

Petitot, Whitehead, the Problem of Novelty, and Computer Vision

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```
(* Executing Eliza causes ElizaRead to take control of your  
Mathematica session. Type "goodbye" to get control back. *)
```

```
Eliza :=  
Block[{},  
  familyvalue = True;  
  family = {"mother", "father", "sister", "brother", "parents"};  
  $PreRead = ElizaRead[("\\"<>#<>"\\"<>)&;  
  "Tell me your problem "  
]
```

```
(* ElizaRead only wants to help you ... *)
```

```
ElizaRead[s_String] :=  
Block[{s1, ls, qq},  
  qq = If[StringPosition[s, "?"]=== {}, False, True];  
  eq = If[StringPosition[s, "!"]=== {}, False, True];  
  s1 = StringReplace[  
    ToLowerCase[s],  
    Map[(<#> " ")&, Characters[" ,?;!\"'"]];  
  s1 = StringReplace[s1, " -> "];  
  ls = BreakIntoWords[s1];  
  "\\"<>Which[  
    Length[ls] === 0,  
    "I'm sorry. I didn't catch what you just said.",  
    ls[[1]] === "goodbye",  
    $PreRead=.; "Goodbye.",  
    ls === {"tell", "me", "your", "problem"},  
    "Tell me your problem.",  
    MemberQ[ls, "always"],  
    "Can you think of a specific example?",  
    (Intersection[family, ls] != {})&& familyvalue,  
    familyvalue = False;  
    "Tell me more about your family.",  
    MemberQ[ls, "depressed"],  
    "I am sorry to hear that.",  
    MemberQ[ls, "computer"] || MemberQ[ls, "computers"],  
    "Are you afraid of computers?",  
    MemberQ[ls, "my"],  
    "Your"<>StringDrop[StringClip[s, "my"], -1],  
    MatchQ[ls, {__, "you", "are", ___}] ||  
    MatchQ[ls, {__, "You", "are", ___}],  
    StringDrop[  
      "What makes you think I am"<>  
      StringClip[s, "you are"], -2<>"?",  
    qq,  
    "Why do you ask that?",  
    ls[[1]] === "yes",  
    "You sound very positive.",  
    ls[[1]] === "no"
```

Tell me your problem.

"I am sleep deprived and depressed."

I am sorry to hear that.

"Why are you sorry to hear that?"

Why do you ask that?

"I'm just curious about you."

Go on.

"Well, I don't really want to say anything more..."

Go on.

"I'm bored of this conversation."

I see.

"Why are you so laconic?"

Why do you ask that?

"I'm always depressed."

Can you think of a specific example?

"Well, when my mother baked me a cake even, I was depressed."

Tell me more about your family.

"Did you know that you are really cryptic?"

What makes you think I am really cryptic??"

"Are you sad?"

Why do you ask that?

"Are you cryptic?"

Why do you ask that?

"You are cryptic!"

What makes you think I am cryptic??"

"um"

You are not very talkative.

"Well, yes, I am feeling much better now!"

I am not sure I understand.

"Really, yes, I think I will go talk to Felix now that I feel much happier!"

I see.

"Goodbye, Eliza"

Goodbye.

~~what is software?~~

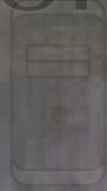
what does software do?

Visual Instruments
Apple G4 Powermac
Max/Jitter

Sound Instruments
Apple G4 Powermac
Max/MSP

Media Choreography and
Show Control (DMX512)
Apple G4 Powermac
Max

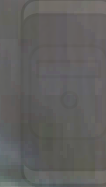
from code to distributed action



tmlg4graphics #1



tmlG4sound

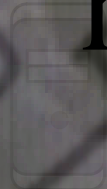


tmlG4oz

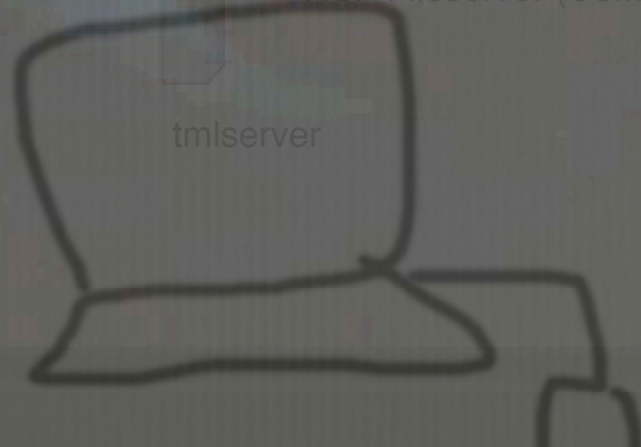
how is agency distributed?

