

Sound gestures: hearing dances, seeing music

Interactive exhibits on new technologies and sensory substitution:
the ICT EU Horizon 2020 project DANCE

An opportunity to experience early results from the DANCE project. These research demos were presented at *eINTERFACE 2015* (Mons, www.interface.net), *Sónar+D*, (Barcelona, www.sonarplusd.com), *STARTS*, *Bozar* (Brussels, www.ictartconnect.eu).

Balance

(*Chiesa interna 1*)

We can talk of balance and we can reflect on it. Balance can be seen and perceived, but can it also be heard? Try to move around the center of gravity of your body and listen to the sound of losing balance:

Images

(*Chiesa interna 2*)

Move freely. Observe how the body image on the wall in front of you changes color based on the quality of your movements, how it is modified, reduced to points, captured in the tracks of your gestures:

Fluidity

(*Stanza dei paesaggi*)

Like water, your body strives for fluidity of movement. Don't watch: you can see this quality in your gestures, by listening to the sounds they will be able to generate.

Weight

(*Cappella delle Monache*)

Like a stone, your body is attracted by gravity. Don't watch: you can see this quality in your gestures, by listening to the sounds they will be able to generate.

Game

(*Presbiterio*)

This game is a challenge between you two. Blindfold each other and, in the utter concentration of not seeing, listen to the sounds around you. Start moving following your hearing. Try using your gestures to express what you are experiencing. The more able you will be to translate with your body the quality of the surrounding sounds, the higher your chances of winning the challenge.

Credits:

Casa Paganini – InfoMus (Paolo Albornò, Antonio Camurri, Corrado Canepa, Paolo Coletta, Simone Ghisio, Ksenia Kolykhalova, Maurizio Mancini, Alberto Massari, Radek Niewiadomski, Stefano Piana, Roberto Sagoleo, Gualtiero Volpe), in collaboration with the composer Pablo Palacio.

Concept

Seeing is but one of our senses. It is the one we are most conscious and this makes us ignore how much seeing itself is influenced by what we hear and touch and by how our imagination continuously shadows and steers our experience. “*Touching and Imagining*” is the title that the filmmaker Jan Svankmajer gave to his collection of writings, recalling the uncanny cosmic mysticism of ancient Persian poet Rumi. In Rumi, the action of closing the eyes for seeing, committed in the search for that light "evident and clear that the manifest and visible" there. For Svankmajer, closing the eyes is needed to see the immeasurable spaces of a dream, to find images that open up to feelings coming "from the least explored places of the brain," to experiment with forms of the visible derived by different sensorial configurations.

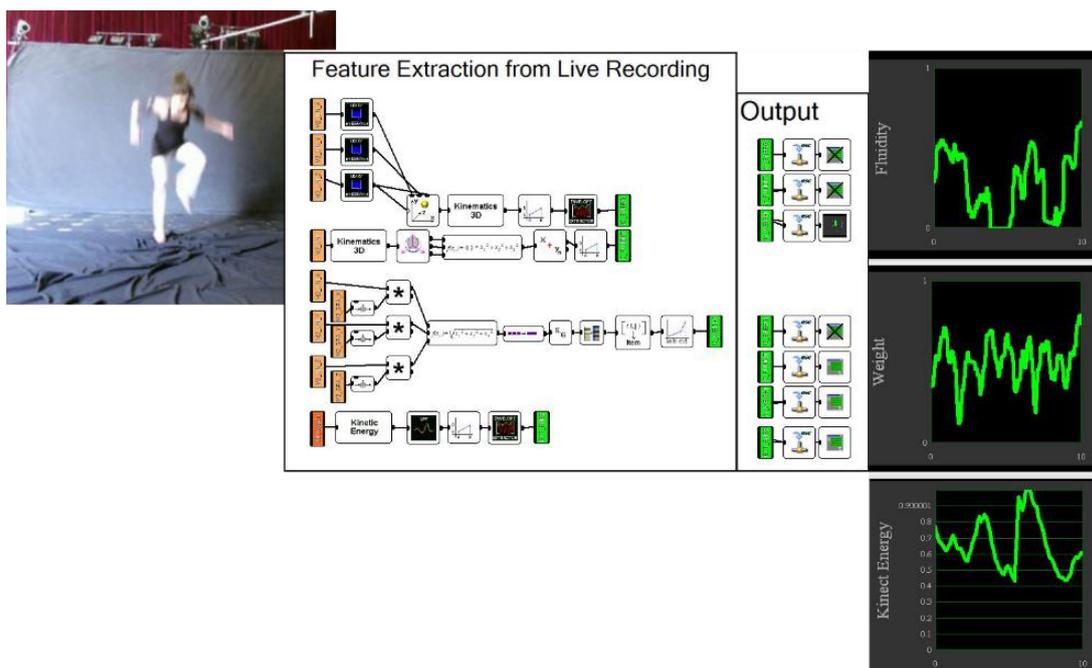
The core of the European research project DANCE is to map these thoughts into scientific and artistic research for investigating how affective and relational qualities of body movement can be expressed, represented, and analyzed by sound and music. DANCE aims at understanding the meaning of "closing the eyes," the perception of expressiveness of dance, the participation to the emotion conveyed by a sequence of movements in space, the understanding of non-verbal language of bodies that communicate, through the syntax of their gestures (by imagining and questioning concrete ways to listen to a choreography, feel a ballet).

