Abstract

Digitizing a film-reel’s content renders it down into code, lacking any sense of physical structure or duration. This paper investigates the shifting perceptual parameters that occur when the spaces and times of cinema are digitally reinterpreted within gallery settings. This will be discussed in reference to my installation work that creates alternative rhythms and viewpoints, allowing a reinterpretation of how films are perceived, navigated and inhabited. Stillness and motion twist and distort around each other in these works, desynchronising precisely aligned boundaries, revealing underlying qualities hidden at the edges, or below the surface of film narratives. Paradoxically, the ability to alter the flow and framing of old movies allows the filmstrip’s intricate fragmentation to surface in ghostly forms observable from perspectives unattainable to original cinema audiences. Film has always been a hybrid amalgam of ill-fitting technologies, blended together by kinetic motion and stabilized by fixed screens, my research seeks to alter these relationships to reveal new spaces.

Keywords

Analogue, Digital, Screens, Installations

BREACHING BOUNDARIES: EXPLORING THE DISJOINTED SPACES BETWEEN ANALOGUE FILMS AND THEIR DIGITAL ‘GHOSTS’.

By way of introducing the themes of this paper, I’d first discuss a work produced over twenty years ago that first brought my attention to the complex spaces created when merging together media with differing temporal qualities. This project involved searching the streets for scraps of abandoned audiotape, which were then photographed where found, before being spliced onto a new tape to discover their content. The intention here was to display the photographs alongside the audio recordings, but this plan initially failed because the fixed materiality of the photographic surface acted as a barrier to the ephemeral and immaterial flow of the music, thus breaking the connection between sound and image.
After some experimentation, I discovered that stereoscopic transparencies set on lightboxes helped to dissolve the photographic surface, and when the music was played through headphones it appeared to escape the tape’s decaying form, floating through the voids of the stereoscopic image and hovering above the media that once contained them. This suggested a form of ‘out of body’ experience that both revealed and removed the physical base of the photographs and tape. This self-reflexive space of interaction and interrogation allowed viewers to shift between awareness of and surrender to the work’s illusory qualities.

Fig.1

Rather than creating motion through the linear progress of several thousand still frames, just two frames were required here to create an overlapping perceptual feedback, leading to a vertical dive into the depths of the frame. The recorded music floated and looped through the planar layers of this space, creating a form of suspended, rather than frozen time, where past present and future appeared to merge, creating new ways of seeing and hearing.

This phantom world also created a somewhat melancholy aspect to the work. These audio recordings often contained love songs, collective memories and emotions, which when rescued from the abandoned and increasingly obsolete tape led to a consideration of modern media’s ability to hold on to and let go of the past, and how this influences a viewer’s sense of subjective self in relation to what is remembered or forgotten. Not only was this a zone of negotiation and exchange between different media, this was also a human space of reflection where memories, desires and fears could reconnect, taking on new meanings.

This gap between two stereoscopic images is a zone of spatial and temporal reorientation, a slight shift in perspective between two records of the past that fleetingly merge within the present moment of the viewer’s binocular vision. Film contains thousands of these temporal and spatial shifts, enabling the animation in the present of frozen documents from the past, pulling them into the flow of the viewer’s time. In cinema it is the screen’s stable containment of the film frame, along with a coherent narrative arc and synchronised audio-track that hides the fragmented energy underlying this uncanny explosion of the past into the present.

For this paper I’ll show how my practice brings together technologies with different durational qualities to open up new ways of considering the relationship between still and moving imagery, but I’ll start by discussing some examples of film scenes that combine
alternative forms of representation to open up new spaces of reflection for film characters and viewers.

The merger of stereoscopic and cinematic space occurs in a scene from Terrence Malick’s *Badlands* (1973) where, during a lull in their killing spree, the two lead characters enter a brief state of innocence. Holly (Sissy Spacek) looks at some of her (recently murdered) father’s stereoscopic photographs, and as she enters these spatial representations of the world, formed by the overlapping still images, her voiceover reflects on her childhood, her present situation and potential future. Film viewers cannot see the spatial illusion within which Holly is suspended, but as she begins her contemplations the camera slowly zooms in to fully occupy the stereoscopic space. This vertical motion creates a shift away from the film’s linear trajectory, and when combined with Holly’s disembodied narrative, a bridge is formed between these media as she shapes the random photographs into an alternative introspective space, floating between her memories of the past and wishes for the future.

