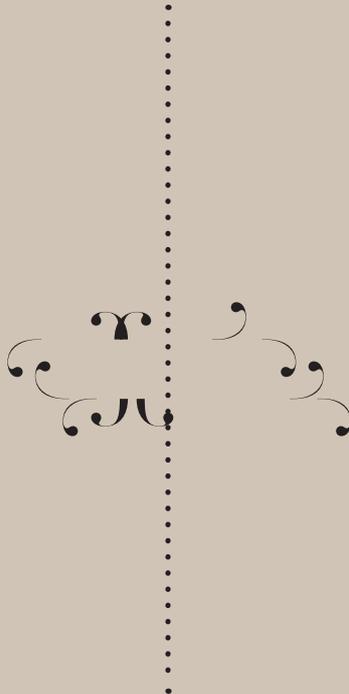




# Swing That Thing: moving to move

The poetics of embodied engagement



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*Swing That Thing : moving to move* represents a systematic investigation of the poetic valence of body-worn technological extension. Gestural, mechanical and sensorial extension are explored and evaluated. The impact of different choices throughout the development process are considered, and theories relating to language, movement and cognition, as well as defamiliarisation and enchantment are leant upon to arrive at an emergent definition of a poetics of embodied engagement.

Focusing on the body and its capacity for movement opens up opportunities to develop deeply felt experiences that take us far beyond pragmatic considerations of functionality or practicality. Pairing technology with the body is not new. Yet embodied engagement has only recently emerged as a field of interest in its own right, despite the fact that moving is central to life. Humour, passion and empathy are desirable attributes through which to engage people. Through the praxis I demonstrate that core- and full-body engagement in ambiguous and playful situations, assist designer and participant to arrive at deeply felt understandings of embodied existence, and thereby re-imagine body-technology scenarios to mitigate unmet desires.

This research champions a number of key ideas. If we engage the body through the imagination and the imagination through the body, we can blur distinctions between art and everyday life. Doing so may result in transformative outcomes in contexts that are not usually considered cultural. By beginning with the body, rather than a perceived opportunity to redesign and thereby improve, I have been able to develop systems and processes that afford clumsy, as well as skilled engagement. Participation has thereby been democratized. The results are artefacts and opportunities for embodied engagement in cultural contexts, as well as in abilitation and learning.

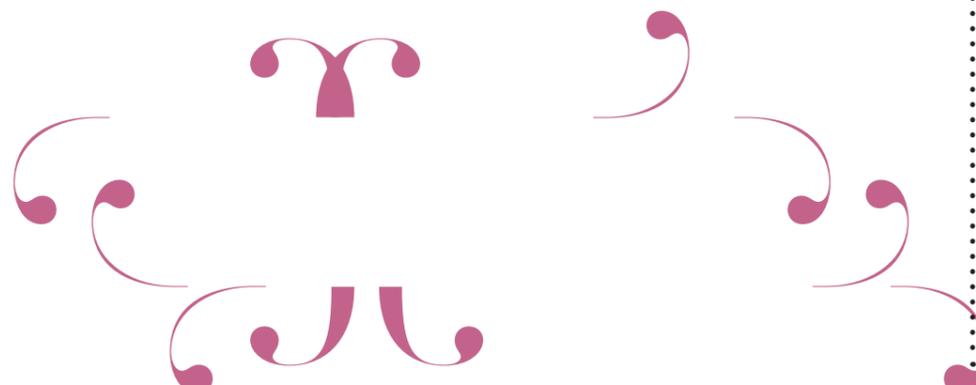
*keywords*

performativity, participation, poetics and play

ISBN: 978-1-921179-98-3

A series of projects imagined by Danielle Wilde within a practice-based PhD in body-technology-poetics at Monash University Melbourne Faculty of Art, Design and Architecture and CSIRO Australia Division of Materials Sciences and Engineering.

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## Glimpses of an awkward shaping – a memoir of embodying spectatorship

Ann Light\*. July 2011

Like viewing a career under strobe lighting, I see only snatches. Danielle is someone I stumble into. Maybe I notice because her work always challenges somebody. Maybe it is because her projects make me grin. Stumbling is not elegant, but it captures the serendipity of our encounters and my repeated sense of discovery.

Danielle is someone I have ridden on the bus with, arguing about the authorship of embodied design methods. She wore her nails coloured red and white; tippex-ed, spotted; painted by some Japanese friends.

Danielle brings a tiny replica of the Rosetta Stone when she visits, because I am embedding mementoes in my garden.

But we start, she and I, when she is in England for the first time, scaring businessmen. I am merely there to write about what I observe. We are at Hewlett Packard in 2003 and I have, by this point, seen many tools and presentations and I am perched on the edge of an ornamental plant, wondering if the event has anything left to show me. I have noticed the musical bodice on a table on my walkthrough. I loved it, obviously, because it suggests ribbons and feathers. If you held down a key - the staves organised like stays on a courtesan's girdle - you get sounds; some musical, some more evocative. It is a dashing burgundy; a big heart and ribcage splayed out.

What happens next though is in a different league, as if the conference has upped its game. *Ange* she calls it. And she sweeps in, dressed head to foot in toning magenta pinks and she has become a musical instrument made out of wearable computing pieces. And, further, she sallies up to the nearest people in her sudden audience and expects them to play her. Now, when I say *people*, I mean men. Because there are a few of us women at the event, but, really, all the people who are now sweating in their tight collars are blokes and they are sweating because a full-bodied and flamboyant woman in a red feathered bodice is asking them to depress keys that are attached to her breasts.

I gather later, of course, that this insouciance is not some error of judgment about the limits of interaction design, but a calculated gambit. A few people do poke the less compromising stays and a little sound is released, but more is said about the limits of comfort in an organisation full of computer scientists than is learnt about music. And that's fine; that's exciting. Anyone who wanted to know how the bodice behaved had already tried it out on the desk. What Danielle cleverly animated was awkwardness. At the time I didn't understand as well as I do now, but Human-Computer Interaction had met someone interested in the Human-Interaction bit.

Time passes. It is December 2006. I am in Australia. So is Danielle and, at the northernmost university in Queensland, nearly buried in the bush, she is busy over a laptop finishing a presentation when we spot each other. You'll love this one, she tells me gleefully.

The audience loves this one.

Five years on, I follow Danielle's link to the reviews from audients watching her win an episode of *The New Inventors* – a show that “celebrates the inventiveness and resourcefulness of the human mind, and the determination and hard work of those who dream big dreams, and then slave away to make them real”. *hipDisk* has come of age to a storm of derisory comments... “I can imagine whoever is steering this show at the moment is going for the whole ‘groovy lefty experience’.” “The hip disk??? In response to the inventors notion about people not moving their hips, I'd recommend that she get out of her workshop/lab and actually observe and interact with society. Off the top of my head a huge number of people are dancing, doing Zumba, going to the gym and doing yoga - all involve hip action.” Danielle is stoically amused. She has drawn our attention to this barrage, after all. She has won the round in a national talent show, after all.

In 2006, in the dowdy lecture theatre of James Cook University, we are loving it and laughing happily. Four dancers are caught on film over a period of weeks. They are documented in rehearsal trying to play a piece of simple music with their hips. To do so they must harmonise with each other. They can only do this by leaning over, bending into a wide circular upper disk attached below the waist, and - through just the right act of manoeuvring - touching it, in the correct spot, to a wide circular lower disk. Pitching a note is as challenging as using the slide on a trombone, although the only brass instrument approaching this envelopment is the sousaphone. There is something levelling about watching dancers struggle gracelessly with overgrown hula-hoops. And, again, this is not happenstance.

Danielle and I sit in Brighton and she tells me of the difficulties of sewing circuits into fabric. We are snug in a tea shop. We sip lemonade and talk about whether I will ever write about her work. There is a background of seagulls, but there always is in Brighton. A few weeks later and we have conceived of talking about her work backwards, from the impact on the audience to the process of making. But I don't.

Danielle likes Brighton though her vision of extending *hipDisk* fares better when she moves to Nottingham. Here, fast on our last meeting, I find myself witnessing a talk she gives to the department she has joined at Nottingham Trent, where conductive fabrics are

all around her. By now, Danielle is doing *hipDrawing*. This involves rotating the hips to inscribe lines on a surface in the environment. For those of us raised on Etch-a-Sketch, it is a weirdly moving experience. Strange and dysfunctional gyrations of the torso create patterns that snail across the walls. For those who remember the frantic turning and tilting to be accomplished in making Etch-a-Sketch work, the movements are writ large but not unfamiliar. Just like the game, you shimmy, shake, and the drawings disappear. A celebration of the biggest co-ordination challenge of our young lives and the hardest-won arcs in history... magic!

Then there is another gap and Danielle is going places. She is in Paris. She's back in Melbourne; now off to Canberra. I'm going to go to tea with the Prime Minister, she tells me, and off she goes because she has won the Australian Prime Minister's prize. It will mean a year in Japan. I agree that I will come to see her in Tokyo. I want to. I don't.

So, I miss a phase. I feel my grasp on this body of work weakening just as a new vision grows strong. I see her posts on Facebook when I happen to be looking at the right time. And the comments from friends highlight the insubstantiality of these encounters... and the infrequency of our communication.

Until I am in Australia again and so is she. I meet her collaborator, the pan-European Kristina, and see *OWL* for the first time. By now it is the end of 2010. Her PhD is almost finished. The nature of the new project has become apparent in a series of wearable shapes.

*OWL* is a range of body-prosthetics for parts we haven't discovered yet. It's not electric. It's not funny. It has intent. It is creeping through the conference like a series of distortions. People nurse affrontages. Soft and pliable, the enhancements adjust their humans and suddenly professors have random shoulders which they can be found petting; research associates tend modulations of the arm or back.

In its full-blown version it is yet more insidious; sent to worm out emergent body-technology desires. People are asked to create their own refinements. It is a tool for helping you know just what you've always wanted. It tours Australian and Japanese labs and galleries. It feeds interviews in Europe and North America. It offers an image of the post-human, embodied in cotton jersey and looking like a soft toy.

It isn't awkward, clumsy or compromising. It's a bit strange, but quite nice. It is for living with.

In the absence of the power to disconcert, it bonds and blends, like technology. It promises much. It speaks of what could be effortlessly and thoughtlessly ours instead of how we knock against each other in our usual clumsy, chaotic world. And I wonder if Danielle has stopped throwing us into reflection on our awkwardness and grace. Has she fallen into league with the designers who can weave inspiration from the musings of ordinary users and turn it into the anticipation of triumph? But she stops projecting functions and returns to throwing light. The latest work is a stunning show of extensions that simply mark bodies and space. The carmine pink is back in laser-sharpened light that tracks the spine and follows every able and unable move.