~~interaction~~

co-structuration



tmlg4graphics #2



tmlserver

Linux on PC i686

NSF Fileserver (Common Code Share)

199.77.199.229 tmlserver (#1)
199.77.128.180 tmlG4graphics
199.77.128.182 tmlG4oz
199.77.128.181 tmlG4sound

wysiwyg gestural sound

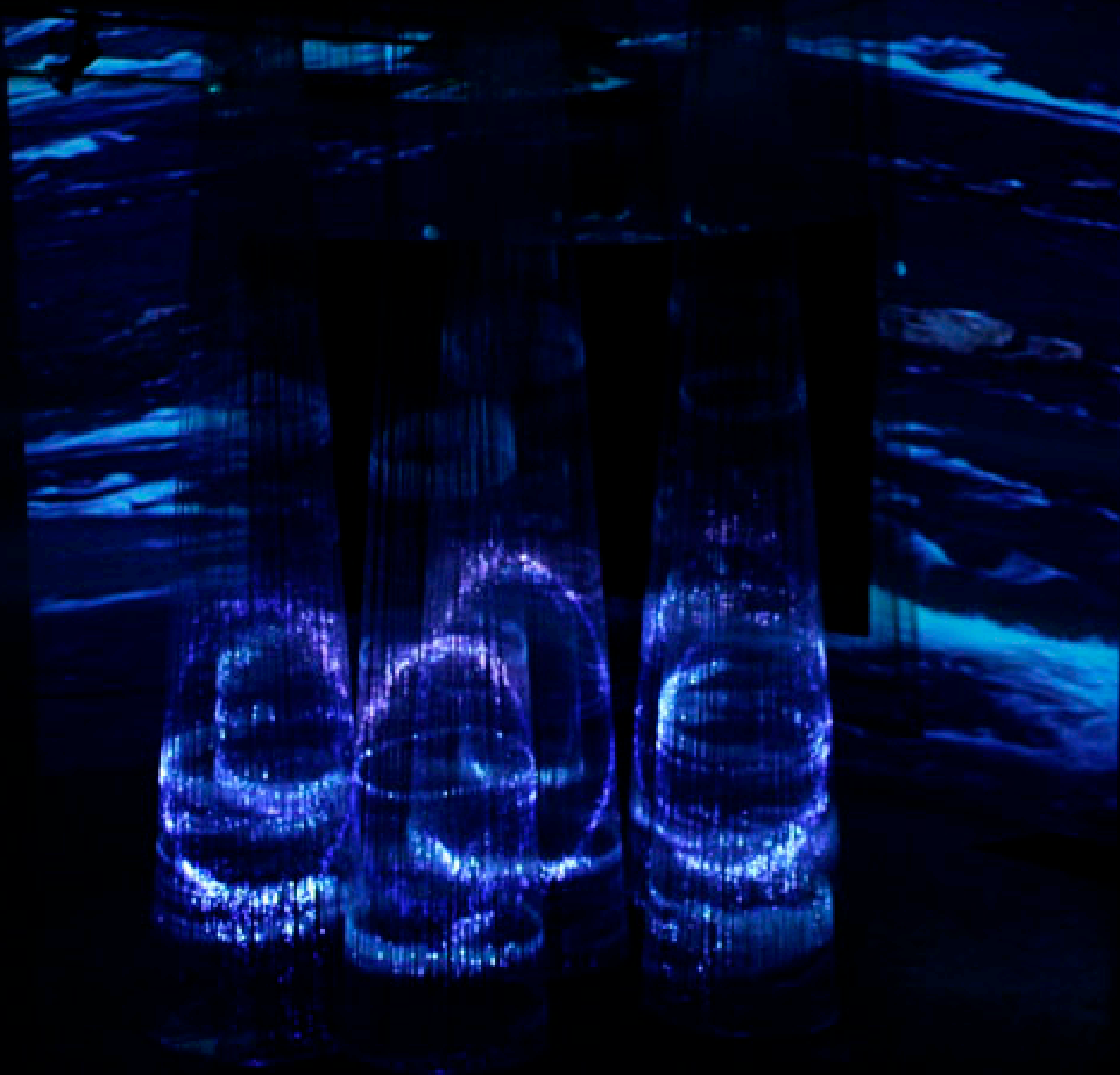
A person is gesturing towards a large architectural model on a wall. The model is a complex, multi-story building with a grid-like structure. The person is wearing a dark shirt and has their right arm raised, pointing towards the model. Another person is visible in the background, looking at the model. The scene is indoors, with a large window or screen in the background.

