Kimospheres and Immersive Dance

Johannes Birringer (DAP-Lab)

> She takes him by the hand and leads him into the castle,
> the others follow.
>
> (Pina Bausch, Macbeth-Projekt 1978)

In the following, I reflect on "atmospheres" of choreographic design and participation, wanting to pursue questions which I started to raise in 2015 during the international co-productions of the European METABODY project.[1] My own work over the past two decades is of course informed by the developments of digital and interactive dance – dance that incorporates technologies and associates its compositional ideas with software programming. And yet, much of the work that I explored took place on the stage (or, telematically, on screens): it was thus projected for audiences, not designed to be entered by them.

DAP-Lab's research on formative and wearable space, on a mediated and yet highly visceral environment that is not constructed in a stable form but evolves through movement, now provides the ground on which I propose to look at current ideas and practices of immersion-dance. This dance is also a technologically infused and informed dance, but at the same time a material-sensory practice closer to (fashion) design and architecture than to commonly developed ballet, modern dance or tanztheater vocabularies. Movement and design (human and object centered) have been understood by our lab company to be choreographic as well as architectural, testing the notion of the *immersive* as well as the concept of the *wearable* – thus a double wearabilty, both of our specially designed costumes yet alongside the wearability of space and the choreography of architectural space.[2] The sensorial environments that I will describe are also sometimes refered to as "choreographic objects" (e.g. some of the installations by William Forsythe), but in our case it is more pertinent to think of the fluidity of atmospheres rather than objects.

Early in 2015, the DAP-Lab began to collaborate with one of the Hyperbody teams from TU Delft, before linking up with the architects for the development of the performative interactions during METATOPE at MediaLab Prado in July 2015. The architect team arrived first and worked on the installation of their *{/S}caring-ami* prototype. Then my team arrived at the MediaLab, and the performative interactions involved three dancers from the DAP-lab, several new costumes and audiophonic object-instruments designed by Michèle Danjoux and developed with the dancers as well as with several Metabody partners (Marije Baalman, Nicoló Merendino, Marcello Lussana helped on the sound electronics). Along with our sound and graphic interface artists (Jonathan Reus, Chris Bishop), the ensemble then rehearsed a choreographic response to the *{/S}caring-ami* architecture prototype created by Hyperbody.[3] The interactions described below were part of a larger installation Parcours, involving many of the Metabody partners and spreading out over a very large space.

Fig. 1 Vanessa Michielon performing with "OrigamiDress" by Michèle Danjoux, in front of *{/S}caring-ami,* architectural structure by Anisa Nachett, Alessandro Giacomelli, Giulio Mariano, Yizhe Guo, Xiangting Meng (Hyperbody). Azzie McCutcheon moves inside the foreground gauze. © DAP-Lab 2015

Evoking a Parcours already implies that the audience was not static or seated, as in a theatre or concert hall, but moved around and engaged. How, then, do we imagine an audience to engage choreographic design and become immersed? Ideas of participation/immersion stretch back, after all, to well known traditions of live art/installation art, e.g. to happenings, site-specific

performances, situationist and environmental art, processual theatre, interactive media art, invisible theatre (Boal), social works, etc. Today there is a considerable vogue of immersive theatre that has captured the attention of audiences. A promenade performance that is often mentioned is Punchdrunk's *Sleep No More,* recently transferred from London for an extended run in New York City. Site-specific, ritual-based and immersive performances are probably known in all cultures and could be traced back to various phenomena in sacred, indigenous, spiritist and shamanic performances, while contemporary interactive and "relational" aesthetics tend to favor the secular happenings that are now probably part and parcel of the "experience cconomy."[4]

But what forms of participation were envisioned by moving architectures? My epigraph is more ironic: it alludes to a dance concert by Pina Bausch's Wuppertaler Tanztheater back in 1978 when she staged a horror show adaptation of *Macbeth* to a large audience of Shakespearean theatre academics; the title of her dance evening is literally a stage direction taken from the play (*She took him by the hand and led him into the castle. The others follow*). There was no holding of hands. Still today, I vividly remember the scandalous night: many in the audience left the performance screaming and yelling half way through, shocked and discomforted by the relentless chaos of obsessive-compulsive actions onstage, and the cold water splashed repeatedly into their laps and onto their fine suits – water that had accumulated downstage in an increasingly large puddle.

