Johannes Birringer

AUGUST 2010

dispositif

Some reflections on "*dispositif*" - the *mise en scène* of live media/performance/installation.

I.

Unlike theatre theory, which after Brecht speaks of the "apparatus" when it looks critically at the operations of the stage where actors enter and exit and things mechanically go up and down (using the fly space) or rotate on a turntable or are moved about by stage hands, film theory since the 1970s, following Jean-Louis Baudry, has prefered the term *dispositif,* the French word meaning "disposition" or "arrangement."

> La disposition des différents éléments – projecteur, « salle obscure », écran – outré qu'ils reproduisent d'une façon assez frappante la mise en scène de la caverne, décor exemplaire de toute transcendance et modèle topologique de l'idéalisme, reconstruit le dispositif nécessaire au déclenchement de la phase du miroir découverte par Lacan.
> (Baudry, *L'Effet cinema* 1978, 23)

> Le dispositif cinématographique aurait la particularité *de proposer au sujet des perceptions «d'une réalité» dont le statut approcherait de celui des representations se donnant comme perceptions.*(Baudry, *L'Effet cinema* 1978: 45)

How can we make this concept fruitful for our research on intermedial performance space and interactive environments? Philosophers of media and social/political theory such a Foucault, Deleuze, Guattari, Lyotard, Flusser, and Zielinski became hugely interested in the notion of the *dispositif* in the 1970s and 1980s, utilizing it as a conceptual category for examining environments (material, technological, medial, etc.) or regulating, strategic frameworks that are configured in certain ways making it possible for certain types of phenomena to occur. While Foucault tended to emphasize the regulatory and panoptic formations that produce power, knowledge, and subjectivity, Deleuze and Guattari became more interested in the drifting and disjunctures between heterogeneous elements in a multilinear collective assemblage or *dispositif.* In other words, they acknowledge that arrangements are precarious and cannot always control

outcomes; the lines that compose a multilinear ensemble – refered to as *agencements collectifs d'énonciation* or "collective enunciations" – can change direction or become unbalanced and forked. When human and technological processes are intimately intertwined or cannot be easily differentiated, the component materials, forces, energies, rules and conventions, and lines of communication are not stable, their contours are not fixed but subject to a series of variables (Deleuze 1992: 159).

If we now take the obvious historical fact that there have been various kinds of arrangements of film-viewing and film-experiences, including the more recent developments in televisual media, VJing, club, event and computer culture, the heterogeneous assemblage of components would manifest itself in many different kinds of dispositions. For example, there is the particular *dispositif* of spectatorship attributed to the classical or mainstream narrative cinema, and its basic building block is the dark room of the movie house where spectators focus on the images on the screen rather than being made aware of the projector, the cinema's architectural space or the industrial apparatus of film production and distribution. The thin screen is the component Vilém Flusser has in mind when he writes that images are "significant surfaces." In most cases, he argues, they signify something "out there," and are meant to render that thing imaginable for us, by abstracting it, by reducing its four dimensions of space-plus-time to the two dimensions of a plane. The specific capacity to abstract planes form the space-time "out there," and to re-project this abstraction back "out there" Flusser calls "imagination," and he might be thinking of both the producers and the spectators who have the capacity to project and decipher images, the capacity to codify phenomena in two-dimensional symbols, and then to decode such symbols. But then he adds that the significance — the meaning — of images rests on their surfaces from which some dimensions have been suppressed (Flusser 1999).

The cinematographic *dispositif* therefore produces moving images by removing those other dimensions from the spectators' gaze**.** In the dark room, we are in front of the screen, and there is nothing else. The mediating principle of cinema requires that the depth of projection is denied so that the depth of field may exist. Again one might say here that this is the magic of the cinematic, producing an obvious immersion effect, but the sleight-of-hand also reproduces the medium itself. As it was the case with its ancestral forms – the magic lantern and shadow play – the cinema is an ensemble of techniques to make light fall on a surface. The seemingly empty space between the projector lamp and the screen is where cinema really happens. In an online forum on "The Thickness of the Screen," which examined the material properties of audiovisual media, Gabriel Menotti scrutinized this immersion effect, observing that just like the depth of projection, some other dimensions must be there but cannot be negotiated, in order for cinema to exist as such. Since they house the principles of the medium, those fundamental distances do not seem to be available for creative operation. When they are effectively occupied**,** cinema shows itself expanded – as sculpture, installation or performance. (September 2, 2009 http://www.subtle.net/empyre/)

Without going into a deeper analysis of the experience of cinematic medium, we can posit that the cinematographic *dispositif* is different from the viewing and projection arrangement of a multi-screen video installation, and different again from a theatrical or site-specific multimedia performance or a participatory online virtual environment such as Second Life. The crucial difference in the theatre is the three-dimensional real space which may or may not include

projective media in the stage design.

II

Here it would be helpful now to insert a few images from the work in progress on Day 3 at our Live.Media + Performance lab; I am looking at 3 workstations at the moment, one small interactive video installation in the back corner of the studio, then the large overhead projection in the center (down onto the white dance floor, where i several "actors' [images of actors or of persons] lying on the floor and yet moving ever so slightly now and then; thirdly near the entrance on the left, there is another smaller scale interactional object installation (projected image objects). Once we publish the photographs, we can continue this exploration.

Below are a couple of images from Thursday morning's conceptual session in which Joff Chafer demonstrated a scene from his current theatrical work in Second Life (Avatar Repertory Theatre). He set up a camera for transposing Sara Kraft live into Second Life and a meadow where Sara's character (Alice in Wonderland) sits under a tree reading a book.

(Joff Chafer, left, and Sara Kraft, right, preparing Alice in Wonderland scene, during which Joff wears a black all over suit hiding him so that he can manipulate objects in SL without being "seen" by the camera in the blue screen set up)

- 08 / 18/ 2010 Johannes Birringer
1 comments:

suzon said...
DIPOSITIF from French
DISPOS (adj) ready
DIPONIBLE (adj) available
DISPOSABLE (adj) disposable
DISPONIBILITY (n) availability
DISPOSER (v) to arrange
the facets of the word suggest freedom and emergence of possible structures, structural possibilities
Using vocabulary to suggest the approach of the space: INSTALLATION in English suggests something stable, static, while in French, ENVIRONMENT suggests a natural space, an ecology which holds the notion of movement/breath
'ENVIRONNEMENT' is French for installation.

THURSDAY, AUGUST 19, 2010

dispositif / mise en scène II

(Ian Winters, Memory table)

III. "Dispositif" - Following up on Suzon's commentary:

DISPOSITIF from French:

DISPONIBLE (adj) available
DISPOSABLE (adj) disposable
DISPONIBILITE (n) availability
DISPOSER (v) to arrange

The facets of the word suggest freedom and emergence of possible structures, structural possibilities, Suzon suggests, and I could not agree more. At the same time, the imaginative range/freedom is to some extent driven or inspired by the arrangements that are made: in real space, in the programming environment.

Making arrangements is a design and organizational principle, as well as a compositional process of course, and in terms of institutions or ideological patterns, grids, frameworks, guidelines, regulations, prescriptions, manuals, etc, one might assume that all dispositions hold an element of constraint or agreement for constraint, as one would imagine it also in a game (subject to game rules or the game would not work).

If one wanted to explore the conditions of production or knowledge (in terms of the lab) themselves, as they enable or facilitate designing operations and the spatial modulations that many members of the workshop carried out, one would perhaps need to reflect on the Studio we are working in, the pre-arrangements we found when entering, the EMPAC context, the RPI context and where such a workshop gets situated, the "open house" we have today and tomorrow (visitors standing behind me as i write this), how we situate ourselves as a group, an temporary research ensemble, and how we imagine our freedom or our time constraints, how do we (as group or individuals) use space, use open space and table space (laptop computers), and the various lines of flight we have seen here, projecting trajectories, *trajets*.

Is a lab studio different from theatrical spaces, and how? what is the key difference between a laboratory and audience-directed presentation spaces? why does a lab create similar sight lines as we have them in a theatre, and is it helpful perhaps to "re-mediate" the theatrical *dispositif* in/with the compositional languages, the lighting, the framing devices and performance techniques provided by live media traditions? what are our live media traditions, compared to cultural traditions of, for example, the performing arts, dance, theatre and music – and also the cultural traditions (somewhat newer) of cinematic, televisual and network experience?

Is not the televisual experience entirely different from the communal ethos of theatre? Have social networks and the internet replaced the participatory communal ethos of the theatre, and what new "communities" of interest have arisen, supported by network connectivity and interactivity? The latter, as a larger cultural frame, involves of course the emergent practices of social networks and multiplatform networked creativities, a subject we briefly addressed on Day 4 during the conceptual discussions. Suzon in fact raised the question, in response to my mention of the teleplateaux (a collaborative project initiated by TMA Hellerau-Dresden), and wondered whether "platform" is a more suitable spatio-conceptual term for multiple diffusion and dissemination possibilities for live media art work in the 21st century.

(these images show lab members at work on their programming patches or editing softwares. the image on the top shows Ian Winters's "memory table" installation in the northwest corner)

In the next section, I shall try to add some reflections on platforms, as I just now watch the space change in front of my eyes, the architectural triangular cubist space Emily Putoff had worked with suddenly gone.

(Jennifer Woodin inside the cube created by Emily Putoff)

In front of me, a vast meadow, a green pasture has opened up. In the foreground, two persons seem to be resting, lying on the grass. Other people have come onto the pasture.
A small echo from a voice drifts across the valley, from the far corner, where Ian's memory table sits, I hear crickets and birdcalls, I feel how the warm evening wind touches my face, but that may be only my imagination.

(Joff Chafer's tracking meadow)

FRIDAY, AUGUST 20, 2010

dispositif / mise en scène III

IV. Platforms

As my background is theatre and dance, my thinking is largely influenced by stage concepts, and how the "stage" is created and comes alive in the *mise en scène* of a performance or an installation.

The digital dispositif - and here we think of the comprehensive environment for an interactive/real time performance or a participatory installation or mixed reality installation - offers an expanded notion of the stage. Due to the nature of the media and data flows involved (sound, video, graphics, etc), the performance range of "actors" - of the cast - extends to all elements and combinations of elements that are capturable and networkable. In terms of the networked environment created, along with recording/capturing technologies inserted, the performance of live media is re-presentable or transferable to multiple frameworks, if we think of screenings, live performance, instalation, television, online publication, telematics/telepresence, and various forms of digital dissemination (DVD, CD, tapes, mp3, etc).

During our discussions, Suzon brought the notion of "platform" into the round, and I would invite her to elaborate on her ideas here.

What came to the foreground on Day 4 (affecting the start up of Day 5) was a certain methodological restriction or limitation arising from the tracking stage (platform) as the primary device, so to speak. From the methodological perspective, the work done on the programming of a patch (using tracking camera and projector image down onto the white dance floor) set the scene, so to speak, and the patch designer then asked some of the performers to create an improvisation inside the nervous environment (I am refering to the historical precedent of David Rokeby's naming of his first interactional sensory sound environment as "very nervous system") - and Thursday evening this environment was created by Wendy Chu.

Here is an image from the performance on this platform, which ran on an Isadora patch using several actors (Eyes ++, Blob Decoder, Envelope generator, Mosaic, etc) that take the tracking information to disturb/manipulate the dotted grid pattern, an abstract patter, that is the base image of the projection. When human actors enter the platform, the graphic projection on the floor surface becomes animated.

(dotted landscape with music performer Victor Zappi in the center and Julia Alsarraff, on viola, on the left; James Cunningham is "upstage" and as yet invisible as the digital projection was the only light source, with the exception of a floor lamp stage right, which is visible here. Victor is operating the illuminated sound box in front of him. To be more precise, the illuminated box is a **monome,** a real-time step sequencer made up of a grid of backlit buttons that can be utilized for a number of applications, the most common of which is music performance. It is used to trigger and retrigger samples or sample sets, but can also be used as a generative instrument that runs self-effecting or self-sufficient patterns, or to control effects and envelopes).

Now, in computer science the term *platform* is used rather specifically in regard to computation, to platform theory, operation systems, tools, resources, principles and concepts related to coding. In the new media arts and social network contexts, the term refers to online or networked and (collaboratively generated) discursive platforms which can draw from a large range of fields of knowledge. For example, the courses in curating offered at the University of Fine Arts Zurich, describe their curatorial philosophy as follows:

> The program focuses less on the 'genius concept' of the exhibition planner as individual author – a highly controversial topic since the 1990s – than on cooperative, interdisciplinary working methods, as employed, for example, in film productions or non-government organizations. Exhibition-making / curating means the creation of innovative structures for the presentation of cultural artefacts through interdisciplinary collaboration. In this field, art, digital media, design, and architecture intermesh in new ways. The manner of working employed by curators, artists, architects, designers, museum educationalists and writers has become increasingly unified, bringing about new forms of mediation, lounges, archives, reading rooms and new virtual forums – and with them new means of access and forms of interpretation. At the same time, we are witnessing a shift in the organization of work processes throughout society. Individual areas of action are merging on new meta-levels, namely those of networks and know-how transfer.