Continuous fabric controller
Continuous gesture
Continuous model
Continuous sound synthesis
Real-time

Whitehead Process and Reality

phase change induced by speech and movement energy
Harry Smoak, Matthew Warne, Kevin Stamper TML 2004





Lenka Novak, MFA 2008



Cosmicomics TML @ Elektra July 2007

fibre bundles

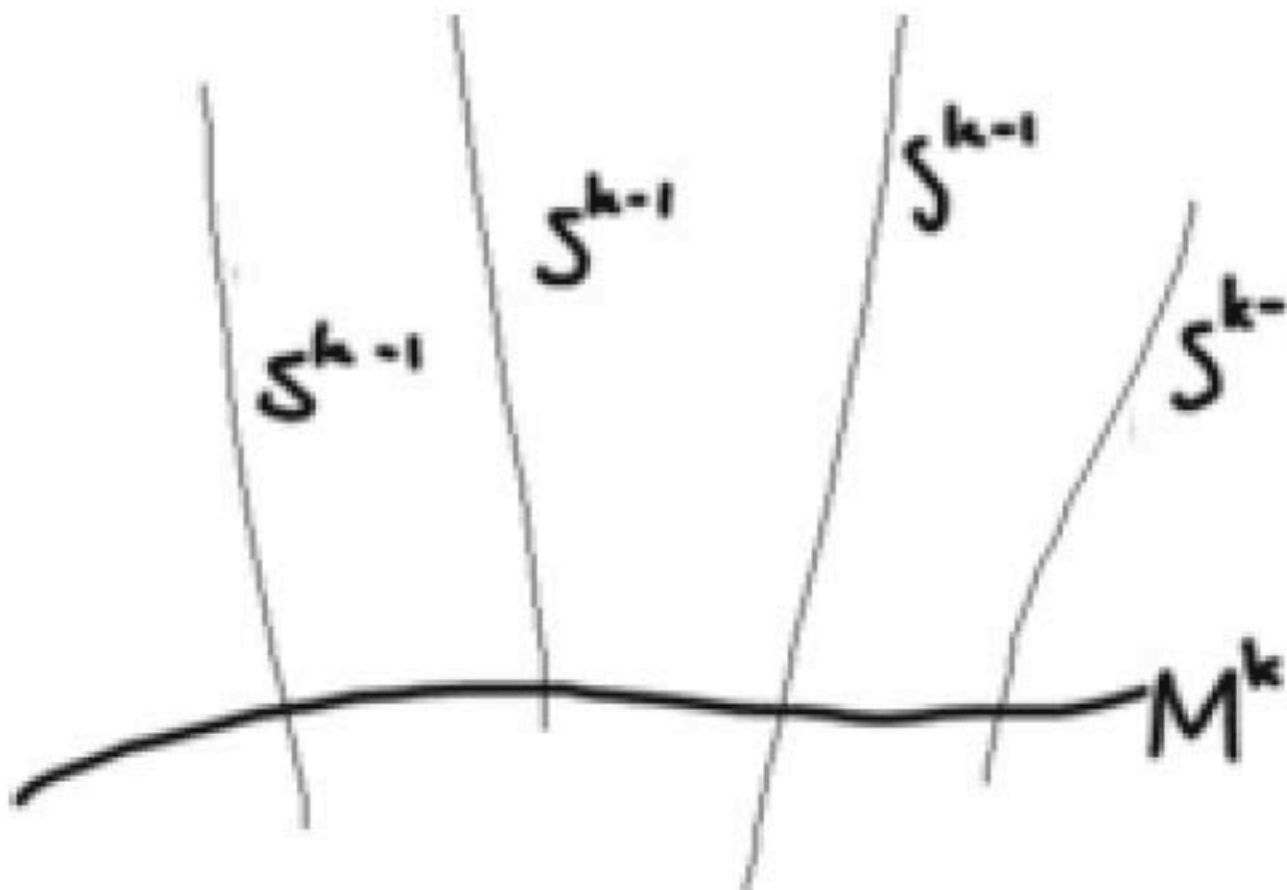


Figure 4: sphere bundle over M .



Parisian computer vision

D. Philipona, J.K. O'Regan, J.-P. Nadal (2003), "Is there something out there? Inferring space, from sensorimotor dependencies."