Danielle and I drink too much sparkling wine at a conference supper by Bondi Beach. She sends me to meet a Hong Kong professor who lives in an office piled up to the sky in some mimicry of his island. She has talked to him at length about embodied interaction. I talk to him about embodying spectatorship and crossing the line.

It is sometime in the future. I am back in the conference room, staring down at a bank of heads bowed over programmes. Hundreds of necks stretch: curved and exposed. They could be surprised so easily by a gust of wind or worse.

Impersonal and yet true to type, some necks are graceful and some hardly rise out of the neckline of their clothes. I am sensitized to thoughts of clumsiness, vulnerability and grace because I am about to see Danielle Wilde's latest move. Hundreds of heads lift abruptly as, onto the floor, steps a rounded form with awkward things to say.

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# hipDisk

Possibly the most undignified musical instrument ever, *hipDisk* exploits changing relationships between torso and hip to actuate sound. Simple horizontal disk-shaped extensions of the body exaggerate, so make highly visible, the interdependent relationship of the hip and torso. Soft switches, strategically placed around the perimeter of each disk, allow the wearer to play a chromatic, pentatonic, major or minor scale (depending on the disks they are wearing), and so play simple melodies, restricted only by flexibility and speed of swing.

*hipDisk* is designed to inspire people to swing their hips and explore and extend the full range of movement available to them

through a simultaneous, interdependent exploration of sound. In creating *hipDisk*, the interest was to move beyond limb- and digit-triggered switches and explore full-body movement for actuation. The resulting body-instrument interconnects choreography and composition in a fundamental way, and in doing so opens up new areas of exploration.

*hipDisk* began as a solo affair. *The hipdiskettes* were subsequently formed to explore the compositional choreographic potential of the device. The failure of *the hipdiskettes* to master a tune did not deter audiences from applauding enthusiastically, and requesting to try it for themselves. The work has since been made participatory.



Cinamon Lee

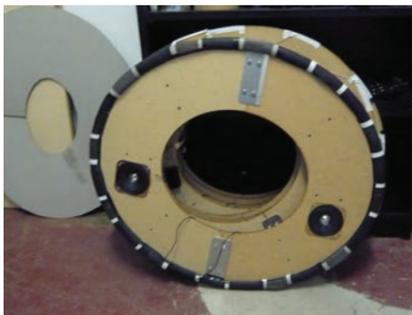
First prototype developed at ANAT and Craft Australia's (re)Skin Wearable technologies Lab at ANU, with input from Cinamon Lee, Michael Yuen, Somaya Langley and Alistair Riddell. Subsequent prototypes developed at Monash and CSIRO MSE with support from Brendan d'Arcy and Tony Gargett, Andrew Brown, Michael Borthwick, Julian Featherston, Andrew Bencina and Winter Hill Music, and Dean Wallis. Further info and details: [www.daniellewilde.com/dw/hipdisk.html](http://www.daniellewilde.com/dw/hipdisk.html)



opposite and above, a soloist and the hipdiskettes explore the compositional choreographic potential of hipDisk



left Dressing a participant at OZCHI 2009  
 bottom left the hipdiskettes learning how they learn through their bodies  
 top right Free-ranging participants at Monash University Faculty of Art, Design and Architecture  
 bottom right centre the hipdiskettes take a bow





Head Scrape



Blades of Grass

.....  
the gesture≈sound experiments  
.....

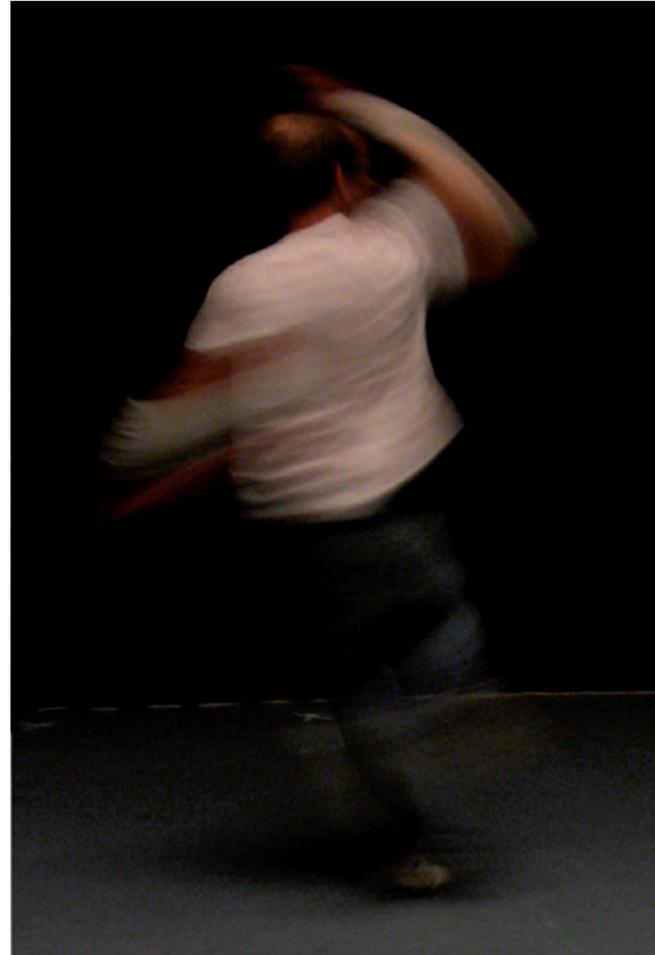
the gesture≈sound experiments



*a collaboration with Ross Bencina and Somaya Langley*

The *gesture≈sound experiments* aim to mesh gestural/physical and sonic composition in such way that sound production seems an inherent and unavoidable consequence of moving the body. The desire was to explore movement and sound interdependently, by leveraging the complex and dynamic relationships that may be generated between the two modalities. We sought to create new kinds of *gesture≈sound* mappings that would support composer-performers in stepping out from behind their laptops to engage in embodied (gestural) control and generation of sonic output.

My role in the collaboration was to work with Bencina and Langley to develop vocal- and multi- modal prototyping methodologies, leveraging my knowledge of movement-based interaction, theatre and performance techniques, as well as their considerable experience with electro-acoustic composition, and software development. The resulting methodologies hierarchically flatten movement and sound, by interweaving the development of physical movement; recording and generating sounds; and devising algorithms, taking into account their differing development times. The result of this approach is that sound and movement become enmeshed. The schema for the methodologies arose out of the shared belief that interweaving the development of the different elements would open up new ways of thinking about gestural sound performance and lead to gestural sound synthesis.





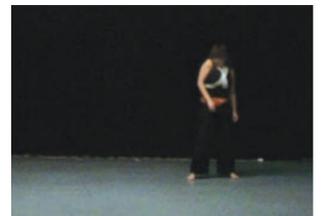
Tone Change



Leg Ratchets



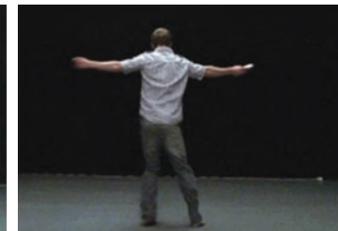
Vocal Prototyping and Jerk Glitch



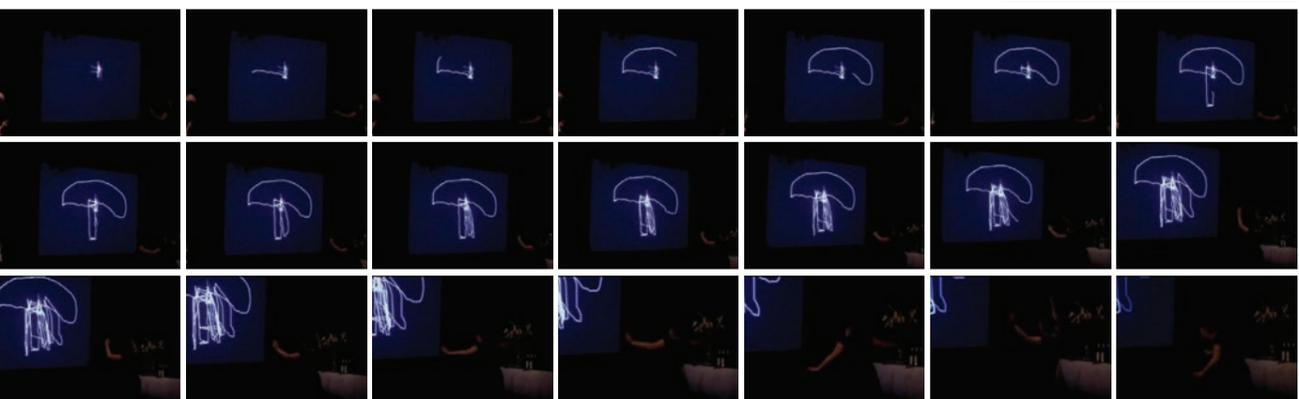
Torso Sweep



Speed Harmonics



Motion Shatter



TTP performance at Dancehouse, Melbourne, 2009. Video: Michael Borthwick

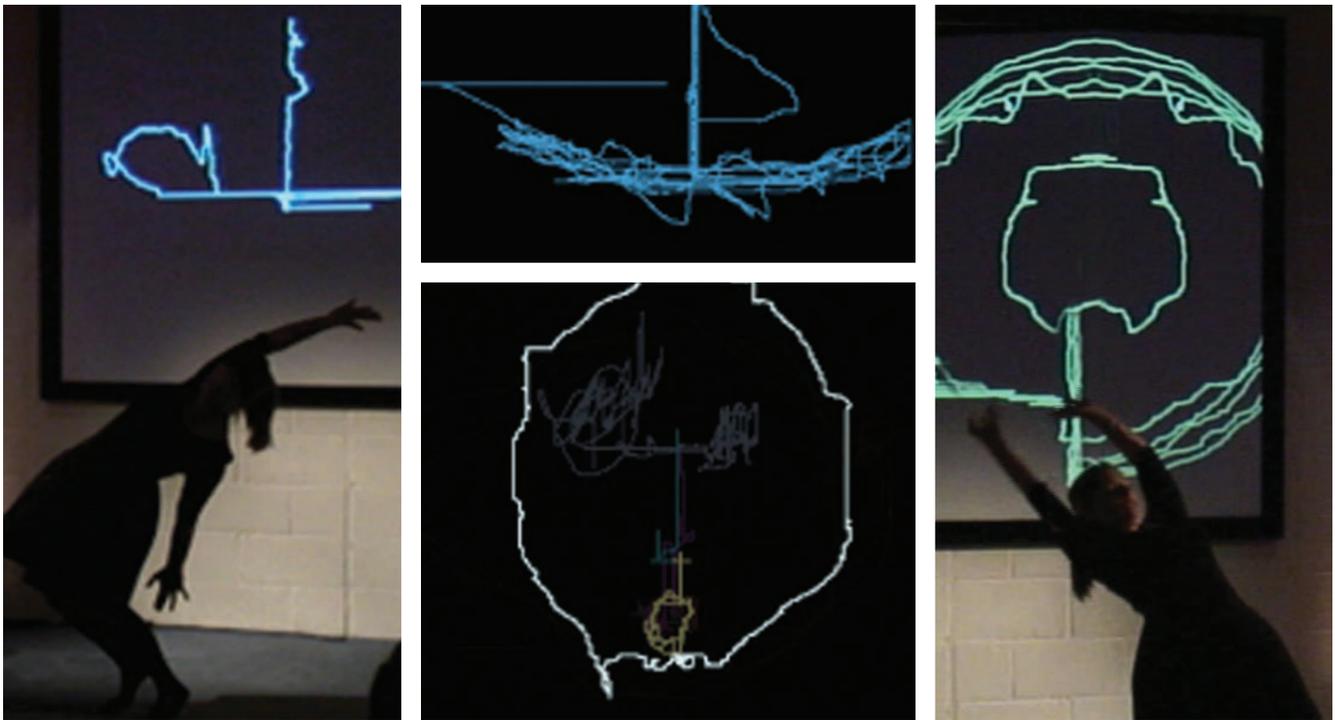
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# hipDrawing

