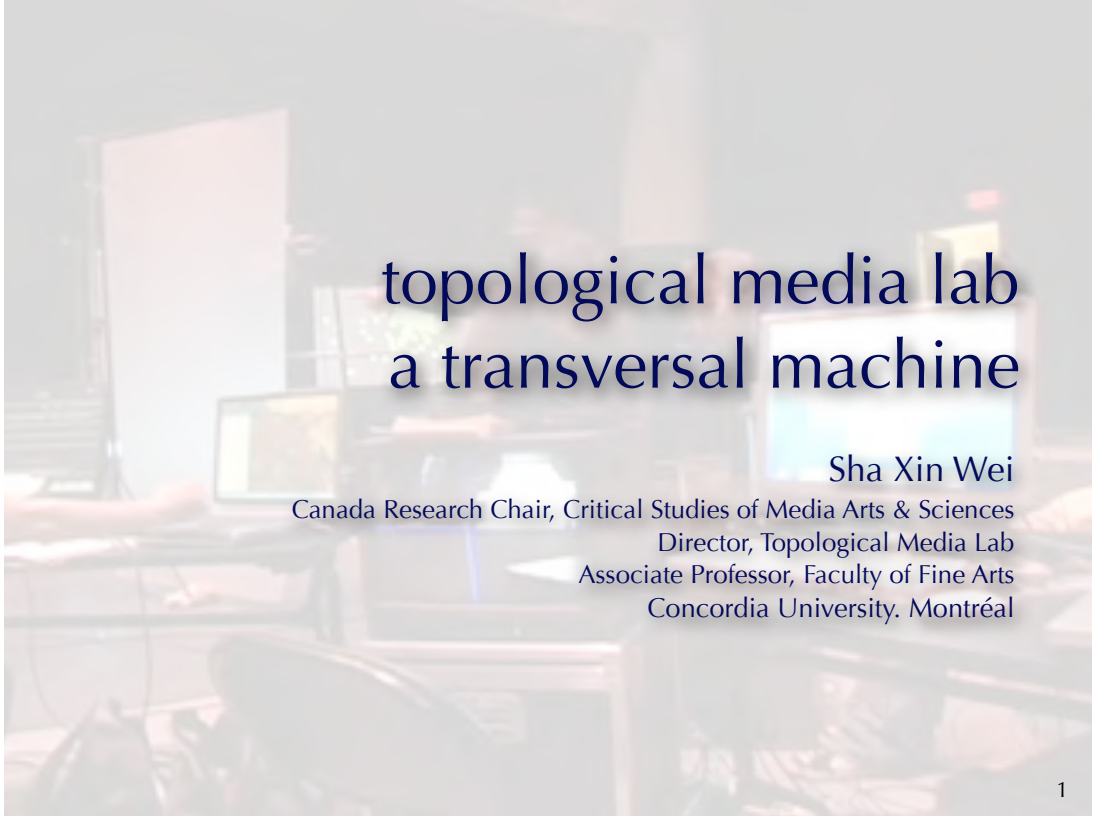

what's at stake?
compelling events &
symbolically charged gesture
in collective events
spiral argument
Event
Representation (language)
Performance
Technology of Performance
Concepts (≠ representations ≠ abstractions)
Event'
Representation'

menu

1 What's at stake?

2 Thick experiments in the wild

3 TML as laboratory + atelier

4 Context: recherche-création policy

5 TML as a transversal machine

what's at stake?

experimental philosophy

but non-scientistic! pre-mature dimensioning
measurement problem -- to a hammer everything is a nail
you see what you expect to see

what's at stake:
? what is the human ?

what's at stake?
Event
Gesture
Ethico-aesthetic Play
Tissue and Molecular Biopolitics
Given technologies: realtime media, wireless sensors; theater
Reaching far outside computational/digital/new media arts
    Dance, movement, textiles, musical performance, experimental theater
    Public spaces, urban design
    Science studies, philosophy

conditions of event
Face to face in a common space
≥ 3 people
A-linguistic
Thick
Not pre-orthogonalized, no model
Reality = Potential + Actual
Material Symbolic and Embodied
    (vs Formal, Disembodied, Cognitive, Informatic)

so what's a space?
Spaces of enactment
    Geertz thick description
    experience
Gendlin Felt meaning
Experiential Space
Representation Space

what's at stake:

~~? what is the human ?~~

how to human?

ethico-aesthetic play

event

gesture

tissue (molecular) politics

what's at stake?
Event
Gesture
Ethico-aesthetic Play
Tissue and Molecular Biopolitics
Given technologies: realtime media, wireless sensors; theater
Reaching far outside computational/digital/new media arts
    Dance, movement, textiles, musical performance, experimental theater
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so what's a space?
Spaces of enactment
    Geertz thick description
    experience
Gendlin Felt meaning
Experiential Space
Representation Space

art all the way down

put concepts in play:

"human" "machine"

"interaction" "program" "rule"

"information" "memory" "linguistics"

"game" "market" "design" "industry"

"body" "ego" "citizen"

...

art all the way down ?

To what extent can we alchemically open and critically transform all the blackboxes:

"interaction" "program"

"information" "bit" "sensor" "cpu"

"linguistics" "market" "design" "industry"

"body" "ego" "citizen"

"machine" "human"

…

putting in play: morphogenesis

Stengers
Petitot
Thom
Deleuze
Guattari
Simondon
Foucault
Whitehead
Spinoza
Leibniz
Heraclitus
...

