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ARTÍCULO**NEW MEDIA, ART-SCIENCE AND CONTEMPORARY ART:
TOWARDS A HYBRID DISCOURSE?****Reassembling Components, Hybridizing
the Human and the Machine:
Cross-disciplining Expanded Cinema
and the Possibilities for a Discourse
of Interfacing****Ji-hoon Kim**

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Abstract

Since the beginning of the 21st century, Expanded Cinema, a term meant to encompass various non-normative practices of cinema spanning from the mid-1960s to the mid-1970s – multi-screen projections, film/video performances, live projection events, installations, intermedia environments, electronic/computer film – has been given dramatically growing attention both by institutions shaping discourses and exhibitions concerned with new media art and by museums for supporting and developing mainstream contemporary art scenes. While commonly shedding new light on those practices that had long been heterogeneous and thus marginal in the histories of cinema and contemporary art, these two worlds have seemed to spiral closely around each other without ever quite meeting, therefore deepening the schism between two tendencies of Expanded Cinema: the avant-garde cinema and the digitally driven cinematic experimentations. In order to overcome this schism, this paper throws new light on similarities shared by those two tendencies, as the groundwork for a hybrid discourse that offers insights into the impure and dynamic ontology of cinema and the cross-disciplinary approaches to art that have questioned the idea of medium specificity. Here the discourse I propose for elaborating on the commensurability between – and the intersection of – the two tendencies while maintaining their differences is one of “interfacing” that is grounded in two overlapping meanings: interfacing (implying both deconstruction and reassembling) material,

technical, and aesthetic components of mediums or media technologies that were perceived as separate, and interfacing (or hybridizing) the human and the machine for the sake of investigating and incorporating the idea of the “active spectator” that fundamentally called into question the subjectivity of spectatorship framed by the apparatus as the techno-institutional-discursive complex constituting the limits of arts including cinema. For substantiating the “discourse of interfacing” applied to both tendencies of Expanded Cinema, I will briefly compare two British avant-garde filmmakers (Steve Farrer and Lis Rhodes) with a couple of digital media artists (Simon Penny and Ryoji Ikeda) in terms of their explorations of the particular devices, such as panoramic projection space and synthetic audiovisual projection, which bring into play the phenomenological interaction between image and spectator.

Keywords

expanded cinema, interfacing, active spectator, apparatus, avant-garde cinema, digital art

Reensamblar componentes, hibridar lo humano y la máquina: cine expandido interdisciplinario y las posibilidades de un discurso de las interfaces

Resumen

Desde que comenzó el siglo *xxi*, el cine expandido, un concepto pensado para abarcar diversas prácticas cinematográficas desde mediados de la década de 1960 hasta mediados de la siguiente –proyecciones multipantalla, performances registradas en cine y vídeo, eventos con proyecciones en directo, instalaciones, entornos donde se combinan distintos medios o cine electrónico o informático–, ha recibido una atención creciente tanto por parte de las instituciones que elaboran discursos y exposiciones dedicadas al arte de los nuevos medios como por parte de museos que apoyan y desarrollan la escena del arte contemporáneo mayoritario. Aunque ya es habitual que den un nuevo enfoque de estas prácticas, consideradas durante mucho tiempo heterogéneas y por lo tanto marginales en las historias del cine y del arte contemporáneo, los mundos del arte de los nuevos medios y del arte contemporáneo mayoritario parecen dar vueltas muy cerca el uno del otro sin llegar a encontrarse, acrecentándose así la escisión entre dos tendencias del cine expandido: el cine de vanguardia y las experimentaciones cinematográficas impulsadas por la tecnología digital. Para superar esta escisión, este artículo ofrece nuevas reflexiones sobre las similitudes que comparten esas dos tendencias como planteamiento para un discurso híbrido que revela la ontología impura y dinámica del cine y los enfoques multidisciplinares artísticos que han cuestionado la idea de especificidad del medio. El discurso que propongo para justificar la conmensurabilidad entre –y la intersección de– las dos tendencias al tiempo que mantienen sus diferencias es el de la «interfaz», basada en dos significados superpuestos. Uno entiende la interfaz como la deconstrucción y el reensamblaje de componentes materiales, técnicos y estéticos de medios o tecnologías de medios que antes se percibían por separado. El otro entiende la interfaz como la hibridación de lo humano y la máquina para investigar e incorporar la idea de «espectador activo», que cuestionaba la subjetividad de su experiencia, marcada por el aparato como complejo tecno-institucional-discursivo que determina los límites artísticos, incluidos los del cine. Para legitimar el «discurso de las interfaces» aplicado a ambas tendencias del cine expandido, compararé brevemente a dos cineastas británicos de vanguardia (Steve Farrer y Lis Rhodes) con un par de artistas de los medios digitales (Simon Penny y Ryoji Ikeda) respecto a cómo exploraron recursos concretos, como el espacio de proyección panorámica y la proyección audiovisual sintética, que conjugan la interacción fenomenológica entre imagen y espectador.