Just as Holly’s vision overlaps two stereoscopic images, cinema and photography also overlay and reinterpret each other, creating a window into another world that offers the space and time to reconsider one’s own interpretation of memories and desires. New technologies can help reveal hidden aspects of older media, but this scene, along with others mentioned in this paper implies that such reinterpretation also allows a reconfiguration of what we choose to remember and forget. How we interpret our past present and future can be realigning by these new distorted viewpoints, shifting the filters that help us develop a sense of self, revealing gaps and potential chasms in our connection to the world.

The placement of two mirrors in a famous scene from *Citizen Kane* creates a similar shift from the horizontal to the vertical, or rather a merger and distortion of the two. These two reflective surfaces overlay each other endlessly, creating a similar vertical space to that found in stereoscopic images. The camera’s horizontal pan slows and stops, sucking Kane’s forward motion into the void created by the mirror’s visual feedback. Kane’s endlessly reflected figure, appears to sleepwalk across this reflected abyss, leaving the viewer staring into a void that suggests the stripping away of the illusory world that Kane/Welles have created, briefly revealing an underlying emptiness and separation from the lived world.

Hitchcock’s *Vertigo* is filled with similar twisting, dizzying voids inhabiting the gaps between buildings or the central depths of a spiral staircase. In these scenes the lead character Scottie (like Kane) is trapped in limbo between architectural spaces, their filmic
representation and his own traumatized viewpoint. Space becomes a projection of the subject, and in this context film reveals what J.P Tellote, when discussing the representational spaces of animation refers to in terms of “Space as something that was no longer objective, firm, and easily measurable, but phantom, constantly mutating...warped”. (Tellote 2010, 83)

Hitchcock offers viewers an insight into Scottie’s world by using opposing camera movements that mutate the relationship between foreground and background. Dolly zooms (where the camera moves forward while the lens zooms back) are used to make backdrops loom forward, then recede back. In Vertigo’s famous kiss sequence the back-projection spins in the opposite direction to the camera motion, allowing the vertical pull of the past to distort the film’s linear trajectory, as the hotel room spiralling around them transforms into the space of Madeline’s supposed death.

In one repeated scene within Vertigo the entire film appears to spiral on its axis, creating an intriguing relationship between a still image, a loop, and film’s linear trajectory. I only became aware of this repeated scene when flicking through a DVD of Vertigo and realized that two consecutive ‘chapters’ began with this same establishing shot, filmed at the same angle, yet at different times of the year. A still shot reveals the depths of a cloister, with arches that resemble an angled filmstrip receding into the distance. The camera then loops ninety degrees on its axis, shifting the viewer’s gaze into one of the ‘frames’ of the arches, reintroducing them to the present moment of the film. In this shift we briefly glimpse an alternate timescale, shared by the ancient cloistered space, the looping camera and the changing seasons briefly glimpsed in the gaps between the arches.

These looping shots repeat themselves with slight variations (the first shot takes place on a bright summer’s day, while the second version shows a wintery scene), this ties in with themes of deep time, spiraling up from the past to infect the present. Between these clips Madeline has supposedly fallen to her death. The viewer is therefore returned to a space transformed by death’s shadow. Yet this inexact repetition suggests an imperfect overlaying of space and time, a desynchronization that creates room for uncertainty, questioning the veracity of Madeline’s death and Scottie’s understanding of it. There is an inference that this death is doomed to happen again, in a slightly different form, further down the film’s twisting timeline.
Viewers are offered a sideways glimpse into an alternate space and time, existing beyond the edges of the film narrative, yet subtly distorting the storyline with its unseen gravitational force, creating a void into which Scottie, at first unknowingly, but then willingly, is pulled.

