

Troika Ranch: making new connections

Experimentation has replaced all interpretation ... There is no longer a Self [Moi] that feels, acts and recalls.
(Deleuze and Guattari 1999a, 162).

Troika Ranch are leaders in the field of interactive performance, transcending traditional music composition in dance performance by using computer technology. Their intention is to create live performances that hybridize sound, dance, theatre and interactive digital media and to share information about their techniques with others. The New York based company was founded in 1994 and the Artistic Co-Directors of the company, composer and media artist Mark Coniglio and choreographer Dawn Stoppiello, have been widely recognized as being innovators in the field of live performance and interactive media. Over the years, they have gained numerous awards including an 'Eddy' awarded at the 13th Annual Entertainment Design Awards.¹

'Troika' (Russian for three) indicates the three core elements of the group's focus, which are digital media, dance and theatre. Coniglio, who is originally from Nebraska, sees the term 'ranch' as being analogous to ensemble or 'group' and as symbolizing the collaboration among its members.² Coniglio and Stoppiello encourage all in the company to share ideas, techniques and processes, in order to create aesthetically rich, multi-layered, real-time interactive performance works. Their overall aim is to fully integrate their core elements into a live and mediated *Gesamtkunstwerk* (total artwork). According to Stoppiello,

As a dancer, I inherently understand the realm of the body. I had no idea that technology would enter into that understanding until I chose to entwine myself with the machine. I was altered and so was my body as it expanded to include sound, light and image.
(Stoppiello 2003)

Like many artists, Troika Ranch utilize digital software tools to construct the visual and aural materials so central to their work and also as a means of allowing individual performers to express themselves through performance. However, for Troika Ranch, interactive media and technology are essential components in the '*performance*' of their 'work' (Coniglio and Stoppiello 2005). Sensory devices are used to allow the movements or vocalizations of a performer to manipulate in real time some aspect of the performance's media - such as sound, video or light.

For Deleuze and Guattari, art does not 'actualize the virtual event'; rather, it embodies the event or gives it 'a body, a life, a universe that is neither "virtual" nor "actual" but "possible"' (1999b, 177). This potential embodiment is central to the performances of Troika Ranch where both physical and virtual bodies continually 'become-other' and where various 'imperceptible intensities' exist (Deleuze and Guattari 1999b, 182). The Deleuzian approach is one of 'radical empiricism', an ethical or political approach to thought rather than a philosophical one (Deleuze and Guattari 1999b, 47). It is based on experience rather than ideas and in contrast to a philosophy of idealism where experience is viewed as being mediated through ideas; experience is unmediated and immediate. Quintessentially, experience cannot be thought of as an experience of some individual subject but rather as a 'multiplicity of worlds'; a variety of becomings, intensities and connections. Experience is not

grounded in a body as such but rather in its connections. An effect of this empirical approach is that ideas are extended by experience, the subject being constructed from experience but also always becoming. As dancer Michou Szabo notes, 'working with the sensor device adds a whole other layer to the performance experience. You're asked to be suddenly more than a dancer' (Thompson 2003, 12-13). Believing that most media technology is 'dead', in the sense that it is exactly the same each time it is presented, Troika Ranch want the media elements of their work to have the same sense of vitality, dynamism and 'liveness' as the physical performers it accompanies. To this end, the human body is imposed on the media in an attempt to bring it back to life (Coniglio and Stoppiello 2005). According to Coniglio, 'in addition, this linkage of body and technology highlights the uneasy relationship between the organic and electronic – a central theme of our work'. (Jorgl 2003).

Troika Ranch generally have three components in their interactive system. First there is an input device that 'watches' what the performer is doing and converts that information into digital signals. Then there is intermediary software that gathers and analyzes sensory information, interprets it in a predefined way and sends signals to various media to achieve a desired effect. Finally, the media devices present the media as instructed by the intermediary software.

