Fitzkee describes conjuring, he suggests that implication is effective because it "seems to the spectator to be a voluntary decision on his part, uninfluenced by the magician. It is also stronger because such conclusions, reached in this manner, do not seem to be of particular importance to the performer" (97). Both these elements significantly increase conviction, reduce suspicion and are very relevant to the technique of 'suspending disbelief' often applied to cinema. Through suggestion, the filmmakers ensured that viewers who themselves had previously constructed a false frame would readily interpret the

film document as authentic, so long as the experience did not drastically deviate from expectations.

This form of deception is evident in two works by Cardiff and Miller that rely primarily on sound in careful combination with visual and spatial elements to create ambiguous elements that can make the audience question what is real and virtual. *The Paradise Institute* (Cardiff and Miller) and *Walks* (Cardiff 1991–2006) utilise the process of binaural recording whereby two microphones are placed inside the ears of a dummy head to convey realistic spatial sound simulations via headphone playback. Next, we look at these artworks as a mode of conjuring taking up methods and desired effects of the art of magic.

The Paradise Institute

[*The Paradise Institute*](#) was originally produced for the 2001 Canadian Pavilion at the Venice Biennale. The work draws on the language and experience of cinema, creating a film-like experience using the illusory principles of magic. To experience the work, viewers approach a simple plywood pavilion, mount a set of stairs, and enter.

We first experienced *The Paradise Institute* at PS1 Gallery, New York in 2001. The first illusion in a series is that this tiny dimly lit interior, complete with red

carpet and two rows of velvet-covered seats, is an actual theatre. Once seated, we peer over the balcony onto a miniature replica of a grand old movie theatre created with techniques of hyper-perspective (accentuated depth and extreme angles as in a theatre set). Then we put on the headphones provided, and the projection begins.

Beyond the perceptual illusion of the theatre space itself, the primary illusionary device is sound design that combines audio from the fragmented narrative depicted on screen with simulated sounds from the theatre audience. This technique is analogous to offscreen sound in cinema (Davies). Several stories run simultaneously. There is the 'visual film' and its accompanying soundtrack; layered over this is the 'aural action' of a supposed audience. The film is a mix of genres: part noir, part thriller, part sci-fi, and part experimental. What is more particular about the installation is the personal binaural surround sound that every individual in the audience experiences through the headphones. The sense of isolation each person might feel is disrupted by intrusions seemingly coming from inside the theatre. A mobile phone belonging to a member of the audience rings. A close 'female friend' whispers intimately in your ear: "Did you check the stove before we left?" Fiction and reality become intermingled as absorption in the film is suspended, and other realities flow in.

Not knowing what to believe, you hear a collage of sounds from the soundtrack of the film you are watching, as well as from people sitting beside you. Was that really a cell phone? At one point the characters you have watched on the screen are talking behind you. (Christov-Bakargiev and Cardiff 151)

The multi-layered acoustic space combines chattering and rustling from the virtual audience members seated around you, characters from the film that are sporadically transported to the objective position of the audience, all co-existing with the soundtrack of the film itself. This complex layering of sound, combined with the live ambience, creates a mixed reality environment in which the various virtual elements constantly intrude upon the audience's perception of reality. The artists conjure an audience and theatre which are not in fact there, but the illusion is so seamless, that your perception combines reality and mediated experience.

One of the principles of effective illusions within magic is the capacity to reduce suspicion during the presentation. The work effectively achieves this through a variety of methods. The most compelling aspects of the deception are the intimate conversations and incidental sounds created by the virtual audience

members, particularly those seated behind you (as the source cannot be immediately verified). You cannot see, feel, smell, or touch other audience members, but you can hear them. The content is perceived as familiar (therefore suspicion regarding its veracity is reduced), and even within the hyper-real context of the microcinema, irresistibly compelling. The mechanics of the work effectively support the illusion.

The installation provides a controlled acoustic space, and volume levels can be precisely adjusted. The layered sound design further assists in masking deficiencies in the technical process in much the same manner as the use of atmospheres and music in a film soundtrack. These characteristics assist in establishing a palpable simulation of acoustic reality. In *The Paradise Institute*, rather than place the audience in a passive position in relation to their work, Cardiff and Miller use spatial sound as a means of active engagement: “I want people to be inside the filmic experience... I want the pieces to be disconcerting in several ways so that the audience can’t just forget about their bodies for the duration of their involvement, like we do in film” (Beil and Mari 78).

Walks

Janet Cardiff and George Bures Miller designed [24 audio and video walks](#) between 1996 and 2019. Like

magicians executing conjuring tricks, the artists use the affordances of electronic media to reveal an alternate reality. The walks, like conjuring tricks, manipulate your perceptions of reality through illusion. The walks are between five minutes and one hour long.

As the artists write on their [Website](#),

the audio playback is layered with various background sounds all recorded in binaural audio which gives the feeling that those recorded sounds are present in the actual environment. In a video walk, viewers are provided with a video screen which they use to follow a film recorded in the past along the same route they are traversing in the present. Also using binaural microphones and edited to create a sense of continuous motion, the fictional world of the film blends seamlessly with the reality of the architecture and body in motion. The perceptive confusion is deepened by the dream-like narrative elements that occur in the pre-recorded film.

