

Media Diffusion: Multiplicity, Identity and Ecology

— Re-Thinking Images in Animation After Cinema

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“Could I ask you to explain the music of heaven to me?”

*Sounding the ten thousand processes and events differently,
so each becomes itself according to itself alone*

— who could make such music?” Chuang Tzu

“Multiplicity without unity is chaos.

*Unity which does not depend on multiplicity
is tyranny.”* Blaise Pascal

“What is an idea?...

...an image that makes us think.”

Gilles Deleuze

This paper will explore the intersection of several concepts that relate to recent research the authors have conducted in the creation of artworks that make use of novel media diffusion techniques. The significance of this creative practice is located at the intersection of several rich concepts forming a productive nexus for the creation and analysis of new forms of media images. The spectral lines through multiplicity and unity; sequence and simultaneity; lines and surfaces; are combined with new approaches to spatial and temporal arrangements of images to create dynamic media images providing new avenues for re-thinking the technical process of animation as well as newly articulating memory and identity.

A brief history of media diffusion

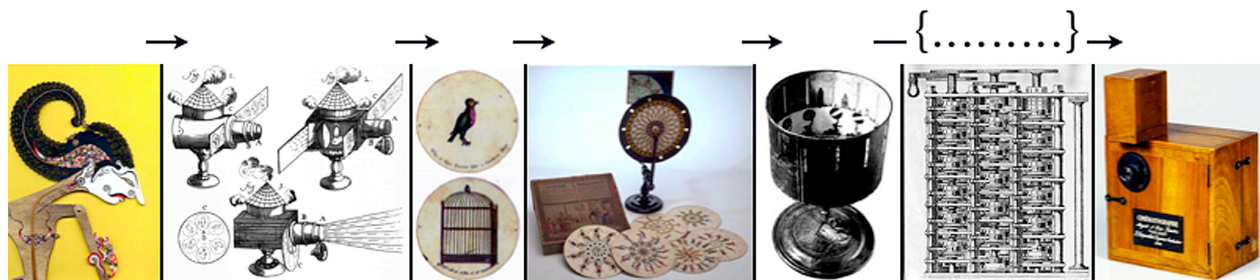


Figure 1.

The history of media diffusion spans a broad historical and cultural narrative. An abbreviated form of this narrative could draw a series of broken but roughly contiguous lines from shadow play and magic lantern

performances through philosophical toys such as the thaumatrope, phenakistoscope, zoetrope and others culminating in the cinematograph. By historical circumstance the computer almost precedes the development of cinema but the development of that particular force stalled in the mid-19th century while the spiritual automaton of cinema emerged as the major media form and image of thought of the 20th century. This chain of media diffusion technologies changes in a metamorphoses from performing objects towards automation and increasing abstraction and de-materialised experience. The cinema grounds itself in this automatic presentation of linear sequences of photographic images and a compositional form based on montage of images in time and space (Manovich 2001).

Encoding practice

In the mid-20th century the development of computational forces was rekindled and, in concert with a variety of cultural practices, opened possibilities for new forms of media based on process and participation. The computational media after cinema is grounded in a creative methodology of encoding practice. A methodology that marries logic and intuition through the process of making external tacit, embodied knowledge normally internal and only vaguely accessible to conscious process. New forms of temporality and dynamism emerge as potentials of the work as the linear “next” of the syntagmatic cinematic image sequence is replaced by the paradigmatic “now” of the computational image (Campbell 2000) as well as the “again” based on the looping form inherent in the underlying code of the procedural media mechanism. These new temporalities echo other emergent cultural practices of the period, particularly the time-based practices of contemporary music (Kramer 1981). But more significantly the “then” of the linear narrative of cinema (as in “then this, then that, etc.”) is replaced by the conditional “if... then” of a sentient medium. The dynamic nature of this becoming-medium allows the composition of a new media form based on a heterographic braiding of media processes (Dulic & Newby 2004).

