Physical Cinema: some history, and recent practice

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Abstract
In The Man with the Movie Camera released in 1929, Dziga Vertov set out to establish an approach to cinema based on a complete separation from the language of literature and theater. His film, like that of Walter Ruttman's film Berlin (1927), was set in the streets and environments of the modern industrial and cosmopolitan city. "..today, the media artist can craft physical cinema that takes place on the streets of the city." (Shapins 2011)

Physical theatre, Live Art and Cinema have through performer and filmmaker established a vigorous practice in recent years, challenging the confines of traditional artforms, including the documents pioneered by Vertov. Contemporary practitioners have come together with audiences to create between them a physical cinema converging as a series of spatial modes.

This paper will outline some developments in this interdisciplinary field. Recent work in interaction design applies research approaches developed in the social sciences to understand better the audience experience of physical cinema. From mobile screens and projectors that emphasis the cerebral experience of narrative encountered in the external settings of urban public spaces; to temporary projection surfaces and rigged light devices providing audience experience of the interior / exterior of place, activated through mobility within and around a specific locality. As a form of promenade theatre, new technologies extend qualities and range of audience experience through touch screen and sensing systems. Accessing motion picture collections and augmenting performance as an extended practice, form the core of the investigations.

Introduction

The traditional notion of a physical cinema is rooted in the representation of the physics of time and space. The pre-histories of cinema are rich in descriptions of the contraptions, halls and performances within which the audiences were immersed into the uncanny and the fantastic. (Grau, 2003; Herbert, 2000; Cubitt, 2004; Hecht, 1993; Punt, 2000)

The move to motion pictures at the turn of the 19th Century was far less of a commotion than that suggested by the tale of the train arriving at La Gare Ciotat, an early record made by the Lumiere brothers (Lumiere, 1895). Transported through the medium of motion pictures, audiences in those early days had become used to the railway (and the photographic mediums) as a dynamic way of influencing their personal relationships to space and movement through it in time.

Noel Burch when writing about early Japanese cinema emphasised the carnival like atmosphere of the early screening spaces with *bensai* and showmen, jostling the crowds to attend the novelty of moving pictures (Burch, 1979). Bensai were the narrators and interpolators of the new audience experience.
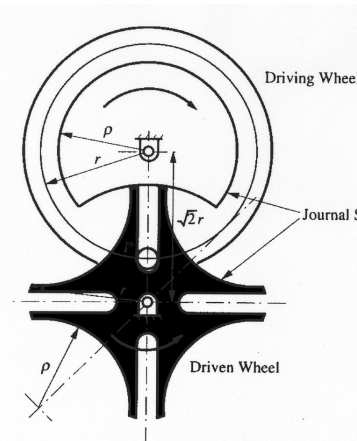

Fig 1: left, '*bensai*'; right, a Maltese Cross intermittent mechanism.

Since those days the mechanisms of cinema have only recently changed from a cyclical motion measuring transparent material held briefly in a stream of light and reflected from a screen (Fig 1, right), to light thrown from a matrix of independently controlled cells of light, spread evenly across an LCD, LED or DMD screen. The physics is of a different kind and the programmatics of what is seen and heard lies within a different domain of contemporary audience experience.

In the early 20th Century the railways were central initially to the ability of the Bolshevik's to extend the revolution across the Czarist Russian empire, and thereafter the soviet organisation of government. Filmmakers were veterans of the Civil War when newsreels, that most physical of the cinematographers practice, played a central role in keeping both the central committees and to a

lesser extent, the metropolitan audiences, informed about the skirmishes occurring across Russia's vast expanses. Following Lenin's specific directives agit-prop trains and boats crewed with activists, commissars, technicians and instructors (Fig 2), employed filmmakers such as Eisenstein and Kuleshov in support of their objectives.

Fig 2: an 'agit-prop' train carriage, exterior. The interior would contain a cinema, accommodation for the crew and sometimes facilities for processing film.

