

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.

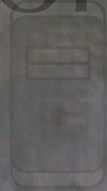
~~what is software?~~ what does software do?

Visual Instruments
Apple G4 Powermac
Max/Jitter

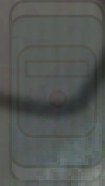
Sound Instruments
Apple G4 Powermac
Max/MSP

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

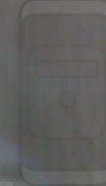
from code to distributed action



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

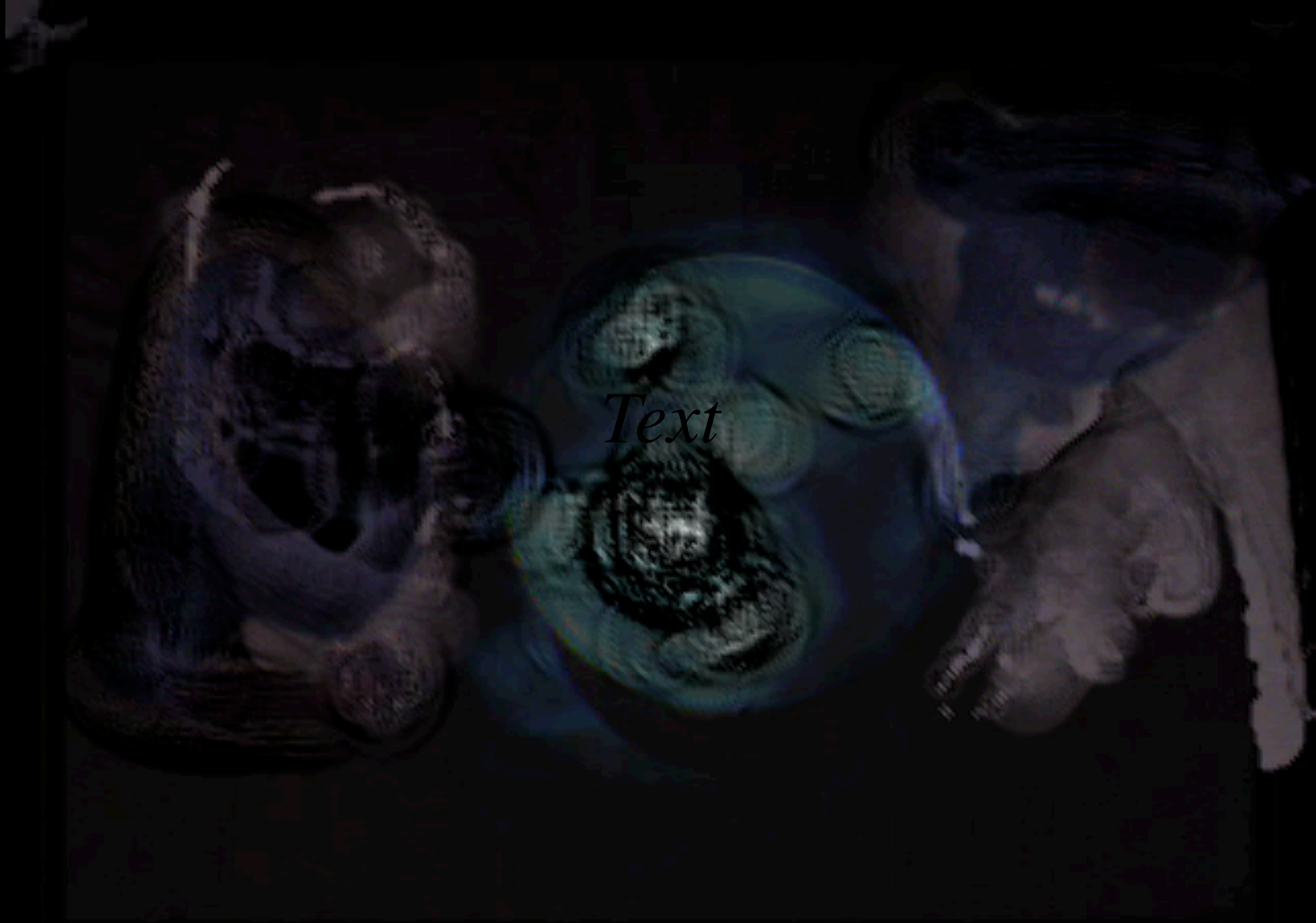
wysiwyg gestural sound

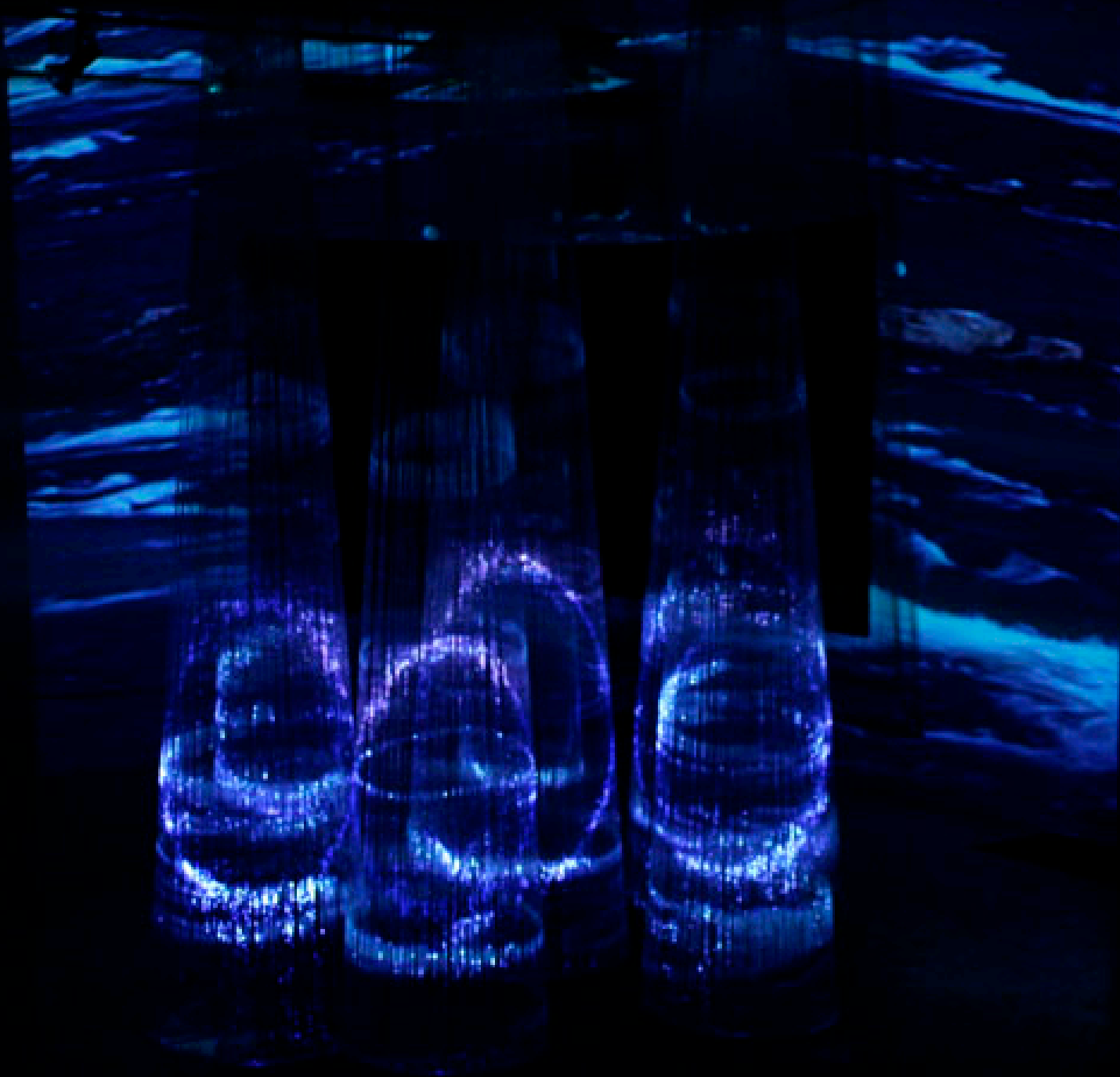
A person in a red shirt is gesturing towards a large architectural model on a wall. The model is a detailed drawing of a building with a staircase and various rooms. The person is standing in a room with a large window in the background. Another person in a dark shirt is standing to the right, looking at the model. The scene is dimly lit, with light coming from the window.