Troika Ranch utilize a variety of input devices: *MidiDancer* which is wireless and measures the flexion of joints;³ *LaserWeb* that senses interruption of light beams; *Piezo Sensors* which sense impact; and *Wireless Cameras* that are used directly and also for live manipulation. *MidiDancer* is the primary input device used by Troika Ranch and grew out the necessity of allowing performers greater freedom of movement, together with increased flexibility in manipulating media devices. It is a wireless sensory system that tracks a performer's movements and converts that information into digital signals. Sensors are worn on the performer's body and can measure the flexion of up to eight joints and then transmit their location to a computer, which can interpret that information and use it to control a variety of media, including video, audio, lights, robotic set pieces and various other devices.

According to Coniglio and Stoppiello, 'the technological elements are only one part of the equation'. Linking movement to media is comparable to creating a traditional musical instrument since the *MidiDancer* allows the gesture of a performer to be 'amplified and translated' into an alternative medium, 'as does an instrument like the violin' (Coniglio and Stoppiello 2005). However, for Troika Ranch, the performer's body gestures provide a multiplicity of intersemiotic signals that the audience will attempt to interpret, unlike the playing of a violin which is limited in its semiotic signification. Another difference is that the functionality of a violin is fixed, whereas there is a variety of ways in which the *MidiDancer* can convert movement into media control. In doing so, there is of course, the concern that the audience cannot perceive the control element and thus the real-time interaction between the performer and the media effects. Although for some this may not be an issue, for Troika Ranch, the 'liveness' of the technology is central to their project. Coniglio presents a further analogy between the *MidiDancer* and a musical model when he writes of the improvised performance of a jazz pianist where the audience may not perceive that some level of improvisation is occurring since they may have little prior understanding of the instrument (piano) with which the performer controls that manipulation (Coniglio 2004, 8-10). There is an even greater lack of experiential perception from an audience viewing the *MidiDance* manipulation of media devices within a performance due to the audience having no prior understanding of this interactive device.

Deleuze and Guattari, in their writings, claim that ‘modern musicians’ rebel against ‘the transcendent plan(e) of organization, which is said to dominate all of Western classical music’. Instead, electronic music replaces ‘forms’ with ‘pure modifications of speed ... which affirms a process against all structure and genesis, a floating time against pulsed time or tempos, experimentation against any kind of interpretation, and in which silence as sonorous rest also marks the absolute state of movement (1999a, 287)

According to Stoppiello, ‘my choreography has changed in response to my close contact with computers and computer-controlled devices’. In describing her experience of working on *In Plane* (1994), she notes that:

The piece was to be a competition between the corpus and the electronic doppelganger; a body that bleeds, sweats, gets tired and feels pain versus a body made of light, which is not bound by time, space or gravity ... The beauty of using the MidiDancer system was that the notion of a duet with the video was much more than conceptual idea, but was in fact the result of a tangible physical relationship: body-sensor-video.
(Stoppiello 2003)

The second component in Troika Ranch’s interactive system is an intermediary software called Interactor LPT. Created by Coniglio and Morton Subotnick, it is a graphic media programming language used as an authoring tool, which allows performers to realize real-time interactive performances by means of MIDI messaging. In Troika Ranch’s own performances it functions as ‘the master software “brain”’ of any interaction between performance and technology (Coniglio and Stoppiello 2005). It controls media devices by means of data from movement information via the *MidiDancer* and/or musically generated events from MIDI controllers, such as keyboards and piezo sensors.

Isadora, a graphic programming environment created by Coniglio, exemplifies Troika Ranch’s media presentation, the final component in their system. Its primary function is as an authoring tool intended to provide performers with a means of designing and directing input from a variety of sources. *Isadora* provides interactive control over digital media with a special emphasis on real-time manipulation of digital video.

The program is accessible to individuals who may not have sophisticated programming skills, since its visual display on a computer monitor or screen allows performers to effortlessly view the various data. According to Coniglio and Stoppiello, *Isadora* assists the performer ‘as both a compositional tool and as a collaborative partner in live performance’ (Farley 2002). In effect, the *MidiDancer* and *Isadora* work together by firstly tracking a performer’s gestures by means of the *MidiDancer* and then transmitting that information to *Isadora*, which interprets the sensory information in a predefined way, with signals sent to the media devices being controlled in order to achieve the desired effect. As Kathryn Farley points out, ‘artistically ... the immediate reaction of the computer (to both *Isadora* programming commands and *MidiDancer* signals from a dancer’s body) allow for expressive possibilities that may be impossible to achieve by any other means’ (2001).