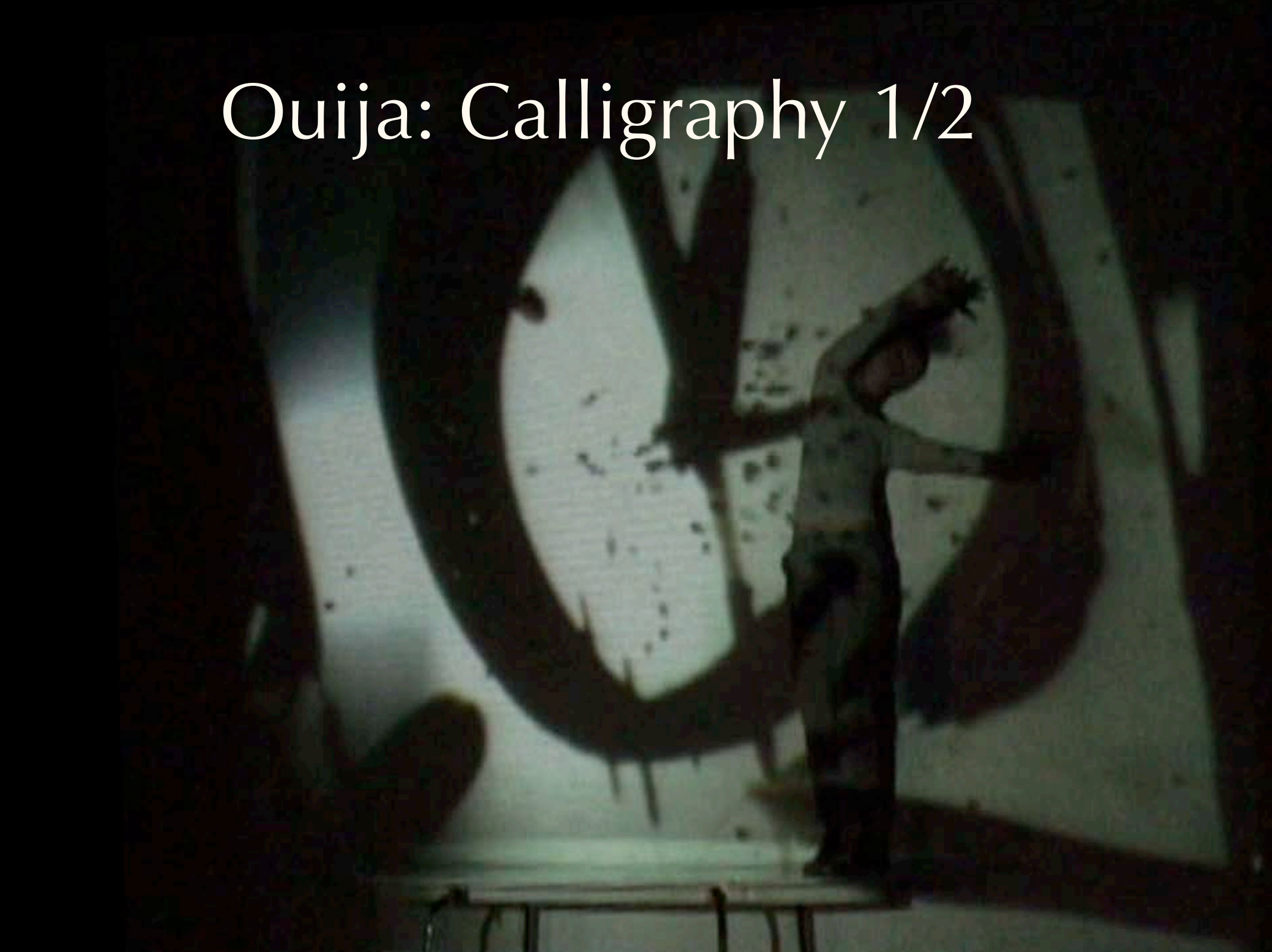
(1) Sony Computer Science Laboratory Paris;

(2) Laboratoire de Psychologie Expérimentale, CNRS, Université René Descartes; and

(3) Laboratoire de Physique Statistique, Ecole Normale Supérieure.