This interplay between awareness of and surrender to illusory spaces is perfectly illustrated in a scene from *Letter from an Unknown Woman* (Max Ophuls, 1948) when a couple take a fairground ride in which a looping painted panoramic backdrop, powered behind the scenes by an old man on a bike, ruptures the film’s realism. The couple appear to accept and tentatively inhabit this jarring gap between worlds, knowingly incorporating it into their disjointed relationship, itself a balancing act between memory, fantasy and reality that they must negotiate.

Laura Mulvey discusses these fragmented cinematic spaces revealed through obsolete special effects: "*This paradoxical, impossible space, detached from either an approximation to reality or the verisimilitude of fiction, allows the audience to see the dream space of the cinema.*" (Mulvey 2007, 3)

So far I’ve discussed the vertiginous distortion of the film space within the screen. I’d now like to discuss some examples of my practice-led research that use digital media and installations to shift and warp the relationship between film worlds and the spaces where they are displayed. Once digitally transferred, film’s linear flow can be skipped, replayed, or frozen at the press of a button, subjecting carefully constructed worlds to new and random viewing patterns. The structural boundaries holding films together are exposed, revealing fragmented recordings with gaps hidden at the edges, or below the surface flow of film narratives, the installations I create help to accentuate these ill-fitting layers.

In “We’ll Revisit the scenes of our Youth” (2003) I added a third layer of representation to the train scene from *Letter from an Unknown Woman* by digitally freezing the foreground figures in relation to the painted backdrop. The overlapping of pre-cinematic, cinematic, and digital layers of representation opens a form of mis-en-abyme within which visual technologies from three centuries interact, revealing their illusory qualities and structural boundaries. The woman’s reflection and the man’s cigarette smoke appear to hover beyond their frozen forms, bridging the gap between stillness and motion in a similar manner to the music floating through the stereoscopic images in *Memory Tapes*.
In traditional cinema the screen’s fixed boundaries help to anchor film’s kinetic, fragmented representation of space and motion. The screen demarcates film space from viewing space, offering the illusion of a window into the depths of a stable contained world. It also provides the motionless viewer with a fixed viewpoint, allows them to position themselves subjectively within the film. Analogue films that have been transferred to digital formats can be shifted and distorted in ways that alter this fixed alignment between film, screen and viewer. These shifts in perspective can open up new spaces of reflection, offering glimpses of film’s underlying structure, or at least its ghostly digital representation. My practice forces onscreen figures to negotiate these new hybrid temporalities. Though of course these figures are themselves automatons, caught in an uneasy existence between mechanical and digital motion. An element of my work looks into finding new ways of revealing the underlying energy of media motion that is disguised as human motion within film. By looping and freezing film clips, human motion takes on the repetitive and fragmented qualities of analogue and digital film. Subjects lose the illusion of their free will, trapped within their represented image.

With the installations *Cataract* (2013) and *Dune* (2012) curved screens seem to be distorted by the flowing form of a waterfall and sand dune, while the projections appear to be weighed down by the materiality of the screens. The onscreen figures, trapped between these physical and immaterial distortions, are cut off from their original film narratives. Like Sisyphean ghosts they forlornly attempt to escape a never ending and looped present, but are held back by these forces that suspend them between the film and gallery space. The short loops of the films perfectly match the curved structures they are projected onto, yet despite this precise framing, rather than enfolding the viewer within their imagery, they fold in on themselves.

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1 *Dune* uses a scene from *Woman in the Dunes* (Hiroshi Teshigahara, 1964) while *Cataract*, an installation created by cutting into and pulling out a section of a screen, shows Buster Keaton dangling from a waterfall in *Our Hospitality* (1923)
blocking the viewer out while also trapping the struggling figures within their boundaries. These works become self-contained, durational objects within a gallery setting, separated from film’s linear progress.

The screens and their content both seem to be warped by separate forces acting on them: the linear (industrial) transportation of multiple projected frames across a screen and the internal (digital) transformation of imagery within a single frame. This distortion concentrates the films down into hybrid looping forms caught between the point of a single frame and the linear trajectory of film. The figures occupy a durational trap that does not allow them to recede into the past (like a still image) or to move forward into the future of the film narrative. They struggle endlessly within a perpetual and traumatic present where their actions dissipate into a kinetic motion lacking any subjectivity; no longer subjects within a film, they are now subject to it within a new hybrid form.