+ PhD projects

* Harry Smoak
* Erik Conrad
Jen Spiegel
Christoph Brunner
* Valerie Lamontagne
* Patrick Harrop
Jhave Johnston

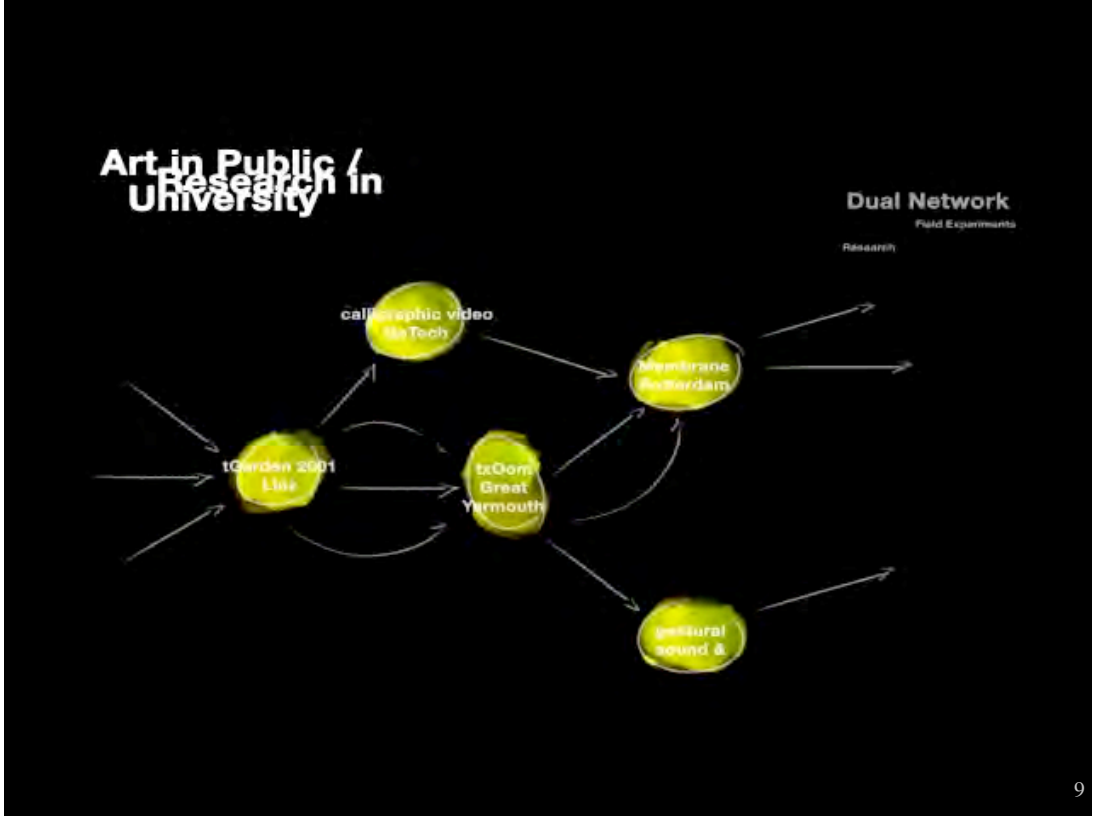
observers:
Thomas Jellis (Oxford non-rep geography)
Lina Dib (Rice Anthropology)

thick experiments in the wild

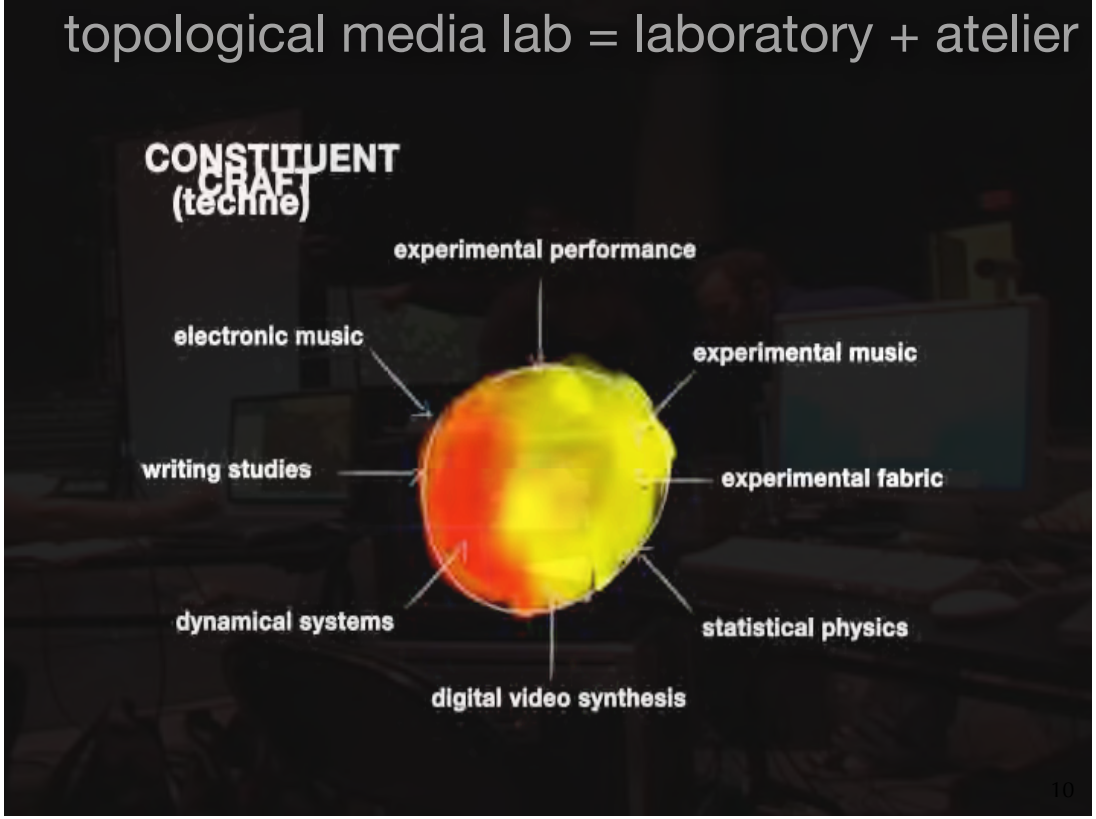
whole, dense, palpable, shared experience

built environment as space of experiment

events in public → art research



dual model: thick experiments


topological media lab = laboratory + atelier
CONSTITUENT
CRAFT
(techne)
experimental performance
electronic music
experimental music
writing studies
experimental fabric
dynamical systems
statistical physics
digital video synthesis
10