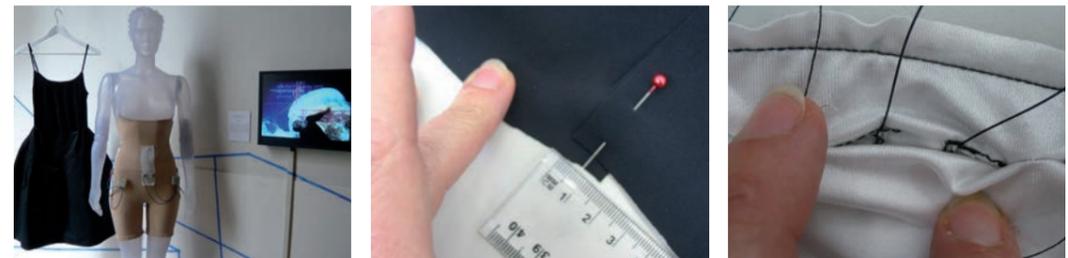
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*hipDrawing* is a celebration of the body and creativity. The aim is to encourage people to experiment and explore, as well as bypass their usual instincts to self-censor, by turning them into a human hip-controlled Etch-A-Sketch. When wearing the *hipDrawing* garment, participants swing and shake and shimmy in strange and undignified ways, their actions motivated by their desire to draw, and see their hip movements made concrete. Complex 3D movements are flattened onto xy-coordinates. The results are often anti-intuitive. The system

demands intense scrutiny of the relationship between gesture and output in order to draw anything with intention. More intensely than any of the other devices in the suite of works presented here, *hipDrawing* prompts a process of creating and reflecting on new modes and patterns of bodily experience, as facilitated by the interaction between body movement and the effects of the technology. Participants' movements become beautiful through this reframing, as well as unfettered and free.



Surface Tension performance at the London Science Museum Dana Centre, 2009



*hipDrawing* has been presented at Surface Tension, at The London Science Museum Dana Centre; Melkweg and Five Days Off Festival, Amsterdam; The Netherlands Institute for Media Art (NIMK), Powered Art and Fashion Design exhibition, Amsterdam; and Dancehouse, Melbourne for Time Transcendence Performance (TTP), and an Open Studio viewing. Thanks to Dave Fox, Andy Gelme/Hackerspace Melbourne, Michael Gent and Agnès Belkadi at Comète 347, Safwan Chendeb and Maurice Benayoun at Le Citu (Paris University 8), Guillaume Paris, STEIM, Studio for Electro-Instrumental Music, Amsterdam, especially Nico Bes, Kristina Andersen and Vivian Wenli Lin; Thanks also to JoAnne Fishburn and Xanthe Beezley. Piers Morgan: improvised guitar for the two Dancehouse performances. Michael Borthwick: video and editing of the TTP performance included in the exhibition and on the DVD. Further info and details: [www.daniellewilde.com/dw/hipDrawing](http://www.daniellewilde.com/dw/hipDrawing)

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If you would like to try *hipDrawing* please refer to the lift-out card at the back for instructions.

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# Light Arrays

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extended in collaboration Alvaro Cassinelli

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Bloomer and Moore, in *Body, Memory and Architecture*, suggest that what is missing from dwellings today are the potential transactions between body, imagination and environment. Light Arrays provide a way of thinking about these transactions from an experiential, as well as visual, perspective. They allow us to enter, understand and experiment with our non-observational relationship to space. Echoing Merleau-Ponty's claim that the paintings of Cézanne "make visible how the world touches us," the *Light Arrays* make visible how our gestures touch the world.

In the initial experiments, three theatre artists, adorned with a range of lasers and LEDs, undertook freeform movement experiments, responding instinctively to the light-based extension. Their explorations pointed to two lines of research: (1) *augmented proprioception*, generated with the light-based visual feedback system, and (2) *enhanced body interaction* using interactively augmented body-lights that reflect and respond to movement through time, as well as space.

With Alvaro Cassinelli and his Meta Perception research group at The University of Tokyo, we identified, investigated and pushed beyond the initial results to develop three garment/interfaces: the *laserSpine*, the *in-visible skirt*, and *inertiaLEDs*. We iterated these interfaces through a multi-tiered design-choreographic process with and for choreographers, Alessio Silvestrin and Kentaro!! The collaboration with Kentaro!! and Silvestrin was commissioned by, and presented at The 3rd Yebisu International Festival of Art and Alternative Visions, which took place in Tokyo, Japan, 18-27 February, 2011.



Initial experiments: Monash University; Karen Berger, Tim Page and Elijah Ungvary. The extended *Light Arrays*: The University of Tokyo Ishikawa Oku lab; Yebisu International Festival of Art and Alternative Visions; Bunkacho, Japanese Agency for Art and Cultural Affairs. Thanks to Professor Masatoshi Ishikawa, Hiroko Tasaka, Kentaro!!, Alessio Silvestrin, Naoya AOKI, Alexis Zerroug, Tica Sekine, Kenichi Eguchi, Yelena Gluzman, Tsuyoshisatoshi Yamamuro, Hiromi Osakada, Saeko Higuchi, Michael Borthwick, Tokyo University Bldg 6 Engineering Workshop Technicians, Yutaka Endo, Takeshi Inarimori, Piers Morgan, Norimimchi Hirakawa. My placement in Tokyo was supported by an Australian Prime Minister's Australia Asia Award. Further info and full credits at: [www.daniellewilde.com/dw/lightarrays.html](http://www.daniellewilde.com/dw/lightarrays.html), [www.k2.t.u-tokyo.ac.jp/perception/lightArrays/index-e.html](http://www.k2.t.u-tokyo.ac.jp/perception/lightArrays/index-e.html) and [www.yebizo.com/#pg\\_offi](http://www.yebizo.com/#pg_offi)

Photo: Shoko Ogushi. Courtesy of Yebisu International Festival for Art and Alternative Visions 2011



## Nature, body and moving images: The making of “the in-visible skirt and other imaginary things”.

Hiroko Tasaka (*Curator of Tokyo Metropolitan Museum of Photography*)

The Yebisu International Festival for Art & Alternative Visions is an annual, ten day long art and film festival which fills the entire Tokyo Metropolitan Museum of Photography, incorporating art exhibitions, moving image, live events, lectures and discussion panels. Since its second incarnation the festival has also presented off-site exhibitions in the center square at Yebisu Garden Place outside the museum.

Separated from the art museum, this experimental space allows artists to investigate ways of performing, appreciating and traversing the boundaries between forms such as exhibitions and screenings. In this respect, Danielle Wilde and Alvaro Cassinelli’s “in-visible skirt and other imaginary things” for the 3rd Yebisu International Festival for Arts & Alternative Visions provided an evocative, thought-provoking take on new media, performance and moving image. This essay briefly considers the circumstances surrounding the production phases of this project, through to its completion.

The “in-visible skirt and other imaginary things” was realized in three contexts, outlined below, using devices made from state of the art technology and lasers developed by Wilde and Cassinelli.

1) Experience “光らせん Corasen” “光らせん Corasen” (a blend of the Japanese words for light and spiral) is an interactive environmental installation composed of lights, mist and sound (by Piers Morgan) that was installed in the Center Square. Here, Wilde and Cassinelli directed attention towards the organic aspect of nature. Using simple compressed materials to construct a spiral-shaped sculpture, they used lights, such as lasers and halogens, as well as sound to design and program a hybrid environment. During the day this space provided a variety of experiences for the audience, depending on the weather and time, while at night, it transformed into an arena for dance demonstration.

2) Demonstration Experiential demonstration Wilde and Cassinelli presented a demonstration of prototypes and samples of “the in-visible skirt and other imaginary things” inside the outdoor installation of “光らせん Corasen”.

Lecture and demonstration Inside the museum, the artists introduced the devices utilized in the project, provided a commentary on relationships with previous works, explained the significance of the work, and engaged with the audience.

3) Dance demonstration (in the evening) Two different performances, employing three types of wearable devices developed by Wilde and Cassinelli were shown each evening for eight days of the festival. These performances were a

自然、身体、映像：《見えないスカートと想像上のものたち》ができるまで

### 田坂博子

(東京都写真美術館・学芸員)

恵比寿映像祭は、年に一度、10日間にわたり東京都写真美術館全館を使って、展示、上映、ライブ・イベント、講演、トーク・セッションなどを複合的に行うアートと映像の祭典であり、第2回からオフサイト・プロジェクトを立ち上げ、美術館の外へ飛び出し、恵比寿ガーデンプレイスのセンター広場の屋外で作品を発表する試みをはじめた。美術館とは異なる公共空間において、展示や上映の枠組みを横断して、どのような作品制作、鑑賞が可能か、実験的に検証する場となっている。この意味で、第3回恵比寿映像祭のダニエル・ワイルド、アルバロ・カシネリによる《見えないスカートと想像上のものたち》は、新しいメディア、パフォーマンス、そして映像を考える上での示唆的な試みとなった。ここでは、このプロジェクトの完成にいたるまでの背景を手短に振り返りながら、その制作過程を再考したいと思う。

はじめにプロジェクトの概要を紹介すると、研究者、アー

ティストであるダニエル・ワイルド、アルバロ・カシネリ両氏が開発する、先端のテクノロジーとレーザーの光を使った装置による«見えないスカートと想像上のものたち»プロジェクトは以下3つの内容で実現した。

1) 体験型作品「光らせん Corasen」

光と霧と音響 (ピアース・モルガン Piers Morgan) によるインタラクティブな環境インスタレーション「光らせん Co-rasen」をセンター広場に期間中設置した。自然本来のもつ有機性に着目したワイルド、カシネリ両氏は、シンプルな圧縮材を用いて、螺旋状の彫刻なるものを制作し、その中に、レーザーなどの照明、音響を仕込み、プログラム設計しハイブリッドな環境を作り出した。日中は、気候や時間によって観客がさまざまな体験をする場をつくりだし、夕方になるとダンス・デモンストレーションのためへの空間へと変化した。

2) デモンストレーション

・体験型デモンストレーション

作家2人が«見えないスカートと想像上のものたち»のプロトタイプやサンプルを使って屋外インスタレーション「光らせん Corasen」のなかでデモンストレーションを行った。

・レクチャー＋デモンストレーション

美術館のなかで、作家2人がプロジェクトで使われた装置や、これまでの活動との関係について解説し、その意義について具体的に説明し、観客との対話を行った。

collaboration between the artist/researchers and two independent dance ensembles, Alessio Silvestrin + Naoya Aoki, and KENTARO!!, which emerged from months of research and rehearsals, during which Wilde and Cassinelli identified the characteristics of each dancer’s physical movements in interaction with their evolving devices.