This conceptual overview – focussed on curating here but relating equally strongly to artistic creation and production and experimental research in the arts/sciences – bears directly on our lab

process and discussions and the collaborative and processual aspects of the work and its manifestations. It has become clear that in our reflections we must ponder and address the changes in the processes of production, if we seek to position our work to specific audiences or to audiences at all.

[Comment from Suzon:
Production seems to be outdated > industrial revolution.
Now, we use a lot the term 'outcome' as it gives more possibilities, open-ended?
Artistically it seems more and more important and interesting to focus on process(es)…example of how interfaces retrace our process(es) > so the work could become the sketch/graph of the interface rather or in parallel with the outcome!!! (later Johannes shows screengrabs of patches in Isadora interface)
Obsession of processes as we are facing our own demons, artificial intelligences?) Mark talked about how someone provoked him by saying that his personality was embedded within the Isadora software he created…but is he surprised at times how others would used it > other processes?]

But since our work experiments take place in the studio, there is a primarily physical (and site specific) architecture involved; the manifestations that happen here are at the same time recorded, discursively reflected, photographed/filmed and blogged/diffused. Digital components and patches can be crossed and exchanged, and this inter-connected method has been called cross-patching by Anne Nigten, the director of the "Patchingzone," a praxis laboratory where Master, PhD students and professionals work together on meaningful creative content (prior to her current position Nigten was the manager of V2_Lab, the aRt&D department of V2, and she has widely lectured on research and development in the interdisciplinary field from an art perspective.

Our lab, today on Day 5, truly resembles a kind of patching zone where 20 odd computer screens and laptops are illuminated in the dark while some members are repositioning screens on the tracking floor or moving cameras about. What is perhaps needed now is a reflection on how cross-patched platforms enable live media performance to find sustained or re-sustainable vehicles for content, for aesthetic experiences, for theatrical and dramatic action and story telling, for dance and music, and multimedia writing, the poetic as well as the subtly understated, rougher shades of the sacred.

[Suzon comment: sacred? Ah… profane illusion?]

V. Real-time

The conceptual seminar on Day 5 was focussed on time/temporality in live media performance. The group began to look carefully at the meaning of the term real-time, and while initially there were more subjective and philosophical concepts brought up (relating to human experience of time, the past-present-future continuum, memory), the debate then moved to the more technologically inflected usage of the term, often applied to real-time synthesis (in music/sound processing) or real-time interactive interfaces (in computational performance or interactive

design). From this initial discussion of real-time and delay or latencies (how computers processes data input), which is a technical issue and often related to bandwidth, we also discussed differences in sensory perception (visual, auditory, tactile, olfactory, etc) and how they might relate to our knowledge or experience of time.

After I asked a question about the "time" (durational experience) of the "loop" and how we perceive musical loops vis à vis various kinds of image loops), Marlon Barrios Solano, who is visiting the lab, suggested at this point to look at calendars as another metaphor for the construction (the arbitrary categorization) of temporality in our civilization. When Marlon argued that the calendar, with its days and months, generates a concept of the loop and of repetition, not everyone in the group agreed, and Tommy deFrantz pointed to specific corporeal differences (interestingly, Tommy also kept insisting in the our discussions on not forgetting or excluding the social and the sexual as important dimensions of movement/technology embodiment or entanglement experience). He responded by suggesting that human cognition and emotion works on complex levels that are not reducible to digital or mathematic logic, and that machine vision, as Mark suggested, can never be as intelligent as human perceptional systems in action at all times.

The time of intelligence, the temporal nature of analog performance and digital media (Victoria mentioning how in her early work she made music with linear video editing of tapes, while now she can edit in non-linear modes through the digital software that gives her a much greater range of possibilities improvisationally), and the experience of small loop samples (repeating quick time movies running in a patch) became a subject of a very engaged debate, while I was hoping that we could actually make a choreographic rehearsal experiment working with actors and images to figure out in a visceral way how time relations and time properties are connected on stage, and how we can carefully examine the particular nature/modes of interactive images (what are "interactive images"?) --- and here I was driving at the differentiation of abstract graphics and narrative, representational images.

(choreographic exercise, Friday morning, with Julia Alsaraff, Sara Kraft, Helene Lesterlin, James Cunningham)

The method for the exercise used three spatial fields (lit through spotlights) and an irregular diagonal across the performance space, with actors entering into the light. The musician plays

one sustained note, to which the dancer on the left (in the picture) responds by imagining movement connecting the furthest point of his right hand to the left foot, while in the middle space a couple enters to re-enact from memory the actions they carried our in Ian's memory table installation. The viola player is captured by a camera, and a close up of her arm movement is projected in real time in a curved motion (from right screen to middle screen to left screen). The exercise lasted 3 minutes and allowed actors (and audience) to compare the time properties and spatial relations of each action. The live feed (camera) input/output action was fed through a filter that created a small time lapse.

The exercise was primarily intended to set up a theatrical scenario that allows for dramaturgical redevelopment, and the rehearsal was immediately opened up to the group and Tommy deFrantz took on directing the second version. There was narrative and dramatic potential in the scene, even if musical and digital (video) relationships were as yet completely undeveloped, but this was something I wanted to propose, to start out *construction of scenic action material* prior to patching/cross-patching, so that we could ponder the question of what kind of live images (media) might enter into a meaningful relationship with the human actors and their expressive, non expressive or gestural and emotional affect on the situation (and the space) as a whole.

NOTE: (from 2012):
[The idea of "actionable image" entered discussion at a later stage when I reported on the EMPAC Lab during a presentation in Zagreb, and the dramaturg of BADco, Tomislav Medak, suggested to examine the particular nexus of body, image and technology, referring to "actionable images": With "Actionable Image," Medak implies the exploration of experimental encounters between the image and the body, and how the two material modalities of expression whose encounters in our age are predominantly arranged, composed and mediated by means of visual technologies are enacted.]

It might be illuminating here to reflect briefly on William Forsythe's comments on his way of directing dancers in his company (at the time he produced "Improvisation Technologies" in 1999).

In an interview with Paul Kaiser, Forsythe states:

> So I began to imagine lines in space that could be bent, or tossed, or otherwise distorted. By moving from a point to a line to a plane to a volume, I was able to visualize a geometric space composed of points that were vastly interconnected. As these points were all contained within the dancer's body, there was really no transition necessary, only a series of "foldings" and "unfoldings" that produced an infinite number of movements and positions. From these, we started making catalogues of what the body could do. And for every new piece that we choreographed, we would develop a new series of procedures. Some choreographers create dance from emotional impulses, while others, like Balanchine, work from a strictly musical standpoint. My own dances reflect the body's experiences in space, which I try to connect through algorithms. So there's this fascinating overlap with computer programming.

In the next section, I will try to depart from this Forsythe commentary and look at specific differences in contemporary dance between what Forsythe calls "experience in space" and what we, on the morning of Day 6, begin to see as a proper proprioceptive challenge of performing with an augmented reality environment or platform which is nervous, dynamic/responsive and generatively alive.

Posted by Johannes Birringer at 11:29 AM

1 comments:

_Vic said...

A comment about loops. Talking about vision, in our brain areas V3, V4 and V5 have the specific task to analyze the visual input to find simple cues of direction, angle, movement and shape. More complicated algorithms are subsequently implemented, but the very first step is a real pattern recognition task. And as these patterns repeat over and over in a small amount of time [e.g. hundreds of simple shapes combined into the visual scene], I dare to call them "loops". A similar mechanism works also for hearing and all other senses, making me think that the very base of our physical experience tends to be grounded on innate repetitive info atoms – loops. But that's not all. I agree with Tommy, cognition and emotion are much more complex. According to this, I believe that loops have the specific power to rapidly introduce the audience into a performance, into a message, as a universal language. But to really express the dramatic stream, we have to break loops, to do conscious variations of the path where we are leading the audience. I also believe that the nature of the *dispositif* provides us with a huge amount of mods and tranformations of the path_
A

SATURDAY, AUGUST 21, 2010

dispositif / mise en scène IV

VI Platform Proprioception

As we reach the end of the week of our workshop, we are energized by our regular morning physical sessions. Today (Saturday), Wendy opened the warm up with everyone lying on the tracking floor and closing their eyes, sensing everyone's presence and one's own connectedness to space and others through sensitivity to the sound we are making. In the second part of the warn up, Sara Kraft directed us to begin sensing space and persons in space through focus exercises that shifted attention from a focal point in space to a more peripheral vision and sensing to a wider proprioceptive awareness of everything around us - envisioning the total environment almost like a holographic volumen.

Looking at this image, you see the dancer (James Cunningham) testing the follower behavior of the blob actor (in Isadora), which is programmed to process/manipulate projected text and also sound samples (of recorded spoken words); in the center of the floor you can see the downward view of the camera tracking the figure in space.

Starting from the Live.Media+Performance lab, and the experience I have had observing the experiments of the various project groups during the week, I want to look at the performance behavior of the individual artists working (rehearsing) inside the interactive platform environments.

Another approach, of course, would be to look at the programming environment and analyze the tracking behavior (machine vision) and communications between "actors" in the Isadora patches, to gain a better understanding of how the coding is conceived and what protocols or parameters and filters are used.

Almost all the prototypes under development this week had a modus of real-time interaction in place (in the patch programming), so that tracking information coming into the computer was continuously measured and processed by the patch actors (in Isadora).

In this image, you see the dancers in space, on the tracking field, observing the downward camera vision on the large upstage/backscreen on the northside of the studio. The studio projection set up included three fixed projector positions; first, from back of house to the large screen you see in the picture; second, from the right side to the left side, and third, from the ceiling grid down to the floor ground. Several roving projectors were used at times for throwing images onto the smaller flexible/moving screens. In other words, in the lab studio environment, projections could be positioned from virtually any position that was desired.

Here is a picture of the same prototype (Sarah Kraft's "Truth Is") under development, without that the camera vision window is open.
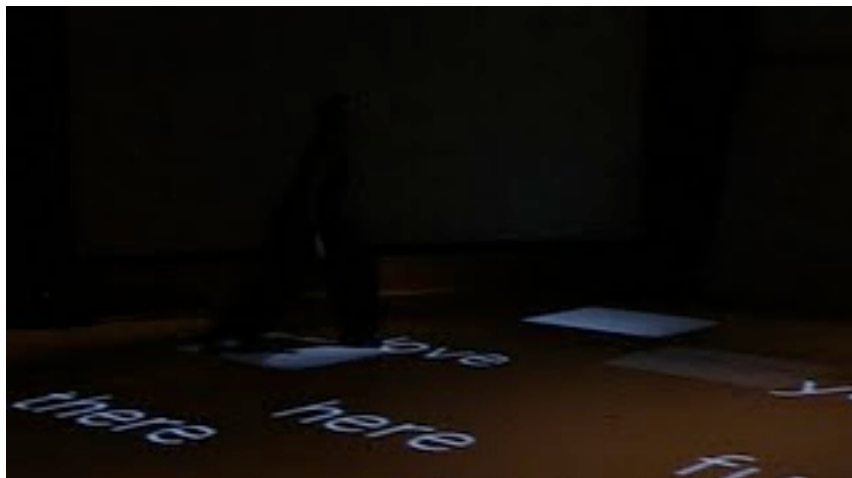
The team programmed a projective landscape that showed white squares and the words on the floor, while the blob actor becomes visible as a faint round spot that tracks/follows the person

that enters the space (the camera "sees" the stage under infra red light: we hung four lighting instruments, the infrared lighting for the overhead camera allows the stage to be bathed in invisible light which does not interfere with the video or graphic image projection onto the white floorscape).