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

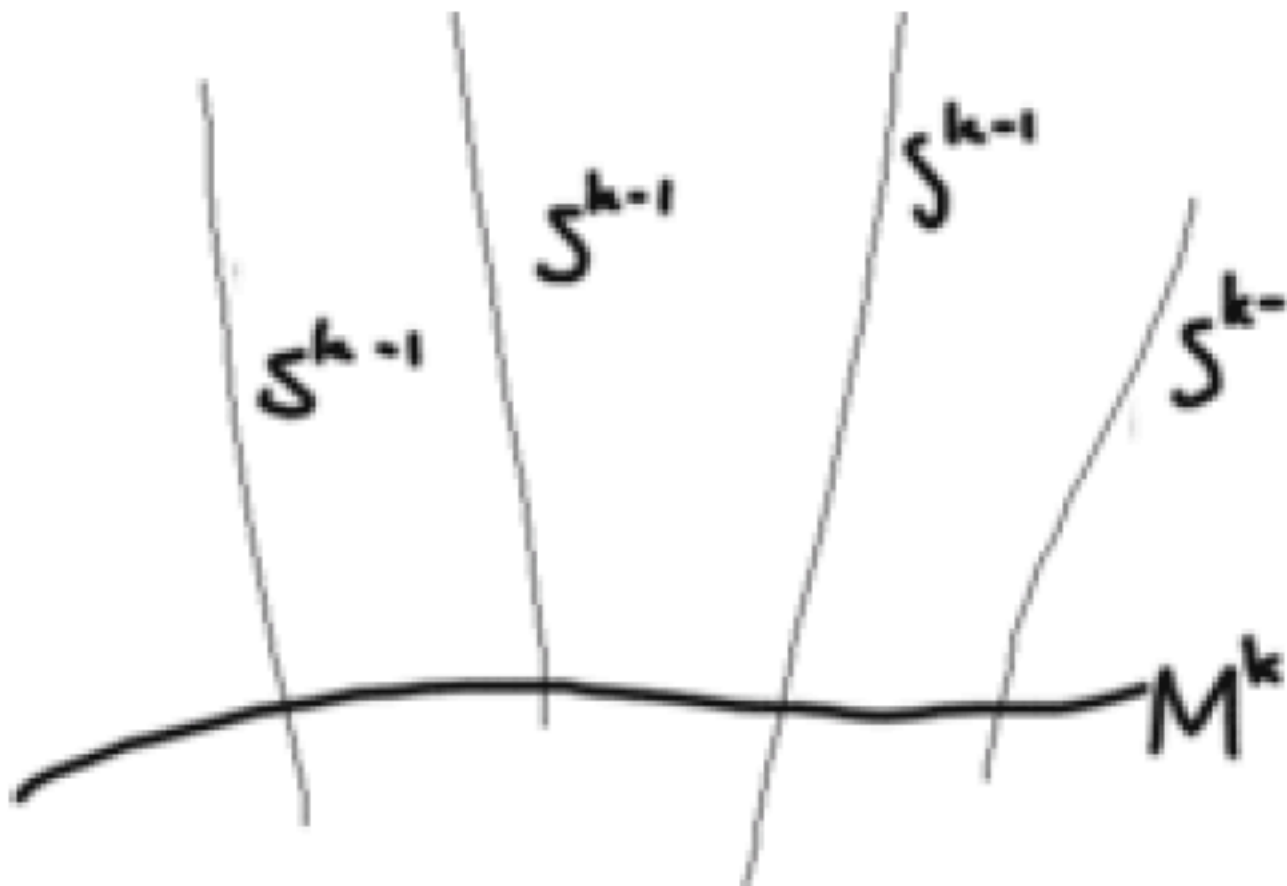


Figure 4: sphere bundle over M .