Immersion may very well imply chaos, irritation, danger, and wet clothes as well as the holding of hands, the gentle maneuvering, the guiding, seducing and the cajoling. The "leading" into the "castle" reminds me of moments in Madrid that I considered curious, or contradictory, as far as facilitation or instruction is concerned. Is immersion something that needs to be guided and facilitated? I believe audiences already always are "emancipated" (as Rancière has argued). They can decide for themselves and will not need my recipe.[5] But I want to examine such instruction to experience further below. Audiences, I have to assume, sense the mood of a space or social situation they enter, without instruction. There is a tacit knowledge and common understanding, for example, how to negotiate space when we enter a train compartment, a restaurant, or a mosque. Architect Juhani Pallasmaa suggests that we project our emotions "onto abstract symbolic structures," and that felt atmospheres emphasize "a sustained being in a situation" or an internalized projection or *introjection* (an interiority that implies peripheral perception).[6] Such introjections work intuitively, even if moods, if they are generated by design, can of course function in a manipulative manner. In the case of Bausch's *Macbeth* project, the atmosphere was

intense, foreboding – the downstage area gradually filled with water from a garden hose, while center stage some of the dancers repeatedly subjected themselves to sustained violent cleansing rituals in a make-shift shower booth. Wetness and the strong odor of a guilt/shame ritual suffused the whole house. The dancers repeatedly ran down into the puddle, sliding and spraying the front rows of the audience with water.

The choreographic, as I understand it, enters the atmospherics of architecture as much as the latter may rely on movement-through. It extends experience of space or place through bodily movement, gesture, and orientation, affective scales of the sensorial – the visual, auditory and especially tactile introjections worn into the body (incorporated), taken from the atmospheric environment. Costumes here become crucial as they are worn on the skin, thus connecting intimately to the body and room temperature (the weather), and the wearer's balance, stability, sense of gravity, weight, and orientation (the whole proprioceptive experience). Clothes are protective and also revealing, firm (closed) or loose, adorning or encumbering. The choreographic, in this sense, tends to focus on performer experience and how such experience can be articulated and attenuated for an audience inside this weather. And are audiences not forewarned about weather? Would they come to an event that was not forecast in some manner?

The immediate experience is emergent, unpredictable, depending on many factors affecting self-awareness and what is today often refered to as *agency*. Architectures and spatial arrangements can be highly charged, and thus possess agency too; they are not transparent but enactive forms and materials, they have properties. In analogy to some of the software patch environments I work with, settings, screens or filters act as "actors." Interactive controllers are actuators, sensors sense movements and behaviors of human bodies, spatial infrastructures house nested feedback systems. In the 1980s, we spoke of "dilation" – the actor's physical motion expanded space-time experience. Today we see the impact of the new materialism on the thinking about the liveness of objects, and the agency of entities formerly considered passive objects, inanimate things, inert matter. The immersive installations, as we understand them, are agential, vibrant, and mobilizing – and yet one needs to look closely at what they mobilize and how they mobilize (in a dramaturgical sense of a temporal event that invites visitors to enter, and eventually leave, a multifarious art exhibition of the kind we had in Madrid).

The METATOPE Parcours demands a more extensive exploration of how kimospheres, objects in space, visual projections, wearable artifacts, interviews and demonstrations, architectures,

habitats, soundings and physical performances afford various possibilities of visitor engagement, for an audience of abled and disabled persons (Metabody concretely targets a very diverse range of audiences, and also organizes workshops for "metamovers" – inclusionary labs with new expressive technologies, such a Palindrome's Motion Composer software which transforms movement into music, for persons with disabilities). In these brief reflections I will look back at METATOPE, raising questions about participatory gestures, the inclusion and instruction of the audience, and the dramaturgical methods offered to them for accepting or declining the invitation to act. I also look forward to the latest installment, *metakimosophere no.*4, premiered in London in May 2017.

Fig. 2 Miri Lee with beakhandspeaker (left), Azzie McCutcheon (centre inside gauze) and Vanessa Michielon (right) performing *metakimosphere no. 2,* with audience seated and standing around the METATOPE exhibition space at Medialab Prado, Madrid, July 2015. © DAP-Lab 2015

There were numerous installations and performances taking place during the last four days of the 2015 METATOPE, with the house open between 4:30 pm and 9 pm, and a repeated run through of three or four groups of audiences coming in, then leaving before the next group. These audiences were gathered at the entrance, undergoing a first introduction to the Parcours through the *Illegible Affects* installation demonstrated by Jaime del Val. In this interactive installation del Val shows how non-verbal gesture-movement –captured by a kinect camera and run through computational models and automated real-time EyesWeb software analysis (InfoMus) – could be

interpreted differently by diverse actors, depending on gender and sexuality, age, cultural background, social class or education, perhaps only by way of diverse perception, camera angle, etc, and thus exceed interpretation and legibility?