To show the perspective of the programming, here is a screenshot of the Isadora patch for Joff Chafer's Lying Bodies/Outside In installation:
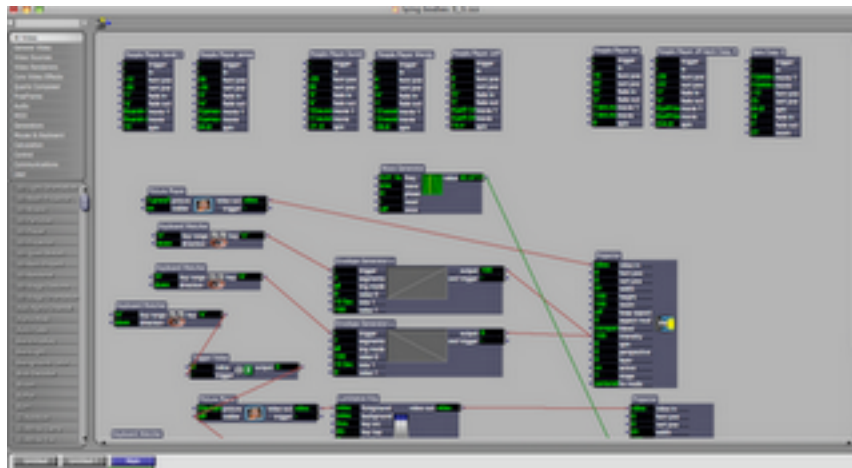
Perhaps the still image is hard to read on the blog, but at least you can see the arrangements and connections between the various actors and "projectors". The patch is visible only on the laptops or main computer used by the programmer, while to the environment ("stage") the software sends out the visual outputs. In our lab we often used more than one projector (using Matrox Triple Head to Go), and the various projections can then be distributed by the software to the "stages" (Stage 1, Stage 2, Stage 3, etc).

The issues we now face revolve around the interconnected composition/design process of developing the physical performance or participation with the system, while continuing to improve the response behavior of the system, which in many cases depends on the presence of performers in the platform. The performers or participants, on the other hand, need to learn to "play the instrument," so to speak, find out and perceive, intuit and sense, the response behavior of the system.

The participants of the lab have been working on eleven small experimental live media performances, some requiring performers with a task-based or game-based or choreographic motivation, other are installations that invite the visitor into the system environment and leaving it to her/him to explore the situation that has been prepared. For the interaction between performer/participant and the system to work and be satisfying, there needs to be a perceptional process initiated: the performer who acts inside the platform environment needs to "test" or explore the system behavior as well as her/his proprioceptive and kinetic awareness of the live media with which action is enacted.

Taking as an example the "Smush-grid" installation by Sarah Dahnke (which is presented tonite along with Wendy Chu's dotted landscape installation), you see in the photograph how the participant users are examining the unstable behavior of the system. They were told the "rules" when entering: balance yourself and move on the white lines of the grid, as if you were a tightrope walker. If you stay on the white lines, you are safe, if you step into the darker areas, you fall and need to go down to the floor for some seconds and be still. The grid has a behavior, it is either stable or is suddenly warps. When it warps, it will "throw off" the walkers in the labyrinth. The moment of the warp is triggered by the tracking machine. The whole landscape changes, and the participant needs to react instantaneously if partaking of the game challenge.

This change in the grid environment has interesting psychological effects on our perception, as the projected outlines of the gridded landspaces warp and fold, almost as if the unfolding/folding changes are "cuts" in a dream (I think there is an amazing dream sequence of this kind in the new film by Christopher Nolan, "Inception"), and your mind/body is trying to adjust to or anticipate the sudden changes. One tries to balance and hold on to a sense of reality or stability, which is undermined by the digital serendipity. In Wendy's dotted landscape, the grid becomes mass of starry nightscape swirling about like swarms of stars. Here the action is enacted by a dancer (James) and a musician (Julia) who move in this starry landscape and respond to its character. When the environment was performed, we could not always see the human actors as the space is rather dark, only one side light offering a corridor of light, and the most astonishing moment happened when James, at one instant, suddenly appears (his face) in the bright beam of light.

This moment stands out and yet it is part of the whole experience of "feeling" the sensory environment that is in constant movement, so to speak, through the swarm of dots. It would be interesting now to ask the dancer how he negotiated the space, and how his proprioceptive sensory experience motivated his movement behavior. In a discussion earlier in the week, James argued that he is mostly following an inner focus and attention, not needing to look at the space, and it is this immersive experience that a number of our exhibitions tried to create. It propose an experience where you see/feel with the entire body and sensorial organism, not merely with eyes.

I will end this section by referring to Kazuo Ohno & Yoshito Ohno, *Kazuo Ohno's World from without and within*, trans. John Barrett (Middletown: Wesleyan University Press, 2004), a fascinating book by the late butoh master from Japan. In a section titled "The Eye," Ohno suggests to look without looking. Yoshito expands:

> We, as performers, need to give careful consideration to how the eye and body interact. It's essential to grasp where exactly the eye is located and how it functions. Moreover, there are things that cannot be seen with the eyes. For a butoh dancer, the entire body must become a receptor organ for light. By this, I mean that the eyes are not our sole visual link with the exterior world. The entire body, from head to foot, is capable of visually assimilating our immediate surroundings. In a performing context, Kazuo's eyes don't, in fact, look *at* things in a conventional sense of looking *out* on one's immediate surroundings; his gaze is also fastened on what is happening inside the body.
>
> At the workshops, Kazuo repeatedly stresses the necessity to start looking with the underside of the foot. He wants us to arrive at a stage where we can see with our feet. The eyes, in his estimation, should be able to migrate throughout the body, thus enabling what one might call a fine tuning of our perception of both outer and inner worlds. Onstage, Kazuo's eyes, while continuing to focus on his surroundings, pass down through the body and cling tightly to the soles of his feet. By attaching themselves to the feet, their gaze becomes more penetrating, for the body itself then begins to respond to external stimuli. Kazuo insists that one shouldn't rely entirely on the eyes to see because their ability to penetrate the visual field – even when making accommodation for focussing on nearby objects – is negligible when compared with the visual acuity of the body. In his own

words: "It's impossible for me to dance if I continue to look at things in my habitual way."
(Ohno and Ohno, *Kazuo Ohno's World from without and within*, p. 24**)**

This beautiful passage is an appropriate commentary on some of the thoughts under development here on the "field" created by our performative installations. In the group discussion following the presentations, it was in fact James Cunningham who noted that he finds it increasingly difficult to distinguish the fine line between performance and installation, and this comment led to a longer discussion on how our perception/reception behavior is stimulated in new ways by the digital scenography and unstable behavior of the tracking platform.

SATURDAY, AUGUST 28, 2010

dispositif / mise en scène V

Work-in-Progress Presentations

On the last day of the workshop (Saturday), the group decided to end with a showing of all 12 short works (in progress) that members of the ensemble had worked on over the past few days.

For the record, we shall list the performance-installations and the names of creation teams here so that visitors to this web archive can imagine the productive effort that led to this wonderful culmination of the week-long process. After listing the installations, we shall continue to reflect on the particular arrangement/*dispositif* chosen by the artists to present their work and invite performers or audience to act inside it.

(meeting of the "screen movers" before final showing)

Live.Media + Performance installations:

1. "Tiling Performance," interactional performance by Ian Winters
2. "The Table," interactional performance by Jennifer Woodin and Tommy deFrantz
3. "Lying Bodies/Outside in," interactive installation by Joff Chafer
4. "Memory Table," interactive installation by Ian Winters
5. "Bubble Playground," interactive installation by Byul Shin, sound by Victoria Gibson
6. "UN-SU," performance by Victor Zappi
7. "Truth Is," interactional performance by Sara Kraft (with video programming by Ian Winters and sound programming by Victor Zappi)
8. "Poppy", architectural projection performance by Emily Putoff, with dance by James Cunningham and Tommy deFrantz, and six screen movers, and sound by Victor Zappi
9. "Grid", interactional performance installation by Sarah Dahnke, with James Cunningham, Suzon Fuks, Julia Alsarraf, Wendy Chu.
10. "Dotted Landscape," interactional performance installation by Wendy Chu, with James Cunningham, Julia Alsarraf, Sara Kraft, Sarah Dahnke, Victor Zappi
11. "Tripod dance," performance by James Cunningham (with Suzon Fuks)
12. ""Bandwidth," visual music piece by Victoria Gibson

After the showing, a group discussion which lasted over 90 minutes completed the evening. During the discussion, everyone was invited to comment on the works presented and offer insights into their experience and reaction of the arrangement, form, and content.

. . . . . .

VII. Sensing the tracking/performing installations

Continuing the previous chapter on "Platform Proprioception," one could point out that in rehearsals for Sara Kraft's "Truth Is," it was noticeable that the creators wanted to achieve an interactional scenario in which the performer (or the visitor invited into the installation) had to sense the "fields" on the floor (tracked by the overhead camera) which allowed the system to respond to movements on the fields. The camera tracking system senses the mover on the floor. The program was written in such a way that the person moving on the field could activate sounds (the spoken text by Sara which dealt with relationships of trust or love and disappointment) as well as affect the projected text passages that were visible in the spatial environment.

(Sara Kraft rehearsing inside her installation "Truth Is")

This often led to a behavior – in rehearsal – where much of the attention of the performer was directed at the system behavior and its recognition of movement inside the parameters. While this is clearly a necessary proposition for the interface, namely that the mover "activates" the system responsivity, it also leads to a tentativeness that directs the focus at recognition/positioning and not at expression or experience, performance or motivated action.

Contrary to what James Cunningham experienced when he performed inside the dotted landscape and the choreographic exercise on Friday morning (inner focus), and what Kazuo Ohno's butoh dance implies – namely that the dancer's entire body becomes a receptor organ for light and the eyes are no longer the only visual link with the exterior world but the whole body assimilates the immediate surroundings – Sara's rehearsal showed her to have an outer focus trying to "find" and cross between the sensitive spots in the programming/mapping environment.

This is clearly a disadvantage if one were to think of the interface performance in theatrical/dramatic or choreographic ways, as the one to one mapping tends to work only as a trigger space. Reactive system behavior (changes in sound and in projected words) is elicited, and the action in the environment becomes focused on eliciting rather than sensorial experience, or emotional experience, performed as a story of the body experienced "truly" in the physical, spatial environment. Or a woman's body performing a story about "Truth Is" (her narrative) and what the uncertainty or ambivalence or truth/perception might be or not be, might have been or not have been – the temporal disconnect crucial here as the performance is live but the written words and spoken words are recorded, data, remembrances, echoes and associations. Words and meanings change, their semantic affect on consciousness unstable.

Sara Kraft's environment is potentially rich and complex, since it houses a personal narrative, but

in the rehearsal, as well as in the final showing of the interactional installation, the performer's movement itself seemed kinaesthetically or psychologically unrelated to the story or the fragmented narrative, from a representational point of view but also from a sensorial/experiential point of view if indeed such an installation could open up a terrain for contact improvisation or inner-directed immersive experience of self (and Rosalind Krauss, many years ago in 1976, spoke of an inherent narcisssism in such self-presentational [video] work).

One conclusion that could be drawn is that interactive systems that house active-reactive (stimulus-response) behaviors are stuck in a parameterized constellation which does not allow generative evolution of performance expression but offers mostly a constraint, a tightening of the options. I will compare this to the haunting, poetic evocation of the "lying bodies" on a projected grassy plot in Joff Chafer's "Outside In," further below, but first want to mention Erin Manning's critique in her recently published book, *Relationscapes: Movement, Art, Philosophy (*Cambridge: MIT Press, 2009). I quote from her chapter on "Dancing the Technogenetic Body" (and she in fact refers to Mark Coniglio in this context):

>>Explorations of new technologies and dance, led by Mark Coniglio, Scott deLahunta, Antonio Camurri, and others, have often focused on the difficulty of locating gesture-as-such. One key to developing sensitive software is understanding – and embedding into the software program – what a gesture is. In a 2006 paper, Scott deLahunta suggests that the best way of coming to an understanding of gesturality is to work collaboratively with dancers such that "the choreographic and computational processes are both informed by having arrived at this shared understanding of the constitution of movement." A similar tendency is expressed by Mark Coniglio when he suggests that live performance work must "delve beyond direct mapping and the metaphor of a musical instrument; to building systems that could better sense qualities of movement; to represent something of the 'gestalt' of movement."

An engagement with technology and dance demands an encounter with the syntax of the moving body. For the practitioners of dance and technology, the exploration of movement is intrinsically related to how to locate where a movement begins and ends in order to map its coordinate within a sensitive system. Yet the questions "What is a gesture?" and "How can the computer recognize one?" may not actually lead into the direction proposed by Coniglio and deLahunta. Rather, it may direct the techno-dance process toward establishing a kind of grammar of movement that would – paradoxically – be more likely to tie the body to some preestablished understanding of how it actualizes. "Mapping" gesture risks breaking movement into bits of assimilable data, replicating the very conformity the computer-dancer interface is seeking to get beyond. Instead of attempting to map gesture, this chapter therefore begins somewhere else. It explores the potential of the *wholeness* of movement, including its "unmappable" virtuality. The unmappable – within a computer software program – is the aspect of movement I call preacceleration, a tendency toward movement through which a displacement takes form. (Manning, *Relationscapes* 2009: 61-62)

This "wholeness of movement" is constrained by platforms that need eliciting, as I pointed out above, and we might need to agree with Manning that pre-mapped environments always contain

a limiting structure that hinders the kind of unfolding we saw in James's dances or in James and Tommy's duet in "Poppy," however much that installation revolved around the strange shifting and moving of the spatial architecture and the changing light (a programmed sequence of swirling light particles in different colors) - there the dancers' movements evolved and flowed without that their gestures needed to activate a response: the movement itself was not dependent on the system's prosthetic apparatus or its emphasis on subjecting the dancing body to its predefined parameters, and therefore the performers' attention was less drawn to the workings of the system, but rather to their movements' qualities and the changes they experienced as the "walls" started to move.