A similar state of limbo is created in *Intermission* (2012). Here a running figure is trapped on a staircase caught between human, mechanical and eternal timescales. This work features a scene from *A Matter of Life and Death* (Pressburger & Powell, 1946) in which the lead character Peter (David Niven) runs down an escalator ascending from Earth to Heaven that symbolizes the gulf between the inner workings of his traumatised mind and the physical world. Within the original film narrative, Peter makes it back to his mortal existence, but in *Intermission* the projected stairs have been folded up along with a physical screen to form a looped and fragmented surface within which he is suspended.

Fig 5

By running against the escalator’s flow, Peter believes he has defied his celestially pre-ordained death, but this also suggests he has run back through film time, returning to his former life through a section of the filmstrip that has already passed through the projector. Clearly this is an illusion, all narratives are yoked to film’s structure and therefore have pre-ordained endings, but the idea of this character being able to slip through the gaps between film frames has a self-reflexive quality rarely seen in the cinema of this era. By digitally altering this scene it is film itself that becomes caught in a state of suspended animation between physical obsolescence and a digital afterlife. The cinematic metaphor of the screen as a perspectival frame is distorted and folded in on itself to remove the single-point perspective
of the staircase leading up towards heaven, or down towards the world. All sense of linear trajectory is lost, along with any clear distinction between material and illusory presence.

In “That’s all…” (2004) a clip from In the Heat of the Night (Jewison 1967) shows a frozen figure who’s voice is captured by a spinning tape recorder occupying the same screen. A tape operator on the lower screen (Gene Hackman in The Conversation, Coppola 1974) works frantically to find a point of reference to the seemingly (yet impossibly) frozen voice that the tape has captured issuing from the inanimate figure.

Fig 6

The tape operator attempts to restore a filmic order to the scene by trying to break up the sound and move it along, to give it a narrative structure. As with my earlier stereoscopic work, sound bridges the split screens, but it is also used to bridge the different spaces that are represented within the frames. The lower screen contains an unaltered film scene, while the upper screen is a hybrid, made up of a digitally altered analogue recording. Like the smoke and reflections shown in earlier examples, sound drifts between and unsettles these worlds.

Shadows are another ephemeral form used in a number of my installations. In “Light That Goes..Light That Returns” (2012) stillness and motion fold together as an endlessly swinging lightbulb casts shifting shadows that reanimate a frozen figure. (Eddie Constantine in Alphaville, Godard 1965). This endless loop, anathema to narrative cinema, shows both too much, and too little. Viewers can contemplated this suspended scene at their leisure, taking in details normally hidden within filmic motion. Yet, with time condensed down to the lightbulb's loop, the scene and viewer are cut off from the film’s past and future storyline. The tension between stillness and motion that underlies all celluloid cinema is focused on here. The onscreen image appears to buckle under forced inertia as it tries to move forward. The figure’s shadow in particular appears to strain and distort, trying to pull away from the frozen form it is attached to.

Fig. 7
This effect bleeds over the freestanding screen’s boundaries and into the gallery space. On the wall behind, the screen’s shadow itself sways in time with the bulb represented on its surface. This seemingly impossible effect is created by the projected image over-spilling the screen and forming a digitally animated shadow on the wall behind, which then blends with and obscures the screen’s actual shadow.

Fig. 8

This impossible shadow both highlights and subverts the screen’s physical presence within the gallery. The screen is shown to be a physical object occupying the same space and time as the gallery viewer, while the shadow also implies that the screen (and the viewer) occupy the same illusory space and time as the film.

Shadows also play a role in 24 Times (2013), a large-scale installation made up of twenty-four monitors arranged in a circle playing the same footage with a one-frame delay between each adjacent screen. Hundreds of appropriated film-clips showing characters taking photographs are edited together at the moment the camera flash obliterates the more sensitive 35mm filmstock. A pulse of light circles the installation, endlessly clearing the way for new scenes.