->12

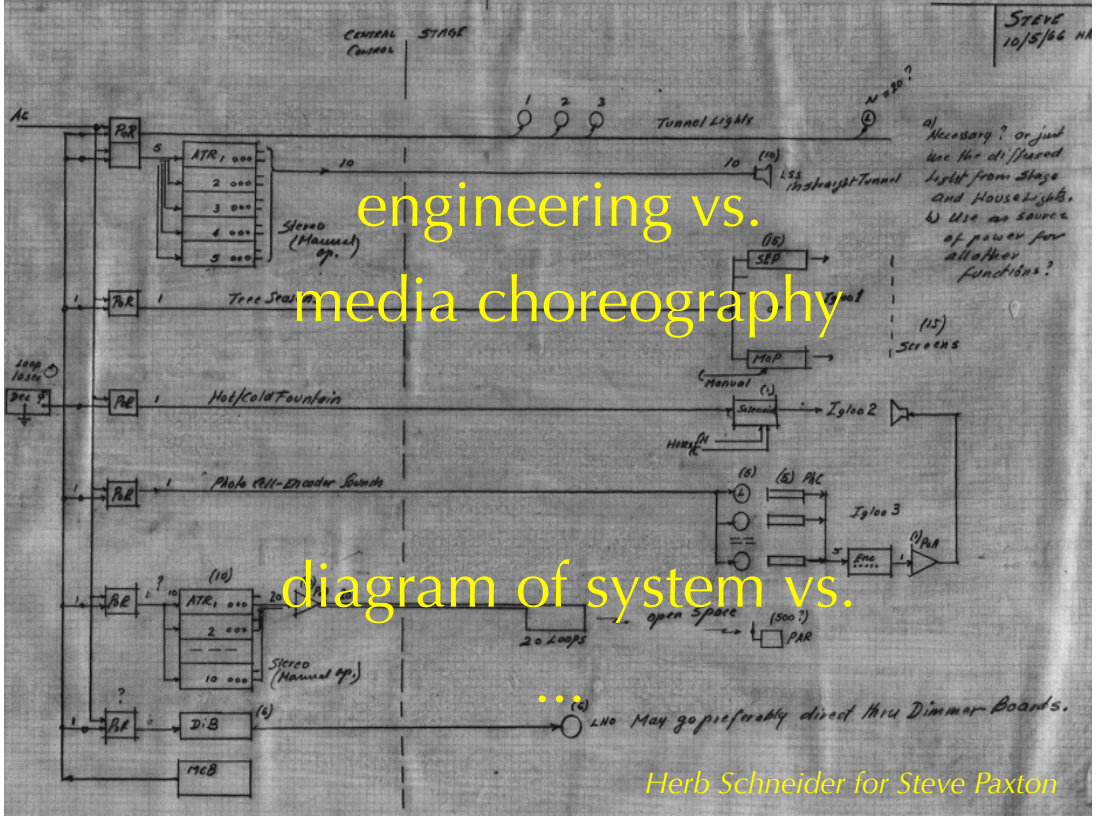
core:

continuous approaches

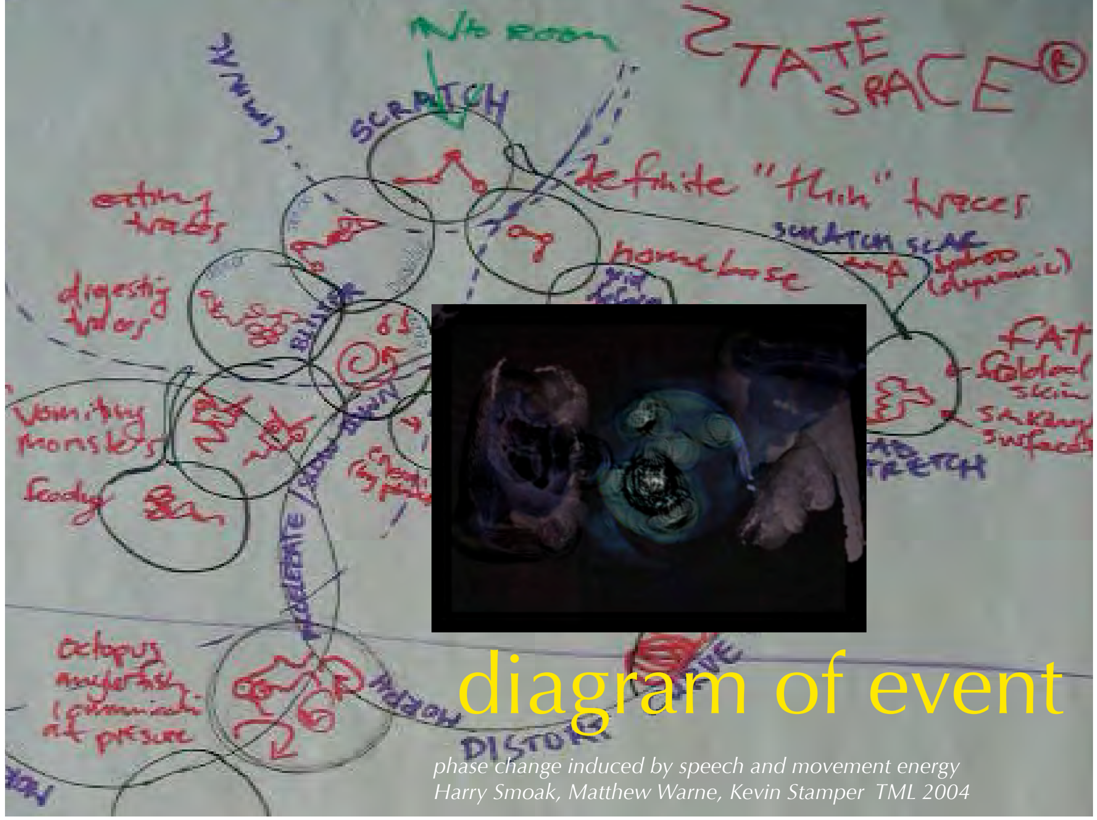
to

materiality
agency
gesture
process

hence, “topological”