DANCE proceeds on three different dimensions strongly integrated and interacting:

1. *Inclusion and rehabilitation.* The sonification and *musicalization* of choreutic movement (processing of sound spaces and ways of using active/affective music content in relation to the quality of gestures) investigates forms of sensory substitution (to see through listening). Testing new perceptual experiences of body movement in the dark implies the possibility of rapprochement and sharing (of spaces and emotions) between visually impaired and sighted people.
2. *Scientific and technological research.* The neurophysiological approach to the complex relationship between perception and cognition (the investigation of brain plasticity in situations of sensory substitution), is combined with studies on technologies capable of *seeing* emotional qualities and social indicators (the effects of leadership, the entrainment) of movement, interpreting them as techniques for searching data in digital archives (e.g. sound, music, visual archives), and research on interactive sonification.
3. *Artistic production.* Sound does not anticipate nor inspire body movements (as in the classical view), does not join to it contingently and accidentally (as in Cunningham) but it is produced by movement by its qualitative features, its intrinsic affective and relational meanings. If music is not choreographed, but it is the choreography itself that creates music, then dance can be conceived as a musical composition (or re-composition, interpretation), changing its traditional dimension into an eminently or exclusively listening experience: Gesture, as an aesthetic object, is experienced as a sounding object.

H2020 ICT Project n.645553 DANCE - Dancing in the Dark

Partners: University of Genoa, Casa Paganini – InfoMus Research Centre (Coordinator)
 University of Maastricht
 KTH, Stockholm



Memory as a Shared Experience.

Nicola Clayton and Clive Wilkins

Department of Psychology, University of Cambridge

Our memories are not a fixed store of what happened; they are reassessed each time they are revisited. We don't remember what happened. What we remember becomes what happened. As in life, all performances depend on the sequence in which events unfold. Nicky and Clive, a scientist and artist respectively, explore the complex relationships between memory and human experience. Join them for a fascinating performance incorporating science, magic, and the performing arts.

Biographies.



Nicky Clayton is Professor of Comparative Cognition in the Department of Psychology at the University of Cambridge. Nicky is psychologist, ornithologist and dancer. She has written numerous publications on cognition in crows and children. She was elected a Fellow of the Royal Society in 2010 and she is Scientist-in-Residence at Rambert (formerly Ballet Rambert).



Clive Wilkins is Artist-in-Residence in the Department of Psychology at the University of Cambridge. Clive is a writer, fine art painter, and dancer. His paintings have been frequently seen in London Mayfair art galleries. His current novel 'The Moustachio Quartet' has just been published and will appear at the UK's leading literary festival at Hay on Wye this year.

They met on a dance floor... They are co-founders of The Captured Thought which is an arts-science collaboration that explores mental time travel and the subjective experience of thinking <http://claytonwilkins.wordpress.com>

Home addresses

Nicky Clayton~ 47 Duddle Drive, Longstanton, Cambridge CB24 3US, UK
Clive Wilkins~ 36 Leicester Road, Uppingham, Rutland, LE15 9SD, UK