Audience members are given a listening device and headphones at the beginning of the walk, similar to the experience of using an audio guide in a museum. At a

predefined location, the audience member presses play and is guided by Cardiff's voice narrating events that occur along a route through the physical environment. Instructions are integrated within a narrative soundscape that shapes the audiences' perceptions of their immediate environment. The importance of this hybrid reality is highlighted by Cardiff's own description of the work: "the sound of my footsteps, traffic, birds, and miscellaneous sound effects that have been pre-recorded on the same site as they are being heard The virtual recorded soundscape has to mimic the real physical one in order to create a new world as a seamless combination of the two" (Cardiff and Miller).

All the walks are recorded as a spatially encoded binaural soundscape, created using microphones fitted to both ears of a mannequin. The intent is that the recording perfectly replicates the sensation of listening with two human ears. Listening back through headphones, the recording feels as 'live' as possible.

During playback, the audience experiences the illusion of being in the same room as Cardiff's voice and other sounds in the recording. They perceive a realistic multi-layered sonic environment comprised of the actual acoustic space they inhabit (via aural transparency of the headphones), artefacts from the same environment at a prior time, and narration

provided by Cardiff's voice, all interwoven with creative sound design. Unlike *The Paradise Institute*, audience members can adjust the playback level, and hence, the mix between the real and virtual elements. In other words, they may be able to hear the sound of their own footsteps or breathing in combination with the designed soundscape.

Due to the intimate nature of the binaural recordings (and the timbre of Cardiff's voice), the audience has the impression that Cardiff is present, an invisible co-traveller on the journey. The walks are successful magic tricks not only because of the perceptual realism of the sonic environments they represent but also because they are narrative-driven, propelling the audience through unknown spaces and stories. The audience, on the one hand, exists in a fictional world, while on the other hand they are placed in a paradoxical position of being at times uncertain if the sound they heard was present in physical reality or was a simulation.

Discussion: Reframing Fiction as Fact in an Act of Magic

These works indicate how the mechanics of the illusion (in this instance, spatial sound and visual trickery)

combined with plausible virtual elements can effectively reframe an experience from a fictional simulation to fact. Even if the experience is clearly framed as fiction, the appropriate use of mechanics can present stimuli that are so compellingly real that they disrupt, even if momentarily, the way the audience interprets a mediated experience, whether it is constructed as a set (in the case of *The Paradise Institute*) or a streetscape (in the Walks).

The conjuring trick at work here, as with *The Paradise Institute*, is multisensory reinforcement, “the way in which a spectator’s belief about specific matters central to the effect are reinforced” (Lamont and Wiseman 69). The audience’s suspicion may be reduced if each modality works in unison to advance the illusion. For instance, the visual representation of a virtual character is reinforced by corresponding sound, and their actions are further indicated via mechanical devices in physical space. Scholars argue that the more sensory inputs in the mediated experience, the higher the degree of perceptual realism, so long as “the information from various sources is globally consistent” (Christou and Parker 53). This is because “senses do not just provide information but also serve to confirm the ‘perceptions’ of other senses” (England 168). Multisensory integration occurs innately within the individual, and, as Macknik suggests, it “is an ongoing and dynamic property of your brain that

occurs outside conscious awareness” (Macknik, Martinez-Conde, et al. 104).

The multimodal nature of mixed reality experiences like Cardiff and Miller’s walks provide an example of magic applied in art. Audience members’ eyes and ears are activated, convincing their brains that fiction is reality.

To be clear, the artworks discussed here are technically elegant but not overly complex or dependent on technology. This is consistent with magic acts whereby sometimes a deck of cards and a small table are the only props. In conjuring, for the most part, magicians rely on “little technology more complex than a rubber band, a square of black fabric or length of thread” (Steinmeyer 7). Identifying how the adaptability of magic can also be applied to media arts is integral to understanding its power. Effects of illusion can be achieved with relatively simple methods, such as binaural recording or hyper-perspective (not to undermine the skill in such acts of magic). As with a magician’s sleight-of-hand techniques (think of a playing card being perfectly hidden up a sleeve), an accomplished media artist also needs to use techniques of illusion flawlessly. In other words, rather than being device-centric, the principles of misdirection can be applied to suit a specific purpose but must be done skilfully. This is the very reason that Cardiff and

Miller's conjuring strategies are highly adaptive and highly successful.

Conclusion: When Art Is Magic, We Are All Deceived

What do these examples of magic in mixed reality artworks indicate? The works discussed draw from vast lineages of creative practice, including radio, cinema, installation, and locative media. They demonstrate that applying principles of magic to the design of artworks can create convincing mediated deceptions.

They also demonstrate direct correlations between the principles of illusion in magic and media-based illusions in art. Even when an event is framed as fiction, the mechanics of the illusion could make the audience believe in an alternate reality, the very foundation of magic.

Just as in conjuring, Cardiff and Miller's tricks transform an experience into an illusion via elements of showmanship such as drama and atmosphere. In art, however, unlike a conventional magic trick, there is no climactic flurry in which the alternate reality is revealed, such as pulling a rabbit out of a seemingly empty hat. Instead, if the works succeed, the illusion is sustained and virtual characters and spaces are no

longer perceived as a simulation, thus bridging reality and virtuality. Janet Cardiff is walking with you, or you are sitting in a cinema.

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