A core problem in the presentation of media images across multiple media diffusion points is the mapping of such content to specific spatio-temporal locations. A media image that is either spatialized in volumetric space or made of a multiplicity of diffusion points provides the opportunity to explore the composition of immersive experiences that share characteristics with ecological environments. Such environments exhibit characteristics of complexity, variety and balance across a large community of elements. The reconstruction of such an ecological image can be facilitated by the modulation of media elements along a spectrum of correlation through decorrelation of images across multiple diffusion points contributing to the complexity and coherence of the resulting media experience (Truax 1999). Another strategy modulates mutual coherence in order to create perceptual fusion. This approach has been used in several of the authors' works in which composite images appear across multiple diffusion points that are themselves composed of fragments of audible and visible images drawn from discrete sources. This strategy of working across the spectrum of correlation and de-correlation suggests a general approach

that we have found most productive in the creation of discursive images.

Braiding the chaosmos — from sequence to simultaneity

One of the conceptual deep structures or points of reference we find useful in grounding our practice is *chaosmos* — a punning conflation of chaos and cosmos drawn from Joyce's *Finnegan's Wake*. The meaning of the work is concentrated across a series of lines that stretch between the poles of sequence and simultaneity; lines and surfaces; representation and abstraction; unity and multiplicity; self and others.



Figure 2.

A single screen, or its simple extensions into two or three projection planes, can be made qualitatively more complex by breaking it into an arrangement (*dispositif*) of many surfaces arrayed in space on which time variant media are projected. *in a thousand drops... (refracted glances)* (Newby, Dulic & Gotfrit 2008) is an interactive audiovisual installation work that makes use of such a media diffusion system designed by the authors to display and animate images across a large number of discrete diffusion points. The media diffusion system developed to manage the media database forming the deep structure of the work brings life to the still photographic image in the creation of new forms of discursive images.

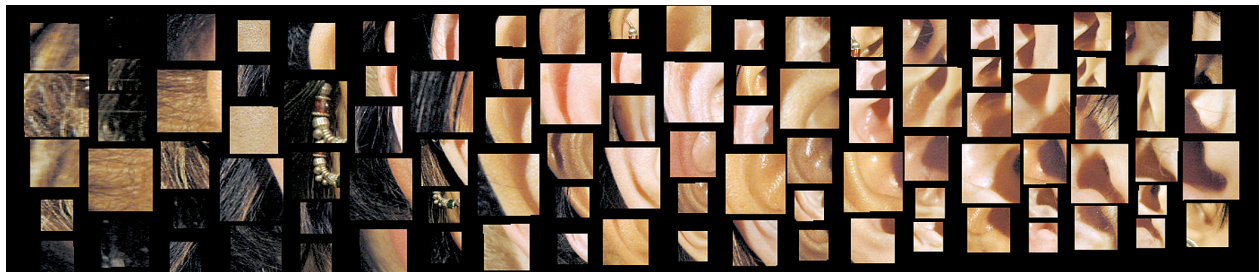


Figure 3.

The content of the photographic database of the work is displayed across 120 discrete screen surfaces under computational control in such a way that a new form of montage — between temporal and spatial — can be explored for its expressive potential. Each screen surface carries a discrete photograph of an individual person — face, eye, lips, ear, or hand. The media diffusion technique breaks the monolithic screen and provides new articulations of relations across multiple screen arrangements in space. The computational process that guides the display of the ensemble of images assumes a moving point around which each image is arranged in order to create an animated image of a whole made of a set of parts. In this way each image participates with the others around a dynamic common center. Each screen-surface

acts as a discrete diffusion point that can carry a unique visual projection. The collective set of diffusion points provide a continuum of difference-similarities that can be read through the perceptual dynamics of a complex interplay of parts and pieces; grouping and splitting; leveling and sharpening (Arnheim 1974). These perceptual mechanisms, brought to bear on an image made of discrete multiple points, are further complicated by the interplay with abstract form inherent in the spatial arrangement of the diffusion points themselves. A variety of forms have been explored with best results occurring when a balance is struck between symmetry and randomness, allowing the perception of emergent wholes to more easily occur.

In a spatially abstracted image of multiple ears (figure 3), as the eye moves from right to left, there is a shift from the biological/personal, the folds of flesh that surround ear canal, to the cultural/communal as expressions of fashion and style appear in the way hair is organized and jewelry is applied to the lobes and pinnae. In a similar fashion the controlled level of abstraction provided by the faceted nature of the image produces a loosening of perception allowing thought to explore relations across cultures and, in a trans-human context, visual analogies to other similar biological structures such as sea shell forms.