This project came about when I first met Danielle Wilde, who had just arrived in Japan as a special researcher at The University of Tokyo. An Australian artist with considerable experience, I was enthralled by the performance video featuring her unique system, called “hipDisk”, which she showed me on her iPhone. “hipDisk” is a wearable device that functions as a musical instrument. Two discs are worn, and as the wearer moves their body they can play music. Like a hula hoop, the “hipDisk” is located on the hips, and can only produce sound when the person is consciously moving their body. The performance, in which women in swimwear generate music via this contemporary technology, reminded me of the experiments from the early twentieth century by Oskar Schlemmer from the Bauhaus School, and the Futurists, with its visual playfulness and sense of humour. Taken by this curious openness, I was intent on having Wilde become part of the festival. Soon after, the project she was developing with Alvaro Cassinelli at The University of Tokyo was announced. Cassinelli was born in Uruguay. He is a researcher at The University of Tokyo in the special domain of “meta-perception”, exploring the practice of combining art and science. As a media artist, he has received many awards, and above all, is considered a pioneer in the use of lasers. Through their fine-tuned coordination, creative and stimulating ideas were discussed and brought together.

Their intention was never “art for art’s sake”, but rather stressed that by stimulating human perception through the technology of natural science, it will eventually connect to art. For example, before motion picture was invented, Etienne-Jules Marey invented chronophotography. He undertook experiments in consecutive photography as an attempt to document the relationship between human movement and time. The “in-visible skirt and other imaginary things” evaluates the act of ‘seeing’ these relationships through new technology, actualised as a device that visualises body movements that we are usually unconscious of, or incapable of seeing. As someone who is based in an art museum, it was a completely different way to think, and a stimulating concept that opened my eyes.

Having said that, aside from the concept, many challenges began to surface on the production level. The wearable devices for the “in-visible skirt” and the “光らせん Corasen (light spiral)” were undetermined at the outset. Moreover, the lasers would not be visible in broad daylight. Even at night, mist or smoke was needed for the lasers to literally become an “in-visible skirt.” An additional

3) ダンス・デモンストレーション (夕刻)

ワイルド、カシネリ両氏が開発した3種類の装着装置 (ウェアラブルデバイス) を用いて、2組のダンサー (アレッシオ・シルヴェストリン+青木尚哉、KENTARO!! ) との協働制作を実現した。各ダンサー固有の身体の動きにあわせて装置のインタラクションを検証し、2種類のパフォーマンスを数ヶ月にわたる研究とリハーサルを経て制作し、映像祭会期中の8日間の毎夕に発表した。

そもそもこのプロジェクトの始まりは、東京大学に特別研究生として来日したばかりのダニエル・ワイルド氏との出会いに遡る。ワイルド氏は、類いまれなる経歴をもつ、オーストラリア人のアーティストであり、私は、最初にiPhone越しに見せてもらった、彼女の「hipDisc」というシステムを使った作品のユニークなパフォーマンス映像にすっかり魅了されてしまった。「hipDisc」は、楽器の機能をもつウェアラブルデバイスであり、装着した人は、2つのディスクを工夫しながら、自らの身体を動かすことで、音楽を演奏する。フラフープのような「hipDisc」は、腰を動かし、人間が意識的に身体を動かさないと音を出すことができない。パフォーマンスでは、なぜか水着姿の女性たちが、演奏を進めていて、その様子は、現代のテクノロジーを駆使しているのに、20世紀初期のパウハウスのオスカー・シュレンマーや未来派がやっていた実験を彷彿させ、視覚的遊び心とユーモアに溢れていた。その不思議な風通しのよさにヒントを得て、何も決まらない段階だったが、ワイルド氏に何らかの形で映像祭に関わってもらおうと思うようになった。そして、彼女が、アルバロ・カシネリ氏と東京大学ですすめているレーザーを用いたプロジェクトがすぐに提案された。ウルグアイ出身のカシネリ氏は、東京大学の新しいジャンルの研究領域「メタ・パーセプション」で、アートと科学の可能性を実践する研究者であり、メディア・アーティストとしての肩書きでも多くの賞を受賞し、とりわけレーザーの分野に関してはパイオニアのような存在だった。彼とダニエルの息のあったコンビネーションで、クリエイティブで刺激的なアイデアが議論されては、生み出されていった。

彼らの志向は、決して「アートのためのアート」ではなく、自然科学の技術を通して、人々の知覚に刺激を与えることがアートと結びついていくことに重点が置かれていた。例えば、映画が発明される以前に、エティエンヌ＝ジュール・マレーが発明したクロノフォトグラフィは、一連の動きを写真で撮影し、人間の運動と時間の関係を記録しようとする試みであり、《みえないスカートと想像上のものたち》は、私たち人間が普段意識し、目にすることもできない身体の動きを可視化する装置として、新しいテクノロジーを使って、「みる」ということを考察するプロジェクトとしている。普段、美術館のなかで志向している人間にとっては、全く異なるベクトルの発想であり、刺激のかつ目から鱗のコンセプトだった。

とはいえ、今回のプロジェクトでは、そのコンセプトとは別に、制作上の課題も多く浮上した。実際には、「見えないスカート」をはじめとするウェアラブルデバイスも、「光らせん Corasen」も当初の段階では未知のものであり、とりわけ、レーザーの光は、日中の光線では目に見えず、夜間であっても、ミストやスモークがなければ本当に文字通りレーザー光は「見えないスカート」のまま終わってしまう。またプログラミング等の技術のプロフェッショナルであっても、公共空間でのインスタレーションに関して、どこまでインタラクティブな装置を実現できるか等。これらの実現のためには、2人のアシスタントであるアレクシス・ゼオルグ氏の協力をはじめ、音響、照明、舞台技術、インタラクションのためのプログラミングと、多数のプロフェッショナルの方々との入念な打ち合わせと準備が必要となった。

challenge, even with professional programming skills, was to what extent “光らせん Corasen” would function interactively as an installation in the public space. The support of their assistant, Alexis Zerroug was crucial in bringing this project to fruition, as were detailed discussions with a great number of professionals in sound, lighting, stage technology and interactive programming.

However, the most important factor was the selection of dancers for the performance. Unless they had considerable talent, the dancers would be unable to cope with the unpredictable circumstances of this project. As a consequence, we decided to offer the position to very diverse professional choreographers. Alessio Silvestrin, formerly a choreographer/dancer for the Frankfurt Ballet headed by William Forsythe, working together with Naoya Aoki, formally from Noism, carefully investigated the movement of the lasers, and after numerous rehearsals, presented an elegant variation produced through a combination of laser lights and body movements. KENTARO!!, a young dancer versed in the street techniques of hip-hop, became attuned to the visual element of the lasers, eventually developing a unique world of his own by suggesting a rabbit outfit (!) for his costume and composing his own music. As may be expected, the dancers were skeptical about this unpredictable project. It is not hard to imagine how risky it was for a choreographer, whose main focus is dance, to be asked to perform with an experimental wearable device. From the point of view of the choreographer/dancers, and the artist/researchers, there was a fundamental pull between art and technology. Whether the work was being stressed as art or as an experiment questioning the importance of human perception and science was debated. From the perspective of the dancers, it is possible that their positions and the genre of dance itself were also highly challenged by this experience. As a result, from the preparatory stages through the period of the festival itself, the performances underwent transformations every day. From opening night, the two ensembles maintained the strict schedule of five nightly performances under the wintry February skies, and despite various complications with the functioning of the devices, audiences flocked to the Center Square in numbers ranging from 300 to 500 people each night to witness this outstanding and unique outdoor performance.

This may be a fleeting review of the process of the “In-visible skirt and other imaginary things”, but the discoveries made through this project from the intentionality of Wilde and Cassinelli’s suggestion of the “in-visible skirt” technology as an “extension of the body”, are reflected in all of the phenomena, including the daytime installations and performances, in all of its caricatured uniqueness. It goes without saying that the word “techne” (art=technology) in this case made us think about nature itself. In March, soon after the festival had ended, the Tohoku earthquake struck and we witnessed the

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そして最も重要だったのは、パフォーマンスを行うダンサーの決定だった。どのようなタイプのダンサーにお願いするべきか、このプロジェクトに賛同して創作活動をしてくれる人だったら誰でもよいわけではなく、むしろ、相当実力のあるダンサーでないと、この未知数の状況に対応できないのではないかとどの危惧もあり、結果的に全く異なるタイプのプロフェッショナルなダンサーにオファーすることにした。アレッシオ・ジルヴェストリンは、ウィリアム・フォーサイス率いるフランクフルトバレエ団にも所属した実力派の振付師/ダンサーであり、元Noismの青木尚哉氏とペアを組み、レーザーの動きを丹念に検証し、何回にも及ぶりハーサルから、レーザーの光と自らの身体の動きとの組み合わせから生み出される華麗なヴァリエーションを提示するに至った。KENTARO!! は、HIPHOPを中心としたストリートテクニクを中心に活躍する若手ダンサーであり、レーザーの視覚的要素にこだわり、衣装部分に関しては、結果的に兎の着ぐるみ (!) を提案し、全曲自らの書き下ろしの音楽とともに、彼独自の世界を展開した。当然なこともかもしれないが、当初は双方のダンサーとも、この未知なプロジェクトに対して、非常に懐疑的だった。ダンスを中心に考えている振付家に対して、ウェアラブルデバイスを実験的に装着して踊れ、ということが、どれ程乱暴なことなのか、そこには「作品」に昇華させることが目的なのか、人間の知覚や科学的な実験が重要なのかといった、振付家/ダンサー、アーティスト/研究者といった立場から、芸術と技術にまつわる根本的な緊張関係を伴った問題事項が明白になっていた。このこと自体は、おそらくダンサー側から考えても、ダンスというカテゴリーに対して、非常に挑戦的な姿勢を強いられることだったといえるかもしれない。結果的には、準備期間から、フェスティバル期間含め、日々パフォーマンスは変化していった。実際にオープニングを含め、各組が5日間ずつ毎夕、2月の寒空でパフォーマンスするという過酷なスケジュールで、デバイスの不具合を含め様々なトラブルもあったが、毎夕訪れる観客の数は減ることはなく、毎回300人から500人の人々がセンター広場に集まることになった。結果的に、全く異なるタイプのパフォーマンスが、屋外で誕生することになった。

devastation of East Japan. The country had no choice but to come face to face with nature in all its rawness. This raised the question how best should “techne” (art=technology) exist? It is a difficult question, which cannot easily be answered, but it is something to contemplate whilst recollecting the memories of this project.