Palabras clave

cine expandido, interfaz, espectador activo, aparato, cine de vanguardia, arte digital

During the last decade, attention to expanded cinema of the 1960s and 70s has grown dramatically both by institutions concerned with new media art (NMA), and by museums concerned with mainstream contemporary art (MCA). While commonly highlighting those practices that had long been marginal in the histories of cinema and contemporary art, these two worlds have resembled – to use Anthony McCall's words – “Crick and Watson's double helix, spiraling closely around one another without ever quite meeting” (McCall, quoted from Iles *et al.*, 2003, p. 7). This gap between two art worlds relates to different categories of the exhibitions dedicated to expanded cinema. One type of exhibitions were held by several MCA museums in North America and Europe, including *Into the Light: The Projected Image in American Art 1964-1977* (Whitney Museum, New York, 2001), *X-Screen: Film Installations and Actions in the 1960s and 1970s* (MUMOK, Vienna, 2003-2004), and *Expanded Cinema: Activating the Space of Perception* (Tate Modern, London, 2009). These events highlighted filmmakers who had been labeled as *US/UK/Austrian avant-garde* (Sitney, 2002; Rees, 2008; Halle *et al.*, 2008) in the history of experimental cinema, as well as the artists who have made works in film or video but designed primarily for gallery exhibition since the advent of Minimalism and Conceptual art, eg, Dan Graham, Bruce Nauman and Richard Serra. In privileging these two categories of expanded cinema, the exhibitions excluded a third category, namely, diverse currents of «digitally expanded cinema» (Shaw, 2002), which can be interpreted as the heirs to Gene Youngblood's seminal definition of expanded cinema as “art-as-technology” (Youngblood, 1970). Such work has been a mainstay of exhibitions at NMA festivals such as *Ars Electronica* (Linz) and *Transmediale* (Berlin), and was featured by ZKM Center for Art and Media, Karlsruhe, in its landmark exhibition, *Future Cinema*, 2003, resulting in an extensive, scholarly volume (Shaw *et al.*, 2003). These three bodies of expanded cinema reflect the different ways in which institutions champion, discipline and historicize the extreme diversity and heterogeneity of non-conventional film and video.

Admittedly, these three bodies of expanded cinema differ with respect to their contexts of production, distribution, exhibition and underlying conception of medium and aesthetic goals. They were derived from different “modes of film practices” (Walley, 2008). For instance, filmmakers such as Paul Sharits, McCall and Takahiko Iimura elaborated on film installations beyond the standardized formation of the cinematic apparatus, which is composed of the single-screen, the immediate positioning of the viewer in front of the screen, the viewer's sedentariness and the concealment of the projector as the originator of spectacles. They foregrounded the three-dimensional space and materiality of Minimalist sculpture, channeling it into the exploration of cinema's spatial parameters and material components in a theatrical context. Their avant-garde expanded cinema works contrast with the “artists film and video” (Walley, 2008; Connolly, 2010) installations of Nauman, Graham, and more recently, Douglas Gordon, Stan Douglas and others, whose modes of production and

distribution often focus on using cinema to reflect on the concerns of painting, sculpture, or performance art. This distinction may run the risk of blocking the possibilities for a hybrid discourse that offers insights into the intersection of art, science, and technology, and for a more diverse and robust historiography of the systems of art that have envisioned the hybridization of humans and machines since the wake of the post-industrial society.