Troika Ranch’s performance of *Surfacing*, which premiered in 2004 at Danspace Project, New York City, is ‘a fluid world of video and movement ... a dreamily violent piece of beauty, danced well’ (Batson 2004). Interestingly, it is a fairly low-tech performance in contrast to their other works, even being referred to as

‘Troika Unplugged’. According to Troika Ranch, this performance is highly personal, as it reflects the relationship between key members of the group.⁴ The starting point for the performance came from the word ‘surface’ leading to an exploration of the term both in a physical sense - the surface of skin, the surfaces of architecture and so on – and in the sense of imaginary surfaces, such as the tensions between the private and personal, between what is shown to the world and what is kept hidden; an exploration that suggests other ‘related dialectic relationships: tenderness versus aggression, the desire for solitude versus the need for community’. And rather than being an ‘exposé of cutting edge technology, it was more a reflection on introspection and quiet solitude’.⁵

Throughout his work, Deleuze’s experiential enterprise is directed toward the rethinking and reconstruction of ontology itself. Orthodox tools of philosophy: being, object, qualities, and dualisms, are replaced by the concepts of planes, becoming, intensities, flows, and connections. Rigid binary oppositions, such as, man/woman, nature/nurture are avoided in favor of a ‘continuum of interacting embodied subjectivities’ and ‘machinic assemblage of bodies, of actions and passions’ (Deleuze and Guattari 1999a, 88), notions that prove useful in theorizing *Surfacing* with its tensions between the ‘private’ and ‘public’ and the ‘interior’ and ‘exterior’. Deleuze and Guattari’s differential theorization on intensities, sensation, experimentation, together with their use of machinic metaphors, and their affirmative notion of desire is central to the aesthetics of such digital performance practices.

The piece was choreographed by Stoppiello but unlike other Troika Ranch performances, she did not perform in it. The performers, Danielle Goldman, Patrick Mueller, Sandra Tillett and Michou Szabo appeared to materialize and dematerialize in the performance space at varying times and speeds. The very simple mise en scène was composed of four tipable wedge-like rectangular sculptures, on the surfaces of which captured live or prerecorded images would freeze, fragment, speed up, slow down or warp in a shimmering effect – all by means of *Isadora*. Another wooden sculpture served as a platform for live video capture. The opening scene consisted of captured bodies that appeared to rise and shimmer as they were projected onto the sculptures. The sculptures were placed in various positions in the space, mainly upright providing a fragmented background where the performers appeared to walk or run or simply melt into their own virtual image as they went behind the sculptures. In fact, at times it was difficult to identify which were physical and which were virtual bodies. When tipped over, the sculptures lay horizontal on the floor, the captured images giving the appearance of bodies walking on their side. Added to this were dreamlike images projected to the rear of the space, images that had been slowed right down to provide an almost serial freeze effect in a halo of ephemeral light. The images were from a prerecorded film that had been shot using exaggerated delay techniques in a special effects studio. *Surfacing*, with its ritualistic sound akin to a form of Gregorian chant, became at times a cathedral of ethereal imagery. The juxtaposition of private and public, solitude and community, tenderness and aggression were reflected in the lighting and imagery, which sometimes appeared cold and distancing and then, warm and alive, the space seemingly on fire with red light.

In extrapolating the above use of film in performance it is useful to refer to Deleuze’s writings on cinema. For Deleuze, cinema creates new affects and produces new possibilities for perception. Flows and connections of images are not fixed in time and do not combine to make complete wholes; ‘there is always out-of field, even in the most closed image. And there are always simultaneously the two aspects of the out-of-field, the actualizable relation with other sets, and the virtual relation with the

whole' (Deleuze 1986, 18). Instead, cinema represents a challenge to perception and rather than offering a theory on cinema, philosophy responds to the new perceptive forces resulting from this new art form; 'it took the modern cinema to re-read the whole of cinema as already made up of aberrant movements and false continuity shots. ... This image is virtual' (Deleuze 1989, 41). For Deleuze, 'with the cinema, it is the world which becomes its own image, and not an image which becomes world' (1986, 57). In fact, this cinema is not actual (of the world as it is) but rather what the world might become – a possible world (Deleuze and Guattari 1999b, 177). In short, cinema can be seen as 'a sphere of the virtual' which 'logic' can only show without ever being able to grasp its intent or relate it to a 'reference' (140).