Offsite project
Danielle Wilde & Alvaro Cassinelli “the in-visible skirt and other imaginary things”
Date: February 18-27, 2011 (closed February 21 (Mon)) 11:00-20:00
Location: Center Square, Yebisu Garden Place
Platform01 光らせん Corasen (light spiral) everyday 11:00-20:00
Platform02 Dance demonstrations
Alessio Silvestrin and Naoya Aoki: February 20 (Sun), 22 (Tue), 24 (Thur), 26 (Sat) 18:15-18:45
KENTARO!!: February 18 (Fri), 19 (Sat), 23 (Wed), 25 (Fri) 18:15-18:45
Platform 03 Experiential demonstration: February 19 (Sat), 20 (Sun), 26 (Sat) 16:30-17:00

Lecture and Demonstration: February 23 (Wed) 16:30-18:00 Museum 2nd Floor Café Lounge
Organized by the Tokyo Metropolitan Government/ Tokyo Metropolitan Museum of Photography/ Tokyo Culture Creation Project (Tokyo Metropolitan Foundation for History and Culture)/ Nikkei Inc.
Co-organized by Yebisu Garden Place Co. Ltd.
Supported by the Embassy of the United States/ the Embassy of Canada/ the Embassy of the Republic of Croatia/ the Royal Thai Embassy/ the Embassy of the Czech Republic/ the Embassy of Denmark/ the Embassy of the Federal Republic of Germany/ the Embassy of France/ the Embassy of Belgium/ J-WAVE, Inc.
With special support from BUNKACHO AGENCY FOR CULTURAL AFFAIRS

Sponsored by the Australian Embassy Tokyo/ the Austrian Embassy AUSTRIAN CURUTURAL FORUM/ CZECH CENTRE TOKYO/ Flanders Center/ Corporate members of Tokyo Metropolitan Museum of Photography
With the cooperation from NEC Display Solutions, Ltd./ Edith Grove Co., Ltd./ Submedia Japan/ KyotoDU/ Pia Corporation/ Excite.ism (Excite Japan Co., Ltd.)/ Kitayama & Company/ tripleseven Interactive Inc./ Robot Communications Inc.

Special thanks to Ishikawa-Komuro (now Ishikawa Oku) Laboratory, Department of Information Science and Technology, The University of Tokyo. Technical and Design support, Alexis Zerroug.

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Translations: Kenichi Eguchi Sarah Pasfield-Neofitou and Cathy Sell
Additional editing: Annette Trevitt

ずいぶん駆け足で、『見えないスカートと想像上のものたち』を振り返ってきたが、今回のプロジェクトで発見できたことは、ワイルド氏とカシネリ氏が提案した、「拡張された身体」としての「見えないスカート」=テクノロジーという志向性から、パフォーマンス、日中のインスタレーションも含め、すべての現象が、戯画化された独自性のあるものとして、映し出されてみえたことである。「テクネー（芸術＝技術）は自然を模倣する」という言葉を考えながらも、同時にそこで想定される自然について、考えていく機会となったことは言うまでもない。映像祭が終わって間もない、3月に、東日本大震災が起こり、日本は生々しい現実としての自然に直接対峙せざるを得なくなった。そのとき、「テクネー（芸術＝技術）」はどのように存在していけばよいか。早急な応答は到底むずかしく、このプロジェクトの記憶を手繰り寄せながら、時間をかけながら考えていきたい。

オフサイトプロジェクト
ダニエル・ワイルド+アルバロ・カシネリ《見えないスカートと想像上のものたち》
日時：2011年2月18日(金)ー27日(日)【2月21日(月)休】 11:00-20:00
会場：恵比寿ガーデンプレイス・センター広場ほか
◆Platform01《光らせん Corasen》 期間中全日 11:00-20:00
◆Platform02 ダンス・デモンストレーション
I アレッシオ・シルヴェストリン+青木尚哉
2月20日(日)・22日(火)・24日(木)・26日(土) 18:15-18:45
II KENTARO!! 2月18日(金)・19日(土)・23日(水)・25日(金) 18:15-18:45
◆Platform03 体験型デモンストレーショ
2月19日(土)・20日(日)・26日(土) 16:30-17:00

レクチャー+デモンストレーション
2月23日(水) 16:30-18:00 美術館2階カフェラウンジ
主催：東京都/東京都写真美術館・東京文化発信プロジェクト室(公益財団法人東京都歴史文化財団)/日本経済新聞社
共催：恵比寿ガーデンプレイス株式会社
後援：アメリカ大使館/カナダ大使館/クロアチア共和国大使館/タイ王国大使館/チエコ共和国大使館/デンマーク大使館/ドイツ連邦共和国大使館/フランス大使館/ベルギー王国大使館/株式会社J-WAVE
支援：平成22年度文化庁メディア芸術人材育成支援事業
協賛：オーストラリア大使館/オーストリア大使館/オーストリア文化フォーラム/チェコセンター/ベルギー・ブランドル交流センター/東京都写真美術館支援会員
協力：NECディスプレイソリューションズ株式会社/株式会社エディスグローヴ/株式会社サブメディアジャパン/Kyoto DU/びあ株式

会社/エキサイトイズム/株式会社北山創造研究所/株式会社トリプルセブン・インタラクティブ/株式会社ロボット

特別協力：東京大学工学部情報理工学系研究科 システム情報学専攻石川小室(現石川奥)研究室(技術デザイン：アレクシス・ゼオルグ)

謝辞：石川正俊/東京大学石川小室研究室・秘書+研究支援スタッフ/東京大学工学部六号館技術者の方々/江口研一/関根千香子/山室毅聡/小坂田裕美/橋口佐恵子/イェレナ・グラスマン/藤本隆行/中谷美二子/株式会社ザ・ロック/有限会社ルフトワーク/有限会社タマ・テック・ラボ/NTTインターコミュニケーション・センター〔ICC〕/株式会社CAN

テキスト翻訳：江口研一/サラ・パスフィールドーネオフィットウ/キャシー・セル
編集：アネット・トレヴィット



## Upwards, not Northward

Alvaro Cassinelli

Assistant Professor, Meta-Perception group leader  
Ishikawa-Oku Laboratory, The University of Tokyo

The main character in the famous 19th century novella *Flatland* (a square-shaped individual trapped in a two-dimensional land) struggles to remember how to move "*Upwards, not Northward*" - a subtle yet transcendental perspective *shift* that had cast a dramatically different light on his worldview. Leaving aside the mathematical turn of the novella, one can say that Danielle's practice is animated by a similar - and at first sight esoteric - desire: to "*find a way to move forward.*"

But wait: *are we stuck at all?* If so, *in which sense?* And, *to where exactly* could - or should - we run? Such questions are, in many respects, metaphysical. However, Danielle makes them the subject of a series of practical enquiries centered on *performative physical experimentation*. As in Abbott's novel, she sets herself to reveal - and find ways to overcome - the invisible barriers that keep us separated from a world en puissance, a world within reach (which is clearly not *Northward* either).

« Caminante no hay camino, se hace camino al andar »

To begin, she entices our curiosity through playful structures that fuel a suspicion that there may be more to the experience of the physical world than meets *the body*. And that's already half the work, as her public - or at times, should we say her *test subjects* - often seize the game and build their own rules and goals. The truth is, sometimes the accidental unexpected discoveries you find along the journey are more seductive than the destination. Similar convictions may motivate people to undertake the path towards enlightenment - without ever being discouraged by the fact that nobody really knows what they are actually looking for. Yet they will know it when they arrive (and the discovery may be - may be! - that the path itself is the reward.).

Put differently, Danielle encourages us to risk a tentative steps into a "breach in the fabric of reality" that magic realist writers such as Julio Cortázar maintain exists in our everyday world. These are pervasive but slippery portals that can project objects and beings into *the Fantastic*, a form of reality familiar to children that somehow moves aside as we mature. Yet, as Cortázar assures us, and Danielle's research confirms, this world is ready to jump back from behind the curtains (or mirrors!), provided that we *engage playfully* with objects or people in our somewhat *less fantastic* lives. Through her work, Danielle strives to develop the theory and technique necessary to invoke that region of the Fantastic concerned with the perception and image of our bodies in relation with and to the world. She christens this exploratory field the *poetics of embodied engagement*, suggesting a shift away from a utilitarian, subaltern phenomenology at the service of the analytical mind.

In this light, her call to "move forward" echoes the "*Upwards, not Northward!*" cry of E. A. Abbott's trapped square. It is a call that sounds like nonsense to the analytical mind, yet seems to find ears in our *embodied selves*. Its purpose is to disrupt or defrost the stable, utilitarian construct constituted by the established body image or schema. The prospect it offers is a new perspective on our embodied

existence, a new world of possibilities in movement unfolding before our eyes; a white page on which to draw and reinvent ourselves in our relation to the world.

For that to happen, all that is needed is for us to be aware of motion in ways we've never been before. Or on the contrary, to keep the eyes half closed, so that lights from the subconscious permeate and illuminate parts of the world. This is why at times we find Danielle posing as a scribe trying to decipher the meaning of lights and shadows cast by our bodies in motion. At other moments, she is a magician casting spells so we imitate clumsy puppets. Yet, she may also, at times, be described as a therapist encouraging us to recover from a widespread (we hope benign) form of body agnosia. But beware assumptions: hers is not a treatise on magic, nor a scientific essay on physiotherapy. Instead, I would venture to say that this work as a whole may be better described as a challenging exercise in *interaction design*, whose premises can be stated as: *how to find the most efficient, practical way to reveal the limits that constrain and shape the way we experience the world through the body, and the body through the world - without ever forgetting to enjoy the investigation*. I suspect the problem was articulated with hindsight; that it slowly shaped itself through the completion of the works presented here, and discussed in her doctoral thesis. The projects that make up *Swing That thing : moving to move...* all seem motivated by pure curiosity, intuition and artistic drive, as well as the desire to "move forward" - humanly speaking.