("Poppy" installation by Emily Putoff, with Tommy de Frantz & James Cunningham)

In their confined space of "Poppy," the two dancers created a duet between themselves and the moving screens and their materialities (the paper that prolonged the vertical screen surfaces down to the floor), sensing and dancing with their immediate surroundings. Since this was a highly plastic, moveable environment, how do we perceive such a dance or such a physical-spatial performance?

Comment (Suzon):

[For me it is important to consider the entirety of the screening texture/surface: it is not a preconceived delusion of a floating rectangle when performers interact with projection(s). It has the same grounding then performers and then can take us beyond gravity!]

In more general terms, the question was raised in the post show discussion how "performance" articulates itself in an interactive installation and how one can distinguish at all between installation and performance? Are there performative installations, and is the visitor in need of

"instructions" on how to behave/perform inside the *dispositif*? Do such *dispositifs* require prior knowledge of the system operations or can they be experienced intuitively, and if the latter is the case, do we consider all behaviors as performance? If rules or properties of the system are given, and if it were a one-on-one encounter (between a visitor and an installation), would we still think of performance even if there was no audience?
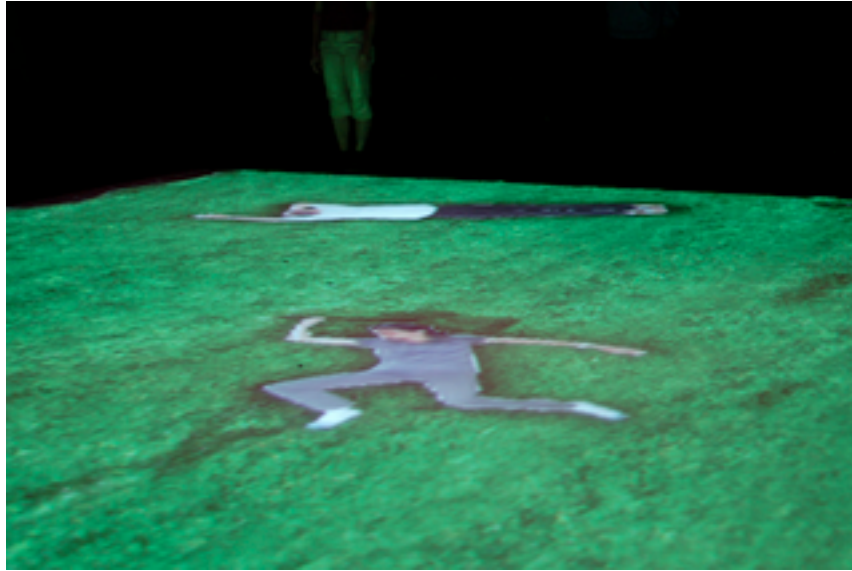
In the case of "Outside In," the projected environment also had plastic potentialities, the green of the projected (synthetic, unreal-looking) meadow slowly becoming spotted with dark shadows growing into recognizable images of persons lying on the grass. This installation was utterly silent, there was not a sound. We held our breath and took in the landscape, noting the slowly emerging lying bodies, or rather, images of bodies. We realized we could walk on, and gradually, some of us did, walking about, as if we were the kind of "flaneurs" Walter Benjamin described in his *Passagenwerk* (his study of 19th century Parisian urban life), we meandered on the meadow, noticing the dark shadows that would become lying bodies, images of persons that may have been buried here or lying here, spectres from a past moment, beckoning us, and as we moved closer, some moved as if to invite us or as if frightened by our intrusive presence.

Some of us would sit down, or lie down next to the ghosts, which gradually faded away, but over there, in some other spot, another image-person appeared and this continued for a while. There was a deafening silence, and the unreal looking meadow held our attention, as we moved about, until one image-person began to slowly spin, turn and turn, and then a woman stepped near the disappearing shadow and dance a dance of a whirling dervish, faster and faster, then slowing down, as the meadow grew dark and faded away, slowing giving rise to a field of many hundreds of leaves.

The aura of this landscape was fascinating, and left many of us breathless. I want to add a few comments regarding leaves from a conversation between Doros Polydorou and Michèle Danjoux, collaborators of mine who were involved in creating a scene for a recent choreographic installation, UKIYO, produced by my ensemble after a workshop in Tokyo, Japan. There we found the real leaves which were then worn by a dancer (on a dress made of leaves) in an

interactive scene with a 3D graphic landscape that allowed the dancer to affect elements *inside* the virtual world. In other words, the comments concern the nature of the interactive relationship with the virtual images. Doros suggests:

> As far as the nature scene is concerned, the scene started forming in my mind in Japan after Michèle and Katsura brought in the leaves. I originally brought from Singapore a scene with the hanamichis, and then in one day I constructed that very simple island with the grass, trees and leaves. I had a look at the work from the first version of Ukiyo, the videos and images, and the idea that I had in my head, was a floating island, a beautiful place which contradicted the industrial feeling and aesthetics of the rest of the performance. A place where one would go to escape from that reality, and I wanted it to form from the dancer's, from Katsuras imagination. The dress leaf was an extension to her, and I wanted that extension to continue and slowly paint the island as well." (email 08/01/2010)

Michèle Danjoux responds: "This is really interesting, to read how your thoughts are / have been emerging in terms of the collaborative work and your specific contribution. Just a couple of points at this stage from me which are simply in direct response to what you say: >>The dress leaf was an extension to her, and I wanted that extension to continue and slowly paint the island as well.>> This is such a beautiful way of viewing the clothed body, and yes, clothes are an extension of the body. And I like the way you then expand this extension outward to the virtual realm of your island / Katsura's island. Who's island is it actually? Who's island does it become? The slow painting is very poetic and seductive, the body and the technology are inseparable, Katsura takes on a sensual and almost erotic manner as she performs the dance of creation.

Then you suggest >>In order to be meaningful though the relationship must be clear, like for example the dancers following and "learning" moves from the virtual counterparts or vice versa. When we are projecting a non-interactive piece the performers must consciously adapt their choreography (which was either pre-choreographed) or improvise in order to create a relationship with what they see. In theory, by having an interactive system in place, the performers can dance freely and the virtual counterpart will "monitor" their actions and act accordingly. >> I think there is still some 'learning' for the dancer to do when working with interactive systems, no? By this, I mean that there is both automatic and controlled processing. The latter requires conscious effort as with most learning processes. I consider after watching Katsura work in Ukiyo 2 and also Helenna and Katsura from Suna no Onna that the application starts with controlled processing and moves to become automatic. This idea of the 'controlled' and the 'automatic' could be interesting for you. Anyway, you are hopefully through your systems of interaction and your visual / sonically enhanced worlds emotionally hooking the performer (and viewer?) and transforming experience. I am glad the gathering of leaves back in December in Tokyo proved so inspirational to you."(email 08/25/2010).

In this subtle reply, which also relates to Michèle's own motion design of the wearable garments, Michèle draws attention to the vexing question underlying the programming of the scene and the perceivability of a plastic, moveable, changeable 3d (projected) world, just as in the case of Joff's "Outside In. It is a question about relationships, and becoming. The "patchmaker", as

Suzon non-chalantly calls the programmer, is of course vexed by the question of the performability of a virtual world, and whether a directional or indirect interaction can be perceived by the observer or the immersant. Doros assumes that this is a key problem, and doubts whether the performer - virtual-environment interactions can work and produce something interesting without invoking immersion. And if immersion is achieved, will the feeling of agency produced to the performer be interesting to the audience?

Doros was doing some research recently on gaming, he adds, and was suprised to find a number of people who actually like watching their friends play games. He then proposes that we might need to investigate a bit further, as we build interactive platforms, and try to identify what feelings produces this liking, or whether there actually can be an audience in interactive installations - a question Ian Winters seriously raised in the post show discussion. Why would there be any one watching? Should there be anyone watching? Is the experience, for example of "Outside In," relevant to anyone not actually meandering into the landscape and meeting the spectres of the persons? Would an audience care?

Whose island is it? whose meadow is it and how do we walk into it? Is it a joyfully inviting "playground" (no instructions necessary), as in the case of Byul's "Bubble Playground"? Or is it a seemingly rule-based grid environment (Sarah Dahnke's "Grid") that tends to challenge the visitor and give her level up feedback or die down punishment? How free do our general audiences (in galleries and museums) feel when they realize they are asked to move, do, act, follow, explore, engage, etc? Someone mentioned in the post show discussion that an installation like Ian's "Memory Table" did not present a problem for our extroverted lab members to get down to it and play hard, since many in our group are used to performing, but how would such an installation work for the shy, the inhibited? the observers? If no one sat down and engaged the table and the objects lying on it, there would be nothing to observe as the system would not capture any input and have nothing to filter and re-disseminate. Thus installations like "Outside In" and others only really attain their collective sensoriality or animate character once people step inside and begin to behave in some manner that brings about relationships, imagined or otherwise.

If no one stepped inside Joff's "Outside in" the installation would "run" silently – the course of its programmed "actors" (in the Isadora patch). It would be idling, as i think it is called in games or in Second Life when the avatar hangs there, occasionally twitching and waiting to be activated. Once visitors step inside, relationships emerge in-between. In between the person responding to the image-environment or movements inside the projected environment, and the images responding to the mover's presence and action. Is this what we tend to think of as an interactive relationship (between agent and animation, visitor and sound-image?), and how conscious (in a mutual sense) is this relationship. Or we can ask the question differently, from a dance perspective (connected to the art of animation): how does movement happen and how is it perceived, how is the movement of the image happening and changing and how does this affect our own movement relationship?

(leaves fall onto the whirling Sarah Dahnke on Joff's "Outside In" projection-meadow, Saturday morning rehearsal. The real falling leaves could not be repeated in the evening due to security protocol)

5 comments:

suzon said...

I find funny that 'authorship' in collaborative works go to 'patch makers', and that sometimes the collaboration on other media is mentioned or not!

August 29, 2010 12:39 AM

Johannes Birringer said...

Suzon is quite right. the constant cross collaboration meant of course that in almost all installative performances the members of the workshop participated, performed, acted, helped, and in James' tripid dance I gather there was help on the camera feeds, in Joff's beautiful meadow there were not only the "images" projected and the projective changes but also of course the persons who had provided the "images" projected and those who walked onto the meadow to act, and so on. One table installation invited visitors to observe (Jennifer's and Tommy's), the other (Ian Winters' "Memory Table") needed visitors to perfom the installation, to "input" so that the capturing technology (camera, software) could build a memory that could then be re-performed by the projected scene layered into the live installation. And more could be said here.

For me, the workshop raised a very strong question about collaborative process(es) and collaborative behaviours, sense of sharing space-time-concerns convivially. I felt a lot of time the patch makers were isolated (yes, there is a consumed time for making the patch!) while performers or musicians or other possible skilled people were continuing to evolve

their input without the patch…imagining something which might not exist eventually, as the patch maker is not available to follow their development!

I was constantly wondering which type of process(es) could be proposed, developed, enhanced to facilitate a more integrated R&D team! So the outcome might be stronger & encapsulating this common evolution.

So the authorship given to the patch maker is a bit giving power to the scientist whithout acknowledging the power of the organism evolving on its own!!!!

August 29, 2010 2:51 PM

Michele said...

Really interested to read the outline of the work thank you. I am particularly drawn into the issues of the interrelationship of sound (absence of sound) and image.

>>There was a deafening silence, and the unreal looking meadow held our attention, as we moved about, until one image-person began to slowly spin, turn and turn...>>

The only common character of sound and silence is **duration** and it is fascinating to ponder how the "Outside in" landscape is experienced over time and how this time is marked / sensed in terms of passing to the moment where the leaves fall.

Such a shame the real falling leaves could not be repeated.

August 30, 2010 3:42 PM

suzon said...

thanks Johannes! great to see that even life goes on, you still posting on the workshop content. Great to read more description, references, analysis, questioning (silence and stillness are often 'bouncers' to personal notion of time and space).....brewing......