Fig 9

This flash relates to the capturing of a photographic instant, the digital synchronisation of the screens mimics the mechanical energy that sets these frozen images into motion, hurling them into the present moment of the viewer. The spacing of the monitors suggests a substitution for the filmstrip’s lost material presence, while the circular installation implies that these film clips, separated from their original timelines are now caught in an endless loop, a hybrid and distorted duration, caught between filmic, photographic and digital temporalities. 24 Times therefore reflects on the individual elements underlying cinematic motion, while also revealing new configurations between sound, image and motion.

By spreading motion out in this way, the kinetic energy of film is no longer contained by a single screen. The viewer’s gaze is now pulled (by the pulse of light) horizontally across the installation, creating a space of attention and distraction where the filmic illusions of motion and depth are dispersed. This shift between attention and distraction resembles the effect of
the pre-cinematic Zoetrope. Like the images in this device, each of the monitors became part of the installation’s rhythmic patterns as a whole, but are also in a perpetual state of flux within themselves. Viewers can attempt to immerse themselves within the illusory depths of a single screen, or they can step back to take in the installation as a whole, becoming aware of the discrete quality of the still frames from which film motion is composed. Viewers within the space are themselves caught up in this shift, as the recorded light of the camera flashes send their shadows spinning across the gallery walls like a primitive form of animation.

Finally, I’d like to come full circle by discussing Bridge (2013) a stereoscopic work produced during my practice-led PhD. Unlike traditional stereoscopic images the adjacent frames in this work contain moving imagery, and are recordings separated by roughly 40 years. The left frame shows a clip from Get Carter (Hodges 1971) with Michael Caine running across Newcastle’s High Level Bridge. To the right is the same view, but taken with a digital video camera in 2011.

19th Century industrial inventions: the iron bridge, the railway, the stereoscope, photography and film are merged within the diegetic space of a 20th century film and the digital documentation of that location in the 21st Century. This creates the illusion of a space filled with disjointed overlaps and fragmented voids into which the past and present are folded and reconfigured, and through which ephemeral, ghostly figures float.

As with the film clips discussed in this paper, this video creates a space of distorted feedback, with visual orientation caught between the horizontal and vertical axis. The view between the pillars shows the bridge spanning a river, yet the camera angle also suggests a tunnel cutting through time. The bridge’s beginning and end are blocked from sight by the structure’s curve, giving the impression of an endless loop. The two films that overlap within the viewer’s perception are of different lengths, therefore the audio-visual action taking place within the bridge’s structure never exactly repeats, creating an infinitely variable loop.

Fig. 10

The two representations of the bridge form a unified three-dimensional space, yet, as with the repeated establishing shots in Vertigo, distinct differences exist within this hybrid form: pillar bolts are missing from the older bridge, while in the more recent representation a tree has grown in the spaces between its structure. When the bridge is viewed as a stereo image these
discrepancies become transparent, hovering in the voids between the images planar voids. Gateshead car park (which gained iconic status through its appearance in Get Carter) is visible through the pillars of the film bridge, but is absent from the digital bridge, having been pulled down shortly before the video was shot. When the two scenes are overlayed in the viewer’s perception the car-park seems to exist in a distant, spectral world.

This endlessly looping stereoscopic video, in which fragments of the recorded past and viewed present fold into each other, is a suitable conclusion to this paper.

**Conclusion**

Through practice-led research I have used digital software and installation spaces to shift and distort the traditional structures of film. Digitally transferred versions of analogue cinema offer a unique opportunity to view past recordings in a new light. Films can now be broken down and studied in-depth by cinephiles, read frame by frame by theorists, or skipped through by an impatient viewer. In all these cases the carefully constructed flow of a film’s timeline is drastically altered.

The intention of my work is not to discover clearly defined objective truths about what cinema is or was; I don’t believe films can be grasped fully in this way. By utilising software and installation techniques I explore the relationship between film’s rigid structure and the contingent, chaotic qualities caught between visibility and invisibility that film partially and unintentionally captures within and between its frames.

Viewing patterns have altered dramatically in recent years; audiences no longer sit motionless in front of one screen, attention is now diffused across multiple surfaces, spaces and fragmented timelines. My work examines these rhythms of absorption and distraction, attempting to find a shifting balance between passive consumption of illusory imagery and active contemplation of the medium underlying that illusion.
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