« Le Poète se fait voyant par un long, immense et raisonné dérèglement de tous les sens »

In my opinion, such is the artistic/poetic motivation behind work situated at the crossroad of Interaction Design, human-computer interaction, architecture, fashion, performance and ethnology. By staking out such territory, Danielle claims a place of particular power (and conceptual stability) from which to operate some *magic levers*. These materialize as *body-worn devices*, in which technology plays a central role less because it enables the engineering of functional prosthesis extending our capabilities, but more for the endless (absurd and surrealistic) possibilities it prompts the wearer to imagine. Crafting their magic (i.e., their *evocative power*) requires first a reassessment of the meaning of a (necessarily) embodied existence. This is a process she thought more tractable by *phenomenological thinking*, by observing and discussing experiences of playful engagement with *what is given, before one can find a purpose or a definition for it*.

In all of her works, Danielle recognizes and harnesses the disruptive forces of technology. Technology has the capacity to gather, process and display information in real time. It can therefore be used to reshape the *human action-perception loop*. In particular, by carefully crafting devices that *interfere* with the natural senses and responses of the body, it is possible to project an individual back to the first stage of her or his cognitive development: the *sensorimotor stage*. However, as the wearer may be an adult, having completed all the other stages of cognitive development, the effect is to render

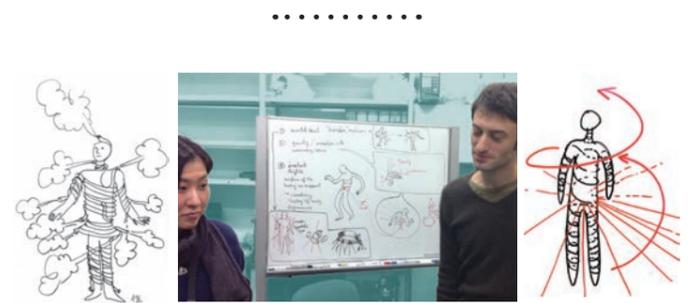
the sense of embodied self utterly *unfamiliar*. This in turn helps focus attention in a myriad of normally invisible and subconscious processes, and opens the way to their conscious manipulation and re-programming. *Hemiagnosia* is a disease that makes the sufferer unaware (in the most profound and dramatic sense) of half of the body and half of the world; rehabilitation techniques centre on forcing the patient to engage with this neglected half, with the hope that this exercise will reintroduce the neglected half into the patient sensorimotor schema. Danielle suspects - and I concur - that in a certain sense we are all neglecting a large part of the world - of what's possible with our bodies in the world, and with the world through our bodies. How to reconquer this territory? To this goal, Danielle proposes methodologies to reassess our corporeality, all derived from the observation of a series of disruptive, idiosyncratic but inspired experiments drawing on things as different as dance improvisation, brainstorming, and meditation or contemplation. As explained before, the techniques of *defamiliarization* and *magical thinking* play an important role in relaxing the grip of an established perception. This is achieved in different ways in each project. It can be through devices that forces us to focus our attention on the core of the body (*hipDisk*), or extending the body in space and time (*Light Arrays*), or by using strategies inspired from surrealist practices, in which the moment of perception is stretched and the moment of understanding delayed through purposefully convoluted activities or by prompting the mind with divergent cues (*the OWL project*). Playfulness also plays a prominent role, as Danielle strives to find a way to listen directly to people's inner thoughts. Then, she embraces clumsiness (as a form of extreme *mise-en-scène*) because it can trigger laughter and induce the lowering of rational defenses. But perhaps the most important methodological device is that of bringing attention to the immediate relation of the body in the world, through various forms of artificial feedback (sound in *gesture=sound*, and images in *hipDrawing*, as well as laser light in the *Light Arrays*).

The way Danielle analyses the outcome of these experiments reflects the structure of the experiments themselves. Indeed, she focuses and describes the *processes* that unfold, leaving aside verbal (re)formulation and justification; when these come from the participants, she interprets them as speech acts in themselves, refusing to contradict the centrality of the *process*. She also posits a number of secondary but no less interesting insights, such as her observation that DIY aesthetic may effectively democratize engagement because it leaves room for personalization, while declining to demand virtuosity.

Working with Danielle was an extremely enriching - and challenging - opportunity. Despite different technical languages and at times significantly divergent motivations, it was easy to find common ground for exploration. There was a will to translate and reformulate our individual preoccupations into each other languages (roughly put, performance oriented in the case of Danielle, and perhaps more cognitive-science oriented in my case). By working together, iterating the devices and repeating the experiments once and again (Danielle is probably as perfectionist as I am!), I believe our preoccupations permeated and eventually settled deep in each other souls. Two or three times I had the feeling our positions - and languages - had swapped, and this was always a moment of joy. I think such understanding was at all possible first because Danielle knows how to listen; and second also because in the end, our works as artists and researchers are ultimately concerned with the nature of our (embodied) existence and the mysterious process of individuation (should I say, *illusory delimitation*) of selves in a world that we suspect never stopped being their *extension*. Another element that

made our communication smooth is the fact that we both enjoy communicating ideas using alternative methods, unconstrained by the sequential nature of language. These were intensive sketching (doodling on a whiteboard played an important part in the ideation process), but also and perhaps more importantly, intensive *doing*. We shared the tacit understanding that the process was never closed; this left space for thinking *while in the process of fabrication* - despite having of course precise initial plans for each experiment or device. More than a feedback between a phase of building and a phase of trial (at the stage), we both intuitively embraced the view of the performance *and* its preparation as a unified process.

Danielle's research may indeed inspire formal studies and new methodologies in process-driven interaction design, or pave the way to new approaches to physical rehabilitation; but regardless of the utilitarian value of her investigation, the works described demand to be appreciated for their artistic power alone, inspiring in ways only Art can do: that is, in an indirect, multimodal and rich way, always hard to describe in words. This is truer here, as the works pinpoint the limitations of the analytical mind as the sole device to comprehend reality. The works inspire people to move from their core, to join the cosmic dance that creates and re-creates the Universe at each instant; perhaps Danielle is also suggesting that everybody can invent and contribute some steps from their own.



Hiroko Tasaka and Alessio Silvestrin pose in front of the sketching whiteboard.

In *Flatland: A Romance of Many Dimensions* by Edwin A. Abbot.

"Wanderer, there is no road, the road is made by walking." In *Proverbios y cantares* (Campos de Castilla), by Antonio Machado.

Scrying is an very old magic ritual that involves seeing things in a medium (usually crystal balls or mirrors). Its main purpose is to obtain spiritual visions (although it is often associated with more mundane fortune telling practices). More modern observers have claimed that the intense concentration it requires enables the practitioner to connect with the world of the Subconscious.

"I say one must be a seer by a long, gigantic and rational derangement of all the senses." In *Lettres du Voyant*, by Arthur Rimbaud (translation from French by Wallace Fowlie)

In a Piagetian sense.

# the OWL project

a collaboration with Kristina Andersen, of STEIM, Amsterdam

"any sufficiently advanced technology is indistinguishable from magic"

– Arthur C. Clarke's third law of technology prediction –

"how will we go about finding that thing the nature of which is unknown to us?"

– Meno, in Plato's Dialogues –

The OWL project consists of soft placebo bodyProps for embodied interviews, to support the conception of yet-to-be-imagined technologies; and a series of circle workshops in which participants build their own exploratory devices, examining emergent body-technology desires.

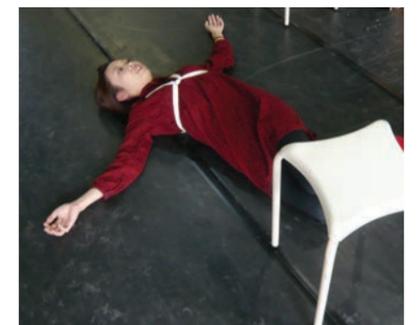
Phase One: The *bodyProps* were designed without a pre-defined function and are tested or 'probed' through the interview process to ascertain imagined functionality. Wearing the *bodyProps*, participants are led through an embodied reflective process to conceive of yet-to-be-imagined technologies. They are asked to match their reflections with a desire, then they pose for a self-portrait to claim ownership of their new discoveries.

Phase Two: The OWL *circles* are similar in form and construct to sewing circles, yet are highly structured to support specific types of exploratory outcomes. The *circles* begin with a desire, map this desire back to the body and then use this newly discovered body-desire coupling to construct an emergent exploratory device, which is identified and named during a video interview at the moment it is deemed complete.

Inviting people into the design process, and leaving the technology to their imagination, rather than providing or proposing existing technologies with known uses and/or clearly defined parameters, affords wild thinking from participants as they envision potential use. The openness afforded by the OWL structure, supports open imagining from and through the body and desire instead of thinking constrained or initiated by technological capability or project requirements. While not necessarily anti-design, the OWL methodology contrasts dramatically with traditional design processes, where the purpose and broad functionality of "that which is being designed" is usually known in advance. This approach aligns with aspects of the embodied ideation techniques explored in the other projects, yet more strongly calls into question the validity of a traditional approach through its focus on trying to bring into being what Clarke describes as "sufficiently advanced technology."

Supported by STEIM, Studio for Electro-Instrumental Music, Amsterdam, and The University of Tokyo, Ishikawa Oku Lab; Circles, interviews and a participatory lecture hosted by Iikura Elementary School Community Group; GM Project Space, Tokyo, YCAM, Yamaguchi Centre for Art and Media, Studio Imaichi in Japan, and the Interactivation Studio at UTS, in Sydney. Thanks to Chiako Kudo, Kenichi Eguchi, Nami Uchida, Rie Okada, Uchiyama Sachiko, Richi Owaki and ちくは (Chikuha) dance company (pictured), Bert Bongers, Lizzie Muller & Lian Loke, Alice McAuliffe, Zara L. Humphreys, and, for constant inspiration, Rosa Waiswiz. Further info and details on the individual events: [www.daniellewilde.com/dw/OWL.html](http://www.daniellewilde.com/dw/OWL.html)

## the OWL interview



members of ちくは (Chikuha) dance company, Studio Imaichi, Yokohama 2010

# the OWL circle

## OWL workshop Lisa Twaronite

Our OWL workshop swooped down out of the blue, when someone I knew only from the anonymous frontier of the Internet asked if I could help host one in my community.

Higashi-Azabu is a quite ordinary residential neighborhood in central Tokyo -- neither rich, nor poor, nor traditional, nor trendy -- and as such, it offers a good cross-section of ordinary people leading ordinary lives. Yet ordinary people often have extraordinary ideas, so I knew my neighbors would be open to participating. They're always eager to try new things, especially if it involves everyone gathering together.

The details of the OWL workshop circulated by word of mouth, and at the appointed time on the specified day, a small crowd gathered in the local community center at the former neighborhood school. An architect, a student, a waitress, a housewife, a company president -- people of all ages and from different backgrounds and experience came together, ready to follow instructions.