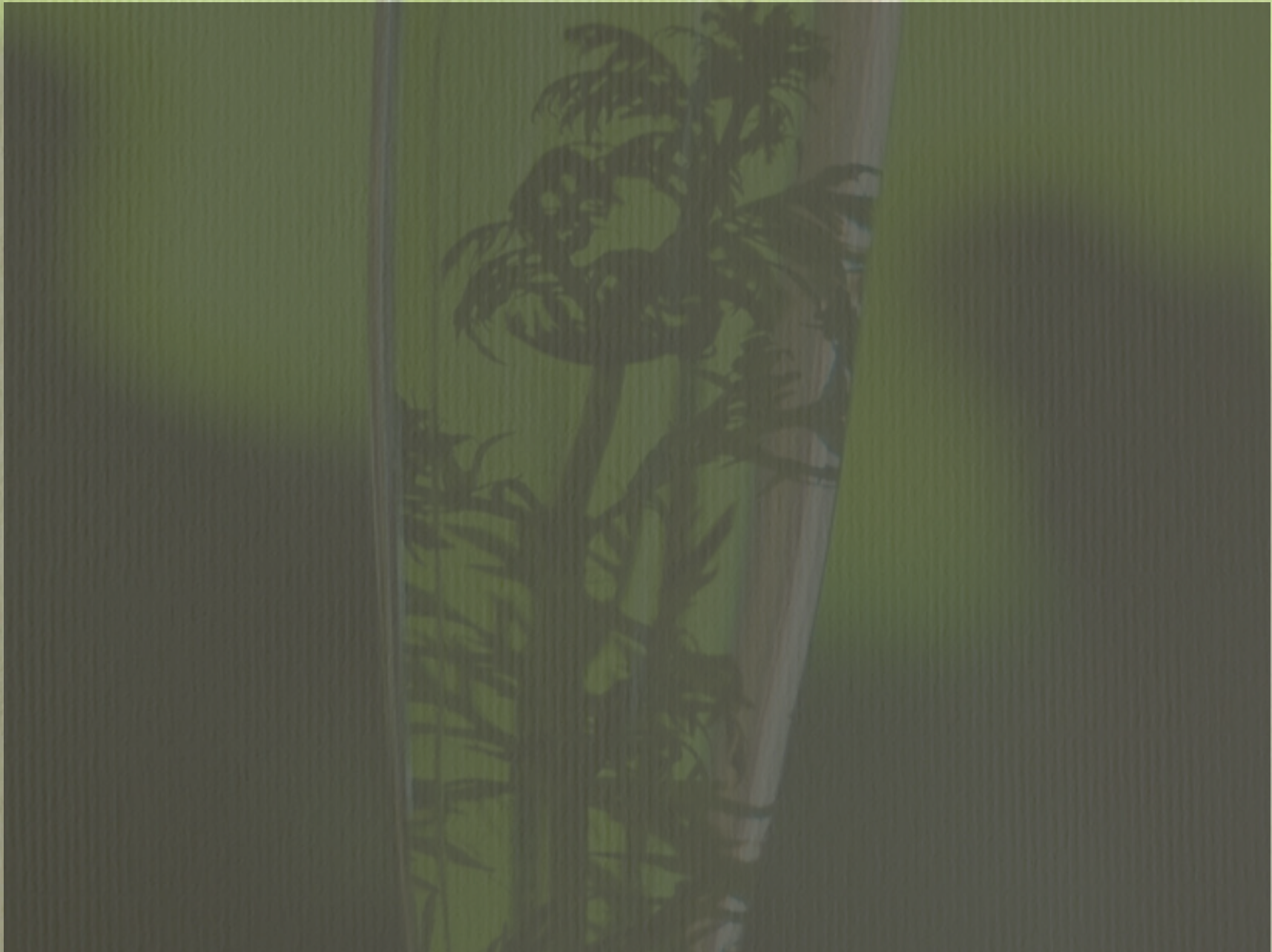
Perception of the structure of the physical world using unknown multimodal sensors and effectors (2004+), D. Philipona, J.K. O'Regan, J.-P. Nadal, O. J.-M. D. Coenen.

Ouija: Calligraphy 1/2



Ouija: Calligraphy 2/2





remedios terrarium

17 March - 4 April 2008



Παντα το πυρ επελθον κρινει και καταλεπσεται.
Fire is the ravisher of all things. Heraclitus



working ethos

references

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Petitot, J. (1999). "Morphological Eidetics for Phenomenology of Perception." Naturalizing Phenomenology: Issues in Contemporary Phenomenology and Cognitive Science. Eds. F. J. V. J. Petitot, J.-M. Roy, B. Pachoud. Stanford, Stanford University Press, pp. 330-371.

Philipona, D., O'Regan, J.K., Nadal, J.-P. (2003). "Is there something out there? Inferring space, from sensorimotor dependencies." Technical Report, Sony Computer Science Laboratory Paris; Laboratoire de Psychologie Experimentale, CNRS, Université René Descartes; and the Laboratoire de Physique Statistique, Ecole Normale Supérieure.

Philipona, D., J.K. O'Regan, and J.-P. Nadal. "Is There Something out There? Inferring Space, from Sensorimotor Dependencies." Neural Computation 15.9 (2003).

Philipona, D., et al. "Perception of the Structure of the Physical World Using

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