September 8, 2010 8:57 PM

dispositif / mise en scène VI

"Tiling Performance"

"Tiling Performance"

An interview with Hélène Lesterlin, Mark Coniglio and Johannes Birringer, conducted and edited by Marlon Barrios Solano during his visit to the worksho, has now appeared on dance-tech.net: http://www.dance-tech.net/video/dancetech-1

In continuation of the previous explorations of the various installations/performances tested during the Live.Media + Performance Lab 2010, the following sections will focus on some of the Saturday evening exhibitions that have not been mentioned yet. We begin with a sequence of photos that refer to the works.

Final showings at the end of the workshop:

1. "Tiling Performance," interactional performance by Ian Winters
2. "The Table," interactional performance by Jennifer Woodin and Tommy deFrantz
3. "Lying Bodies/Outside in," interactive installation by Joff Chafer
4. "Memory Table," interactive installation by Ian Winters
5. "Bubble Playground," interactive installation by Byul Shin, sound by Victoria Gibson
6. "UN-SU," performance by Victor Zappi
7. "Truth Is," interactional performance by Sara Kraft (with video programming by Ian Winters and sound programming by Victor Zappi)
8. "Poppy", architectural projection performance by Emily Putoff, with dance by James

Cunningham and Tommy deFrantz, and six screen movers, and sound by Victor Zappi

9. "Grid", interactional performance installation by Sarah Dahnke, with James Cunningham, Suzon Fuks, Julia Alsarraf,

10. "Dotted Landscape," interactional performance installation by Wendy Chu, with James Cunningham, Julia Alsarraf, Sara Kraft, Sarah Dahnke, Victor Zappi

11. "Tripod dance," performance by James Cunningham (with Suzon Fuks)

12. ""Bandwidth," visual music piece by Victoria Gibson

Following the sequence of presentations, we start with two silent performances and an installation, first the "Tiling" piece which was programmed by Ian Winters, and enacted/performed by James Cunningham:

(James Cunningham performing in "Tiling")

In the wide open spatial environment (one projection screen angled towards the flat space upstage right), we see the performer kneeling on a small rectangular lit area, with a bowl of water placed in front of him, and a camera on tripod behind him, "shooting" over his shoulder. My own camera position (for the documentation) is downstage left, if we were to use the conventional directions in the theatre. The performer is holding his flat hand out near the water bowl, and we gather that his hand is inside the *cadre* (frame) of the onstage camera which captures the gestural action. The signal from the camera is sent to the software environment, and Ian's programming affects the three long strips of projected images that we now begin to see. The white strips of projected light contain the "tiles", the fluctuating, moving and changing serial images created through the "processing" and filtering of James's filmed hand gesture. The

performer, throughout this installation/performance, enacts a dialogue with the camera and the software environment, literally exploring, as time passes, the "outcomes" of his filmed hand, changing proximity and distance to the camera, playing with the water bowl and the water inside it, and at one point picking up a small laser pointer and directing its beam at the water.

This presentation was followed by the "Table" installation-performance by Jennifer Woodin and Tommy de Frantz, which contained a dialogue between Jennifer and Tommy as well as their cups:

We are asked to enter into a narrow, intimate area in the corner of the studio, screened off by tall risers. Inside this corner area, there is a black table, at which Jennifer and Tommy sit down, each with a white tea cup placed in front of them. On a second table, dinner plates and cutlery are waiting as if the dinner table will be set, but we also note that a small projection falls into this second table, "virtual plates" appear as the two engage in a strangely quiet, almost surreal conversation, mostly conducted by the woman who appears to address a dysfunctional relationship. As the couple move the white tea cups, which are tracked by a camera suspended above the table, images of virtual kitchen/table objects fall onto the second table, and at the end, after the woman has left the room, taken her real cup with her, a virtual cup appears in her stead, as if that was all there was left now from the shared history, an empty cup projected onto a flat plane.

After the table piece, Joff Chafer offered his silent and somber "Lying Bodies/Outside In."

(J.Birringer, on the left, ghosting one of the image-bodies, on the right)

Out of the darkness, a green meadow arises, projected onto the entire width of the space. Before the presentation, Joff Chafer had briefly invited us to interact with the installation and note the behavior of the projected "actors". He also mentioned that the piece was silent and that he'd be interested in feedback as to the kind of score we might imagine with this piece.

The visitors/audience is outside the meadow, looking in, and slowly we observe how dark shadows seem to appear, one here, one over there, and from the shadowy contours the image of person lying the grass appears; perhaps this is a summer lawn, a place to rest in then shade, some of us walk onto the space, and as a visitors approaches one of the lying bodies, that image=body seems to move and respond to the presence of another, changing the way the lie, or rest their head on a hand, or turn over. This provokes responses from the visitor, someone over there lies down as well, or sits next to the image-body. Couples seem to form, but not for long, as the imaged body suddenly loses its full "intensity" (to speak in terms of image resolution and the percentage of projection brightness that can be modulated in the Isadora software), fades, and then disappears. Over there, a new image-body now gains resolution, and visitors respond by moving closer to it. This is the quiet pattern that emerges in this installation: we begin to expect these shadows to rise from the ground, become more substantial, gain composure and gestural presence, inviting what sociologist Erving Goffman, some years ago, called "face to face behavior" in his book *Interaction Ritual* (1967) – even though he could not have yet meant interactive performance behaviors between humans and computationally controlled images.

They thus invite us to anthropomorphize them, to treat them as "living" images? Indeed, it appears as if we partake in a strangely somber, perhaps eerie ritual where humans encounter living images on an artificial meadow or (eternal) resting ground, and these images may well strike us as ghosts or strange emanations, coming in from some under-ground, rising to image-hood, and falling away again.   Near the end, one shadow seems coiled and rolled up, and then

from the dark shadowy ball a spinning movement slowly emerging, we see (from a bird's eye view) the whirling dervish figure of a woman, and then she disappears as well, and the green meadow fades, first into black, and after a few seconds, golden leaves appear, hundreds of them, as if autumn had descended on the meadow, and all he have in our cosmic memory now are the fallen leaves floating in emptiness. [see the previous chapter which reveals the prototype ending with Sarah Dahnke – and real falling leaves coming down from the rafters – an ending that had to scrapped due to safety rules in the studio building.]

The "Lying Bodies/Outside In" installation had a strong poetic quality, and I tried to write my response down in a metaphoric manner, implying the emotions one could sense in the room or amongst the "visitors" to the cemetery, without paying much attention to how this *dispositive* enabled the interface relations technically. Rather, I want to draw attention, in the following, to the distinctions between the three arrangements (above), and how these installations perform, or are performed. My distinctions are meant to serve as a methodological guide to

 (1) understanding the interface design features and interpreting/describing the content-expression of the projected worlds characteristic of the *dispositifs* described here;
(2) drawing attention to the interaction behaviors that are performed or performable in the *dispositif;* and
(3) locating some of the dramaturgical decisions or strategies that may have guided the artists' compositions here in the Lab.

(Test image of lying body for Chafer's installation)

dispositif / mise en scène VII

VIII. Interaction

("Memory Table")

In *Interaction Ritual - Essays on Face-to-Face Behavior*, Goffman outlines in several essays of his book approaches to human interaction from a dramaturgical perspective. To Goffman, all forms of interaction are kinds of "performances." These performances may fall under the structure of rituals, socially acceptable formalized interactions. One of Goffman's goals is to outline the units of these interactions so that they may be studied in a symbolic manner.

Having introduced this sociological interaction theory, perhaps it is helpful in this context to create an even larger theoretical framework, pointing back to western philosophical history and the discourse that valued epistemology (knowledge/knowing) over the technical crafts (*techne*).

In his lucid summary in the essay "Environments, Interactions and Beings: The Ecology of Performativity and Technics" (in: *Interfaces of Performance*, ed. Maria Chatzichristodolou , Janis Jefferis, and Rachel Zerihan, Farnham: Ashgate, 2009, pp. 27-42), Chris Salter refers back to Plato (the criticism of the crafty illusion machine in the Cave allegory) and Aristotle's *Physics*, noting that Aristotle distrusted "technical beings" and prioritized the *episteme* over the *techne*, claiming that artificial products do not harbor inside them the source of their own production compared to the "natural" or the organic that harbors within itself a principle of motion and of stationariness, in respect of place, or of growth and decrease, or by way of alteration.

Salter borrows from Bernard Stiegler's recent writings on the *theory of technics,* suggesting that according to the Aristotelian philosophy of causation, technical beings are always seen to lack

the possibility of autonomy or internal causes of movement, therefore remaining constrained to inanimate form and isolated from both the human that produces them and the world they find themselves in. (cf. Bernard Stiegler, *Technics and Time, 1. The Fault of Epimetheus*. Stanford: Stanford UP, 1998)

Salter then bypasses a few centuries of philosophical thought (e.g. Spinoza and the baroque era, Descartes, Newton, etc., recently moved to the foreground by philosophers of the digital) and connects up with Heidegger's ambiguous stance towards "technical being." In contemporary life, according to Heidegger, technology becomes separated from *techne* and is also instrumentalized. Torn from its origins in *poiesis* – the art of revealing or making the world present – technology ends up as a "frenzy of ordering… and so radically endangers the relation to the essence of truth" (Heidegger, "Die Frage nach der Technik/ The Question Concerning Technology", 1953). Modern technology, Heidegger argues, "enframes" the world, rationalizing the natural order and rupturing the potential of existence to come full force to us through its transformations of nature into "inventories" and "stocks" to be used up by humans. In the guise of machines, structures and devices, modern technics overcomes human judgement through calculation and rationalization.

In the overview offered by Chris Salter, this Heideggerian unease with "technological life" is then placed in relationship to artistic *techne*, where the theatre, for example, has to admit, even if it promotes its live-ness and its primary emphasis on human performance (the actor-audience relationship), that it always used machines of illusion-making. Throughout recent decades, the theatre also used electronic-digitally constructed images and sound. What is new in the recent collaborations between performance arts, media arts, and science is the emphasis on material and generative processes, the effects caused by the merger of mechanical, computational, biotechnological, and ecological forces. Salter wishes to foreground designers, scenographers and directors who have imagined new contexts for performance where transformative material processes – "technical presences" – are in full operation creating temporal-spatial events for audiences and participants.

Such events may not necessarily be placed inside a theatre stage, of course. But interactive installations or performances, along with other kinds of exhibitions or techno-scientific displays, harbor theatrical dimensions or address behaviors in situations designed to elicit perceptions of what a living system, or "technical being," does or becomes, how actions and dynamic exchanges are understood or known, to what extent technical ensembles or environments influence the social conventions of performativity (the enactments of the performer-spectator), and to what extent responsive hybrid media environments can respond to participant behaviors or be perceived to have their own agency or autonomy.

If we now follow this conceptual outline, and observe the experiments of the EMPAC Live.Media +Performance Lab, it must be said that none of the works in progress were created, strictly speaking, as theatre or dance or music compositions to be staged on a theatre or concert hall stage. This – as an aside – throws an interesting light on the fundamental base-line assumptions still apparently governing the architecture of EMPAC (which houses an opera or concert hall auditorium, a theatre auditorium, and two sound studios along with video editing and artist-residency suites). The building does not seem to have an installation gallery or an interface space that might also allow flexible interactional, telematic or multi-user play

environments, unless the sound studios were built with such usage in mind. But their rigging is theatrical and thus follows the logic of theatre laboratory *mise en scène.* (This discussion might lead us into a different area, namely addressing curatorial matters of spatial arrangements for new media arts, generative art, sci-art or robotic or architectural exhibition.)

All the works in progress are dynamic system environments/installations or, in the Heideggerian sense we mentioned above, "technical beings" constructed for "interface performance" that could be enacted anywhere, in public and private spaces, galleries, foyers, rooms, corridors, cafes and such like. Of course some of the aspects of the environmental design require studio or laboratory conditions, the availability of a grid, lighting, camera and projection equipment, network, computers, extensive cabling, screens and material objects, but the context for the creation/presentation of the responsive system is, primarily, a modestly controllable space. Our workshop examples also reveal that some installations require only a very modest, small area, while others take up the main open space (ca. 50' x 65' or 15,2m x 20m).

The spatial context for our "installations / technical beings" then returns us to the sociological interaction paradigm mentioned earlier in reference to Goffman. It is pertinent here that Goffman's theories appeared around the same time when the field of theatre studies (with Richard Schechner [New York University] and his influential journal, *The Drama Review* spearheading the shift) slowly began to change, in the late 1960s, turning its anthropological attention to ritual (e.g. in Victor Turner and Schechner's work) rather than the technical formalism and artifice of the experimental avant-garde, then on to the broader spectrum of "cultural performance" (initiating "performance studies" as a new discipline). Ethnography and sociology became critical methodologies for examining performance practices in everyday culture, in public space, in festivities, clubs or particular local and community contexts, in the media but also in corporate or other organizational structures, thus mostly shifting attention to a non-artistic/non-high cultural paradigm.