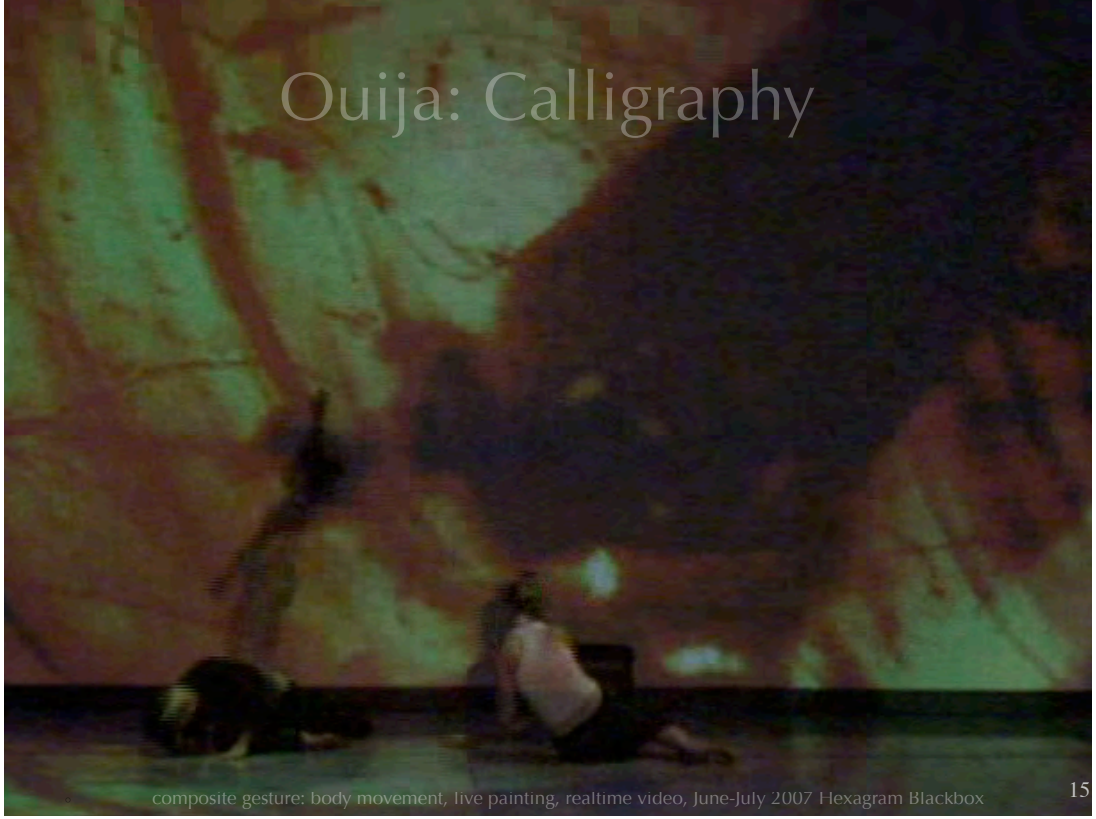

engineering vs.
media choreography
diagram of system vs.
...
Herb Schneider for Steve Paxton

22.1


STATE SPACE
SCRATCH
definite "thin" traces
home base
FAT
diagram of event
phase change induced by speech and movement energy
Harry Smoak, Matthew Warne, Kevin Stamper TML 2004

-> 27

experiments in lab



composite gesture: body movement, live painting, realtime video, June-July 2007 Hexagram Blackbox


vivesection architecture
Workshop on pneumatic structures & hacked toys
October 2006
Patrick Harrop
Prof. Architecture, U Manitoba
Ted Krueger
Assoc. Dean, Architecture,
Rensselaer Polytechnic Institute

25.2


contrapuntal buildings
Blink!
Maroussia Levesque, Sebastien Speier, Harry Smoak, Erik Conrad et
Engineering Visual Arts, Concordia, May 2006
17