On the semantic level — given visual content based on the human form — the swarm-like arrangement of images takes the form of a network of relations — rhizomatic in quality — that allow the articulation of ideas of memory and identity. The utopian reading of an image of a face (Figure 4) represented by fragments of many different subjects — “We are all one” — is easily inverted into the more complex “I am many.” Another question asked by the image, “Who is this person?,” flips easily to the plural “Who are these people?”. The fact that the image contains these inversions in equal measure makes it rich in discursive potential. Similar complex readings are embedded in the image in terms of gender, age, ethnicity, style and other aspects of the multiplicity and emerge as altered states of memory and identity.



Figure 4.

Vilem Flusser notes that the skin surface forms “a plane on which I happen to the world and the world happens to me.” He characterizes these happenings occurring on the horizon of this plane as facts that form — depending on their outward or inward going vector — adventures summing to our memory and

past as well as the active decisions that sum to one's presence in the world as active agent. In this way the powerful metaphor of skin and experience meeting as happenings of facts on surfaces provides a nexus of experiential intensity where future and past are laminated again and again to form memory and identity.

The metaphor of screen surface as skin is a productive one for the interface between the actual and virtual. Like skin, the media interface functions as a permeable membrane that mediates the event of process and participation with the actualization of a set of virtual potentials. As a metaphor for identity skin also provides a material against which to struggle — “the skin encapsulated self” contains the conventional subject that can be opposed and transcended by a variety of means in order to actualize and transform the subject. Skin can also function as a screen on which identity is projected externally to the participating subject in an ecstatic view of self. The participatory relationship of the new media image is one in which the secretion/excretion dynamic of skin — action/experience as well as future and past — is under constant negotiation. Memory and identity are thus fluid and continuously under construction and subjectivity, as Felix Guattari notes, “is in fact plural and polyphonic” (Guattari 1995).

The coherent temporal composition of the complex media images made possible by multiple diffusion points is made difficult by the fragmentary nature of such complex images. The solution to this difficulty involves the establishment of a dynamic balance along the spectra of continuity and discontinuity; linearity and non-linearity; stasis and motion; realism and abstraction. What emerges in this complex interplay of media elements as they emerge and are modulated in time is a dynamic steady-state as multiple diffusion points relate to each other and contribute to the emergence of a larger coherent media image. With the introduction of time these relations are animated and made more complex still as what was static becomes dynamic. Our perceptions of the identities of the represented-yet-abstracted subject shifts. Change and difference show themselves as fundamentals of experience as the de-centered subject moves through variation. The media image here forms a portal to an altering state of consciousness.

Cultural information — the broken mirror as emergent ecology

In this prismatic set of images each surface is a facet in a complex interplay of constructed identity, memory and subjectivity in which the white light of a monolithic and leveling globalism is refracted into a full spectrum of colors in a shimmering play of differences. The subject-made-complex here is read as an articulation of cultural information — “the difference that makes a difference” (Bateson 1972).

Echoing the Taoist ecological notion of diversity so elegantly summed up in Chuang Tzu's question of the music of heaven, the notion of an inscribed heterography of multiples across media and cultures is consistent with Toru Takemitsu's observations that the great mirror of Western culture that dominated the post-colonial world is now broken and what remains is a multitude of shards — each reflecting a

difference — a diversity to be cherished, cultivated and preserved as the rich endowment of our planetary evolution (Takemitsu 1995). Images here struggle to express themselves as well as recombine in the creation of new possibilities across boundaries previously considered normative and therefore inviolable: gender, age, ethnicity, style, history. A media structure that arranges multiplicities of images in balanced complexity and variety forms ecological images that allow complex meaning-structures to emerge. Through a process of making complex and external the processes and relationships that are typically held as simple and internal, the first step is provided in a process of forming transpersonal relationships with self and other, individual and collective, human and non-human.

The computational media image provides forces with which new images of thought can be articulated in collaboration with not only the participant experiencing the work but within the media apparatus itself and its array of images. Conversations occur across the work itself and are then continued in the experience of the human participant in a network of relationships internal and external to the work. The new discursive image is one that offers new opportunities for participation with its thinker.

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