To overcome this schism, I will analyze two expanded cinema works produced in the domain of British avant-garde cinema and compare them with two interactive digital installations categorized as “digitally expanded cinema” using a refreshed understanding of the term *interface*. Chiefly triggered by the increasing dominance of media studies, the term denotes the boundaries between components of a machine or between humans and machines. In the first sense, *interface* entails the encounter and exchange between elements constituting a medium, or between two or more distinct media components. In the second sense, it points to complex layers of sensory, perceptual and psychological behaviours that act upon and are acted upon by the media. Viewed together, both meanings embedded in the term *interface* underline more than the constitutive heterogeneity and plurality of a technological media; more significantly, they imply that neither a medium as such, nor its effects on the user, are reduced to the total sum of its separate elements. Interface, then, draws us towards an array of relational aspects that stitch those elements together and thereby forge a circuit of intersection between the user and the artwork. Joanna Drucker (2011) neatly summarizes the two dimensions of “interfacing” or “interfaciality”, the interfacing between heterogeneous elements constituting the operation of media, and the interfacing between the operative media and the viewer/user, as follows: “Interface [...] has to be theorized as an environment in which *varied behaviors* of embodied and situated persons will *be enabled differently according to its many affordances*” (p. 12, emphasis added).

These two dimensions of interfacing are not exclusively applied to a field of computational design known as HCI (Human-Computer Interface), or to the artworks and artifacts based on computer-based hardware and software. Drucker's definition of the interface indeed echoes the concept of the cinematic apparatus, which was developed by a major thread of film theory developed in the 1970s and early 80s, later known as the “apparatus theory.” According to such leading theorists as Jean-Louis Baudry (1986a, 1986b), Christian Metz (1982) and Stephen Heath (1981), the cinematic apparatus is not a transparent and reified technology, but a multifaceted construct in which its viewer's particular system of identification with the look of the camera and the film image is determined culturally and ideologically by the material and symbolic relations between its components: that is, both the movie theater's arrangement of its elements (the viewer's fixed seating in front of the screen, the projection of the image onto the screen as the central point of perspective and the theatre's darkened environment) and the system of continuity editing contribute to the

construction of the idealist spectator whose unified and disembodied viewpoint is positioned as the center of the film's illusory spectacle in passive and regressive ways. On Heath's account, this all-perceiving subject appears inasmuch as "the specificity of the specific codes can be seen to be connected with certain traits of *a matter of expression or the combination of matters*, derives from the particular nature of the technico-sensorial unity" (Heath, 1981, p. 223, emphasis added).