25.3

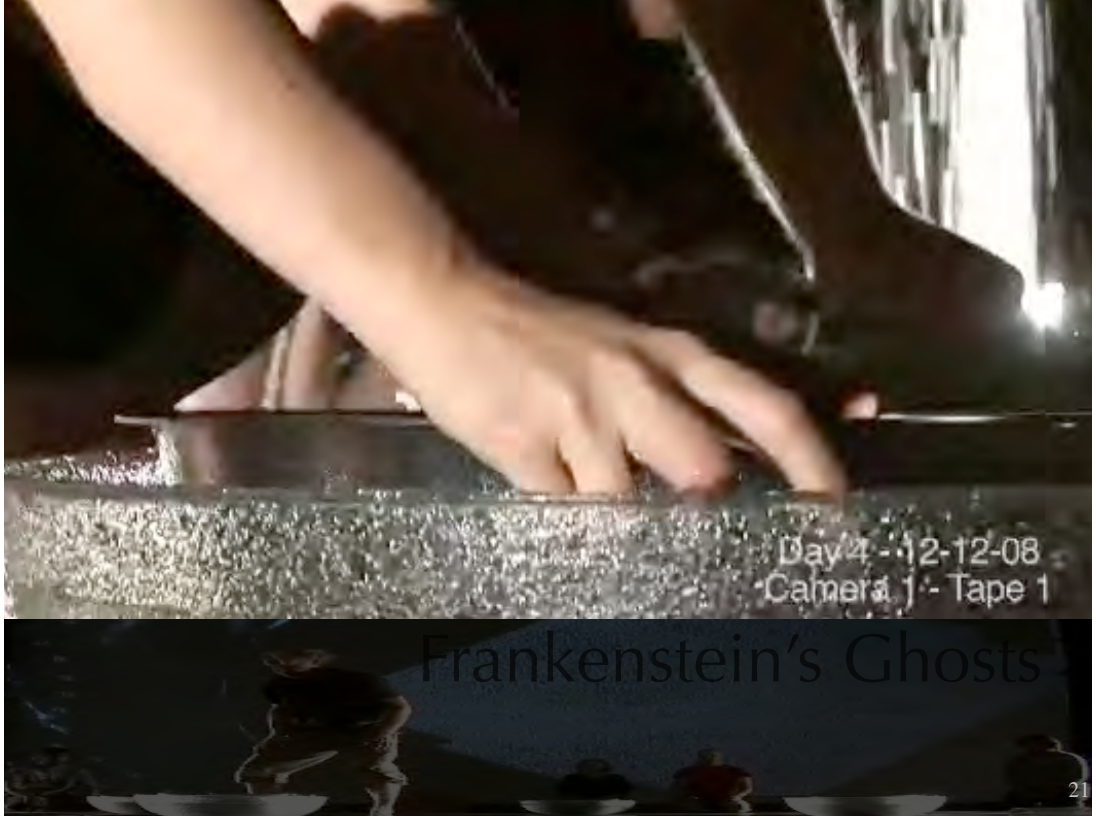
applications: movement arts and architecture

movement arts &

responsive environments


THE SEBALD PUPPET GROUP
INVITES YOU...
magic and alchemy
with Mark Sussman
performance studies
pageant, table top theatre, animated objects, Great Small Works
2006 - present
20

26.2 -> 27


Day 4 - 12-12-08
Camera 1 - Tape 1

Frankenstein's Ghosts

Psul Bendzsa, Milan Gervais, Pam Reimer, Liselyn Adam, and Leal Stellick
Anne-Marie Donovan, Paul Buford

architecture &

responsive environments

Shanghai eArts: E-Sea

Pneuma + TML, P. Hasdell, P. Harrop, J. Bolchover, Sha X.W.
October 12-23, Shanghai Century Plaza

Shanghai eArts: E-Sea

Pneuma, CIML, R. Hasdell, P. Harrop, J. Bolchover, Sha X.W.

October 12-23, Shanghai Century Plaza

Shanghai eArts: E-Sea

Pneuma + TML, P. Hasdell, P. Harrop, J. Bolchover, Sha X.W.

October 12-23, Shanghai Century Plaza

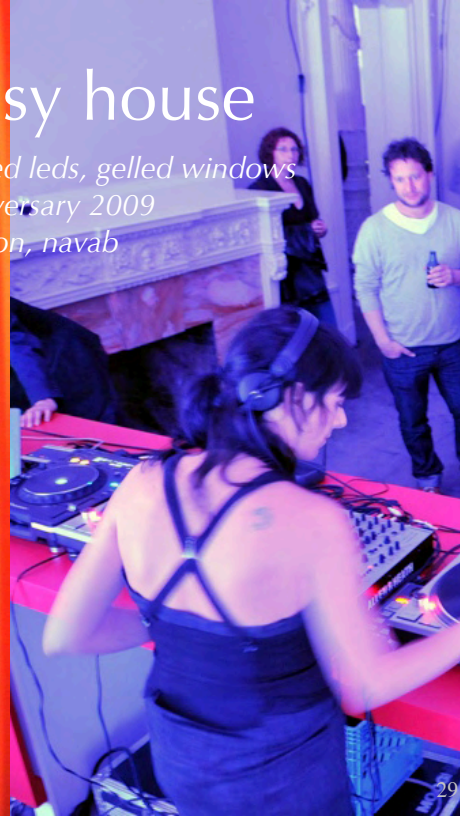

Shanghai eArts: E-Sea
LED network
Pneuma + TML, P. Hasdell, P. Harrop, J. Bolchover, Sha X.W.
October 12-23, Shanghai Century Plaza

canadian centre for architecture

dmx animated led light panels
nuit blanche 20th anniversary 2009
tml: sutherland, sutton, navab

cca shaughnessy house

external lighting from dmx animated leds, gelled windows
nuit blanche 20th anniversary 2009
tml: sutherland, sutton, navab



macro context: recherche-création

Québec 2000
Canada 2003
Hexagram Concordia 2003-8

Québec
Fonds de recherche sur la société et la culture
(FQRSC)

to fund research by university-based artists:

"les activités ou démarches de recherche favorisant la création ou l'interprétation d'oeuvres littéraires ou artistiques.... Dans le cadre de ce programme, l'interprétation est analogue à la création et ne peut être comprise comme une démarche intellectuelle d'analyse d'une oeuvre ou des réalisations d'un créateur."

to fund research by university-based artists on an equal footing

seemed to be unique in the international scene

“interpretation is similar to creation and cannot be understood as a thought processe of analysis of a work or achievements of a creator”