Figure 1: Danielle Goldman in *Surfacing* (2004). Photo: Richard Termine

In contrast with *Surfacing*, *The Future of Memory* (2003)⁶ made full use of a wide variety of Troika Ranch's interactive technology. Using 'Isadora in tandem with MidiDancer', the performers, Stoppiello, Goldman, Szabo and Tillett, manipulate sounds and images in real-time; 'floating in a chaotic world of movement video and sound, the four characters ... swirl in and out of reality as they attempt to regain the memories that define who they really are' (Coniglio and Stoppiello 2005). Stoppiello's choreography seamlessly incorporated media control, at the same time leaving room for the performers to add onto the original structure, allowing the piece to be transformed from performance to performance, each incarnation bringing with it a new reality with the seeming potential for 'an immanent power of creation'. In short, a virtual instantiation of the Nietzschean 'will to power'.⁷ This work can also be seen as 'a sphere of the virtual' where 'logic can only show ... without logic ever

being able to grasp it in propositions or relate it to a reference' (Deleuze and Guattari 1999b, 140).

Aptly titled, *The Future of Memory* explores the act of remembering - 'how memories are created, stored, romanticized, repressed and lost' - by means of a multi-layered collage of imagery and sound; the technology acting as a 'metaphor for memory' itself (Coniglio and Stoppiello 2005).



Figure 2: The Company in *Future of Memory* (2003). Photo: Richard Termine

In this performance, the performers created electronic soundscapes that enhanced the live music performed by Alica Lager (violin), Leigh Stuart (cello) and Julian Molitz (marimba). The flexion of the performers' limbs was used to trigger musical notes or phrases and to manipulate their timbre. At the same time, their bodily movements influenced the playback speed and intensity of visual effects, which were presented as fragmented, periodic images of stunning seascapes; waves washing over feet dripping with blood; a lighted match from a birthday party; a shimmering droplet of water; and live captured close-ups of faces; imagery which sped up, slowed down, froze or dissolved and was projected onto twenty individual screens, each approximately the size of a human body. Each screen displayed an individual image or at times, a single image was displayed over all the screens. However, in this performance, even a single

image was never whole since it was fragmented by the spaces in between the screens. Central to *The Future of Memory* is Troika Ranch's principal strategy of mapping the organic and chaotic nature of the human body onto the fixed nature of digital media. This echoes Deleuze and Guattari's belief that, 'in a way we must start at the end: all becomings are already molecular. That is because becoming is not to imitate or identify with something or someone' (1999a, 272).

Deleuze and Guattari's notion of a body without organs which is an 'intense and intensive body' (2003, 44) is useful in an analysis of the potential embodiment of such performances as *The Future of Memory*. Flows of intensity (fluids, conjunctions of affects) have replaced subjectivity; becomings (becoming-animal, becoming-woman) have replaced history. No longer are there acts to explain, dreams or phantasies to interpret, rather there are 'colours, sounds, becomings, and intensities' (Deleuze and Guattari 1999a, 162). The self no longer feels, acts and reflects; instead it has affects and experiences. The body does not have organs but (liminal) 'thresholds or levels' (Deleuze 2003, 45). It is produced by desiring-machines and these machines work best at the moment 'they break down' (Deleuze and Guattari 1984, 8). This metaphor of 'machine' denotes a shift away from the organic and human toward a timeless entity with no identity, intent or even end as with Troika Ranch's performances. In short, a model of pure machinic production that is always in the process of becoming.