Moving the cinema to the audience was novel enough but as Jay Leyda points out Lenin also pioneered audience studies. He gave directives to the filmmakers; "Draw attention to the necessity for a careful *selection* of motion picture films and a calculation of the action of each film on the audience during its projection" (Leyda, 1973) 148. Sarah Sparkes and Andrew Cooper (Cooper & Sparkes, 2008), continue a tradition today of recreating the kino-trains in the art gallery. In the 1990s whenthe Museum of the Moving Image in London was opened, actors engaged visitors in a physical simulation of an agit-prop train.

Dziga Vertov survived this period as a cameraman and in 1922 published his 'Down with Fiction Film' statement. Together with the Kino-Eye collective of *kinoc* fellow filmmakers an approach to cinema was pursued based on a complete separation from the language of literature and theatre. The Man with the Movie Camera released in 1929, made with his brother, (Fig 3), the cameraman becomes in the film :"…an heroic participant in the currents of Soviet life" (Leyda, 1973) 251, set in the streets and institutions of the modern industrial and cosmopolitan city.

Fig 3; the Kaufman brothers: left, Mikhail, right, David Arkadevich (who became Dziga Vertov.)

If the contemporary city is jaded by the inconsequential fast-cutting of television commercials and music videos, Man with the Movie Camera confronts today's audience because, like a ride on a roller-coaster, (which it also features), it is not the *individual* being sold or sold to, but the *collective* presence and identity being affirmed. Fleshed out with convivial encounters with the citizens of the new Russia going about their day, and a few jokey asides to lighten the (re)mix, the didactic objective is palpable, becoming the model for the documentary aesthetic internationally from that point onwards.

The practical aspects of communication through film, radio and print feature throughout, addressed to the urban proletariat; as Roberts points out, it "..is a film about links and 'connections'; but the countryside is missing." (Roberts, 2006) 59. Experimenting with the form of the 'fact-film' using scant resources, they produced documents based on six distinct stages of 'montage', prior to, during and after shooting film. Vertov saw himself as an 'author-supervisor, or composer', the films being distributed by their group, KultKino (Leyda, 1973) 177-178. This collective approach to filmmaking has been adopted by various groups across the globe since then; as the contemporary writer Lev Manovich has observed: Vertov's "..project is a brave attempt at an empirical epistemology that has but one tool – perception." (Manovich, 2001) 240.

Fig 4: the organisation of the shot material in the editing room by Vertov's wife, Elizaveta Svilova, forms part of the action of the film. Comparisons are often made with the contemporary computer database.

Manovich has described the film as having three texts; that of the whole film, and two metatexts: the cameraman shooting the film and its assembly in the editing room (Fig 4); and the audience watching its projection in a cinema (Manovich, 2001) 241. The communication devices and technologies depicted in the film are not only photographic evidence of the new media but through ambivalent depiction, link the process of making-meaning through viewing film imagery with the reflexive potential of each individual in the audience to probe the visual representations.

This approach is quite unlike Walter Ruttman's film Berlin – Symphony of a Great City (1927). While both works employ the novel technique of montage construction to engineer an effect in the audiences' mind, one use of this is observational and unengaged, the other didactic, provoking connections and exploring forms of post-photographic visual communication rarely used to that point in time.

Fig 5: the dancing dolls sequence in Berlin – Symphony of a Great City.

An article in a Soviet writers journal at the time observed that the social significance of the film Berlin was reduced through its lack of passion.

> "On the other hand, with the help of skilful montage, Vertov shows his attitude to life every minute; he stirs us with the emotion and joy, the heroism and routine of Soviet labour. And the viewer senses this is not some dispassionate *flaneur*, but an artist, who himself lives through these events and forces the viewer to do the same." (Felman, 2004 / 1928) 385.

However, both their films challenged in different ways the dominance of mass-appeal moving pictures that as early as the 1920s had established the cult of celebrity based around the actors, their bodies and their private lives. Describing the phenomena as the 'culture industries', Adorno and others characterised cinema of the time as servicing the breakdown of civil society following the horrors of the World War, and imposing trivial distraction on a passive and malleable audience (Brooker & Jermyn, 2003) 7.