Québec recherche-création

sustained creative practice

new production

step: a disciplinary development

fresh knowledge / technique

new forms of expression -> new style, materials, techniques, technologies used

education of students

increased recognition of interlocutors in arts & letters

add to cultural heritage

Une démarche de recherche-création en arts et lettres repose sur l'exercice d'une pratique créatrice soutenue; sur une réflexion intrinsèque à l'élaboration d'oeuvres ou de productions inédites; sur la diffusion de ces oeuvres sous diverses formes. Une démarche de recherche-création doit contribuer à un développement disciplinaire par un renouvellement des connaissances ou des savoir-faire, des innovations d'ordre esthétique, pédagogique, technique, instrumental ou autre. Ces activités doivent contribuer, du point de vue des pairs :

au développement de chacune des formes d'expression, à la condition que les oeuvres, la démarche suivie, le style, les formes d'expression, la technologie ou le matériau utilisé, les modes de présentation, le répertoire ou le style d'interprétation offrent un caractère d'évolution, d'originalité, d'innovation ou de renouvellement par rapport à l'état présent du domaine spécifique;

à la formation des étudiants, particulièrement ceux des cycles supérieurs;

à une reconnaissance accrue des intervenants dans le domaine des arts et des lettres;

à l'enrichissement du patrimoine culturel québécois, canadien ou international.

[e *Comité d'étude sur le financement du secteur des arts et lettres*
o the FQRSC Spring 2000]

Québec recherche-création

eventual possible public presentation

(not art production)

- *La **recherche-création** (RC) est toute activité ou démarche de recherche favorisant la création ou l'interprétation d'oeuvres littéraires ou artistiques, de quelque type que ce soit, répondant à toutes les exigences de l'excellence et **permettant une présentation publique éventuelle**.*
- *Les **chercheurs-créateurs** sont les membres réguliers du corps professoral d'une **université québécoise** dont la tâche implique des activités de création ou d'interprétation tels les écrivains, les cinéastes, les vidéastes, les scénaristes les acteurs, les compositeurs, les interprètes, les metteurs en scène, les dramaturges, etc.*
- *La **recherche-création** (RC) est toute activité ou démarche de recherche favorisant la création ou l'interprétation d'oeuvres littéraires ou artistiques, de quelque type que ce soit, répondant à toutes les exigences de l'excellence et permettant une présentation publique éventuelle.*

Canada federal research/creation

"The term research/creation is gaining currency both in Canada and internationally. Until recently, ***university- and college-based artists*** *had been treated as research "outsiders"— an exotic, and perhaps even a suspicious [sic], breed. Until the FQRSC in Quebec began funding research/creation in 2000, we were the only university sector excluded from the spectrum of funding programs intended for university research and researchers. A few hardy artist-researchers managed to piggyback elements of their research programs on Strategic grants in other disciplines—usually by suppressing important aspects of their activity and describing their practice in language (or with emphases) developed in very different disciplines.*

While artist-researchers were able to apply to the ***Canada Council****, this was often also awkward, either because the assumptions and setting at the university are different than those for independent artists (student mentoring, for instance) or because university artists were seen as intruding on the very slim percentage of the Council funds available for independent artists' projects. At the same time, university artist-researchers are increasingly involved in interdisciplinary initiatives that cross university disciplines and may also include the participation of artists and organizations beyond the university. For these and other reasons, there is a growing recognition that artist-researchers have something very vital to contribute to the contemporary university research community"*

p 15, Formative Evaluation of SSHRC's Research/Creation in Fine Arts Program Final Report, October 8, 2007

Canada federal
Social Sciences and Humanities Research Council

Alternatives: An environmental scan was conducted to identify similar programs in Canada and abroad. Aside from initiatives by the [FQRSC[, there is no comparable program in terms of

total investments in research/creation projects ($13.4 million),

size (an award value of up to $250,000 per project),

scope (nearly 100 individuals from a wide range of artistic disciplines funded during the five-year pilot phase),

and tenure of funding (three years).

Survey responses echoed the lack of comparables, but cited provincial government, university, and federal government sources as potential (though not equivalent) resources.

p 6, Formative Evaluation of SSHRC's Research/Creation in Fine Arts Program Final Report, October 8, 2007


Hexagram
70 university-based researchers
arts, some engineering
Concordia University
Université de Québec a Montréal
later
CIRMMT McGill
individuals U de Montreal
O(10m) CAD
Concordia, Engineering/Visual Arts
opened 2005
36

La Société des arts technologiques

tml as a transversal machine

29.1

experimental philosophy

speculative, adventure (Stengers)

appear as

- artistic research
- technological research

not art production

apparatus (Barad; Foucault/Agamben)