Parisian computer vision

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

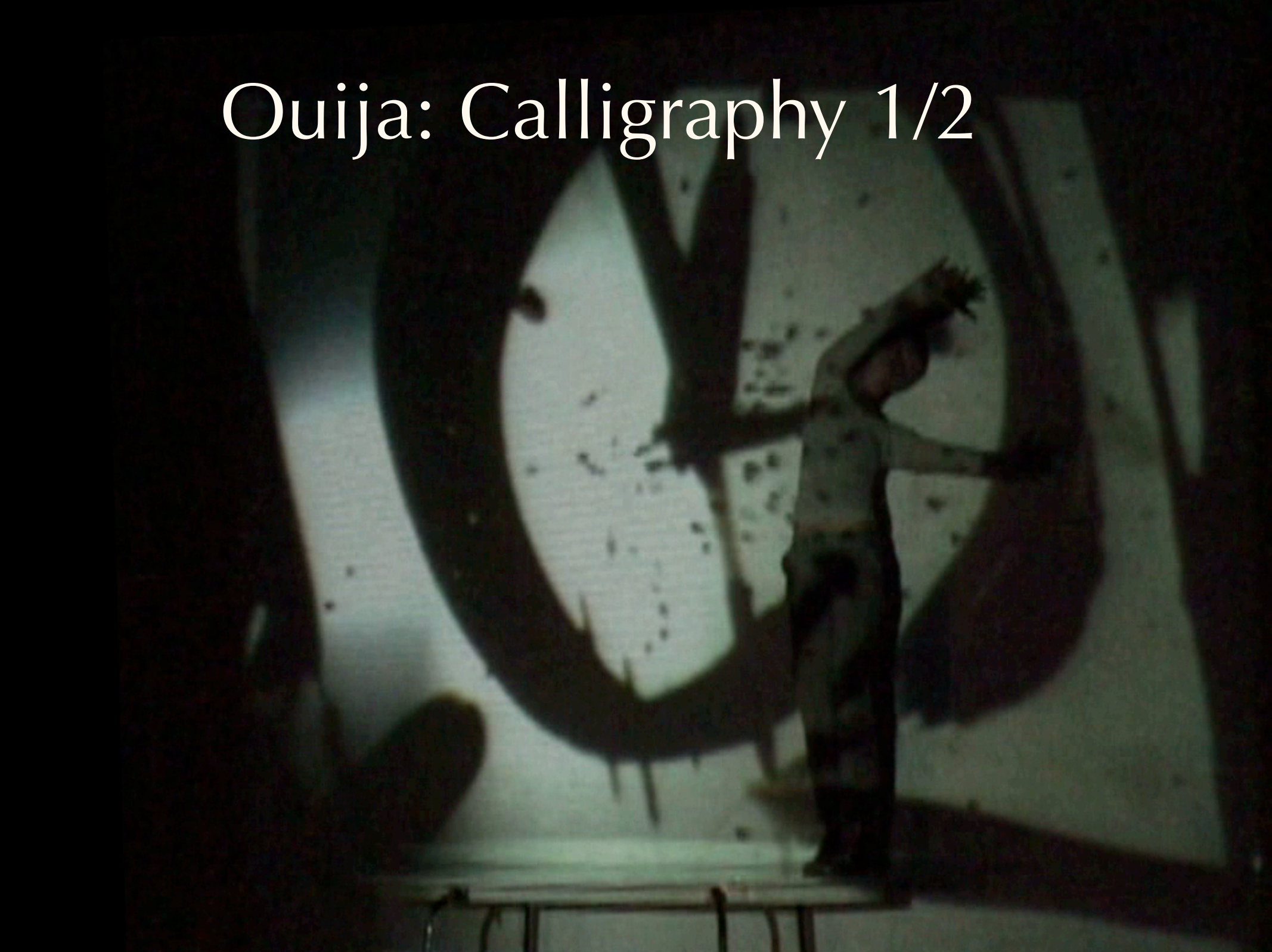
(1) Sony Computer Science Laboratory Paris;