Words written on small slips of paper, that they must first understand, and then try to

adapt to their bodies? Materials like stuffing, yarn and wire? At first, there was lots of hesitation, and concerned whispering in Japanese -- no one wanted to do anything wrong. They all wanted to understand what they were supposed to do, and do a good job. The room hummed with explanations. The group dynamic (so vital in this country) worked to help everyone feel confident and enable even those who didn't understand at first to fully participate.

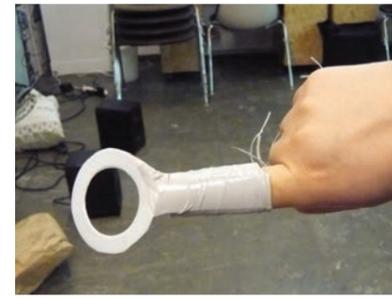
I noticed that even though everyone worked on his or her individual project, there was much sharing and discussion as people worked. Everyone wanted to know what his or her friends were doing, and I heard lots of advice and encouragement exchanged.

As for the projects, I particularly enjoyed watching the final presentations, which were videotaped -- they were almost performance art themselves. The participants explained their work and ideas, and I was amazed at how eloquently they were able to explain how their creations embodied the concepts they had randomly selected. Japan, as I said, is a country that emphasizes the group, and

these projects were individual efforts. But perhaps all of the discussion made them collaborative efforts?

In some ways, the workshop reminded me of our neighborhood festivals. They start with concepts: children's games, dancing, chocolate-covered bananas. Someone gets assigned to one concept, materials are gathered, and the reality takes shape. There's discussion, and very often, there's innovation. How can we get the chocolate bananas to stand up, while the chocolate dries? Oh, maybe we can push the sticks into styrofoam! Someone poses a problem, and the group comes up with its solution. Physical limitations are overcome, and the concept becomes a reality.

Sometimes, people still ask me, "Remember that day the artists came? That was fun."



1. (TRANQUILITY -- the need to feel safe)
2. leggy (PHYSICAL ACTIVITY)
3. 咀嚼 そ しゃく -- chewing over, or considering carefully (EATING)
4. Medama Kurage 目玉クラゲ -- eye jellyfish (SOCIAL CONTACT)
5. "whole in the shell" (CURIOSITY)
6. まる -- circle (CURIOSITY)
7. popante (INDEPENDENCE)
8. womb (TRANQUILITY)

If you would like to undertake an OWL interview or circle, please refer to the lift-out card at the back for instructions.

Bio

Danielle Wilde (AU/FR) is an artist researcher and experience designer. She hold an MA in Interaction Design from the Royal College of Art in London, and with this exhibition completes a PhD in body-technology-poetics, at Monash University, Melbourne (Fine Art), with the support of CSIRO (Materials Sciences and Engineering). Her research toolkit includes architectural design, basic electronics systems design, garment engineering, costume and theatrical artefact design, dance and performance direction and design, sculpture, cooking, intense curiosity, a number of languages, and a range of complementary somatic (body-based) techniques. She has a background in circus arts and a penchant for participation. Her work questions how we design, create and live. In 2010 Danielle received the Prime Minister's Australia Asia Award for research at The University of Tokyo Ishikawa Oku Lab. In 2009 she held fellowships and artist residencies at The Open University Pervasive Interaction Lab, Sussex University Creative Systems Lab, Nottingham Trent University Smart Materials Centre, and STEIM, Studio for Electro-Instrumental Music, Amsterdam. She was also supported by Comète 347 and Le Citu, in Paris. Prior to the PhD, she was a speechwriter for two Chief Scientists of Australia, a researcher and production manager on award-winning European films about art and technology, and a lead artist and researcher on projects in the UK, Europe, the US and Japan. Danielle's work brings our attention to and through the body in unusual ways, often leveraging the democratizing value of clumsiness. She has engaged with incredibly diverse communities of practice, whether required by her research, or happened upon in daily life. From this experience she has become committed to playfulness, and a poetics of embodied engagement. By placing the body central, and engaging the body through the imagination and the imagination through the body, she is able to blur boundaries between disciplines and question the divide between art and everyday life.

www.daniellewilde.com

The projects described here are part of a PhD in body-technology-poetics undertaken at Monash University and the CSIRO.

Acknowledgements

Work like this cannot happen in a vacuum. I am incredibly grateful to each and every person, too numerous to list, who has helped me to shine, as well as struggle and grow. I am especially grateful to my mother, River Buckland; my supervisors, Dr Melissa Miles and Dr. Richard Helmer; and the many people who welcomed me into their labs, research centres, studios, faculties and homes. I would especially like to thank Romy Achituv, Masatoshi Ishikawa, Alvaro Cassinelli, Yvonne Rogers, Phil Breedon, Sarah Kettley, Michael Gent and Angès Belkadi. I would also like to thank everyone at STEIM for supporting me through numerous projects and residencies, especially Nico Bes, Takuro Mizuta Lippit, Vivian Wenli Lin, Kristina Andersen, Rosa Waiswicz and the late Michel Waiswicz. My heartfelt thanks to my collaborators, Kristina Andersen, Alvaro Cassinelli, Kentaro!, Alessio Silvestrin, Naoya Aoki, Alexis Zerroug, Piers Morgan, Ross Bencina, and Somaya Langley, as well all of the participants. A very special thank you to the hipdiskettes: Sapidah Kian, Rinske Ginsberg, Kate Hunter, Genevieve Messenger, Lizzie Pogson and Miyuki Jokiranta. Thanks also to Michael Borthwick, Barbara Davis and Denise Rankin for ongoing technical support.

Funding for this PhD includes: an Australian Postgraduate Award (APA); a generous CSIRO APA top-up; a Monash Office of the Pro-Vice Chancellor (International) European Travel Grant; a Monash Research Graduate School Postgraduate Travel Grant; a British Council Design Researcher Award; a Ubicomp Grand Challenge Early Career Exchange Award; and an American National Science Foundation travel award. The Light Arrays performances were commissioned by the Yebisu International Festival of Art and Alternative Visions, with additional funding from Bunkacho, The Japanese Agency for Cultural Affairs and The University of Tokyo. The catalogue and DVD were supported through a poible.com project. Other project-based funding is listed elsewhere.

I am the first artist researcher to do a practice-based PhD at CSIRO. For this privilege, I would like to extend enormous gratitude to Dr Jim Peacock, AC. My position at CSIRO was unprecedented. I hope my work, and work ethic, enables others to benefit in turn.

This exhibition is my first solo exhibition. Thanks to Ann Light, Alvaro Cassinelli, Hiroko Tasaka and Lisa Twaronite for their wonderful essays; Kenichi Eguchi, Sarah Pasfield-Neofitou and Cathy Sell for their translations; and Annette Trevitt for last minute editorial support. Thanks to Julie De Paoli for this gorgeous catalogue, and Michael Borthwick for overseeing all of the AV requirements, including filming during the opening, producing the exhibition Blu-ray, DVD media, and the catalogue DVD, as well as filming and editing the Dancehouse video of hipDrawing. Thanks to Nicolas Searle and the ABC for The New Inventors Footage; Bombonia for the RTVE Spain Métropolis arts program Jap\_On interview; and Keiko Okamura, Hiroko Tasaka and the Yebisu International Festival of Art and Alternative Visions for the footage of our work at the festival earlier this year. A very special thanks also to Mark McDean, Ian Blanchonette, photographer Ramak Bamzar, Pouya Bagheri, Black Olive Catering, Mark Olive, Greg Reum, Mick Finch and Salvatore Martino. Mannequins provided by O.M.A. shopfitting systems. Thanks to Daryl Moss and Stacey Matlock. Thanks also to JVC Professional.

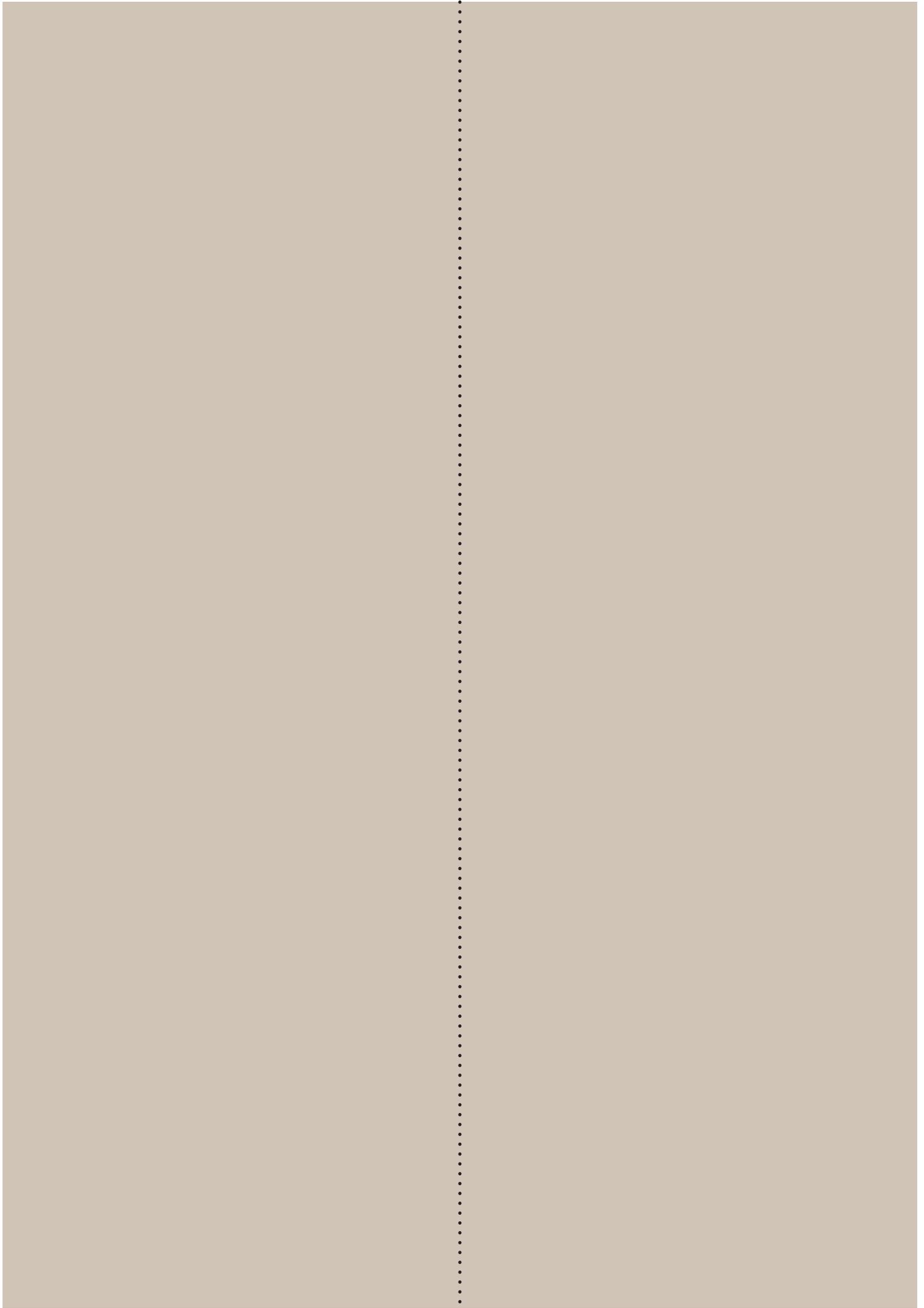
Doing a PhD is monumental. Without all of this support I could not have achieved a fraction of what I am presenting here. My gratitude is without bounds.

instruction cards

please place your instruction cards and DVD here



all images © Danielle Wilde and collaborators unless otherwise noted.