The cinema as architecture is the location of this effectiveness, a stadium where the dynamics of manipulated acetate can occur, where the individual

surrenders to a state of suspended disbelief. It is a space in which time is finite but the experience is indefinite, reverberating long after the direct experience itself.

Moving on to more recent times, to the cosmopolitan movie and the arthouse cinema, consolidation occurred around the cult of the author and the critic, who, like some practitioners, choose to conceal the technological seams holding the cinematic illusion in place. The cinema effect thereby, as Cubitt has observed, "...is entirely true to the shifting nature of the commodity relation in which it is no longer producers' labour, but consumers' attention that is bought and sold." (Cubitt, 2004)10, by which I take him to mean that promotional budgets used in all manner of ways and channels take precedence over the extravagantly funded productions themselves; it is the *place* to be, in the foyer of the cinema, both before and after the screening. His discussion of Lumiere's early films (36) recalls the experiments undertaken by a group of artists filmmakers with whom I was associated in the late 1960s and into the 1970s.

It is difficult to convey how only forty years ago there was little access for anyone but those working in the film or television industries to any kind of moving picture technology. Video had not arrived, and 8mm film was a middle-class domestic indulgence. At the London Filmmakers Co–op in the 1970s, we became mechanics and chemists and set up printing and processing machines for 16mm film (Fig 6), adjacent to a cinema space and a distribution office; integrated practice was how we described what is now called interdisciplinary arts practice.
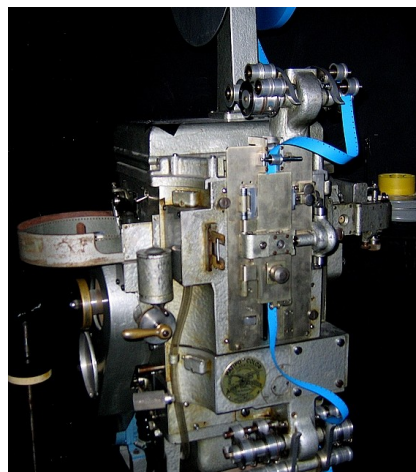

Fig 6: Debrie-Matipo contact step printer (Courtesy of no.w.here, London)

The abstract and avant-garde cinema of the 1920s was revisited – minimal camera use, exploring the possibilities of structuring the experience of cinema as phenomena: printer and looping; tri-packing and masking; multi-layering and control of transparency (this was pre-Photoshop and Final Cut Pro); mixing primary light in the emulsion using multiple exposures of the print stock; etc.

Using the printer for instance, I was able to duplicate a fragment of 16mm

time–lapse film (Fig 7) many times over by simply looping the original film footage in the machine. A body of work emerged exploring these kinematic principles, the fundamentals of cinema, focussed on material presence and structuring processes (Legrice, 1977). The experience for the viewing participant as part of the process was, and remains, attentive, self–reflexive and closely perceptual.
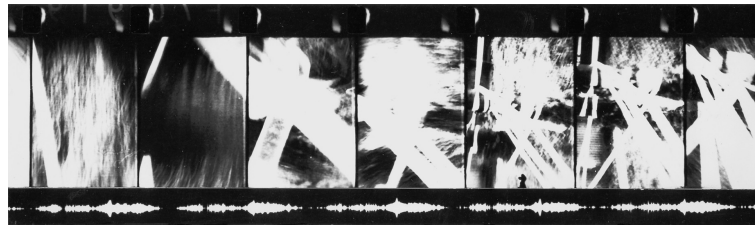

Fig 7: Shepherd's Bush (Leggett, 1971); filmstrip detail, soundtrack at bottom of illustration.