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

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

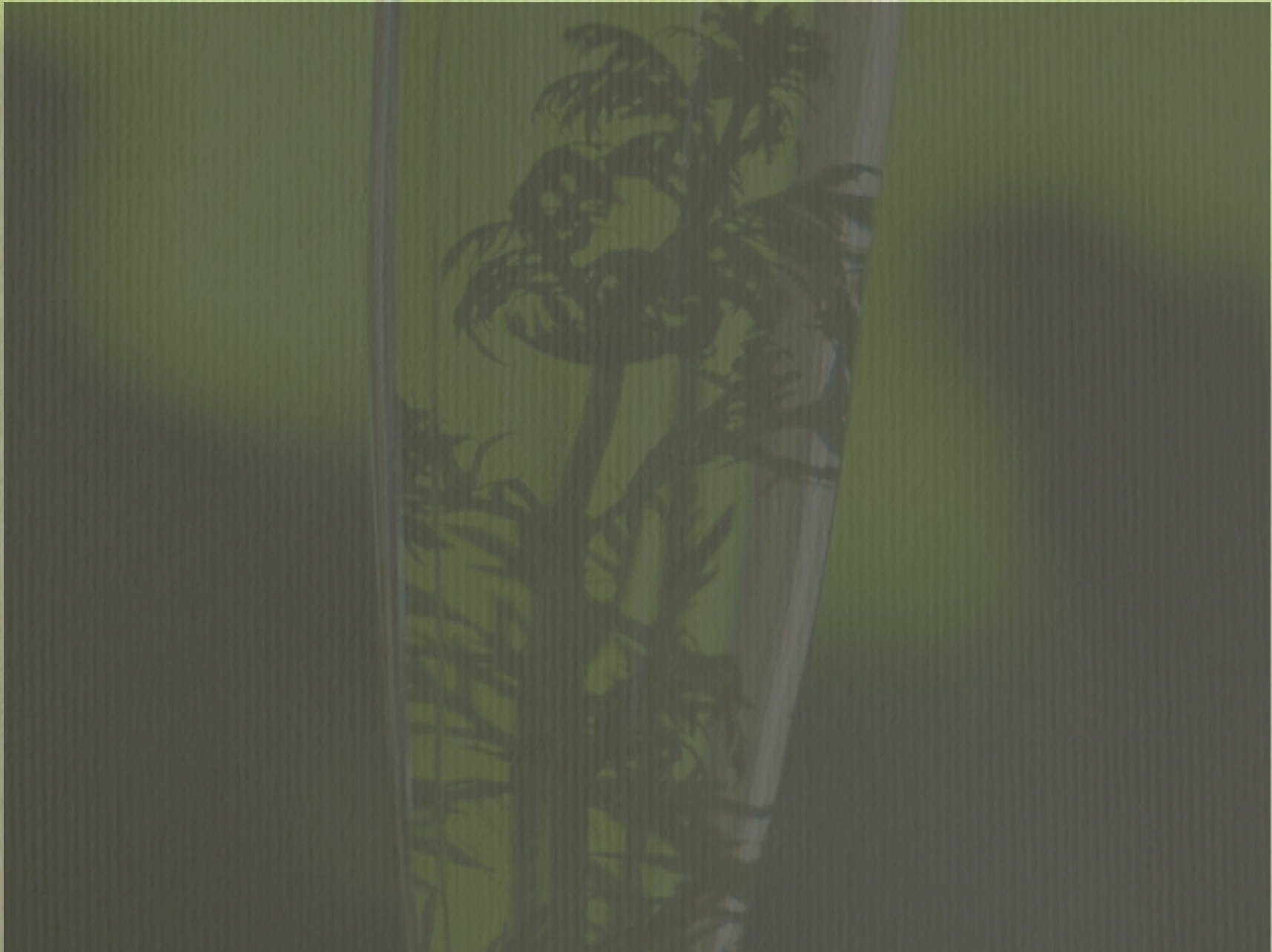
Perception of the structure of the physical world using unknown multimodal sensors and effectors (2004+), D. Philipona, J.K. O'Regan, J.-P. Nadal, O. J.-M. D. Coenen.

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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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

SXW.(2005). "Whitehead's Poetical Mathematics." Configurations 13.11, Special Issue on Whitehead, Eds. Steven Meyer and Elizabeth Wilson, pp. 77-94.

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