Heath envisaged "new cinemas" as ways of deconstructing the "technico-sensorial unity" of the dominant cinematic apparatus, and of the transcendental subject it mentally produces, through the "redistribution in specific conjunctures of the operation of cinema, the redeployments of limits" (Heath, 1981, p. 243-44). The strategies of avant-garde cinema in the 1970s and 80s, including the British structural/materialist film lead by Malcolm Le Grice and Peter Gidal, aimed at "redistributing" or "redeploying" the material components of the dominant cinematic apparatus in order for the viewer to be conscious both of the material processes of film production and of his viewing practice (Gidal, 1976). The British "expanded cinema" experiments altered the viewing situation of the dominant cinematic apparatus through the devices of multi-screen and multi-projection, often coupled with the installation of the equipments inside the gallery walls for the spectator's perambulatory, multi-perspectival viewing. In doing so, they invoked "film as a counter-illusory event that takes place in the real time of the spectator" (Rees, 2009, p. 63). The experiments' underlying spectatorship resembles Maurice Merleau-Ponty's notion of a primordial subjectivity that has relation with the world in its embodied, material perception (Merleau-Ponty, 1962). Although both the "apparatus theory" and the discourses of structural/materialist film did not delve into phenomenology (and instead depended upon psychoanalytic concepts such as suture and identification), their common emphasis on the conscious subject who is attentive to his act of perception *vis-à-vis* the operation of the cinematic apparatus, brings to the fore the inseparability of the viewer's vision from his body and his corporeal immersion in his changing environment (Iles, 2001). These two phenomenological precepts have actually been what various new media art experiments have undertaken through developing different viewing interfaces than the screen interface of previous media, including multi-screen, multi-projection and immersive ones (Hansen, 2004, 2006). Based on this correspondence, I will demonstrate how the two dimensions of *interfacing* are at play in both the avant-garde mode and digital modes of expanded cinema practice. My conclusion suggests how these correspondences contribute to a renewed understanding of the concept of *apparatus* in hybrid manner.

Recently installed at the Tate Modern's Expanded Cinema exhibition, Steve Farrer's *The Machine* (1978-88) consists of a camera that can rotate 360 degrees and functions simultaneously as a projector that throws a series of images onto the circular screen surrounding it. As the camera-cum-projector spins around the screen, the images are perceived as the movement of a number of figures, ranging from a

human body to a bird to a sexual behaviour, during the six minute sequence. Farrer's projection system recalls nineteenth century panoramas in terms of the screen's engulfing of the viewer within its stream of images. At the same time, the generation of movement is grounded in the looping of a set of images, which dates back to the nineteenth-century optical toys (for instance, Phenakistiscope, Zoetrope and Praxinoscope) that prefigured cinema. For these two reasons, *The Machine* is interesting in terms of its media-archaeological reference. But more importantly, this work is not ensconced within the convention of panoramic interface that immerses the viewer in the flow of visual stimuli. Instead, the continuously moving camera-projector prevents the viewer from being immersed in the image space, as it undermines a stable perceptual identification with the image. The turn of the projector defies any totalized control of the image from the viewer's side, thereby drawing their attention to their own acts of perception such as moving about the screen, in contrast to other moving image installations whose engulfing interface does "not seek to increase perceptual awareness of the body but rather to *reduce* it" (Bishop, 2005, p. 11). Through his embodied involvement in the decentralized rotation of the camera-projector, the viewer is then able to be conscious of the two "interfacial" aspects of the cinematic apparatus: first, the heterogeneity and specificity of each of its components (the camera, the image and the projector), which is made visible by Farrer's transformation and recombination of them; and second, the degree to which they are organically aligned in its dominant mode to produce its perceptual and psychic subject effect.

With respect to contemporary digital parallels, Farrer's *The Machine* is closer to Simon Penny's *Fugitive* series (*Fugitive*, 1996-97; *Fugitive 2*, 2004) than other immersive panoramic installations, such as Jeffrey Shaw's *Place-Ruhr* (2000) or Maurice Benayoun's *World Skin* (1997). Like Farrer, Penny capitalizes on the circular panoramic screen and the self-rotating projection interface in order to "undo cinema" (Penny, 2004). Here the computer-based projector rotation is comparable with the rotating camera-projector in Farrer's *The Machine*, since the image presented by the projector is aligned with the position of the camera that responds to the viewer's behavior. However, in Penny's automated system, the image ultimately eludes our visual control, thus demonstrating that our immediate visual experience does not conform to a disembodied, continuous, stable visual field. Following the logic of Mark B.N. Hansen, the phenomenological assumption of the relation between the body and its surrounding space serves as a connective tissue between these two works, despite differences in modes of production and contexts of reception (Hansen, 2006, pp. 53-66). Similarly, Penny's observations on his *Fugitive* series can be applied equally to Farrer's non-conventional projection system: "The illusion is broken by the ongoing dynamics of the user. The central continuity of conventional virtual worlds is the stability of the virtual architecture. In *Fugitive*, the central continuity is that of the users' embodied temporality" (Penny, 2004).