The lights in the large installation space were then turned off, creating another kind of "illegibility" or indiscernibility of the space itself, and as the doors opened, Dieter Vandoren handed out his *Lampyridae* sound-light artifacts that felt like conch-like shells– inviting the audience to become carriers and carers of these touchable objects. As the entering group now already had a task, participation in the interactional space was deliberately initiated. I am not sure how the framing of the entrance – with *Illegible Affects* (research was developed by several partners including InfoMus Team, K.Danse, Reverso, Stocos, Marcello Lussana) – provoked ideas to the audience about movement and data capture, recognizable patterns, notions of affect, emotion and play. But I assume the introduction, which was done verbally and also through non-verbal gestures of course, prepared them for multisensorial experiences in the space which were meant to be encountered. *Non-verbal communication* was one of the guiding principles of the artistic processes of shaping the space and the materials. Spoken language perhaps ought to have been omitted altogether, but would the visitors have understood any of the ideas about "Illegible Affects"?

The skin is a deep surface, and it connects us to the atmosphere (inside and outside). Illegibility and immersion are perhaps consonant ideas: a kinetic atmosphere is not something you read or perceive, as an object of perception, but something permeable that you perceive in. In that sense, it is skin-deep and tactile, and it always becomes intermingled, intracorporeal and intraspatial.[7] The non-verbal parcours involved two interrelated sides, or two halves of the space, a large section of small tents that housed projections and installations, on the right side, with the metakinespheres at the bottom end of the large hall. On the left side were the architectural installations by Hyperbody, including an array of STEIM's soft speakers suspended from the ceiling, and near the entrance was a soundproof room reserved for the silent *MetaInterview* by Palindrome – interviews with visitors whose eye movement was captured by a vision system responding to the eye-replies through sounds and changes of color inside the small chamber. DAP-Lab's performance took place at the bottom of the left side, in front of the five-feet tall *{/S}caring-ami* architecture-wall that displayed reactive behavior, towards audiences or performers approaching it, either opening its wings or closing them, while changing its attached LED lights from blue to red and back. Blue, according to the architects, was the more serene,

calm state, whereas red indicated a more defensive or aggressive state. Our dancers engaged the moveable architecture as well as the open space surrounding it, and Vanessa Michielon, in particular, wore an OrigamiDress designed with the same polypropylene material as the wall, and also wore conductive sensors that allowed her to create a sounding circuit when touching a metal sheet place there by our sound engineer Jonathan Reus. Michèle Danjoux, who created the dress and worked with Reus on the conductive sound experiments, was initially interested in the material sound of the dress as such: through its pleated pattern shape, it began to make popping sounds when the dancer moved, it developed a sonic life, in other words, and the performance connected the material continuum between synthetic material and conductive touch closing a circuit and setting off other sounds.

During the Madrid performances I observed the environment as a whole, of course being aware of the vision, developed by the Hyperbody architects, for building a pavilion that would become the enclosing skin or bauble for all our artistic, interactional works. At this point, I mostly paid attention to the motorized *{/S}caring-ami* wall, observing the interactions between visitors and animated objects, performers, stage managers, and guides. I followed the non-verbal communication, the roles of participants and facilitators, the lighting, the sound modulations, the sequencing of the Parcours. The conclusions I drew helped me to move forward with the creation of new installments of DAP-Lab's *kimospheres*. The stage management I observed made me think about the autopoiesis and heteronomy of such a large constellation: visitors will not have a preconception about the work, and they may not have an understanding of what "metabody" or "metatope" implies, except that they are asked to enact, touch, carry objects, crawl into tents, perform with kinespheres. They are invited to trigger architectural behaviors, watch dance and projections, avatars and other visitors performing, listen, carry small objects that make sound and emit light. Thus their understanding of the "materials" may come from their manipulation of the materials, their engagement of the space and their sense of agency in initiating a contact, a movement, and a reaction.