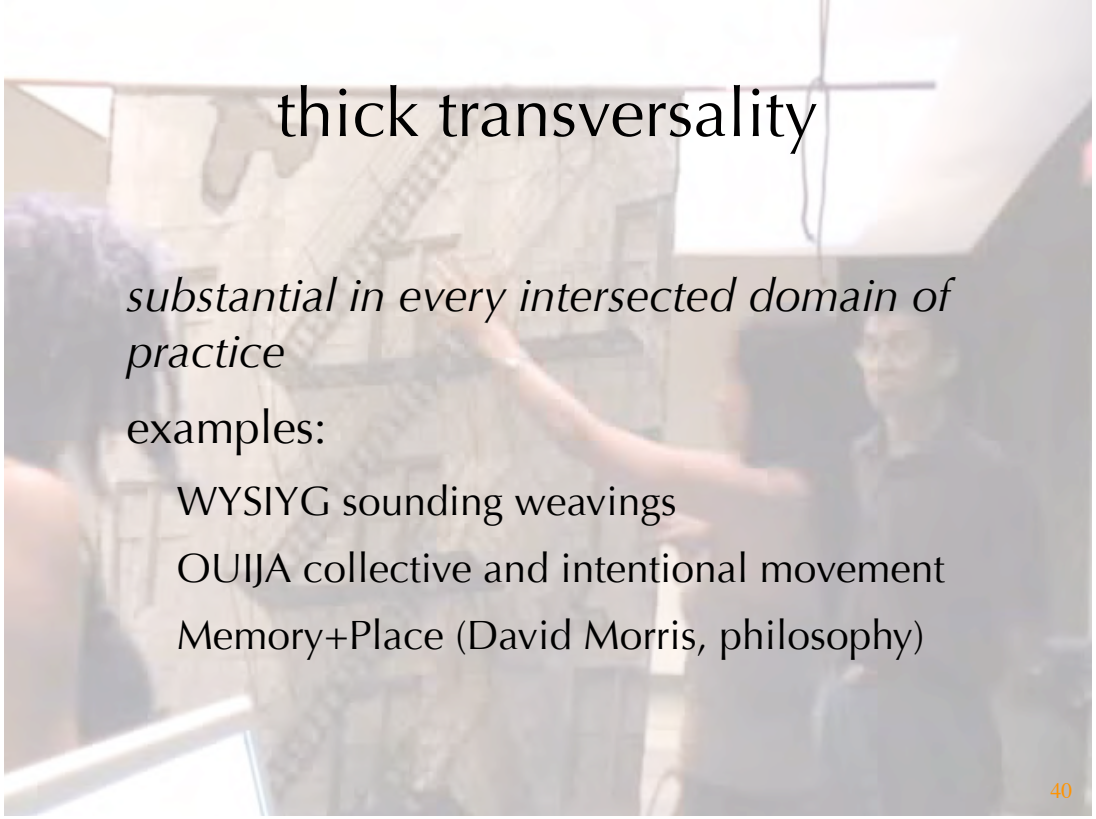
experience (Gendlin, Maturana-Varela, Whitehead...)

It is important to understand that the TML's *raison d'etre* is NOT to be a facility for the production of art, although we do create and exhibit media art in the course of our work in standard art venues like Ars Electronica, DEAF, Elektra, galleries and performance venues (as well as more public venues). Nor is the TML *raison d'etre* to be an engineering research and development lab, although the TML accesses enough technical expertise to invent solutions to any necessary technical or mathematical depth. In fact the TML publishes its technical inventions as they constitute advances in engineering as recognized in the relevant disciplines (eg. NIME, ICMC, Ubicomp, SIGGRAPH, ACM Multimedia) (For example: the continuous transmission of data needed to smoothly trace continuous gesture, led to a fundamental modification of underlying packet structure and transmission protocol. Other examples are the pattern tracking and synthesis used in WYSIWYG, and the calligraphic video work.) Since 2001, the TML has demonstrated that it can produce media / installation / movement art or techno-scientific work that are legible and valued in their home disciplines, different than asking for these artifacts to be evaluated as "interdisciplinary" work, according to some standard.

TML's core research projects pursue bundles of experimental philosophical inquiries, and to the extent that they are speculatively philosophical, they necessarily cut transversally through the relevant disciplines and practices. In fact, the work comes out sometimes as works of art, because we are after the full affective density of living experience rather than a sparse dimension. Additionally, posing the work sometimes as art also usefully clarifies what is at stake with a given installation, beyond the technical means. The key aspect though is that the philosophical investigation can be articulated sometimes as speculative art, sometimes as speculative engineering, in other words, as different aspects of techne. I say speculative, because it questions the boundaries of what consitutes practice in these domains. For example in the past 2 years, motivated by the challenge to deploy these deeply processual processes in much more durable scales (of weeks and years and billions of dollars of architecture, rather than milliseconds and days, and a few thousands of dollars of computational media art).

But since we equally the work is also technically speculative, for example, asking how we can make a woven tapestry sound as people approach or stroke it, as an example of continuous activated matter responding to continuous, *collective*, movement continuously in time. This tapestry, which was constructed as tour de force of music gestural technologies, sensing, and synthesis, with a team of experts from three research groups (TML, Wanderley's IDMIL, and Berzowksa's X S Labs), serves also as an apparatus for experimental philosophy.

Another example just starting up is a collaborative experimental investigation with David Morris into phenomenological (vs. cognitivist or psychological or computational) concepts of memory. Morris, a philosopher specializing on Merleau-Ponty and phenomenology of memory in relation to place and body read about the TML's work in a local magazine, and approached me to see if we might work together. Although the seminar and experimental designs are still nascent, what is particularly validating is that Morris recognized the work that we were staging as being a promising way to carry out phenomenological experiments. We share a common doubt of our humanist practice of citing very particular references in the scientific literature (the authorizing domain varying according to the decade, currently cognitive and neuroscience). Aside from de-contextualizing such isolated references into anecdote, a more subtle problem is that the apparatus and technique of a given psychology experiment, say, already comes pre-conditioned to see certain phenomena, and ignore others. My shorthand motto for theory-laden observation is "you see what you expect to see." One lesson we learn from the past 4 decades of science and technology studies is that this motto may be as true of phlogiston as it is of mirror neurons. With Morris, our Memory and Place project studies how our (human) memories are conditioned by how our bodies comport in a physical built environment. We are reading some of the literature (Simondon technical individuation, Barad apparatus / refraction , Foucault-Agemben apparatus) with an eye to construct a fresh experimental procedure that will, to the greatest extent possible, respect the radical openness and non-schematizable quality of felt experience.



The WYSIYG, OUIJA, and Memory+Place projects exemplify what I call thick transversality: where the intersection between the project and a given discipline (computational physics applied to realtime computer graphics) on one hand is a substantial not incidental constituent of the project, on the other it appears as a substantial contribution in the intersected disciplines (Jitter video as realtime art).

how do people affiliate with the lab

60+ affiliates in 5 years

current:
3 paid core R&D team (c/art)
5 (17) interdisciplinary PhD's
2 (+2) computer science Masters
2 undergraduates (arts)

Students, Scholars, Artists
Who have passed through or
worked with the Topological Media Lab

Georgia Tech 2001-2005
Concordia University 2005 - 2007

lab as protected space

bring prior skills

parallel studies

~one-year reciprocal commitments

apprenticeship model: roles ...