Expanded cinema brought audience, projectors and screens into close proximity; performance and what is now called Live Art in conjunction with visual artist as performer, camera operator as performer, as projectionist, as filmmaker, and later as digital artist. In 2003 the reconstructed fragments of film and sound used in the series of Unword performances (Breakwell & Leggett, 1969-71) were acquired by the Henry Moore Institute collection as their first moving image installation – performance into sculpture (Fig 8).
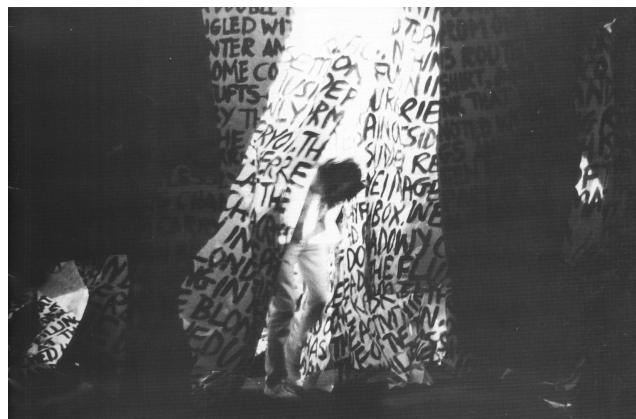

Fig 8: Unword (Breakwell & Leggett, 1969-71), performance photographic documentation.

Cyclical motion, the mechanical basis of converting the linear filmstrip into a durational element through the device of the Maltese Cross, became incorporated into many of the works. Brunel (1981) was an interdisciplinary theatre based project on the engineering adventures of Isambard Kingdom Brunel (Downie, Leggett, & al, 1981). The idea 19th Century cultural acceleration, of speed and train transport, was conveyed as a projected film; the image of movement through the landscape was made visible with the film material itself being visibly entrained through a sequence of electronically synchronised 16mm projectors (Fig 9).

Fig 9: Brunel (Downie, et al., 1981): six electronically linked 16mm projectors with a single roll of film beginning on the far side and taking up on the near side (at right of picture).

Throwing light onto a sequence of screens arranged horizontally above the performance area, the single roll of film commencing stage right to stage left. Shot in slightly slowed motion the film progressed through the projectors and across the screen, the images as they appeared to the audience's left became more and more rapid in movement until at the end of the scene, the moving images disappeared as flickering ciphers stage left (Fig 10).

Fig 10: Brunel (Downie, et al., 1981): six projected moving images above the proscenium performance area.

The gradual rewiring of acetate into the digital production chain initially gave opportunities for extending the cinematic illusions still further through the affordances of computer generated imagery (CGI). However, unlike the effects created by Hollywood, collaborations between artists and technologists concentrated on augmenting the place of performance. Proscenium theatre and film to Web archive; a little later, another collaboration, promenade theatre, computer generated text and video.

In A History of Airports (Downie & Leggett, 1983) promenading through a large shed-like space, the audience though not participants, were at liberty to determine those parts of the action with which they engaged. By removing

themselves to another part of the performance space the transition from moment to moment of the performances becomes a tangible act of agency. The documentation of the event though partial is extensible as media into the present era in digital video and Web archive form.

Fig 11: Ten Thousand Waves multi-screen installation, Biennale of Sydney.

Ten Thousand Waves by Isaac Julien (Julien, 2010), seen at the Biennale of Sydney in 2010, provided audiences with a similar degree of autonomy, choosing where to stand or sit and in which direction to place their gaze (Fig 11). The sudden duplication of an image behind another encouraged the viewer to redirect their gaze to the alignment of screens, either by a turn of the head or a shift of position in the space. Interaction is conditional on engaging with the internationalist themes of the narrative, tightly controlled in the structuring of the work and, like Hollywood's product, imported into a suitably equipped venue. Using a hard disc array delivering perfectly synchronised sound and image across nine screens, the cinema system ran all day, every day for the three months of the Biennale, switching on at the beginning of the day, switching off at the end.