Along with Farrar, the Tate Modern's exhibition spotlighted Lis Rhodes' *Light Music* (1975). This film employs two projectors that throw light simultaneously across a room filled with smoke. Here the spectator's single viewpoint established by the standard theatrical setting is disrupted, and the beams dissecting the room are equally important as the imagery – patterns of black-and-white bars of varying degrees. Like Farrar's *The Machine*, Rhodes explores the extent to which the projection of the moving image in cinema is inextricably tied to the viewer's embodied perception and thus translated into their experience of the three-dimensional space. As Lisa Le Feuvre notes, "This work is designed for the audience to move away from the position of a static viewer, to move in and out of the screening. This creates a set of social relations against the definition of traditional film – the film becomes a collective event where the audience is invited to make interventions into the work itself" (Le Feuvre, 1999). Yet what makes this work distinct from Farrar's experiment is the way in which the soundtrack and images are simultaneously generated: that is, the black and white horizontal and vertical lines of the images were printed onto the audio track of the film so that they literally generate the soundtrack. In this sense, Rhodes can be seen as one of many filmmakers and video artists, including Vasulkas, Nam June Paik and Guy Sherwin, who have experimented with a synthetic relation between sound and image. Indeed, avant-garde practices across experimental film, video art and contemporary digital media art historically have employed electronic devices to generate variation in visual imagery corresponding or discordant with, sonic or musical modulation.

Of contemporary digital examples, Ryoji Ikeda's *Test Pattern* (2008–present) series can be compared to *Light Music* not simply because of its presentation of barcode-like abstract imagery synchronized with explosive noise, but because of its exploration of "the relationship between critical points of device performance and the threshold of human perception" (Ikeda, 2008). In Ikeda's work, "the velocity of the moving images is ultra-fast, some hundreds of frames per second, providing a totally immersive and powerful experience" (Ikeda, 2008), and we realize that this experience is shared by the viewers of *Light Music* in different material and technical configurations. If the former draws the viewer's perceptual attention to the processes of the real-time computer interface which encodes digital information into the sensible audiovisual signal patterns, then the latter encourages the viewer to see the interfacial nature of the cinematic apparatus by opening up three intervals between its components: between the filmstrip and the audiovisual image, between the image and the projector and between the projector and the screen.

These brief comparisons between Farrar's and Rhodes' avant-garde expanded cinema and the "digitally expanded cinema" works of Penny and Ikeda illustrate that the two key interfacial aspects theorized offer new insights into the concept of *apparatus* in film

theory and critical media studies. Viewing the cinematic apparatus through the prism of interface offers a fresh look at the transition from film to electronic and digital media, as well as the opportunity to set up a comparative dialogue between the accounts of the active spectator that art history, cinema studies and media studies have developed on their own. Merleau-Ponty's phenomenology, for instance, has had a great influence on three theoretical views on expanded cinema: minimalist and post-minimalist art criticism, film theory about the corporeality of film experience and new media theory focusing on the user's embodied experience. These three strands, however, have remained exclusive from one another, therefore deepening the gap between cinema, contemporary art, and digital art. Aided by historical research, a hybrid discourse on the interfacial aspects of the expanded cinema from the proto-digital age to the digital era will be expected to bridge this gap. I propose that it can accomplish this by characterizing the various alternatives to the standardized cinematic apparatus as intermedial interfaces. Such an analysis will indicate the ways in which expanded cinema practices, in response to the technological innovations inside and outside the cinema, transform each of the cinematic components and change combinations between them in order to construct expanded space-time coordinates and indeterminate, dynamic forms of spectatorship.

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