"How will you go about finding that thing  
the nature of which is totally unknown to you?"

- Meno, from Plato's dialogues

"any sufficiently advanced technology  
is indistinguishable from magic"

- Arthur C. Clarke's third law of technology prediction

*Ideally this should be done in a group with an OWL facilitator.*

*Introduction*

Welcome. Please imagine a brief introduction, and reflect upon the quotes from Arthur C. Clarke and Meno (above).

*The Desires*

Take the sixteen "common desire" cards. Read one aloud, note the associated need (written on the reverse) then place this card on the table, desire facing upwards. Repeat this with all sixteen cards. Now choose one.

*Transfer to body*

*Please decide in which part of your body your chosen desire resides.*

*The Material Switch*

Now choose materials that you find appealing, that somehow speak to your newly identified body-desire pairing.

*Thinking with the hands*

Without knowing what to do in advance, please begin making. Continue until you are "done".

*Being "done"*

When you recognise that you are "done", advance to the video interview corner

*Description*

Take the video camera remote control. Without rehearsing, press record then tell the camera: your name, your desire, what your object is called and what it does. Press stop. Do not review the footage.

*Debrief*

A short debrief completes *the OWL circle*. Please take care to perform this.

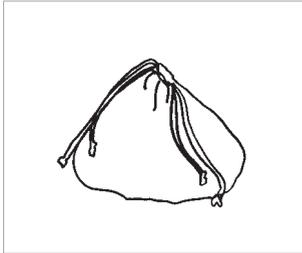
the OWL circle



Swing That Thing : moving to move

• The poetics of embodied engagement •

*Ideally this will be done with an OWL facilitator.*



*bodyProps*

- 1 There are six *bodyProps* inside the bag. You will experience them in a particular order. When you have completed steps 2-5 for the chosen *bodyProp*, you will place it back in the bag and take the next one.
- 2 Please take a *bodyProp* and place it on your body. Move around, and speak about what it feels like to wear this device. Speak about what kind of magical powers it might give you if it contained yet-to-be-imagined technology.
- 3 Take a seat. Please answer the questions: What is it called? and What does it do? on the small slip of paper provided.
- 4 Please choose a desire to associate with the device. This does not need to be coherent with your other responses.
- 5 Please construct a self-portrait, wearing your *bodyProp*. Choose your pose and how the image should be framed. You may look at the image on the camera to confirm the results.
- 6 Repeat steps 2-5 with all six *bodyProps*.
- 7 Please sign the research consent form to indicate that we may use the material you have provided. Know that the interview may be stopped at any time, and permission withdrawn, in part or in full up until the point of publication.

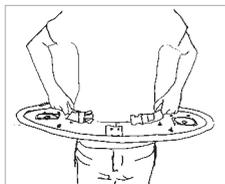
*Your interview is now complete.*

## the OWL interview

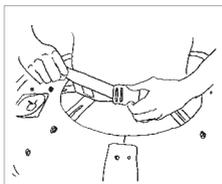
Swing That Thing : moving to move

• The poetics of embodied engagement •

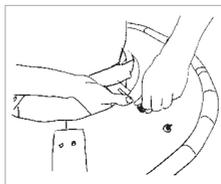
*Ideally, this should be done with a friend.*



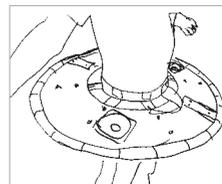
Step 1



Step 2



Step 3



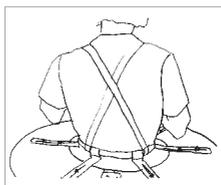
Step 4



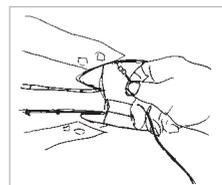
Step 5



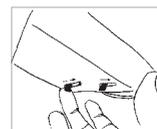
Step 6



Step 7



Step 8a & 8b



*There are two disks. The top one has an image of your musical scale. This will sit towards the front where you can see it. The lower disk has two speakers that point upwards, as well as electronic circuitry and a battery pack underneath. Always put the bottom disk on first.*

- 1 Step into the lower disk. Hold it, with the speakers to the front, just below waist height - on your hip, so your body is centred in the disk
- 2 Move the struts against your body and tighten the belt
- 3 Push the struts in tighter and screw them off. Make sure the belt is still tight
- 4 Check you are still centred in the disk, you can let go, and it is stable as you move
- 5 Now take the second disk and pass it over your head. This disk will sit above your waist.
- 6 Position the top disk directly above the lower disk. Attach the shoulder straps to hold it above waist height. Move the struts against your body and tighten the belt.
- 7 The straps should cross over at the back. Repeat steps 2-4
- 8 When the struts are screwed off and everything is tight against your body, attach the lower disk to the upper disk using the magnet wire, then turn on both switches on the battery pack (you may need help with this!)

*now play!*

## hipDisk

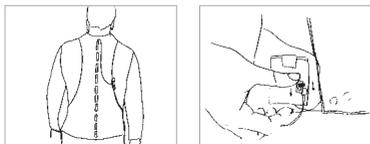
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Swing That Thing : moving to move

• The poetics of embodied engagement •

Ideally, this should be done with a friend.

1 • laserSpine •

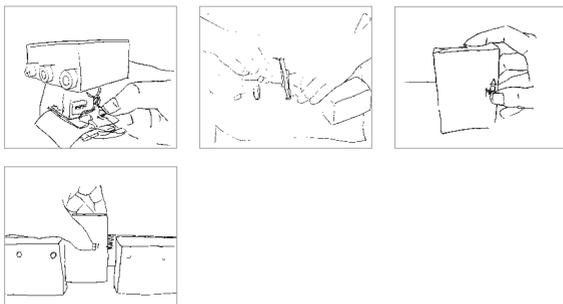


1 laserSpine

put on the garment, with the lasers down the length of your spine. Connect them to the shirt with the press-studs.

turn the power switch on (down = on)

2 • in-visible skirt •



2 in-visible skirt

switch on all 6 motors, on the laser-belt

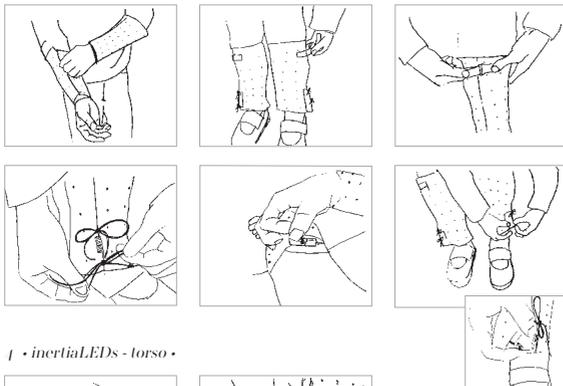
put the belt on, attaching the clasp at the front

turn on the controller, and sit it upright in a stable place

turn on the skirt module. It will be in the centre of your back. You may need to fuss a bit if you are on your own

place the controller on your body to control the skirt.

3 • inertiaLEDs - arm & leg bands •



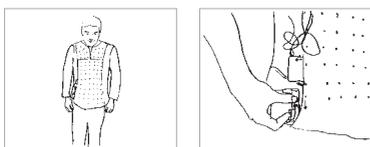
3 inertiaLEDs - arm & leg bands

attach the arm and leg bands so that the controller module sits towards the outside of your body

use the velcro straps and laces to ensure the bands are well attached

turn on each of the modules (switch towards the battery cable = on)

4 • inertiaLEDs - torso •



4 inertiaLEDs - torso

put on the garment

ensure the switch on the upper module is towards the wires (on) then turn on the power supply (down = on)

now play!

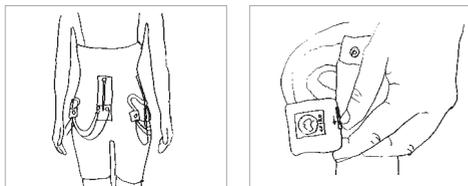
## Light Arrays

Swing That Thing : moving to move

• The poetics of embodied engagement •

Ideally, this should be done with a friend.

Step 1



Step 2



Step 3



1 Pull on the modified compression garment, ensuring that the textile sensors all sit flat, then turn on the left-hand hip-module (away from the usb socket, or down = on)

2 When the module light is flashing slowly, bend to the right as far as you can then press the button on the module.

when the light is flashing quickly bend forward as far as you can then press the button again

the light should stop flashing

3 Now turn the right-hand module on. when the module light is flashing slowly, bend backwards as far as you can and press the button

then, when the light is flashing quickly bend to the left as far as you can and press the button.

when all the buttons stop flashing the garment has been calibrated for your body

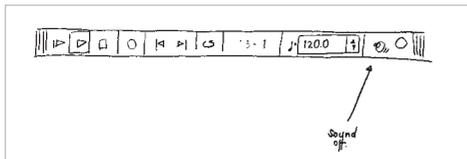
*now move your hips to draw, and jump and shake to erase!*

## hipDrawing

Swing That Thing : moving to move

• The poetics of embodied engagement •

Step 1



Ideally, this should be done with a friend.

1 ensure sound is off

2 Jerk-glitch

attach body-harness around your chest and over your shoulder so that the strapping is snug and the wii sits on your shoulder-blade.

2 Leg Ratchetts

attach leg bands so that they are snug, and the wii sits on the outside of your calves

2 Speed Harmonics

attach armbands so that they are snug, and the wii sits on the outside of your forearms

3 turn sound on then play!

Step 2 • Jerk-glitch



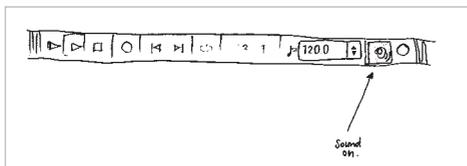
Step 2 • Leg Ratchetts



Step 2 • Speed Harmonics



Step 3



## the gesture≈sound experiments

Swing That Thing : moving to move

• The poetics of embodied engagement •