As so often in interactive work, they will look for causes and effects. Or they will allow wonder, puzzlement, and adventure to guide them nowhere. They will also realize that sometimes they are not left alone, to their own devices, but whirled around, instructed and coerced. (This is an experience that a number of visitors to Punchdrunk's *Sleep No More* have complained about, and that reflects the coercive and shaming side of participatory theatre).[8]

The METATOPE environment as a whole, with its many dimensions, is not a coherent space. Nor do I think convergences can be forced from so many divergent aesthetic practices and their folds and gaps. There was no single narrative or motif, but many, as well as many potential physical and intersubjective engagements. Perhaps there were too many atmospheres, or the overall atmosphere was inconclusive: how can such an environment, created by diverse contributing partners who had not rehearsed the space together, be intelligible and create connection, a "through-line," and also be a place of potential political dissensus, from which to go off outside, instigating "urban interventions" in the public sphere? If the space or its actors are not meant to be legible but remain amorphous, what complicity with the formless, the indefinite, is expected from audiences? How does the intended architectural pavilion link up to *Occupy 2.0* – an unexpected political reference del Val used during the METABODY platform, almost as if he wanted the METATOPE to intervene into Madrid's public squares, to roll out into situationist détournements?

There are images imprinted in my memory. One is a beautiful and intense contact improvisation that Isabel Valverde enacted with a disabled visitor whom she invited to roll on the floor with her, leaving his wheelchair behind. He had his eyes closed, just followed the moments of shared physicality, and I watched to protect him from rolling into *{/S}caring-ami,* hurting himself. Then there was a hyperactive facilitator, Salud López, who spun around like a whirling dervish, dragging audience members around and nearly crashing into Hyperbody and DAP-Lab's architectural environment with the conductive metal sheet placed on the floor. Some visitors stumbled in the dark, stepped on and disconnected cables, and made us worry about health and safety, especially as there was no lighting design that could have guided the sequences of actions in the space. Participants reacted well, most of the time, but some also felt forced, or indeed puzzled by the architecture behaviors (*{/S}caring-ami* and *Textrinium*) and their intransigence.

This is what we learn from the dance of immersion: participants will discover themselves inspired, moved and sensually seduced by the atmospheres and kinetic objects. They will discover an artistic-sensorial environment strong enough, and suggestive enough to engage them, with all the affective/sensorial relations and non-verbal communications that occurred. Or they will remain reluctant, disconnected. They will hesitate, hold back, remain shy or reluctant. There is no need to be dragged or whirled. Visitors can be left to their own experience modes, their way of recognizing patterns and elaborations. At the same time, participants will inevitably also discover themselves performing actions (or watching something unknown to them) that they will feel

compromised by, as they watch themselves making these performances, or as they watch themselves not knowing what they cannot identify.

A constructive approach would be to ask visitors – afterwards – as well as the actors, to comment on shared perceptions of the choreographic landscape, the screens and the immersive roles that were inhabited. In the case of DAP-Lab's performance response to *{/S}caring-ami,* for example, we faced an unexpected challenge: the motors failed on the second day (after overheating). The animate architecture still emitted sounds (which I amplified) but was without force; its wings could no longer rise up and embrace a person approaching, it malfunctioned. Although the architectural vision of the LOOP/environment may never materialize, the shape-shifting dance of conductivities we explored gave us motivation to test roles, functions and malfunctions, along the dissolving lines between animate and inanimate.

The latter enabled a much deeper investigation of the kind of tactile ceremonies we hoped to conjure in the next installments of the *kimospheres* (2016-17). Miri Lee's beakhandspeaker beckoned the way. Her hand becoming a loudspeaker – built by Danjoux with special piezo film called PVDF that has a thin, miniaturized and flexible form – sounded out a shamanic voice that filled the room, "illegible" as it may have been (the recorded chant of the shaman was from Korean kut). But I intimated that audiences could sense the incantation to a ritual in mixed reality where voice mingles with electronic sound, real fabric stretches across and is extended by digital projection, and breath animates the membranes between. For the kut tradition, in fact, such immersion space is always communal and spiritual: the audience as participant community gathers in the place where spiritual and material realms interface (and where the gods are invited to join), and such intermingling is perhaps also common in the cultural traditions of the carnival. This sense of ritual we decided to explore further in *metakimophere no. 3* and *no. 4*, and in the latest installments we push the tactile and internal experiences much further.