The *Chemical Wedding of Christian Rosenkreutz* (2000)⁸ was another work that was exemplary of this process, especially in its theme of transformation from human into machine. It took its title from an anonymous source, a seventeenth-century alchemical allegory that focuses on how alchemy is used to transform a human soul by means of a 'chemical wedding'. The performance explored and examined the process of technological transformation from the perspective of a human living five hundred years in the past and another one living fifty years in the future. It was also influenced by a writing from Ray Kurzweill, which predicted that it would be possible 'to download a human mind into a working silicon replacement by the year 2050' (Coniglio and Stoppiello 2005). The narrative from the past was told mainly through choreography, music and surrealist imagery. However, the narrative from the future, from the human about to download his mind, is heavily influenced by the fear of transformation and what that will ultimately mean for the soul. The 'future' character is 'shadowed' by a dancer that embodies his emotions through movement whilst he addresses the audience through a multimedia voice that combines live sound, mediated recordings and projected text. The performers seemingly attempting 'to unearth the richness gained from transitory moments and the sadness and confusion resulting from letting go' (Farley 2002).

Chemical Wedding was complex and rich, demonstrating a variety of organic and electronic elements. The technology provided an eclectic mix of pre-recorded and live aural and visual imagery whilst a live musician performed a cello accompaniment throughout. The media was manipulated in a variety of ways including algorithmically edited video imagery, electronic music and sound and digitally controlled lighting. Stoppiello as the Angel that visits Rosenkreutz (Coniglio) was at once frightening and surreal, as she glided, crawled and soared, triggering explosions of light and sound as she crossed laser beams located within the space, at the same time her movements activated a video image of multiple eyes. As Steve Dixon notes, *The Chemical Wedding* was 'spiritual in tone and choreographic style' and made 'use of numerous dance lifts and other symbolic ascents, as well as secretive gestures.' The projected imagery fused 'surrealism with mysticism' (2004, 24).

Another performance from Troika Ranch that demonstrates this linkage between technology and the body is *The Electronic Disturbance* (1996), inspired by the book of the same name from The Critical Art Ensemble (CAE). Here the human body is shown in flux, a body where contacts are made not physically but electronically with digital high-speed telephone lines. At the same time, a simultaneous performance was presented via the internet at The Kitchen (New York), The Electronic Café (Los Angeles) and Studio X (Santa Fe).

Influenced by Nietzsche, Deleuze posits the nomadic as an anti-dialectical tool to refute the Hegelian recuperation of negation and difference; an approach that is rhizomatic (root-like) rather than arboreal (tree-like) (Deleuze 1999a, (11-12). According to CAE:

As the electronic information-cores overflow with files of electronic people (those transformed into credit histories, consumer types, patterns and tendencies, etc.), electronic research, electronic money, and other forms of information power, the nomad is free to wander the electronic net, able to cross national boundaries with minimal resistance from national bureaucracies.
(1994, 16)

CAE, in their works, have sought to address concerns regarding the commodification and consumerism of technology owned and provided by national and multinational corporations by attempting to critique the dominant means of digital representation. They claim that digital technology has allowed power itself to go 'nomadic' through electronic networks. Therefore, resistance must go digital too (Critical Art Ensemble 1994). Troika Ranch's *The Electronic Disturbance* similarly utilises this nomadic strategy.

16 [R]evolutions (2005), a more recent work, is a performance where cutting edge choreography and multimedia effects explore the similarities and differences between human and animal and the evolutions that both go through in a single lifetime; the body literally writing itself in performance.



Figure 3: Traces of the performer's hands and feet leave multiple curved white traces, a development of the white line seen earlier in 16 [R]evolutions (2005), Performer: Lucia Tong – Photo: Richard Termine.

According to John Rockwell from *The New York Times*:

The primary effect is vivid abstract images, black through every shade of gray to white - broken stripes, horizontal and vertical; calligraphic ribbons; thin-lined sketches of structures that look like futuristic architectural renderings. The dancers, on a large stage, perform on and in front of these projected patterns, sometimes casting black or white shadows; the stripes and lines on their bodies are so crisp that they look like flowing costumes. As they move, their bodies create fluxes in the field, strange and fascinating humanoid shapes mirroring their movements.