One outcome of this shift (against which theatre studies and art theory might defend their aesthetic terrain and art-making *techne*) is not only a preoccupation with "performativities" – following speech act theory, de Certeau's theory of spatial practices and Judith Butler's theory of gender performativity, expanded into a conceptual "tool" for interdisciplinary cultural analysis of the theatricalised (re)actualisation of socio-symbolic systems that render cultures visible to themselves and to others – but a turn to the manner, materiality, media, instruments, institutions, etc. that influence the *episteme,* the production of knowledge. This turning towards in-forming assemblages, machinic or other, implies a much greater awareness of material actions of technical presences in contemporary global culture, and here Salter is quite right in proposing that an interest in understanding "performance" today, in a world in which technical processes not only constitute our environments but – as Guattari and Deleuze predicted – produce newly evolving forms of hybrid human and machine subjectivities, requires a new analysis of "interaction rituals," if indeed we were to extend Goffman here for our analysis.

We mentioned the "technical beings" or the systems environment that have been created in our workshop: the concluding presentations of "installations" (the fine line between installation and performance crossed all the time but not clearly articulated yet in our reflections) were offered to the (human) participant-spectators. But an analysis of "performative installations" as technical beings then might indeed require a partial abandonment of an anthropocentric focus, based on

(Goffmanian) anthropological, sociological, cultural or linguistic frameworks, and instead require attention to system behavior, phase shifts, modulations of the states and behaviors, actions and reactions of a machining architecture of non-human enunciations (cf. Salter, pp. 29-30).

(a visitor lies down next to an image-body)

How do we then address the interaction that takes place between the visitors and the "Lying Bodies/Outside In" environment, if we take the projected environment to be a technical being or, if you prefer, an ensemble of materials or a programmed/responsive system? How do we address the interaction between visitor and image?

Can or should we speak of a ritual, in the sense in which Goffman describes "face work" (e.g. the processes of saving face in the displays of self to others during social interactions and encounters which clearly can be delineated according to conventionalized options available, and responses that are taken through obligational patterns, assertions, threats, defenses, etc.), or the nature of "deference and demeanor," "embarrassment and social (re)organization" of the ritual system or script? Or in the sense in which Goffman addresses "action"? For the sociologist, action is of the dramatic sort, implying the idea of important and meaningful acts or events which are performed or are participated in by people. Action is a vehicle to reveal deeper qualities of character, and Goffman's writing on action is a prolonged journey, offering many insights, for example into "games," and into their quality of chance and risk. From there Goffman moves to the larger sense of consequentiality in moments: one can kill time, and that killed time is inconsequential. Yet there is an apparent axis of actions, consequential versus inconsequential, apart from this there is the question of whether actions are problematic, when one is at odds to figure out what to do (Goffman, p.164).

Problems arise with fateful actions, those that have consequences. Here Goffman addresses corporeality and embodiment, terms that have become so crucial in current debates on sensory environments, technical systems/material enunciations, interfaces and agency; for Goffman a body is a piece of consequential equipment.

How do we compare this, how do we understand this face-to-face with images, for example the "tiling" operations in Ian Winters' installation? How does the hand James puts forward to touch the bowl of water and then slowly pushes backwards, towards the camera lens, interact with the Isadora patch environment and its actions? What would it mean to ask this question, and what observations do we derive if we concentrated on the behavior of the projected images of the "tiled" hand or filtered, multiplied serialized moving image-hand? Would our attention to the technical being not also yield fascinating insights into the technical object, the manifestations acted out, produced, and engendered by the meeting of hand movement, camera-vision and computer software (with its projected image outputs)? Of course.

In other words, can we use Goffman's terminology in regard to a technical presence or an avatar? Is a digitally projected image inconsequential, but may become consequential via enactment? Goffman discusses body in consequential encounters: in perilous roles, the body is the object of practical gambles (p.172). When one acts consequentially (he calls consequential action a "fateful action") when the gamble is less practical, then one must cope somehow. A possible solution is to deny the effect of consequence, if that were possible. Then nothing can really go wrong.

An alternative to coping is what Goffman calls "defense," which is a ritualized defense of action. When actions are uncertain and of high consequence, a defensive ritual is performed to save culpability of the individual. Goffman then adds that all games reduce behavior to fateful action, in the world of the game. A social game functions similarly. The result of interactions, we can assume therefore, according to the Goffmanian scheme, is either "making it" or "blowing it." Action is the quality of sustained fateful behavior, revealing qualities of character.

As this brief account of Goffman's observations on face-to-face interaction shows, they may not easily translate into interface behaviors between human participants and technical systems, but at the same time, it could be argued that responsive systems provoke actions (enactments), and in most cases of installations, there is not just one visitor encountering the installation, but several, and thus we obtain a social scenario, people encountering a technical being and other people watching and responding to the "rituals" that are performed. In this case, one can certainly think of psychological and emotional dimensions in the behaviors that result, without necessarily searching for a wider range of cultural, political or spiritual dimensions of the ritual interaction. We are not talking about ritual in a religious sense here, although it ought not to be ruled out either. We shall perhaps try, at the end, to come back to the question of what kinds of complex or reduced form of rituals the interactional installation art produces.

Let us continue, first of all, to add some observations on the distinctions between the installations described so far, in regard to the behaviors of the technical being in the encounter with the human spectator-participant.

("Bubble Playground")

We also add two images here (at the beginning and above) refering to the "Memory Table" installation, the second piece by Ian Winters, and "Bubble Playround" by Byul Shin. "Memory Table" was installed in the opposite corner of the "Table" installation, an interesting juxtaposition of "tables" that presented, in Jennifer Woodin and Tommy deFrantz's case, an interactive performance dialogue enacted for the audience (the gestural behavior of the real "actors" affecting the image-objects in the projected "table"), while Ian Winters's table, also covered with real objects to play and interact with, had no presentational action. The table is there for visitors to sit down at, and engage, and the camera-vision takes in this information and informs the technical system which deals with a growing data base of "memory" (video and audio input) which it processes and replays at later stages, cumulatively. Byul's "playground" is an interactional surface, a space which we can enter, as we see the colorful bubbles percolate there, and we join the bubbles and play with their movement and changes, as they respond to human presences and motions in the region that the camera sees. The playground is intuitively obvious and clear, a simple arena to have fun, to play, to track motion of color, and enjoy the "dance."

Some of participants tried rolling over the floor, jumping over each other, one person enacted a curious and funny hopscotch repeating some words over and over, others simply played, seemingly entranced by the mesmerizing pools of light and the joyful, twinkling sound that Victoria had composed. Whether the technical system enjoyed the performances of the visitors, I cannot tell.

(a visitor hopping in the "bubble playground")

dispositif VIII: The behavior of technical beings

In the following section, we shall try to return to the questions raised near the end of section VI, in order to gain a clearer methodological grip on the daunting challenges that underlie a sociological as well as pragmatist/materialist analysis of "interfacial installations." What is at stake, after all, is an advance in knowledge about how we assess or value attributes or affordances of "technical beings." How we value the programmed responsive environments or hybrid media spaces (augmented realities), which behave – i.e. behave with and towards the visitor-participant – as if becoming living, moving, animate matter, confirming a certain vitality and a range of symptoms in their materiality (motion, agency, autonomy, aura, protocol behavior, etc.).

If these "symptoms" are describable in technical terms – and surely they are – , then we'd need to resort to code, to patch-making, the use of object-oriented coding or "actor" coding (in Isadora), to the workings of physics engines and other programming mechanics for 3d virtual spaces and for 2d projected video output and/or sound. The terms used, for the "symptoms," of course can easily cross over to the symbolic realm and the repertoires Goffman applies to interaction rituals. Other repertoires would clearly derive from the field of HCI / interaction design.

To repeat my suggestions from Section VI – they proposed to give more attention to how a particular *dispositif* enables the interface relations technically while observing how the human performers respond to responsive environment or experience its sensate articulations. Thus, we want to parse the distinctions between the twelve installations (our examples from the final presentations), and how these installations perform, or are performed. My distinctions are meant to serve as a methodological guide to (1) understanding the interface design features and

interpreting/describing the content-expression of the projected worlds characteristic of the *dispositifs* described here; (2) drawing attention to the interaction behaviors that are performed or performable in the *dispositif;* and (3) locating some of the dramaturgical decisions or strategies that may have guided the artists' compositions and their intent on involving audiences in machining architectures.


("Grid," interactional performance installation by Sarah Dahnke, with James Cunningham, Suzon Fuks, Julia Alsarraf, Wendy Chu).

("Dotted Landscape," interactional performance installation by Wendy Chu, with James Cunningham, Julia Alsarraf, Sarah Kraft, Sarah Dahnke, Victor Zappi)

1) Interface design features

The "Tiling Performance" *dispositif* seemed constructed for a 'solo'-performer engaging the technical environment and the physical object (water bowl) on the lit square – a square area specifically overlooked by an HD digital camera on a tripod, sending its signal to the Isadora programming environment. Visible/sensorially experienceable to the performer (who could be standing in or modelling any visitor to the installation who picks up the technical environment's behavior) was the projected image motion, the two or three bands of light containing the serials, the "tiles" of processed images (see below).
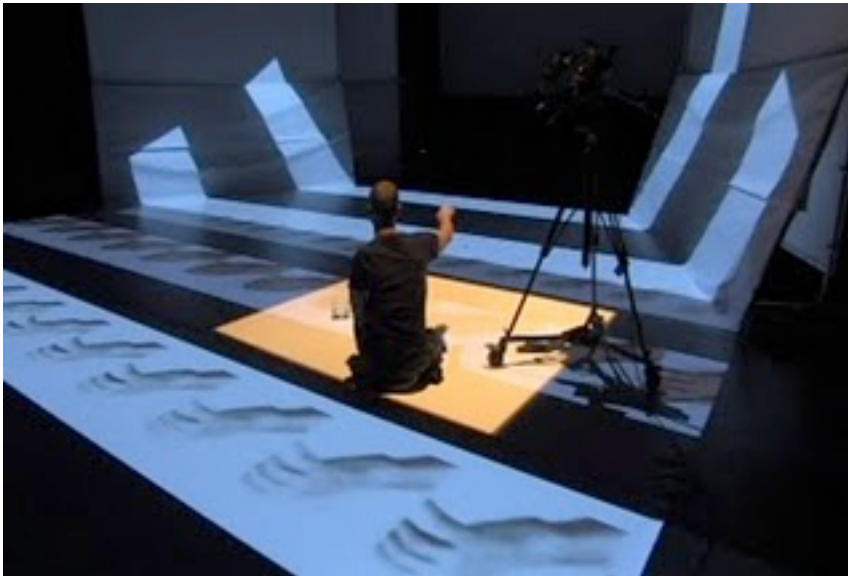
(The participating performer holds his hand in front of the camera lens, the tiled images appear in the white bands, arranged almost like a film strip of frames)

The *dispositif* is a clear arrangement, as we can see in the performance photo: the participant knows the placement of the camera, and can control what the camera lens sees by observing the real-time processing of the images that are appearing around him projected from above onto the floor and spatial architecture. In the Isadora patch, the programmer can design the projector-output and precisely configure the "geographical" locations of the bands of tiled images processed by the software actors.

In the Isadora environment, the programmer prepares "scenes" for the "stage," deployable as projected output in any given performance or installation. Isadora is a graphic programming environment for MacInstosh and Windows providing interactive control over digital media, with special emphasis on the real-time manipulation of digital video. Each scene can have multiple "actors." The titles and values of every input and output are visible to the programmer and are quickly editable, which means the state of each module (referred to as "actors" in Isadora) is instantly clear and can be improvisationally changed by the user.

In regard to the technical description of the "technical object" (I am using a term that is well established but owed to the magnificent work of French philosopher Gilbert Simondon's 1957

thesis *Du Mode d'Existence des Objets Techniques),* it might be of interest here to quote from the Isadora manual and give you the specific explanation of the "image tile" actor:

This actor, the Manual tells us, displays the incoming video stream in the form of 'tiles' of varying brightness that are created by from a second video stream.

Whenever a new frame of video arrives at the 'tiles in' input, it is broken into a series of tiles whose height and width are specified by the tile cols and tile rows inputs. Then, the brightness of each tile is analyzed and stored. When a new frame
of video arrives at the video in input, it is reconstituted by creating a mosaic of tiles of the appropriate brightness.

For instance, consider the following tiles in input which is the ASCII character set. Each character occupies 6 pixels across, and 8 pixels down. Because there are 67 characters across, the total size of this image is 67 x 6 = 402 pixels across by 8 pixels down.