For example, a special preview night was arranged for *metakimophere no. 3* (April 2017) inviting an audience of blind and vision-impaired audience to wander through the immersive dance environment. The visitors listened to the garments as dancers moved amongst them, then were invited by the performers to touch the costumes and other sound objects and fabrics in the space and imagine them, while conversing and interpreting the atmosphere into which they had made their forays. The relationality of garments, dancers and objects assumed character, a character of an overall, collective architectural dress becoming the stage, while modules of it functioned in

Fig. 3 Blind audience members touching dancers' costumes during *metakimosphere no.3*, DAP-Lab 2016 © Michèle Danjoux

Fig. 4 Elisabeth Sutherland in NailFeathersDress, in front of large stage dress with other dancers cocooned inside, the *{/S}caring-ami* wall high up in the background, *metakimosphere no.3*, DAP-Lab 2016 © DAP

concert with others. Helenna Ren mimicked voices on microphone that she heard coming from the other side (the Soundsphere Object); Azzie McCutcheon and Yoko Ishiguro, the dancers under the suspended white and black gauze, became an alternative embodiment of the *{/S}caring-ami* architecture – the wall was hoisted up into the air, like the sail of a ship – entangling visitors into the gauze as they wondered inside. New sounding costumes designed by Danjoux such as the NailFeathersDress worn by Elizabeth Sunderland, were tracking the space, creating intimate moments with visitors who heard the nails, and the small amplified noises they generated. Tactile intimacy correlates to distances too, if we remember the theory of proxemics (J.J. Hall), the notion of an animated threshold, where we act forward (aggress) or retreat backward (regress), where we go out of ourselves or into ourselves.

Fig. 5 Elisabeth Sutherland in NailFeathersDress, *metakimosphere no.3*, DAP-Lab 2016 © DAP

In this connection, we can speak of immersive environments as a choreographic of human animality, of an elemental quality of senses stimulated by what the blind might call the touch of vision, a tactile proprioceptive sensing of moving and listening through a continuum, as if being ensounded in an electromagnetic field of resonances. These stimulations interconnect vibrations of the body with vibrations of the world, creating an intermingling which is of course also related to energy (and electrical) tangencies and transductions. The performers are conductors, and I mean this in a double sense of guiding visitors through the "score" of the *metakimosphere*, as well

as engaging visitors through totemic sounding objects and the conductive costumes Danjoux has created. The visitors can touch these conductive fabrics and become aware of the sonic ripples, the noises that emanate from porous membranes.

Fig. 6 *Metakimosphere no. 1,* intra-active graphic projections (programmed by Christopher Bishop) tracking motion from performers inside white fabric architecture, DAP-Lab, 2015 © DAP-Lab

The performers' incubating presence is felt and their transceiving role can be grasped when one realizes their costumes are sensortized and signal-generating. What distinguishes our work from other advanced research in music or dance technology and somatic practice is our focus on both the kimospheric architecture and what we call the "tactile narratives" that can evolve in temporal relationships between wearable performance and mediated environments.[9] The performers in the *metakimospheres* are a part of the real-time engineering of the atmosphere, especially of the sound that emanates (in localized intimate circumstances as well as through the spatialized and dispersed sonic gestures).

The dancers do not always invite looking, as their role is not necessarily one to be looked at. When they offer their costumes to be touched or hand one of the sonic objects to a visitor to invite

listening to its electro-acoustic sound, the materials or objects also act, transmit, vibrate and resonate. Yet their bodily presence, and what I imagine to be the *expanded choreographic*, is affecting the body of the architecture in-between or beyond the thereness (*meta* referring to the "between" and "beyond" of presence/atmospheric space) – in the duration and circulation of space-time. The architecture's thereness can also be a wave, a flutter, touching bodies; there are suspended elements in the architecture that have movement capacities and can react to motion in proximal space. In the first two prototypes of the *metakimosphere*, the dancers' motion or stillness animates the elastic veil-like gauze draperies that are suspended from the ceiling and slouch down on the floor. They in turn are also animated by the behavior of the pro-active, dynamic architecture (e.g. the *{/S}caring-ami* polypropylene prototype created by Hyperbody for *metakimosphere no. 2,* which featured computationally generated origami pattern based surface with integrated lighting, motion capture and robotic actuation based on proximity-sensing).

In the *expanded choreographic* there is no stillness, not even when there is only breath. Breath not only moves space – inhaling/exhaling, expanding/contracting – but also is audible. In all *metakimosphere* installations the biophysical, etheric sound is amplified. The elemental thereness of the environmental atmosphere includes the audience as experiencers who are "inside" the atmosphere, and the atmosphere is in them. *Meta*: through them. Both, so to speak, reciprocally make up the materialities of the interaction. There is black porous gauze on the perimeter, and soft white veil net inside; these insides-outsides – or "interskins" as Haein Song, one of our dancers, calls them – are housed inside a darkened gallery space (circa 10 by 12 meters wide). This first envelope, for a test performance in London (March 2015), was small, intimate. The second envelope was the huge auditorium at Medialab Prado (Madrid, July 2015), and here the perimeters expanded as an architectural skin with its own properties and behaviors. The third installment was multilayered and a more complex dynamic spherical environment that included separate enclosures for intimate listening.[10] This *kimosphere* featured various sonorous qualities and vibratory intensities, voices, intonations and choral elements, a meta-language structured like music with gestural, tonal extrapolations in rhythm and timbre. The somatic here expanded outward into a spatial acoustic instrument or "polytope" (Xenakis).