(2006)



Figure 4: Colour and multiplicity are introduced to imply evolutionary change in 16 [R]evolutions (Performers: Johanna Levy & Daniel Suominen – photo A.T. Schaeffer)

Reflected to a certain extent in Troika Ranch's use of electronic technology is Deleuze and Guattari's concept of a 'machine'. Originally appropriated from a Lacanian term, the machine denotes a shift away from the organic and human toward a timeless entity with no identity, intent or even end; a model of pure machinic production, always in the process of becoming and making new connections. Central to becoming and making new connections is the body without organs or BwO and it is 'the field of immanence of desire' (1999a; 191). Desiring machines and the body without organs can be seen as two sides of the same coin, or 'two states of the same "thing", a functioning multiplicity one moment, a pure, unextended zero-intensity the next' (Bogue 1989, 93). Similarly in *The Future of Memory*, *The Chemical Wedding of Christian Rosenkreutz*, *The Electronic Disturbance*, *16 [R]evolutions* and to a lesser extent *Surfacing*, the ebb and flow between the organic and electronic is in a continual process of becoming and making new connections.

In conclusion, Troika Ranch explore and investigate essentially what it is to be human in a time of rapid technological change and increasing physical alienation. Their innovative use of digital technologies and unique sensor systems has led them to be widely recognized as creative leaders in the field of digital practices. As Coniglio notes, 'our purpose' was:

To create dynamic, challenging artworks that fused traditional elements of dance, music and theatre with interactive digital media ... by directly linking the actions of a performer to the sound and imagery that accompanied them, we would be led to new modes of creation and performance and, eventually, to a new form of live art work.

(2004, 5)

Due to the hybridization of their performances and the diversity of media employed,

various intensities are at play. It is these imperceptible intensities, together with their ontological status that give rise to new modes of perception and consciousness. Deleuze and Guattari's view of art as 'sensation', as a 'force' that ruptures everyday opinions and perceptions, 'to make perceptible the imperceptible forces' (1999b, 182), provides a means of theorizing the unrepresentable or sublime of Troika Ranch's multilayered mediated dance theatre.

¹ This is the US annual celebration of the best in design and technology for live events and the theme of the award was 'Bridging the Gap between the Artist and the Technology'.] David Johnson, the editorial director and associate publisher of *Entertainment Design/Lighting Dimensions/SRO*, noted that: 'Troika Ranch, which incorporates interactive video technology with live dancers, takes the relationship of man and machine to an entirely new level' (*Entertainment Design* (March 30 2005)

² Discussion with Troika Ranch following a performance of *Surfacing*, Chancellor Hall, Chelmsford, Essex, UK, May 12 2005.

³ Established in the early eighties by a group of leading musical instrument manufacturers as an agreed universal standard method for sending and receiving musical controller information digitally, the application of the basic MIDI interface has developed and expanded, leading 'to dramatically improved techniques for composition' (Winkler 1999, 14). Not only does it eliminate the need for digital synthesizers to have keyboards, it also provides a standardized interface for a wide variety of control devices, such as breath controllers, drum pads and devices that measure gestures. Its codes have also been adapted to control a variety of nonmusical devices such as, audio mixing panels, theatrical lighting controllers and audio processing devices such as, reverberators and via SMPTE/EBU and other timecodes to coordinate with video and graphics devices. The development of MIDI has had a strong impact on the accessibility and variety of interactions that can be utilized in performance.

⁴ Discussion with Troika Ranch following the performance of *Surfacing*, Essex, 2005.

⁵ Troika Ranch UK Residency publicity leaflet released by Essexdance, 2005.

⁶ The *Future of Memory* premiered at The Duke, 42nd Street, New York, February 2003.

⁷ For Nietzsche, 'man' in order to enhance his species had to develop his unconditional will to power by, amongst other things, 'his powers of invention and dissimulation' and 'the art of experiment' (1973, 54). This idea of free creativity, invention and experimentation is important for such performances as those of Troika Ranch given their emphasis on heterogeneity and indeterminacy.

⁸ *The Chemical Wedding of Christian Rosenkreutz* premiered at HERE Art Centre, New York, June 2000.

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