Process of acculturation: phases of learning. Of course not everyone experiences the same sequence if they've already got some of this coming in, but i think these are all important elements for the sort of art research that I would like to support.

lab as protected space

bring prior skills

parallel studies

~one-year reciprocal commitments

apprenticeship model: roles ...

intern
understudy / apprentice
experimentalist
composer-author
mentor

Process of acculturation: phases of learning. Of course not everyone experiences the same sequence if they've already got some of this coming in, but i think these are all important elements for the sort of art research that I would like to support.

roles

intern	unlearning cognitivism, ego-art,...
understudy / apprentice	learning instruments (code), technique... (values??)
experimentalist	art ≠ art research ≠ engineering ≠ philosophy
composer-author	defining research questions
mentor	
visiting peers	

define research questions

enroll people, peers, team as necessary

answer the "so what?"

why would others care about the work?

what's the significance?

what, how does it matter?

how might the work give life, not crush it?

reminder:
what does tml produce?

publications

cultural artifacts (videos, installation-events)

engineered instruments / systems (not tools)

people with creative research experience

knowledge and reputation capital

elastic family of resemblance in interest and form
protected from disciplinary filters
(amoeba/yeast, not opensource)

The TML provides an open space in which we can pursue such art research without having to constantly defend individual projects in institutional language (e.g. of disciplines, granting agencies) or in terms of the market. The Director and associate faculty or peer researchers help locate funding for groups of researchers so that individual members can pursue their work with more autonomy.

However, in exchange, we expect work of world class production quality, not student work, or class project work. This work should aspire not merely to tech art venues (such as SIGGRAPH, Ars Electronica, DEAF, Media Terra), but also to world stage or real world socially embedded situations.

reputation capital

citation practice

- domain-dependent co-authorship norms
- mathematics and humanities citation detail
- material citation (vs. design / art “originality”)
- unbounded archive

n+1 collaboration ethos

group reputation capital

first-cite, then stone soup:

- free use of code or media or material from a TML project in subsequent TML project

provisos:

- must name individual source (**even in matter | code**);
- first creator must be credited in public before her/his work goes into stone-soup inside TML.

Motivation and General Guidelines

The discipline is that when you make something that nontrivially uses the TML's studio-lab knowledge or capital resources, you should also make it usable by someone other than yourself in TML. If it is materials knowledge, then write it up as a report, and post it along with samples and sources. Write and share reviews of conferences trips, films, performances and exhibits in the TML. For example, if you write a piece of software, then write a clean usable interface, and document it so that a student two generations after you can understand how to use it (i.e. beyond living memory!) Do the same with a material component.

TML technology: for a TML project, you may freely use code, media developed for any prior TML project, so long as you name all the prior authors, adding yourself of course, and TML. in turn, your media and code may be used freely by future generations of TML artist researchers. However, please wait until your fellow TML author has published a piece of work before referencing it or incorporating any part of that person's work in your own public work. To be freely sharable within TML, a work must first be published in some way that durably credits the author and TML, for example in a juried art event with (inter)national profile, or in a good professional journal. Some work may take years to publish, or may never be published, in which case you'll need to work with the author or with the Director.

It'd be a courtesy to ask for permission from your peers if you want to cite or recycle a part of her/his work. This way individuals will be able to speak, and be recognized, in their own voices, and also be able to share work collectively.

TML technology -- media, techniques, gear, space, resources -- may not be used for any non-TML project, except by permission from the TML coordinator (harry), or from me.

Professional ethos; I require that material practitioners, artists and designers, adopt citation practice from the scholarly community: if you use a technique or an idea or a piece of code from someone, you must explicitly name that person in your work. this is not about (for or against the notion of) originality, this is about rewarding and publicly acknowledging someone for helping you, and conversely being tangibly rewarded for giving your knowledge to a colleague. Here, tangible means social capital, reputation.

Humanities scholars have developed over the past 700 years a very precise and refined citation practice to trace by name and specific moment their flow of ideas. Why? because that's how we've learned to run a really-existing gift economy based on the circulation of works and acts of imagination. Precision is necessary because knowledge exchanges (and grows) in these small moments and denominations: the phrase, the paragraph, the 3 lines of repeatedly useful code, the 3 square inches of a fabric switch that shows a different way of thinking about connections, the hypothesis of a theorem, one video segment that provides just the right texture to seed your synthesis, or one idea. (Professional mathematicians will formally credit peers for even one expression, or one turn of logic.) Most importantly, you should credit your peers and mentors for the ideas they offer or the prototypes they demonstrate that seed your work. Of course, acknowledgments will be scaled to the significance of the contribution relative to the final work, and may be thresholded or filtered for the occasion with justification.

Social capital's etiquette depends on the field in which we exhibit the work: for example, in scientific practice, the students who do the work are listed in order of their contribution, and the professor who proposes / advises the experiment and provides the setting is named last author. In humanities or social sciences with 1-2 or rarely 3 authors, the authors are named in order of their contributed idea-weight. In math it's the same, with some attention to naming contributions at the level of theorem statement, proof, and even a particular insight-step, because of the extreme density of the work. Smaller contributions are cited in acknowledgments and citations. I introduce this into material studio-lab-atelier practice as well.

In general we must acknowledge each other's contributions in this creative economy because that is the best, and at heart the only way we have to reward the sharing of knowledge, insight, art.

I ask you to develop and sustain on this ethos with me.

10 years ago, I built the TML to create the techniques and find the people who could realize a playspace in which one could improvise individually or collectively meaningful gestures. I realize now that the TML is itself that sort of space.