The concept of an "immersive dance" needs to qualified in so far as I notice an increasing reduction of our performers' activities or, rather, a shift towards a different role regarding the interactional and participatory invitations of the kimospheres to the visitors. This became clearer in *metakimosphere no. 4* (May 2017), where our dancers relinquished dancing for anyone

altogether. It was the visitors who were invited to move through the parcours, at their leisure, and explore tactile and auditory experiences while at the same time being challenged into somatic (inner) bodily sensations afforded by the new kinetics of VR. With *metakimosphere no. 4,* DAP-Lab for the first time fielded proto-narratives, composed through an 8-channel sound installation (Red Ghost Speakers) and five interface stations that each intertwine aspects of two narratives (*Horlà*, adapted from a short story by Guy de Maupassant; *Shadows of the Dawn*, adapted from a field report on lemurs by primatologist Alison Jolly in Madagascar). Their exploration is the choreographic process: it includes intimate personal (meditative?) resonances derived from
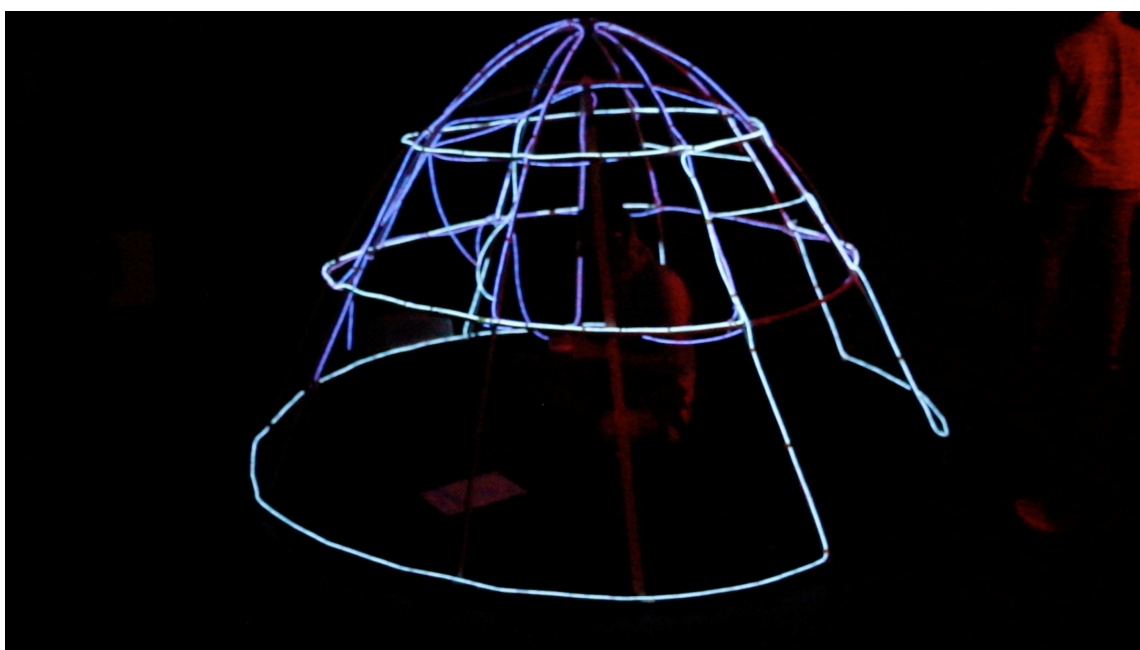

Fig. 7 *Metakimosphere no. 4.* "Skin" interface in the Soundsphere, with light emitting LED wires, conducted by Claudia Robles-Angel, Artaud Performance Center, 2017 © DAP-Lab

biophysical data (Claudia Robles's galvanic skin response sonification enacted by one visitor at a time, asked to lie down in the Soundsphere); two playfully physical interfaces with a floating "coral reef" and a "Red Ghost" game; and two VR interfaces where visitors enter ghostly worlds via (HTC Vive) goggles. M*etakimosphere no. 4* thus combines two atmospheres, a real architectural space and a virtual (computational) space, both actuated through the same tactile narrative. The critical aspect for us is the immersant's sensory participation: the resonances of real and virtual spaces are to be rhythmically entwined. The occurrent gestures are envisioned to become reciprocal – pushing the kinaesthetic into a perceptual virtuality (VR) that so far is largely contained in the visual (the ergonomic challenges with virtual reality headsets are well known: the more powerful headsets must be tethered by thick cables to computers or consoles,