Physical cinema as promenade theatre is developed in my recent work with Alan Schacher at Critical Path, the choreographic research centre in Sydney. The interdisciplinary collaboration (Schacher & Leggett, 2010) between a filmmaker and a Live Art artist and performer, a sound composer, other performers and an audience investigated 'the multiplication of space and presence to generate looped choreography–image systems". (Fig. 12)

Fig 12: CP Lightways (Schacher & Leggett, 2010), The Drill Hall, Rushcutters Bay, Sydney; projection installation and performance.

The location itself, a heritage building, is the place and substance of audience experience, augmented by projected and performed interventions into the buildings fabric and its human context. In all of these collaborative interdisciplinary works there are moments where for the viewer, the moving image is tenuous and seemingly fragile. There is a breaking down in the moving image's connection with a visual world that we can comfortably recognise. Jesse Shapins affirms in a recent book; "The shift enabled by new media, in particular the internet, mobile devices and wireless technologies, is the ability to literally transform the lived experience of the city into an active read/write database ....today, the media artist can craft physical cinema that takes place on the streets of the city"(Shapins, 2011). 'Taking place' means the act of participation, whether initiator or participant.

Fig 13: 'schroedingers' (James, 2011) movie for mobile phone.

For instance, the miniature works for mobile device made by the Sydney artist, Sam James are short poetic statements that like a book, can be opened at any moment in any place, to augment the passage of time.

When the context is provided, as in Isaac Julien's work, the narrative of oppressed people plays out before us. Throughout 2011 we have become

familiar with receiving moving images from the streets of the Arab world; moving in the sense that they were shot on mobile phones, but emphatically moving in the sense that we were encouraged to believe we were witnessing the transitioning of a group of nations into another stage of social and political development (Fig 14).

Fig 14: Syrian Revolution (waelhomsi1, 2011) YouTube movie from mobile phone.

This is a physical cinematic practice in contrast to what has been discussed so far, based on the physicality of place and the dynamics of context, the tumble of events far from the planned situations encountered in the art gallery, festival and cinematheque.

To haul these images into another but related context, the performers and activities develop as a series of durational and movement elements, approaching Deleuze's discussions of Cinema and the terms movement–image and time–image. The first term is the series of actions that relay the intent of the narrative – gatherings of people in public places to express the opposition of the governed to the governors. The second term can be applied to the fragments of moving image recording the events with mobile phone; the brevity of the images, the indistinct appearance and the media who convey them locally and to the world repeatedly for each and every News update. Though these time–images are different from the kind Deleuze described as existing in art house cinema, for the protagonists, the *indexical* moment of confrontation is relived each time they are seen again in the present. For the watching world the images are *icons* to a state of revolt. These moving images grabbed and relayed by mobile phone move rapidly between function and use; as Deleuze suggested, "A flickering brain, which re–links or creates loops – this is cinema" (Deleuze, 1985).

Conclusion
Developments in the interdisciplinary fields of art, science and technology have sought aesthetic change over the previous forty years, not only the last decade. From mobile screens and projectors that emphasis the cerebral experience of narrative encountered in the external settings of urban public spaces; to temporary projection surfaces and rigged light devices providing audience experience of the interior / exterior of place, activated through

mobility within and around a specific locality. As a form of promenade theatre, new technologies have extended qualities and the range of audience experiences through touch screen and sensing systems. Accessing motion picture collections and augmenting performance as an extended practice, form the core of these experimental investigations.

To end where I began with Ruttman and Vertov, the physical cinema they pioneered by taking the camera out of the studio and into the streets, creating distinctive moving image forms that remain today the mainstay of television and cable media – the news(reel) and the doc(umentary). The materials they crafted are now freely available as downloadable digital files, motion picture data that can be manipulated almost effortlessly without moving from your laptop in living rooms, lecture theatre, or street. The rewire aesthetic of the digital generations – such as *drakirr,* the alias for Richard Topgaard on Vimeo – physically manipulates the two 1920s filmmakers, cutting their work together against a contemporary soundtrack by The Dresden Dolls, a Boston cabaret band: the Sheep Song (Topgaard), 2009).

Physical cinema moves from the street, into the Cloud.

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