Using the Picture Player to supply this image as an input to the tiles in input, you would set tile cols to 67 and the tile rows to 1. Upon receiving this input, the Image Tile actor would analyze the each tile, determining its brightness.

Finally, as frames of video arrive at the video in input, they would be broken down into tiles of matching size (6 across, 8 down). Each of the tiles in the video in stream is replaced by the tile from the tile in input whose brightness most closely
matches the original. Using the ASCII character set example above, note the transformation of the image. (Because the image is small, you may need to blur your eyes a bit to appreciate the result – higher resolution images look better.)

While this example was made using a still image, you can just as easily supply a moving video to the tiles in input. The results in this case depend greatly on the content of that video stream, but it can lead to interesting effects.

Input Properties
• **video in**: The video input stream to be tiled.
• **tiles in**: The video input that will be used to create the tiles. The height and width of each tile are given by the 'tile cols' and 'tile rows' inputs.
• **tiles across**: The number of tiles across in the 'tile in' video stream.
• **tiles down**: The number of tiles down in the 'tile in' video stream.
• **steps**: The number of brightness steps to use when creating the final image.
Lower numbers produce a coarser resolution of brightness, higher numbers give finer resolution.
• **color**: "When off, the color of the tiles used to create the final output is the same as received at the 'tile in' input. When on, imposes the color of the source image on the tiles. Turning this setting on may produce unusual colorization effects
when the 'tile in' image is not black and white.
• **bypass**: When turned off, this effect functions normally. When turned on, the effect is disabled and the video input is passed directly to the video output.

Output Properties
• **video out**: The tiled video output stream. [pp.209-10]

(2) Interaction behaviors

It was mentioned earlier that in "The Table," a physical performance interaction was presented to us in the dialogue between two real actors, Jennifer and Tommy, who manipulated the physical tea cups while seated at a table across from each other, with Jennifer speaking in a low-toned voice. In the interactive disposition of the scene, the camera captured the manipulation of the real objects on the table top, and this input was used to effect a different video output projected onto the adjacent table, thus creating a virtual double scenario of the scene enacted in front of the audience. The virtual scene, however, does not have any human agent in it: only the technical objects are manipulated in the computational space-medium. The objects are like sprites that are moved in a 2-D plane, as it was done in the early computer games. The projected objects are also "mixed" with real objects (two dinner plates) that are placed on the projection surface of the adjacent table.

In "Bubble Playground," the projected video was not taken from a camera source, but the camera vision informed the software (via the "Blob" and "Eyes++" actors) of the positions and movements of the spectator-participants, and this information drove the percolating, colorful bubbles that were flowing across the floor. In this installation, the real *actors* are the participant players in the playground. But of course they are playing with the software actors, the colorful circles created in Isadora. These bubbles exhibit a fluid motion behavior, and so the participants seemed to follow suit: much of the participants' playfulness resided in their hop-scotching the graphic images that floated on the floor. The participants moved around. Compared to "Bubble Playground," both "Table" and "Memory Table" include a narrative dimension which marks the time in spatial dispositions involving associations with memory; here the participants did not move around but moved objects.

Ian Winters' second piece, "Memory Table," offers an invitation to play in its scenario, an invitation for the visitors to sit down at the table and engage with the objects that are lying there – small rocks, glasses, cups, books, a microphone, toys. When the installation was opened to the visitors, it didn't take long and first one, then a second person sat down on the two empty chairs. Across from the table top, a mid-size projected image (circa 80 cm x 60 cm) showed a black and white image of the same seating arrangement, chairs and table with objects, and the players could see themselves as if in closed circuit. But the projection revealed layers, and as the participants engaged in playful banter, ghostly images of previous visitors appeared in the projection, as if the technical system were waiting to display, at certain times, the prior visitors it "remembered," so that past, present and future started to mingle and convey an accumulative experience. Some of visitors played with the sound they could generate with the objects, others engaged their co-players in a conversation, either through gesture and mime, or through spoken conversation, and in one case a third visitor entered, seemingly trying to distract the couple at the table by crawling underneath, reaching out with one hand and removing an object, teasing the "dialogue" of the visitors further along as we begin to hear echoes and reverberations of sound stored and re-played. Again, as with "Tiling Performance," the programming seems technically

preoccupied with the idea of serializing action-images, but also possibly reflecting on the nature of the distinctions Deleuze made between "movement-image" and "time image."

(It might take us into a different direction to expand here on the Deleuzian terms, so I would just want to mention that Deleuze offers fascinating insights into the "interval" – the gap within and between frames – as a constitutive condition of the cinematic medium and the manner in which duration/time of visual experience is configured as narration or instead of narration. Pertinent to Winters's playing with series is Deleuze's significant theoretical distinction between movement-image and time-image. The animated character of much of the image work produced in the lab would seem to warrant a closer analysis.

For Deleuze, the role of the interval has evolved across cinematic history: in the classical period, it tended to operate as a rational connector between images, for example when subdividing a bodily movement over several consecutive frames to record action, as it was already suggested in Muybridge's and Marey's chronophotography where photographic frames are linked as progressive exposures, spatializing the movement of a body in time. Calling it "movement-image," Deleuze posits that these images subordinate time to movement. Since the 1950s and 1960s, Deleuze claims that with Resnais and Godard we begin to see how shots are increasingly released from any logical connection and tend to become irrational, the intervals between frames generating ambiguity and dreamlike (dis)connections or inexplicable interruptions. Movement is now subordinated to temporality in the "time-image."

While the use of projected images in interactive installations may not follow any cinematic or narrative logic, what is surely needed in future analyses of interactional performance is a closer attention to the particular seriality or flow, stasis or permutation in the layering and digital modulation effects of processed images or animated technical objects. One fundamental question underlying my commentary here is the question: what is an interactive image? And how is it performed?)

A methodological step in this direction was made on the second day of the lab when we asked everyone to create s short scene with direct (closed-circuit) camera-projection performances, during which each member of the group tried to explore the relationships between subjects and objects and objects and space. Without editing and coding, the image object does not have any autonomy at all, it is entirely dependent on the performer. Even in such a basic study, it is possible, however, to play with the superimposition of images onto a surface, and thus evoke animation effects. Distinct from "Bubble Playground" and also from Chafer's "Lying Bodies/Outside In", the technical organism of "Memory Table" is programmed to remember input and re-call recorded actions in sequences that become layered with co-presences that are enacted on screen. The live feed is stored and processed to return, a proper symbolic action in the theatrical sense in which Hamlet's ghostly father appears to re-appear in the Shakespearean play (having prompted theatre theorist Herbert Blau, in *Take Up the Bodies*, to refer to acting as a process of "ghosting" and ghosting techniques) – an agent of pressure on the protagonist's consciousness/conscience, a reminder of the (Goffmanian) dilemma of choice, actions having fateful consequences, and non-action just as well. Action reveals character, and actions can be fateful or inconsequential. Hamlet's famous soliloquy, which includes the question "To act or not to act," surely brings back to us memories of dramatic conflict, underlying the social rituals

Goffman intends to analyze, implying tragic consequences as we know them from real life, if not from games or entertaining spectacles.

Performative installations are not known to involve such tragic plots, and they have not been discussed in the framework of dramatic plots in theatrical representation. The history of theatre evidently evokes literary contexts, fictions and myths, stories and complex characterizations, dialogue and psychological/emotional crises. The examples of interactional works discussed here cannot reach these levels of content, but they engage fragments of symbolic action, ritual behavior and narrative association. Provoking interaction rituals, the installations under review here begin to question, even if this may not have been the intentions of the programmers, the representational conditions and material grounds at the intersections of which we can trace complications of behavior, identity, gender difference, reflexivity, and inter-faciality (with its ethical implications). Moving from "The Table" to "Memory Table," after all, meant that we had witnessed a troubled, elliptical dialogue between a couple whose relationships seemed fractured, only to find ourselves on the other side of the studio, enjoying the wildly improvisational meeting of strangers who participate in an intimate tête-à-tête tinkering with objects that had passed through the hands of others, now re-appearing again on the screen to open up a window into past time, protracted duration of time that extends the illusion of presence.

This was also beautifully noticeable in the fact that while the whole group had moved on to prepare a new setting for the next performance, during an occasional silence in the preparations one could still hear the "Memory Table" audio from the far corner, the tapping of a glass, a murmured voice drifting in from somewhere.

But while the visitors were standing behind the participant-actors at the table, they laughed and appeared to cheer on, encourage and stimulate the actors at the table. This context created a very different social ensemble, compared to "Lying Bodies" and "The Table" – situations in which humorous playfulness and acting out were embedded and safe – namely insofar as the surrounding visitors had a stronger affect on the behavior of the persons sitting at the table.

This issue concerning the enabling or spurning of proactive behaviors of playfulness was raised afterwards. How do installations allow and insinuate intuitive or motivated behavior, making it very clear to the visitors that they are encouraged to step inside and explore, to enjoy themselves, to experience the sensorial/sensational dimensions of an environment, to trust their re/cognition of the responsive organism, to discover behavioural patterns or "rules of the game," to recognize shifts in their own cognitive and sensorimotor capabilities? Are there technical environments created for interaction which are too complex or insensitive to the tacit knowledge or reliance on etiquette on part of the visitors? Does interactive behavior emerge inevitably once the participants are comfortable in their roles or "learn" the rules of the game or the states of the environment, adapting to causal patterns or consequences?

(3) Dramaturgical strategies & ecological dynamics

(Tommy deFrantz moving inside Emily Putoff's "Poppy" moveable installation)

This interrogation, at the end of the presentations, was initiated by James Cunningham's remark that, simply put, there seems to be a very fine line between performance and installation. And since we are not quite able to be completely precise in our terminology, as we refer to technical beings, technical environments/systems, performativities of the technical ensemble, and performance (of humans who are also considered living systems and whose individuation is compared in our theoretical discourse to the "individuation" of the technical beings as defined by Simondon and Stiegler), the fine line is being blurred continuously. The works that were shown at the end of the lab clearly revealed similar and yet distinct compositional structures, thus suggesting various dramaturgies of involvement or – generally – of the performativity of the technical being and of performance with such technical being. This performing with, and the performativity of, technical beings is the crux of our investigation, and of course the crux revolves around the *Verkopplung* (interface), the coupling effects, of the dynamic *dispositif*.

In some cases, an installation was concretized and performed by the person who had programmed it ("The Table," "Truth Is," Victor Zappi's martial arts solo "UN-SU," "Tripod Dance," and "Bandwidth"), and in these cases human expression commingled with the articulations of an environment produced by the technical being. The performers were "coupled" with the environment and, simply put, they enacted the coupling. However, as we could see in Victor Zappi's wonderfully visceral, accentuated martial arts solo, the idea of a *coupling* tells us very little about the individual virtuosic performance quality of expression that we conventionally associate with the human actor. Unless, of course, a machine itself were foregrounded as an actor/ensemble drawing attention to its virtuosic vitality or the force and energy of its material-performance – as one notices in installations such as Heiner Goebbels's *Stifters Dinge* (2007), an instalation ironically described in the program notes handed out at Théâtre Vidy Lausannce as "ein Theaterstück ohne Schauspieler, eine Performance ohne Performer – eine no-man-show also" [a play without actors, a performance without performer – a no-man show therefore].

The notion of *structural coupling*, as Salter uses it in his writings on thresholds of inter-action drawing on Simondon, Stiegler and, particularly, Maturana/Varela (whose work in enactment theory of cognition has become very influential, contributing to much of the recent theorizations of autopoiesis in digital installations), is not sufficient in describing what is enacted on the level of expression and content. And in order to distinguish between behaviors at "Memory Table" and in "UN-SU," a cultural knowledge of specific movement figures and shapes (choreographic vocabularies) is necessary for addressing techniques of dance that make our kinaesthetic perceptions dance. Victor was dancing a martial arts choreography, even as he danced with the technical being's imaging/lighting patterns, the circular pulsations that appeared projected beneath Victor's feet.

(Victor Zappi in "UN_SU")

Something curious happened also in the last presentation, Victoria Gibson's "Bandwidth" – a triptych projection of abstract moving graphics "dancing" to the music Victoria composed for this piece. The short work was reminiscent of early computer-graphics based "visual music" – films and computer animations or audiovisual kinetic non-representational works by artists such as Oskar Fischinger, Frantisek Kupka, Harry Smith, Lepold Survage and others (the term was also used in connection with Nam Jun Paik large-scale multi-monitor video installations) – and might have been perceived as a stand-alone projection piece, had we not found out afterwards that Victoria interacted live with the visual programming, using a proximity sensor and Arduino microcontroller to affect, with the motion of her hands, the size and dynamics of the visuals. Following her presentation, she gave us a demonstration of the interface she had created over the past days, explaining that she hoped to perform her visual compositions wirelessly (as it was done in the early Theremin performances by Clara Rockmore), moving the visuals on stage as if it were an instrumental performance.