Fig. 8 *Metakimosphere no. 4*. Visitor inside "Lemurs" interface with Vive goggles, conducted by Doros Polydorou, Artaud Performance Center, 2017 © DAP-Lab

Fig. 9 *Metakimosphere no. 4*. Visitor inside "Coral Reef", with graphic projections by Johannes Birringer and Christopher Bishop, Artaud Performance Center, 2017 © DAP-Lab

which can tangle up immersants' legs when these rigs occlude their view of the real world). The kinematic, then, is the challenge for a social VR choreography which does not insulate/isolate the

immersant but allows for an expanded synasthetic perspective and embodiment where imagined full-body perceptual virtuality feeds back into the kinaesthetic.

This requires a process where the virtualizing instrument is not perceived as an enclosure-object or prosthesis but as a wearable that becomes a part of the body as a metamorphic process and hyperobject. The immersant dances, so to speak, with the instrument. Given the precarious experience of a technological body or technical being that is mutable and relational, movement becomes a vector of affect. The immersant can enact, or fail to enact, specific bodily gestures or movements, and there is no correct way of executing a particular movement but only actualized potentials derived from resonant (narrative) stimulation. "Dancing" in such augmented reality can let movement emerge from the rhythm of sound, vibration, graphics and light produced by the engineered atmosphere. It is another kind of dancing, not one we know from the theatrical stage.

The way the somatic is performed, compromised, interpreted or created anew is crafted by the immersant performer, the instrument and the relational context. The objective is to explore a certain level of entrainment which enables movement and sensual intensity to arise. If the immersant's intentions are constrained, in regard to physical performance or kinaesthetic experience, it is still vital to come to a realization of the biorelational feedback, the continual fluid relations between enacting self, the coupling with technical system and atmospheric environment. The embodiment in such immersive augmented reality, I propose, is always subject to such a mingled or torn multiplicity, an octopus-like creature that must push its limits further. The last version of the *kimosphere* is, on one level, an exploration of light and what is (still) discernible in the dusk when contours begin to dissolve – the light *entre chien et loup*, as French cinematographers call it.

References

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1 METABODY was initiated in Madrid (July 2013) by a collaborative network of European arts organizations, research labs and performance companies engaged in a radical rethinking of perception and movement away from the mechanistic, rationalistic tradition, and thus also the dominant Western tradition of visuality or ocularcentrism combined with formal and systemic "built" environments and protocols that take certain embodiments for granted, towards a (digital)

embodiment that puts emergent differentials of bodies and affects in the forefront of its concerns. METABODY was coordinated by Jaime del Val (Asociación Transdisciplinar Reverso) and encompassed eleven primary partners including DAP-Lab, STEIM, Palindrome, K-Danse, Fabrica de Movimentos, InfoMus Lab, Stocos, the Hyperbody Research Group, Trans-Media-Akademie Hellerau, IMM (http://www.metabody.eu), but also connected with associated partners in Latin and North America and in Japan.

[2] As to the latter, a polylingual edition of a text (with photographs) by architect Wolfgang Meisenheimer inspired some early research into spatial figurations when in 2008 I worked on a digital oratorio in Brasil with composer Paulo C. Chagas, programming visual mutations based on Francis Bacon's painting of dissolving bodies. Our digital oratorio *Corpo, Carne e Espírito* had its world premiere at the FIT-BH Festival, Belo Horizonte (https://www.youtube.com/watch?v=lZwDByPvJ8k). Cf. *Choreography of the Architectural Space: The Disappearance of Space in Time*, Paju Book City: Dongnyok Publishers, 2007. My essay on the Bacon project appeared as "Corpo, Carne e Espírito: Musical Visuality of the Body" in *Blood, Sweat & Theory: Research through Practice in Performance,* ed. John Freeman, Faringdon: Libri Publishing, 2010, pp. 246-61. William Forsythe's choreographic objects also provided useful information on installations that require audience movement. Cf. William Forsythe, *Suspense*, ed. Markus Weisbeck, Zurich: Ursula Blickle Foundation, 2008.

[3] DAP-Lab wishes to thank all fellow artists in the Metabody project for the knowledge transfers and co-operations; we acknowledge the inspiration of the mobile metakinespheres created by Jaime del Val during 2014, especially the smaller ready-mades brought to the STEIM workshop in December 2014 (and lit during a test rehearsal by Dieter Vandoren). They sparked a series of smaller tests in London early in 2015, then gave way to DAP's increasing interest in pro-active, dynamic and interactive architectures as proposed by Nimish Biloria and Jia Rey Chang (LOOP Pavilion) and the Master students who worked on a computationally generated origami pattern based surface with integrated lighting, motion capture and robotic actuation. The *{/S}caring-ami* team (Anisa Nachett, Alessandro Giacomelli, Giulio Mariano, Yizhe Guo, Xiangting Meng) gave us the polypropylene materials to create new wearables (costumes and sound objects or instruments). Danjoux's ideas for conductive wearables and proximity-sensing performance had evolved from her work with Jonathan Reus during the e-textile lab at STEIM (October 2014), and my scenographic sketches for "kinetic atmospheres" evolved in March 2015 during the first public presentation of *metakimosphere no.1* (with Azzie McCutcheon, Yoko Ishiguro, Helenna Ren performing) in London. The dancers for *metakimosphere no.2* were Vanessa Michielon, Azzie McCutcheon and Miri Lee. Christopher Bishop created the kinect camera interface graphics along with Cameron KcKirdy. The extensive collaborative teams for the most recent installations are credited here: <http://people.brunel.ac.uk/dap/metabody.html> and <http://people.brunel.ac.uk/dap/kimosphere4.html>. A filmic excerpt of *no.3* is here: https://www.youtube.com/watch?v=5DdAcv37jmc.

[4] For a fascinating discussion of the shamanic tradition, see Anders Kreuger, "Ethno-Futurism: Leaning on the Past, Working for the Future," *Afterall* 43 (spring/summer 2017), 117-133. For critical commentary on immersive performance, see Claire Bishop, *Artificial Hells: Participatory Art and the Politics of Spectatorship*, London: Verso, 2012; Gareth White, *Audience Participation in Theatre: Aesthetics of the Invitation,* Basingstoke: Palgrave Macmillan, 2013; Alan Read, *Theatre in the Expanded Field: Seven Approaches to Performance*, London: Bloomsbury, 2013. For a critique of the experience economy, see Adam Alston, *Beyond Immersive Theatre,* Basingstoke: Palgrave Macmillan, 2016.

[5] Jacques Rancière, *The Emancipated Spectator*, trans Gregory Elliott, London: Verso, 2009.

[6] Juhani Pallasmaa, "Space, Place and Atmosphere: Peripheral Perception in Existential Experience," in Christian Borch (ed), *Architectural Atmospheres: On the Experience and Politics of Architecture,* Basel: Birkhäuser Verlag, 2014, p. 20. See also, Gernot Böhme, *Atmosphäre: Essays zur neuen Ästhetik*, Frankfurt: Suhrkamp, 1995; Peter Zumthor, *Atmospheres: Architectual Environments – Surrounding Objects*, Basel: Birkhäuser Verlag, 2006.

[7] For a political and legal argument regarding skin and sensory stimulation, see Andreas Philippopoulos-Mihalopoulos's chapter "From Lawscape to Atmosphere" in his book *Spatial Justice: Body, Lawscape, Atmosphere*, London: Routledge, 2015, pp. 107-50.

[8] Regarding the shaming of participant audiences, see Read, *Theatre in the Expanded Field,* pp. 182ff.

[9] For a discussion of such biorelational frameworks, see also Teoma Jackson Naccarato and John MacCallum, "From representation to relationality: bodies, biosensors and mediated environments," *Journal of Dance & Somatic Practices* 8:1 (2016), 57-72.

[10] Philosopher Peter Sloterdijk [2004] devised a philosophy of *spheres* and *envelopes* which contributes to the current interest in atmospheres, much as Andreas Philippopoulos-Mihalopoulos's critical study of "lawscapes" as atmospheres draws attention to embodied social and political norms in the conflict between bodies "moved by a desire to occupy the same space at the same time" (2015: 179). For the latter, see *Spatial Justice: Body, Lawscape, Atmosphere,* London: Routledge; for the former, see *Sphären III – Schäume* [partial translation: Peter Sloterdijk, *Terror from the Air,* trans. Amy Patton & Steve Corcoran, Los Angeles: Semiotext(e), 2009].