(Victoria Gibson demonstrating performing her "Bandwidth" with arduino microcontroller)

In other cases, the installation was enacted and demonstrated by performers who had studied and rehearsed the interaction with the system together with the programmer. Here the performers had been given instructions or motivations for the performance inside the environment, and they had occasion to familiarize themselves with the responsive behavior of the technical being. Such rehearsal naturally allows a strong focus on the potentially symbiotic relationship between actions and consequences within the feedback scenario of such a performative installation.

We have all witnessed examples of such installations where the creators "plant" an actor inside the environment who performs, either theatrically or matter-of-factly, an improvisation with the sensate environment, often drawing attention through gestures or actions to the shifting environmental (data) responses. In such cases, we can speak of the actor enacting vicariously a role of participant-immersant that the installation invites all audience members to experience. A dramaturgical model for such immersant action can be traced back to David Rokeby's early sound installations of the "Very Nervous System" in the 1980s as well as to the more recent virtual reality installations by Char Davies (*Osmose*, 1995).

Interestingly, Davies had described her influential work as having been inspired by her deep-sea diving experience; she was attracted to the dream-like solitude that can be felt in such habitats. She then sought to create a 3D environment that gave the immersant a similar sense of floating in space, an embodied experience of space where the habitual boundaries between inside and outside, between self and world, are dissolved. Her dramaturgy for the interaction focused on physiological processes, breathing and balancing: the immersant navigates her way through the virtual world by bending forward and backward, left and right, and through inhaling and exhaling. In the case of *Osmose,* only one participant can interact with the 3D virtual world at a

time (wearing a head-mounted display (HMD) and sensors on the chest, the immersant enters a technical being combining stereoscopic 3-D computer graphics, real-time motion capture and live stereoscopic video projection), other audience members can watch this person and observe how they are behaving (or expressing their solitude, so to speak).

(Immersant [above] and "Forest Grid" [below] from *Osmose*, digital still captured during immersive performance of the virtual environment © Immersence Inc. 1995-2010)

While we did not have the technical infrastructure of Davies's Softimage company to create 3D virtual projection environments, our camera-vision based interactive installations allowed, in some cases, a somewhat similar experience of immersion, taking the visitor inside an unstable and metamorphosing projection space that asked for intuitive, experiential involvement, most clearly in Sarah Dahnke's and Wendy Chu's "Grid" and "Dotted Landscape" installations which were presented together as Part 1 and 2. While none of the environments had a focus on sonic interactivity following Rokeby's model of a very nervous audio environment, the full sensorial, experiential embedding of the immersant was foregrounded in many of the arrangements discussed here.

Dahnke's "Grid" was a particularly engaging kinetic environment that emphasized proprioceptive experience, inspiring the kind of balancing acts I mentioned in regard to *Osmose*. The lines that indicated the "stable" pathways for the performers, kept oscillating in unpredictable ways, throwing them off balance. In fact, both "Grid" and Emily Putoff's "Poppy" placed wonderful demands of concentration and creativity on behalf of the immersants who had to be alert to the an autonomously articulating environment. "Dotted Landscape," on the other hand, created a swirling, swarming mesh of abstract graphics and fast moving word strips that excited the performers without giving them much of a clue as to how and why it behaved in this way. Like a shadowy ghost, Julia Alsarraf played her instrument (viola) inside the landscape, following and prodding James Cunningham who was there trying to dance with the whirling dots.

To use one more example of contemporary interactional art, I am reminded here of the recent works by Mexican artist Rafael Lozano-Hemmer who describes his performance installations as "relational architecture," often situated in public urban contexts where they intervene into space (e.g. building façades) to challenge the equilibrium that might exist between the public's actions and the building's actions. Strange shadow-plays evolve, projections do things one does not expect. In his *People on People,* now shown at Manchester Art Gallery, the technical being of the architecture appears to be a slightly unnerving capture machine, always observing the observer. Deploying biometric scanners, surveillance cameras, computers and video projectors, Lozano-Hemmer's sculptures keep their eyes on the visitor, record and react to her presence, even feel her pulse. In *Pulse Room*, one hundred light bulbs throb in unison with visitors' heartbeats, and for *People On People* a sensor projects the visitor's moving image inside the shadow images of other visitors. If one turns around, another participant's moving portrait is in the process of haunting one's own shadow. Other installations in the current show invite the visitor to engage in intimate social exchanges, just as Ian Winters proposed in "Memory Table," conversing in real-time with the sounds and voices of past visitors or sharing the secret inventory of what one keep in one's pockets: a pocketful of memory.
Wendu Chu's "Dotted Landscape" had a similar resonance; it behaved as if it had a swarm intelligence, transindividuated and yet collective, with its hundreds of stars in-forming the nightscape through which Cunningham and Alsarraf moved, eventually joining the actors together as if in a strange fusion of cells. Wendy's swirling landscape is disembodied, yet at the

same time James and Julia also dis-appear (and re-appear), as if caught in a vertigo of spacing, *image* losing its identity, space becoming movement-time and sound.

The third type of installations we observed on the last day of the lab could be called immersive systems, presented to audience immersion without prior "modelling," and thus solely reliant on the visitors and their propensity for action or willingness to experience a technical being behaving autonomously, not revealing any cause and effect relationship.
I have described several of them, including Chafer's "Lying Bodies/Outside In" and Shin's "Bubble Playground." In these sensate spaces, the immersant dives into and navigates the fluctuating behavioural patterns of the projected environment. The environment evolves and may reveal supple, changing as well as repeated responses to the immersant's actions: the visitor plays with the behavior of the technical being and adopts to it corporeally, enacting certain choices of action depending on the intuitive, emotional and cognitive exuberances that are set in motion. Given that programming, creative software writing and live coding are processual, such performance installations may hold varying levels of complexity in development, i.e. the environments are always unfinished and open to re-elaboration. It is in this sense that all the projects described here are generative processes aiming at variable ecologies of dynamic interaction or ritual inter-faciality. The dramaturgy, as Rancière would say, does not "teach" something, the visitor does not have to "master" the code.

These various designs can be described, therefore, according to the apparent distinct logic of their inherent dramaturgies, including the programmed parameters of such dramaturgies, and yet it must be pointed out that distinctions between performer (with prior rehearsal and knowledge of the functioning and responsive scope of the *dispositive*) and visitor cast in the role of immersant were often fluid. Each installation seemed to hold the potential of letting the visitor be/become the performer, thus making **participation** the primary composition strategy and placing trust in the "emancipated spectator" (Jacques Rancière). The question of emancipation was rigorously discussed at the end of the workshop, with some participants arguing that it was easier to show the work in the lab to artists consummately familiar with such compositions. How would the unwitting visitor behave, i.e. audiences without familiarity of the new conventions that are now repositioned in the arenas of interactive theatre, performance and media art? Will they be comfortable to play, to act, to be immersed?

The new *dispositif* suggests co-creation, generative processes in the expressive coupling of human performance and the technical being's recursive performativity, affecting the human organism and vice versa. Individuated performers or collective performance engages the dynamic arrangement, participating in the plasticity of the environment programmed to articulate its data activities. One could argue that the contemporary audience is of course "emancipated" enough to understand and embrace interactivity since the latter is embedded now in much of the information architectures of our daily lives. The aesthetic dramaturgies play on this, reflect on this architecture and stimulate the formation of meaning in the dynamic intersections, the layers of experience, memory and the ritual-virtual (the potential interfacial relations created).

Is the new *dispositif* we have tried to analyze replacing theatre or repositioning the performance arts? Is the division between spectator and performer irrelevant? It is of course to soon to tell whether **participation and processual art are the new paradigm,** but a recent exhibition in

Gijon made the claim ("Proceso como Paradigma," LABoral Centro de Arte y Creacion Industrial, 23 April -30 August, 2010), with the curators arguing that

> the contemporary perception of us humans as particles of larger networks and systems – an effect of real-time connectedness – is one of the major conditions for the prevalence of the present and of process as a concept in culture and in the arts. We are involved in new and different typologies of scattered communities, groups, manifold production networks and communication grids, and act within them with different intensities, but with an awareness of our own dispersed presence in all these systems. No doubt, the degree of performance and presence that is demanded in all these systems is tremendously challenging. We live in a culture of the present in which the 'here' and the 'now' – in its new interpretation – has become a universal condition. In this celebration of presence and the present lies one of the major factors for the turn in the arts (but also in other related fields like design and architecture) to processuality and performativity, a shift that is gaining momentum.(*soft_skinned space*, May 6, 2010)

This manifesto comes from the visual arts context, where curators search for new and engaging methods of involving audience participation, and the featured "stars " of their "Proceso como Paradigma" installation were bio art and "research experimentations" dealing with generative image processes that evolve over time. The curators tried to make a strong case for the "incompletion" or ongoing nature of these quasi-scientific laboratory experiments, thus making them hardly comparable to performing arts events that take place on a concert stage at night. The Live.media + performance lab was also creating prototypes that seem more congenial with the visual arts contexts; perhaps their context is no longer the theatre but the gallery. The LABoral curators suggest that flow and continuous changes, and the inter- agency between the artist/researcher, system/organism and the public, are characteristic of works of processual art and have a strong impact on the specific, subjective perception and understanding of presence.

If we want to bring attention to the physical and material performance dimensions of interactional installation, the aesthetics of the virtuosic (in human and material enactment) will raise the specter of spectatorship, as I understand Rancière, when he tries to summarize the unease with the theatre and its conventional *dispositif* of spectatorship, arguing that "the presuppositions which underpin the search for a new theatre are the same which underpinned the dismissal of theatre. The reformers of the theatre in fact resumed the terms of Plato's polemics. They only rearranged them by borrowing from the platonician *dispositif* another idea of the theatre. Plato opposed to the poetic and democratic community of the theatre a 'true' community: a **choreographic community where nobody remains a motionless spectator, where everybody is moving according to the communitarian rhythm** which is determined by the mathematical proportion. The reformers of the theatre restaged the platonic opposition between choreia and theatre as an opposition between the true living essence of the theatre and the simulacrum of the 'spectacle.'"

"The theatre," Rancière continues, "then became the place where passive spectatorship had to be turned into its contrary: the living body of a community enacting its own principle... theatre remaining the only place of direct confrontation of the audience with itself as a collective. We can give to the sentence a restrictive meaning that would merely contrast the collective audience of the theatre with the individual visitors of an exhibition or the sheer collection of individuals

looking at a movie. But obviously the sentence means much more. **It means that "theatre" remains the name for an idea of the community as a living body. It conveys an idea of the community as self-presence** opposed to the distance of the representation" (cf. Rancière's lecture, "Emancipated Spectator:" http://www.youtube.com/watch?v=6k2nXNZ93a0).

Installations might immerse you in deep solitude of experience, provoking the kind of social autism we often tend to observe in game players at their consoles and prophets of cyberspace.

Comment (Suzon)

[I did feel that 'social autism' in the making of patch, dichotomy of processes and space(s) between the patch maker (in computer space) and the 'rest' of the team continuing to evolve in the 'venue' space (indoor or outdoor). Which I don't always feel in cyberspace where participatory audience and/or performers/players (although in remoted/isolated spaces) interact with each others, available for each other initiative/response…[

Yet they might also generate a new social choreography, a new kind of "social sculpture" (Joseph Beuys) manifesting a transindividuated collectivity of players who are present, alive, engaged and aware of the co-presence of humans and technical systems, coupled, evolving, processual, depending on each other for there to be an artwork that can, at least momentarily, be completed in the each-other becoming, face to face.

I conclude with an image of Emily Putoff's marvelous "Poppy" installation, evoking in your imagination a narrow triangular-shaped space [see photo at beginning], large moveable screens creating the white boundary surfaces across which Emily's graphic color projections spawn their circular, cellular movement, vortexical colors streaming from a center to the outside peripheries,

in a gently undulating rhythm accompanied by silence. Two immersants are inside, Tommy and James, responding to their proprioceptive sense of a space that is a three-dimensional sculpture bathed in colors that create modulating surfaces. The amazing liveliness of the space is then manifested – humorously, since we are aware of the six "screen movers" or human agents – when the boundary screens begin to be shifted, and repositioned into new configurations. The space becomes wider and wider, and then, as the two performers indulge in the moods of the changing states of space, interacting with the screens, one of the screens begins to act up again, moving inwards, and "swallowing up" one of the performers who disappears underneath it. A fabulous social sculpture, neither automated nor computational, but behaving like an organism that reveals itself, as if magically, within its internal expressive time – the actively collectively manoeuvred spatial composition.

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